Banking Supervision and Regulation in Turkey: Basel 1, Basel 2 and Basel 3

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ABSTRACT

The main objective of this thesis is to consider the preparations undertaken so far by the Turkish Banks to determine the level of preparedness of the Banks for Basel Criteria. This research accesses the transition process of the Turkish banks in implementing Basel 1, 2, and 3 standards: the preparatory work for the international banking regulation and supervision which is a legal regulation in regard to Turkish banking and the steps taken by the local banking regulation and supervision. BRSA is examined and the sector's ability to meet the Basel requirement is evaluated. In addition, the study evaluates the possible effects of the new rigorous capital (Basel 3) on Turkish Financial sector, which are not yet finalized.

Many countries have failed to meet the requirements of the first two Basel criterias. However, Turkey was one of the rare countries in which the global financial crisis did not affect its banking sector because of the strong capital base and the capital adequacy ratios (CAR) of banks. The Turkish banking will not face any challenges to implement the third international regulation and supervision on banks. It is considered that Turkish financial sector’s ability to implement to the international rules would be more contributive to the economic growth, sustainable development and structural transformation of the country. In general, also, other structural problems and main macroeconomic instability issues of the Turkish economy will be resolved.

Keywords: Basel 1, 2, 3, Capital Adequacy Ratio, Banks, Turkey**.**

ÖZ

Bu tezin esas amacı Türk bankalarının Basel Kriteri için hazır olma seviyelerini sağlamak için şimdiye kadar yapılan hazırlıkları göz önünde bulundurmaktır. Bu araştırma Türk bankalarının Basel 1, 2 ve 3 standardlarını uygulamadaki geçiş sürecine giriş yapar: Türk bankacılığı bağlamında yasal bir düzenleme olan uluslararası bankacılık düzenleme ve denetimi için hazırlık çalışmaları ve yerel bankacılık düzenleme ve denetimi tarafından atılan adımlar. BRSA incelenmiş ve sektörün Basel koşulunu yerine getirmedeki becerisi değerlendirilmiştir. Çalışma ayrıca henüz tamamlanmamış olan, Türk Finans sektöründeki yeni sıkı sermayenin (Basel 3) olası etkilerini de değerlendirir.

Birçok ülke ilk iki Basel kriterinin koşullarını yerine getirmede başarısız olmuştu. Ancak Türkiye küresel mali krizin bankacılık sektörünü güçlü sermaye tabanı ve bankaların sermaye yeterlilik oranları (CAR) nedeniyle etkilemediği nadir ülkelerden birisidir. Türk bankacılığı bankalar üzerinde üçüncü uluslararası düzenleme ve denetim uygulamasını gerektirecek herhangi bir zorlukla karşılaşmayacaktır. Türk finans sektörünün uluslararası kuralları uygulamadaki becerisinin ekonomik büyüme, sürdürülebilir gelişme ve ülkenin yapısal dönüşümüne daha fazla katkı sağlayabileceği dikkate alınmıştır. Ayrıca genelde Türk ekonomisinin diğer yapısal problemleri ve ana makroekonomik istikrarsızlık konuları çözümlenecektir.

Anahtar Kelimeler: Basel 1, 2, 3, Sermaye Yeterlilik Oranı, Bankalar, Türkiye.

DEDICATION

To my Family

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Thanks to Almighty Allah for giving me the life, wisdom, knowledge and power. My profound gratitude goes to my supervisor Assoc. Prof. Dr Nesrin Özataç, the vice chair of the Department of Banking and Finance, who is the key of my success. I would like to thank all the staff of Banking and Finance for their help.

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Thank you all for the support and prays you all made for me to make it today. May Allah keep us together forever with long life and prosperities (Amen).

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LIST OF ABBREVIATIONS

CAR:	Capital Adequacy Ratios
BIS:	The Bank for International Settlement
BCBS:	Basel Committee on Banking Supervision
RWA:	Risk Weighted Asset
OECD:	Organization for Economic Co-operation and Development
IRB:	Internal Rating Approach
RBA:	Rating Based Approach
LCR:	Coverage Ratio
BRSA:	Banking Regulation and Supervision Agency

Chapter 1

INTRODUCTION

Financial institutions and banks are vital for the economy and they are one of the key drivers for the economic growth[1], unemployment that affects the poverty, and welfare of any country. The most difficult part is to measure bank's regulation and supervision so that crises and banking failures can be reduced. Basel committees on banking supervision (BCBS) have tried to solve this problem by implementing some rule and regulations. The bank for international settlement (BIS) is an international organization of the central banks Headquarter in Basel Switzerland and has two representative offices. The first one is in Hong Kong in China and the second is in Mexico City. The member banks are the Federal Reserve Bank, Bank of Canada and the Central Bank of Europe. In addition, BIS was established on 17 May, 1930. It is the first global financial institution in the world, and its main goals are to promote cooperation, discussion, and collaboration among the central banks, favor financial stability, conduct research problem on policy that central banks and financial authority are dealing with, like asset management, money market instrument, and foreign exchange.

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[1]Allen, Franklin &Carletti, Elena. (2010). Chapter 2: The roles of banks in financial systems. In: Berger,Allen N.; Molyneux, Philip; & Wilson, John O. S.: *The Oxford Handbook of Banking*, pp. 37-57. Oxford:Oxford University Press

Turkish banks did not face any burden to adapt Basel 2 of the operation risk because they were already using the same system of operation even before the Basel 2 plan. Turkish banks differentiated themselves from many banks especially during the recent financial crisis, but being strong does not mean giving up so Turkey has applied Basel 3.

1.1 Background

The Basel was created in 1974 by ten major industrialized countries G10 and Spain. The secretariat is provided by the Bank for International Settlements. G10 countries are responsible for strengthening the global financial system. They are also represented by members of the organization responsible for the prudential supervision of the banking activities. In 1988, the Basel committee on banking supervision (BCBS) in Basel, Switzerland, released the first banking regulation and supervision: The first international capital standard[2] is known as Basel 1. A new structure on capital adequacy, which is known as Basel 2, was adopted by BIS committee in 2004. This new device replaced the solvency ratio of the first international banking regulation (Basel 1). The goal of this new strategy was to encourage the banks to use more international banking regulation law and internal system to determine the capital levels by considering market and operational risk, but the recent financial crisis in 2008 showed that Basel 2 accord was not efficient to stop the financial distress. In 2010, the committee released Basel 3 package to strengthen the global capital standard. This was the continuation of the first two Basels to improve more bank capital level by decreasing the leverage and increasing the liquidity.

[2] Assets themselves were weighted by coefficients designed to reflect the credit risk of these assets. The weighted sum of banking assets-risk weighted assets-was supposed to give a measure of the total credit risk taken by the bank. The risk weights themselves were also simple- 0%, 20%, 50%, 100% according to the nature of the borrower or the issuer of the security.

In 1989, Turkey as a member of OECD country adopted the Basel 1 criteria, by considering the 8 % BIS capital adequacy requirement.

After the Turkish financial crisis in 2001, the country introduced Basel 2 in June 2004. Turkey switched to the criteria and began to implement a new culture to minimize the risk and straiten the economy by adapting the new capital requirement with the 8% official rate, but BRSA set a target of minimum CAR ratio at the rate of 12% by using their own methodology to assess banks' capital adequacies.

Turkey adapted the new device easily over time by having an average CAR ratio of 16.5%, which was comfortably above the 12% targeted ratio. This helped the country banks to differentiate themselves from many other financial institutions, especially during the recent financial crisis.

After a legislation promulgated by the Turkish Banking Regulation and Supervision Agency the Basel 3 strategy have been transposed into Turkish law to create a confident and robust banking system to qualify to absorb financial and economic shocks during the financial disaster (Taskinsoy, 2013).

1.2 Methodology, Limitation and Scope

The design of this thesis is thus primarily qualitative in nature as its literature is based on sharing the exploratory and descriptive approaches. The main purpose is to evaluate how the banks and the financial institutions have responded the Basel1 and Basel 2 criterias, and to show that the new Capital requirement of Basel 3 will adapt into the latest regulatory standards, and how these measures will strengthen the current regulatory regime by focusing on the Turkish banking sector.

As the Basel 3 conventions are in their infant level, it has been a challenge for this thesis to access enough information concerning the impact of the new treaties on the financial system in general and also the Turkish banks.

1.2 Research Question

1. How banks and credit institutions responded to Base 1, Basel 2 regime.
2. How Turkish banking sector responded to Basel 2 plan.

This thesis will provide it's own idea about how the Turkish banks will respond to Basel 3 system.

However, Turkey was one of the rare countries in which the global financial Crisis did not affect its banking sector because of its strong capital base and the capital adequacy ratios (CAR) of Turkish banks were robust enough compare to the other countries.

The aim of the research is to investigate how the Turkish banking sector has responded Basel 1 Basel 2 and Basel 3. Although Basel 3 is at the beginner level, the researcher will try to find out how the Turkish banking industry is responding to this new device.

1.3 The Structure of the Thesis

This study is formed with different structures which outlined the general idea of the study:

Chapter 1 is the introduction: and also it introduces the BCBS.[3] Chapter 2 is the literature review and provides a brief information of Base1 and the three pillars that constitutes the framework; and some weaknesses of it will be discussed. Chapter 3 discusses the implementation of Basel 2 and the centerpiece of the document. Chapter 4 presents the Basel 3 package on the improvement of the better quality of the capital, liquidity management and the best way to reduce the leverage.

Chapter 5 evaluates the Turkish banks in the light of Basel 1, 2, and Basel 3 conventions. Chapter 6 concludes the findings and gives suggestions.

[3] The Basel committee on banking supervision was created by the major industrialized countries of (G10) in 1974. It consists of the senior representatives of bank supervisory authorities and central banks from Belgium, Germany, Australia, the United States, Spain, Argentina, Canada, China, Hong Kong SAR, Singapore, Indonesia, Japan, Korea, Luxembourg, Mexico, Netherlands, Saudi Arabia, India, South Russia, Africa, France, Sweden, Switzerland, the United Kingdom, Turkey and Brazil. BIS committee usually meets in Basel, Switzerland, where the permanent Secretariat is located and the BCSBS is a forum treated four times a year regularly to discuss the matters related to banking supervision.

Chapter 2

LITERATURE REVIEW

It must be considered that this is not the first thesis on banking regulation and supervision, and it will not be the last. There are many researches done on Basel accord. Bryan conducted a research in 2004 and focused on the emerging market and developed market,his aim was to give detail about the nontechnical assessment of Basel 1 and Basel 2; for both developed and emerging markets . A working paper done by Gomez (2008) on the historical changes of Turkish banking found out that as years goes on Turkish banks improved , especially with the restriction of the Turkish banking and the application of the Basel strategy. Brinke (2013) accessed Turkish banks during the financial crisis of 2001 and demonstrated that the banks were sensitive during the financial crisis and the economy faced many serious macroeconomic imbalances. Karagoez and Kouyoumdjian (2012) focused on rating the standard and poor's service on the impact of Basel 2 convention on Turkish banking system,The result proved that the local banking regulation and supervision (BRSA) set 12% minimum capital ratio that is higher than the 8% international target level, which helps the country to meet all the requirements of Basel criteria by having 16.5% capital adequacy ratio and this straitened the Turkish economy and prevent the country to be affected by the global crisis of 2007.

Balin (2008) evaluated the impact of Basel1, Basel2, Basel3 on Emerging Market and found out that a successful implementation of Basel criteria would contribute to the economic growth with Emerging countries and the rest of the world.

Standard and Poors (2012) evaluated how Turkish banks would respond the Basel 2 criteria.

Reinhart &Roghoff (2009) conducted a research by focusing on the advanced and emerging economy. The main purpose was to evaluate the level of loses of the 2008 financial crisis under Basel 2 criteria. The result showed that 75% of the losses was due to the financial leverage. John Taskinsoy (2013) conducted a study on the impact of Basel3 of the strict Capital requirement on Turkish financial sector and his finding showed that Turkish banking is highly expected to respond to the new requirement of Basel 3, which will contribute to the Turkish economy. Gedik and Eraksoy (2014) performed a study on the implementation of Basel 3 capital requirement in Turkey and they discovered that the capital of Tier 1 will continue to provide that they are subject to an amortization from 2015 of 10% every year. The Basel Committee (2010d) did a quantitative research on 263 large banks. The target was to evaluate if all the participant institutions would be able to conform to the demand presented by Basel 3, and the finding showed that many of them could meet the requirement. A study on EU banks by the Committee of European Banking Supervisors (2010) was conducted to assess the implication of the Basel committee work. A Research on 100 Danish credit institutions evaluated how these credit institutions have been adapted to the international banking regulation by Denmark’s National Bank (2011a).

The aim of this study is to evaluate how the banks and financial institutions have responded to Basel 1, Basel 2 and the new capital requirement of Basel 3 by taking the Turkish banking system into consideration. The finding showed that Turkey has meet all the requirements of Basel 2 and they are still working on a draft for Basel 3.

2.1 Basel 1

The Basel committee was inaugurated in 1988 after the period of financial derogation that allowed the banks to establish international conglomerates consisting of many trades. For example: retail banking, corporate finance and particularly the financial market.

To increase the overflowing financial institution prudential, authorities wanted to oversee the profession by establishing a regulatory capital constraint which requires 8% equity when compared to the liabilities of the bank (Basel Committee, 1998).

The first stage of the accord was to supply the best suitable capital to keep against the risk of credit. Moreover, the minimum capital requirement was put aside to work as to guard against the insolvency.

The Basel 1 device has 3 key principles: the first one is the regulatory capital in the broad sense; the second focuses on the target standard and the credit commitment. Detail will be given about these three parts in the following line.

2.2 The Regulatory Capital in the Broad Sense

The capital adequacy is the amount of capital imposed by the regulatory authority that financial institution is supposed to hold. This is frequently expressed as the capital adequacy ratio to the equity that must be held as a percentage of risk weighted asset.

The capital adequacy is divided into two parts. Tier 1 represents the capital score and the Tier is just a supplementary capital from the beginning of the accord. Tier 1 is the equity capital and the consists of issued and fully issued non-cumulative perpetual preferred stock and post-tax earning plus common stock (Basel Committee 1998). Tier 2 is little bit complicated to interpret when compare to Tier 1 because this capital can include reserves created to cover the potential loan losses, holding of subordinate debt, and potential gain from the sale asset.

2.3 The Target Standard Ratio

The target standard formula is presented as follows:

$$CAR = \frac{\text{Tier 1 capital + Tier 2 capital}}{\text{Risk credit commitment}} \geq 8\%$$

The target standard formula is an important key of the Basel 1 frmawork according to the device. The capital ratio must be at least or equal to 8% of the risk weighted asset of any banks that is involved into the international banking transaction.

In the following sections, detailedinformation about the element of the numerator and the denominator will be provided. Yet, due to the time constraint, the researcher could not find an authentic document explaining why the minimum level was supposed to be at least 8%.

2.4 Credit Commitments

Risk weighted asset is a way of measuring the assets according to their risk level. The Basel accord defined four risk level categories as 0%, 20%, 50% and 100% (Balin, 2008). As it can be seen from Table 2.1, all credit commitments of the banks were covered, but with some adjustments: certain credits were weighted less than 100% depending on the credit quality of the counterparty values. For example, it can be seen from the table below that some funds were weighted 0% of debt for OECD countries, 20% were for bank counterparty of the international organization for non-OECD, 50% represented loans secured by a mortgage, 100% asset involving business, personal loan, and non OECD government. Certain commitments, less than a year, were not included in the credit commitments.

Table 1. Type of asset according to the risk category

Risk Weighted Asset (RWA)	Type of asset including their risk category
0%	OECD debt
20%	Non OECD countries
50%	Loan secured on mortgage
100%	Asset involving business, personal loan, asset involve non OECD government

Source: (Basel committee, 2006) http://www.investopedia.com/terms/b/basel_i.asp

2.5 The Weakness of Basel 1

It quickly became clear that Basel 1 was only a step on a path that cannot be late. Firstly, the weighting of credit commitment was insufficiently differentiated to account for all the complexity of the effective credit risk. Banks have generally taken the advantage of this lack of discrimination to go up the supervisory arbitrage.

Secondly, the framework did not consider the market and operational risk. By considering all these, it can be said that the only the first accord on capital was ready to ensure the stability in the financial sector. From there, the Basel committee met again and released Basel 2.

Chapter 3

BASEL 2

The weakness of Basel 1 has pushed the banks for the international settlement (BIS) to release Basel 2.[4] This international regulatory instrument is designed to strengthen the stability of the international financial system and improve equal treatment of banks in global competition. This second framework is the revised version of Basel 1. The issue of this new accord is to tighten and improve the international banking system. Basel 2 is based on three parts: the first part is the capital requirement, the second part is the separate credit and operational risk, and the last part is the market discipline. More information about the three main pillars will be provided in the following sections (3.1, 3.2 and 3.3):

3.1 The Need for a Stronger Capital

Although some information about the regulatory capital in the broad sense has been provided in the Chapter 2, of the Basel 1, there are some major factors remained to stick on, especially the changes of the formula. Not all the elements of the formula change, some of the unchanged factors from the first framework are the numerator side of the formula and the 8% target standard ratio. The formula of the target standard Basel 2 is presented as follow:

[4] BCBS(June 2006): International Convergence of Capital Measurement and Capital Standards A Revised Framework, Comprehensive Version

$$CAR = \frac{\text{Tier 1 capital} + \text{Tier 2 capital}}{\text{Risky Credit} + \text{risky operation} + \text{risky market}} \geq 8\%$$

The element of Tier 1 and Tier 2 did not change from Basel 1 to Basel 2. Furthermore, Basel 2 continued to restrict Tier 2 asset with a sum of Tier 1 asset (Basel Committee, 2006). It is interesting that the 8% target ratio was unchanged from Basel1 to Basel 2. Unlikely, the denominator part of the equation has faced some changes that represent the sum of credit risk, market risk, and operational risk (Ødegård, 2012).

3.1.1 Credit Risk Commitment

Credit risk is the risk that borrower defaults of paying back his principal and interest to the bank. Many banks have faced the problem because of the lack of the credit lending analysis. So, to overcome this problem, the banking supervision and regulation (BCBS) have developed two approaches to calculate the credit risk. The first one is the standard approaches; the second is the internal rating approach (IRB), (Basel committee, 2006).

3.1.1.1 Standard Approach of Credit Risk

The Standard Approach of Credit Risk approach is the continuation of capital weighted of the first Basel that includes the market based agencies. According to all the participants of the OECD, it is now discounted according to the credit rating system like Moody’s, standard and poor or any ‘authorized’ rating institution. There are four levels of credit rating: 100%, 50%, 20% and 0% according to the quality of the creditor.

The first option simply dictates that each bank in a respective country will be given a risk weight that is higher than the weight assigned to claim on the sovereign of that country's supervisory and second use external rating system (Basel committee 2006).

When it is looked at Table 3.1, it is seen that standardized risk weighted approach sovereign AAA rated only 0%, while corporate rate carried 20%. From this table, one can see little more favorite of severing when compared to corporate, but banks are more favored than corporate. Exposures to banks are treated by two different options. Another important issue about this approach is the special treatments of the loan supported by residual that have a weight of 35% and the retail exposure that have a risk weighted of 75%. These borrower categories are usually to acquire a credit rating that is not assigned to risk the sensitive asset.

Table 2. Risk weighted under standardized approach

Credit Rating	AAA to AA-	A+ to A-	BBB+ BB-	BB+ to BB-	B+to B-	Below B-	Unrelated
Severing	0%	20%	50%	100%	100%	150	100%
Bank option 1	20%	50%	100%	100%	100%	150%	100%
Bank option2	20%	50%	50%	100%	100%	150%	50%
Bank Option 2 (maturity ≤3 months)	20%	20%	20%	50%	50%	150%	20%
Corporate	20%	50%	100%	100%	150%	150%	100%
Residential mortgage	35% but if 90days it is going to 100%						
Retail exposure	75% but if days past the due will be100% or even 150%						

Source: Basel I, Basel II, and emerging markets: A nontechnical analysis, 2008

3.1.1.2 Internal Rating Approach

The Internal Rating approach is the second way of assessing the credit risk on the internal ratings basis of the banks. Basel 2 committee have given the banks the opportunities to use their own internal rating system instead of using the external credit rating system; banks must really qualify as adequate supervision minimum requirements before using the IRB banks. The IRB have four components according to the risk. The probability of default (PD) measures the probability of default of a borrower in a given period. The exposure at the default (EAD) is the consideration when it will default on a given horizon commitment corresponding to the one used for PD for a loan. It is the capital outstanding at the period considered and possibly accrued interest at the same time. The Recovery Rate (TR) measures the amount of exposure by considering the time of default. The rate of loss given default (LGD) is just an additionally recovery rate.

3.2 Operational Risk

The Operational risk is the risk arising from the risk of lost from the internal event (Basel Committee 2006, p 44). The Basel 2 framework recognized that considering the credit risk is not only risking the bank face. The realization of this risk is characterized by the loss resulting from inadequate or failed attributable processes, people and internal or external systems even when calculating their own funds' regulations. As for the credit risk, three approaches are available for the banks to calculate their risk: the Basic Indicator Approach, the Standard Approaches and the Advanced Measurement.

3.2.1 The Basic Indicator Approach

Banks must receive approval from the supervisory bodies to use the RBA method of internal rating for their underlying portfolios. The basic approach is simply comparing one to the other two. In this approach, all the banks more than three years gross average income must have the operational risk set at 15%.

However, the important point is that a negative gross income of a particular year will not be included the calculation. The Commission outlines the gross income as net non-interest income plus interest income (Ødegård, 2011).

3.2.2 The Standard Approach

The standard approach is not a simple model. It is a little bit complex this approach that is taking the banks' business lines into consideration. Banks calculate the capital requirement for business by multiplying the gross income by the respective specific factors determined by the regulator. It is suggested that banks' activities are divided into eight different business lines; sale and sales, finance, corporate, commercial banks, wholesale banks, settlement and payment, service agencies, brokerage and retail and asset management. In every line of business, the average gross income over the past three years is considered and multiplied with beta. The Committee has a set beta to 0.12, 0.15 and 0.18; depending on the line of Business (Ødegård, 2011).

3.2.3 Advanced Measurement Approaches

Institutions can use their own method to evaluate their risk exposure provided. The method is sufficiently comprehensive and validated by the supervisory authorities (Basel Committee 2006).

3.2.3.1 The Prudential Supervision

The prudential supervision is set to pilot the rules that emphasize the need for financial institution to evaluate their own funds in terms of their overall risks, and for supervisors to examine these assessments and undertake any appropriate corrective action. If their level of capital appears not to provide adequate protection, the supervisory authorities may require these banks to reduce their risks. Furthermore, analysis by banks, risk concentration and treatment, residual risks associated with the use of collateral, guarantees and credit derivatives are subject to special prudential supervision.

This section deals with the advanced concepts such as the degree of risk, transfer and precise treatment of early redemption clauses and prepayment mechanisms, the main profile data risk of a bank and its level of capitalization. This data includes the information on internal control procedures implemented by the banks. Another element is the need for the device to publish information on national accounting standards. Given their diversity, an effort to harmonize the international is committed by the IASB- (the Board International Accounting Standards) and the recommendation of the Basel Committee aims to articulate with this approach.

3.3 Capital Requirement for the Market Risk

The Capital requirement of the market is the third pillar of Basel 2 accord. The Basel Committee has sought to promote the discipline of the market by developing a set of disclosure requirements for information to assist the market participants and to assess the transparency. Market risk is the risk of loss that may result from the fluctuations in the prices of financial instruments that make up a portfolio. For a given asset, the risk of the asset consists of an inherent risk and market risk. Market risk is expressed by the risk premium for the market in general and the beta coefficient for the price evolution of a particular asset relative to the market.

3.3.1 The Supervisory Review Process

This supervisory process is just to make sure that financial institutions have enough capital to protect all the risks.

3.3.2 The Market Discipline

BIS define the Market Risk as the risk arising from the movement of the market (Basel Committee 2006, p.157). The Market Discipline is one of the strengths of Basel 2 accord and this directly helps the investor to know the economic condition and make decision about the institution. Since all the information are available to the public regarding the asset risk, the management of this discipline assists the banks to use common banking practices by respecting the national law with a standardized and transparent practice.

3.3.3 The Criticism of Basel 2

Basel 2 device is considered as very complicated. As a result of that, many banks were not able to implement the advanced risk measurement techniques, so banks continue to use their own standard methods. The recent financial crisis of 2008 proved that the changes made from Basel 1 to Basel 2, by considering the credit risk, market risk and operation risk were not strong enough to stop the financial distress. Considering all these problems above, the banking committee has released Basel 3 framework. That is, is this going to be a strong framework after considering all the changes? The next chapter will introduce the new Basel frameworks.

Chapter 4

BASEL 3

In 2010, the Basel committee packaged a new reform to strengthen the global capital standards. These rules on global capital requirements for banks that encouraged the financial sector to be better prepared for crises is known as Basel 3, and this plant is the suggestion of new banking industry due the subprime crisis in 2007. The motivation behind this introduction is to boost the low capital ratios of internationally active banks and to reduce the competitive inequalities. The Basel 3 has been announced in 2010. It was supposed to be introduced from 2013 to 2015, but some measures of this agreement were not really clear, so it has been extended until 2019. The entire problem related to Basel 1 and Basel 2 frameworks is examined in this study by the researcher. The researcher hopes this last Base 3 will consider these pitfalls to overcome the financial stress.

This new package has 3 main pillars: Pillar1 is the higher quality capital requirement, Pillar 2 is to introduce the measurement of leverage ratio, and Pillar 3 is to introduce one month liquidity coverage ratio.

4.1 Higher Quality Capital Requirements

It has been observed that banks had very low capital levels during the crisis of 2007. The BIS has come to release that the lack of capital is one the challenges that most banking industries are facing and this increases the bankruptcy. This crucial point is often overlooked by observers focusing on the level of regulatory capital requirements prescribed by Basel. It is true that the agreement reached on 12 September, on the calibration of the new standards, consider this issue. Nevertheless, it is the general consensus on the July reform design that the minimum capital requirement applicable to banks will rise, which was the major step of the process. Improving the ability to absorb the losses is determined by the quality of the capital return. The new capital requirements put more emphasis on the ordinary shares; the new capital has focused on capital buffers.

4.1.1 The Higher Level of Fund

Basel 3 differentiated Tier 1 and Tier 2. Common stock and retain earning have the capacity to absorb losses, so the committee emphasized that Tier 1 should always be made by those two (Basel Committee, 2011). The requirements of Tier 1 capital have increased from 4% to 6% (of the total 8%); that did not change. The common equity has moved from 2% to 4.5% (of the total 6%); new safety cushion to 2.5 % (planned for 2019).

According to Repullo & Saurina in Basel 3, the prerequisite that Tier 2 capital is constrained to an amount equal to total Tier 1 capital is uncontrolled. Now, the prerequisite is that the sum of Tier 1 capital and Tier 2 capital should be minimum 8% of the risk-weighted assets (Basel Committee, 2010a). This symbolizes no growth in total capital base associated to the previous Basel Accords.

4.1.2 The Capital Conservation Buffer and Countercyclical Buffer

Basel 3 introduced capital buffer which is a caution against loses. The Basel Committee required the banks to conserve 2.5% of their common share. Thus, at normal times, the total requirements for common equity will actually be brought to 7% of the risk weighted asset. In addition, the solvency ratio is from 8.5% to 10.5%.

These ratios are calculated by dividing net debt corresponds to financial debt minus marketable securities on the equity of the company, and this provides an estimate of the long-term ability of the company to repay its debts. If a bank does not fulfill this requirement, it can affect the bank capital and that will close down the minimum requirement. So, it will be difficult for the banks to distribute the profit, for example: dividend, and bonuses. This can help the banks to continue having the capital required to support the operation in time of stress. One of the bad experiences the biggest mistake made the investment bank Lehman and Brothers in late January 2008. They declared an increase to 3% dividend, and eight months later they were declared the bankruptcy (Geir Ødegård 2011).

4.1.3 The Capital Buffer and Hedge against Systemic Risk

One of the most important elements of this regulatory framework is the capital buffer and the systemic risk. It will be difficult for the micro approach to be sufficient because the risk the system is exposed is really greater than the sum of the risks faced by other institutions. This was experienced during the 2007 global crisis.

Basel 3 requires an increased level of capital to cover the banks in the trading better. The trading is the set of tools and financial products held under negotiation. The Basel committees considered some issues to strengthen these plans, for example: redefining the risk value is a measurement tool for market risk of banks downgrading the certain asset. It pushes the banks to go through clearing the house for transition related to derivatives.

4.2 The Measurement of Leverage

The Basel committee is concerned about the quantity of the leverage ratio. The leverage of a bank measures the ratio between the asset side and the equity side of a bank. When the leverage is high it means that assets are more debt based finance than equity.

The concern of the global regulatory system is about strengthening the financial system. So, the Basel 3 has tried to provide all the possible solutions to stop the financial crisis by requiring a higher level of liquidity and a better way to manage the liquidity. The liquidity framework in Basel 3 consists of two parts: the first part is the short term liquidity coverage, and the second part is the long-term liquidity coverage.

4.2.1 The Short-term Liquidity Coverage

The application of the Liquidity Coverage Ratio (LCR) was set in 2015. The aim of the LCR is to ensure that banks have adequate funding resources for the next 30 days: this means it requires banks to have sufficient assets liquid to cover the net cash outflows.

4.2.2 Long Term Liquidity Coverage

Basel 3 has plans to create a ratio of long-term liquidity (NSFR) to encourage the banks to find stable resources for funding. The notation of different profiles asset association with level recommends stable resources depending on their risk re-weighting of assets. These require a certain level of funding according to their associated risks; 0 % to 5% for cash accountant government securities, 65% to 85% for loans and mortgages, 100% (Dabmarh National Bank 2001a) for all other assets. The Basel committee has developed this ratio to address the maturity mismatch between asset and liability to ensure that banks have adequate resources sufficient for the next 12 months. So, that it can cover the needs of funding during the same period.

Chapter 5

TURKISH BANKING

The Ottoman Empire was among the most important empires during the past centuries, but it has been blamed of missing the chance of industrial revolution and building a robust capital base system in order to motivate the sustainable growth so that welfare within its borders could increase. The reasons behind this accusation was the mistake made by the local authorities by locating the trading banks in some particular regions within the Empire and preserving the national wealth (gold) in the palaces to construct more castles and to finance the war instead of productivity enhancing investments. As a result, this stopped the financial market to emerge and this was a challenge for the private wealth.

After missing the industrial revolution, the Ottoman Sultans were too late to understand the dynamics of the finance mechanism and this was a barrier to compute with other kingdoms around them. Moreover, during the wars, to minimize the cost on loan from other nations leading financial institution was authorized and the motivation for national wealth holders to lend to the Sultans brought this Galata bankers as the first taste in banking system.

Authorized financial institution was distributed to remove the burden of accessing loan from European fund. The continuous wars in many locations of the Empire created abolition on borrowing and most of the licensed financial intuition were given to outsiders.

From 1853 to 1856, the financial burden of the Crimean war obliged the Ottoman Empire to take loan from Europe. Although there were few banks operating in Istanbul (i.e. the Bank of Constantinople, Galata Bankers), these banks were capable to undertake such borrowings.

However, the increase of the foreign debt in Ottoman Empire had to be administered somehow in the absence of its own banks. With the involvement of England and France, the Ottoman Bank was established in 1856 as a joint venture; France owned 37%, England owned 59%, and 4% was owned by the Ottoman Empire.

Turkey's modern history started in 1922 by Mustafa Kemal Atatürk; a brilliant, politician, soldier, strategist and a genius man, who abolished the Ottoman Empire in 1922 by overthrowing Sultan Mehmet VI Vahdettin.

1923 was the creation of the Turkish Republic and this was the first time Atatürk first rejected the 'Treaty of Sevres' and all its erroneous harsh terms. And then he rightly claimed that Turkish people were not going to be held responsible for the Ottoman Empire's ill-fated actions and their consequences. In 1923, with the 'Treaty of Lausanne' Turkey started processing afresh to correct some of Sevres' crippling outcomes. Atatürk, as the first elected president (one-party system, 1923-1946), immediately went to work and introduced many critical reforms in every facet of life with a promise of modernization. Government had to build everything because of the lack of resources, of skilled labor, resources, and potential investors, any kind of factory manufacturing goods, etc. And in the next stage, Ataturk concentrated on establishing the banks because he knew it perfectly even then that Turkey's forward progress was only going to be possible with the creation of a strong national banking sector that would be qualified of serving the young country's extensive and challenging need of fund.

1845 was the creation Constantinople bank. It was the first bank of the Ottoman Empire. Ziraat Bank was an Agricultural Bank which was established in 1863. The goal of this institution was to meet the financial needs of farmers who were a significant part of the Turkish economy at that time.

In 1931, the Turkish Republic's Central Bank was finally founded. Furthermore, Ataturk reinitiated the introduction of a couple of new banks into the country's growing financial system; Sumerbank in 1932 and Etibank in 1935.
Ataturk's reforms assisted the country to create a financial system of its own which in turn provided the necessary financial means to develop other vital (Taskinsoy, 2013).

The Turkish financial system is overmastered by banks which have been a subject to significant upgrade after the liberalization process of the financial sector in 1980. To liberalize the system, the organization has subjected to many restrictions on both national and international, and this made the foreign banks more comfortable to function in Turkey. The new entry into the industry was mostly from large industrial conglomerates which want to own banks, since weak regulations allowed huge amount lending from banks into the group companies. Besides, at the beginning of 1984, banks and some particular capitalized houses operated according to Islamic sharia associated the finance method and this increased the number and banks branches.

5.1 The Turkish Banking Crisis from 2000 to 2001

The Republic of Turkey is an emerging economy that experienced the worst economic crisis at the beginning of the new millennium from 2000 to 2001. As a result, the country experienced fragility and inefficiency in the financial system.

At the end of October 2000, the Insurance Fund Savings Deposit (SDIF), a government body responsible for insuring deposits savings building - up and restructuring banks, took control of two banks of small scale (Etibank and Kapital Bank). This led to rumors about the insolvency of Demirbank and increased the tensions in the financial market. Highlighting the rise in interest rates and weakening the banks with interest rate risk exposure, during the same period as they do every year, banks began to cover their short positions in currencies to balance their balance sheets for the end of the year; interest rate increased while demand for liquidity was very high, so banks were very poor in terms of liquidity.

In November 2000, as rumors on illiquid banks were prevalent in the banking system, major banks cut their credit lines to the interbank market. Foreign investor started to sell their equity and treasury bills and non-residents began to leave the country, the Turkish central bank (CBRT) stopped furnishing emergency lines of credit to banks to maintain its domestic assets constant. Consequently, the interbank rate rose to 873% and this was the beginning of the liquidity crisis.

On 21st February 2001, Turkish President and Prime Minister debated about stopping the corruption in the banking system. Again, trusts in the stability and sustainability program vanished and a new currency crisis began. Both national and foreign investors initiated a speculative attack against the Turkish Lira. Interbank interest rates skyrocketed from 50 to 8000% and Istanbul Stock Exchange dropped by 14%.

On February 22nd, the government permitted the local currency to float freely and Turkish Lira lost nearly one-third of its value against the Dollar (Brinke, 2013).

However, operators reassured that on December 6th, with the Easy Reserve Supplementary, IMF assisted the country with a financial package amounting 10.5 billion dollars to end the decrease in the reserve. Turkey had a very fragile banking system in the years preceding the crisis due to the weakness in the sector. Banks' source was the government financing. Banks' earing was depending on government treasury bill high yield, and more than half of the private banks interest earning consisted of local government securities.

The country banking sector was exposed to foreign exchange risk due to the fact that private banks relied on foreign funding and resident foreign exchange for investment deposit in Turkish Treasury bills, so two third of the foreign currencies were the liability.

Private owned commercial banks did not have the ability to borrow long-term in the local currency while banks lend to the companies and government in relatively long term, so the banking system faced maturity mismatch (Robotbank, 2013).

5.1.1 Restructuring the Turkish Finance Sector

The economic and political toll of Turkey in the last decade was indeed noticeable by reinforcing and cleaning the national banking sector by implementing two independent administrative authorities: The BRSA (Banking Regulation and Supervision Agency), representing the regulatory authority and control, and the SDIF (Saving Deposit and Insurance Fund). BRSA was created in 2001 as a regulatory institution targeting to regulate and supervise Turkish banking system by accommodating steady and sound financial market with the international standards level (BRSA, 2010).

Since 1983a ruling body involved in managing fund and insurance in the Turkish banking sector, SDIF was established. The economy plan of Turkey rescued the banks and the financial system by restructuring the supervision program to fight against the inefficiency of the sector that suffered from a very credible governance and strong interference policy. The program has decline in four main areas:

- Restructuring of banks under SDIF control like mergers, liquidation
- Restructuring of private and state-owned banks
- Alignment with international and European banking regulations
- Consolidation of supervision and control framework

At the end of 2001, SDIF supplied 22 billion to support the capital structures of state owned banks, and those banks were strengthening through mergers and privatization.

Banks under the SDIF control were liquidated. To consolidate the Turkish capital structure, a total of 28 billion USD was transferred to banks under SDIF. The SDIF was financed by the Turkish government, which issued special bonds. The costs amounted to 31% of the GDP in 2001. As a result of that, public debt rose to a percentage of 74 of GDP the same year. The supervision and regulation framework in the country was strengthened by various changes in the line with international best practices. To reduce the financial risks, BRSA increased the target of Turkish capital adequacy ratios to 12%, while the international regulatory required only the percentage of 8 (Brinke Koen, 2013).

In June 2001, the government, faced with rollover challenges, arranged a voluntary debt-swap operation in Turkish Lira (TL). Government securities held by Turkish private banks were exchanged for USD-denominated bonds. To support banks in recovering their negative foreign exchange position, banks were given longer maturity of government debt in exchange of assuming the exchange rate risk of the local banks maturities was longer. While the average maturity of the old TL bonds stood around 5 months, the new USD bonds had an average maturity of 36 months.

Due to the large devaluations of the Turkish Lira in February 2001, companies were unable to service their external debt, so both public and corporate debt was restructured to help companies recover from the crisis and reduce the level of nonperforming loans (Robotbank, 2013).

Restructuring the financial system improved the banks' performance and this attracted foreign direct investment. Foreign banks participated in the banking sector by buying share from local banks and thus the financial inflow increased rapidly after the financial crisis.

The Turkish financial account was 12.58 million in 2000 and decreased to -1.63 in 2001. Then it raised gradually from 1.40 in 2002 to 36.56 million dollars in 2007 and ratio to GDP was 4.8 at the beginning of 2000. Then it declined to -0.8 during the

2001 economic crisis as the years increased the ratio to GDP was 5.6 in 2007(Nuray Ergüneş ,2008).

Table 3. Turkish Capital Account from 2000 to 2007 (million dollars)

	2000	2001	2002	2003	2004	2005	2006	2007
Financial Account	12.58	-1.63	1.40	3.09	13.39	20.30	32.06	36.56
Portfolio Investment	1.02	-4.515	-593	2.46	8.02	13.44	7.37	713
Direct Investment	112	2.86	958	1.25	2.005	8.97	19.26	20.19
Capital Account/GDP	4.8	-0.8	0.6	1	3.4	4.2	6	5.6
Other Placement	11.80	-2.67	7.19	3.43	4.18	15.74	11.54	23.69

Sources: Nuray Ergüneş ,2008 p*:9*

5.2 The Application of Basel 1, Basel 2 in Turkey

Turkey adopted Basel 1 in 1989. This is a legal and institutional arrangement to change the conditions and to internationalize norms regarding the adaptation of the first global regulation, and this has taken significant steps with the gradual transition period.

Since 1996 Turkey has included the market risk in capital adequacy calculations to Basel 1. The country began to implement this clause as of February 2001, just after the economic crisis by Measuring and Assessing Banks Capital Adequacy (Basel 2). The country has turned to a new phase in 2004 when they adopted to new capital requirements by changing the risk governance of Turkish financial sector.

Basel 2 applications should be seen as an opportunity for Turkish banking sector to show how strong and efficient they were in terms of managing their national capital market.

Basel 1 or the Capital Adequacy is one of the most basic principles criteria, which was given 0% credit weight risk to all OECD countries in terms of risk capital requirement depending to the country credit risk. The national banking has increased the risk weighted asset from 0% in Basel 1 to 100% in Basel 2 of the Turkish sovereign based on the standard approach considering the 8% international capital requirement under Basel 2.

5.2.1 The Regulatory Capital of the Banks in Turkey

Turkey was very vigilant in implementing Basel 2 device as many other nations. The adaptations assisted the country to lower the effect of migrating to the new system on banks' high level of capital (CARs), which is the amount capital a bank should put aside as a portion of its asset considering the percentage of its credit-weighted risk, operational risk and the market risk exposures.

As a result of this, BRSAs have reinforced the Turkish banks by meeting the capital requirement of Basel 2 platform; in 2006 the Turkish national regulatory committee increased the target level of capital to 12% minimum that was more than the 8% set by Basel. In September 2012, the banking average CARS increased to 16.5% which was really comfortable because it was above the BRAS target ratio (see Table 5.1). This successful job was not surprising because Turkey's financial institution was already including the operational risk under the first international banking regulation of Basel 1; considering the risk of losing resulting from internal process failure on both the system and human being ahead of the migration of the second Basel.

BRSA differentiated foreign currency and the local currency (Turkish Lira) by putting the ratio of all the foreign currency at a specific level due to its high exposure to foreign currencies including the dollar, the sum must be at least equal to some level. Banks are required to submit their monthly statements liquidity under penalty to BRSA. The local regulatory authority has provided some reliefs to capital under this new regulation by applying zero risk weighting on all the foreign reserve held by the central bank. The local banking regulation and supervision board and the banks association improved both the domestic and the foreign banks operating in the Turkish banking system. From 2005 to 2007, foreign investors in the banking sector have increased purchase shares in the sector, the process accelerated with the privatization of the public banks.

Table 4. Capital adequacy ratio and Turkish banks

From 2004 to 2012	BIS	BRAs	Turkish Banks
Capital requirement	8%	12%	16.5%

Source: Standard & Poor's Financial Services LLC (2012)

5.2.2 Credit Rating System in Turkey

Credit assessment in Turkey is a recent issue; the national regulatory system BRSAs is using SA Method of credit risk assessment for regulatory capital considering the old risk weight tables of 1988 convention and the new tables of Basel 2 Accord.

From 2009, S & P started to use its own system to compute banks' Risk Adjusted Capital ratios. The weights of risk used to define the Risk of Asset Capital ratios rely on evaluating the financial sector Country Risk and evaluation starts from the lowest to the highest (1 to 10). The first group represents a low risk of banks when compared to group 10 that represents the highest risk level. Turkey is in the fifth group of the Banking Industry and S & P places 47.5 percent of risk weight on receivables from Turkish banks. Turkey captures 161 percent corporate risk and this is high when compared to the requirement of Basel 2 of credit rating of the standardized approach (Karagoez, 2012).

Banks access to rate either the purchasing ratings from outside sources approved by the regulators or the use unrated risk weight of 100% for all their credits. Banks which operate within the countries with ratings less than BBB+ will simply use the unrated risk weight to a percentage of 100.

The calculation of capital adequacy ratio based on the credit risk of the borrower differentiation is made according to the No: 511 Banking Law by considering the Probably of Default (PD), Loss-given Default (LGD) and Exposure-at-Default (EAD) (BRSA, 2010).

BRSA used CAMEL's credit rating criteria to access the banks' financial structure that consists of six main criterias:

C →Capital

A → Asset

M → Management

E → Earning

L → Liquidity

S→ Sensitivity

The Turkish local regulatory authority evaluates banks and financial institutions according to their amount of capital adequacy. The way banks manage resources take the net profit, the level of liquidity and the sensitivity to market and interest rate risk into account. The first letter refers to the top and the best level of performance. The last is the worst, so this stands for weak performance and it needs a high level of audit when compared to the first five.

5.2.3 Operational Risk and the Turkish Banks

The Turkish banking system faced no special burden to adapt to the operational risk of the new consensus of Basel 2. Since the system was already including the risk of operation to calculate the amount fund required of the Basel 1 regime, it was not requested in the old convention of Basel 1 risks of operation charge for the Capital.

5.3 The Implementation of Basel 3 in Turkey

In September 2013, Turkish local banking regulation (BRSA) discharged the third international Regulation on Banks fund. The settlement shape of the Regulation on the assessment of Banks' capital preservation and countercyclical fund buffers the supervision on Measuring and Assessing the banks' levels of leverage. Furthermore, in line with the Basel 3 liquidity standards, the BRSA has published the draft form of the Regulation on Measurement of Liquidity Matching Ratio of Banks which is expected to be promulgated.

5.3.1 The Capital Adequacy under Basel 3

On August 2012, the BRSA, the asset size of the Turkish banks was $727.87 billion; at that time the exchange rate of 1dollar = 1.75 Turkish Lira in June 2012.

The sum asset has reached 32.04 billion US dollars when compared to $30.63 billion and the amount the loan of the total asset was $421.44 billion with an increase of 57.9%, and the profit amounted to $6.61 billion and the previous year's profit was $605.80 million and increased to 674.85$ million with 11.4%. The return on Equity (ROE) was 16.3 percent and return on asset was 1.9 percent, which are very high when compared to the banking in EU area. In 2002, the Turkish Banking Capital was lower than the Basel 2 and Basel 3. In June, CAR level of Turkish banking under Basel 2 was 16.5 percent, which was higher than the 10.5 percent CAR requirement under Basel 3 which will be in full effect by January 2019 (Taskinsoy, 2013).

5.3.2 Turkish Banks' Minimum Fund Required under Basel 3

The total capital adequacy ratio is set at a rate of 8% of asset level of risk. Banks must hold common equity Tier 1 capital of at least 4.5% and added Tier 1 capital of at 1.5%, with the remaining 2% being Tier 2 capital. Furthermore, the BRSA, the national financial regulation currently imposes 4% additional fund requirement to Turkish banks as a prudential requirement (Gedik & Eraksoy, 2014).

5.3.3 The Equity Plug under Basel 3

The Turkish banking regulation and supervision (BRSA) introduced the new fund buffers for banks on capital countercyclical and conservation buffer. Both the conservation and countercyclical consist of the supplementary capital of Tier 1 but the capital conservation buffer is to prevent the economic fragility and the countercyclical equity buffer consists in recurrent credit surplus growth.

This is a table of projection on capital standard under Basel 3. As it can be seen from Table 5.2, The Tier 1 capital to risk the weighted asset is expected to increase gradually from 2% to 3.5% in January 2013 and increase to 4.5% in January 2015. The total capital over risk weighted asset is expected to increase from 4.5% to 5.5 % in 2014 and increase to 6% in 2015, but the total capital to risk weighted is expected to be 8% constant from 2013 to 2015.

Table 5. The Capital standard during the transitional period

	Jan.1, 2013	Jan.1 , 2014	Jan.1, 2015
Common Tier 1/ risk weighted asset	Increases from 2% to 3.5%	Increases to 4%	Increases to 4.5%
Tier 1 Total capital/ risk weighted asset	4.5	5.5	6%
Total capital/ risk weighted asset	8%	8%	8%
Non risk based leverage based ratio	Tasting period of tier leverage of 3% until Jan.1, 2017		
Countercyclical buffer	The buffer will be phase-in Jan. 2019		

Source: Standard & Poor's Financial Services LLC (2012)

5.3.4 The Loss Abortion Point of Non Viability Services under Basel 3

According to article 71 No: 5411 on international banking law, there is a probability that the Tier 1 and Tier 2 equities of the Point of Non-viability (PoNV), banks' administration will be transferred to an insurance saving deposit or the authorized transaction of the bank will be dismissed, and the tools of the loan should be turned into the capital share via banks. The local banking regulation and supervision adopted the same rule. A pre-specified of additional Tier 1 fund has been set by Basel 3 device which states that if banks' CARs drop under 5.12 % over the decision of the Turkish banking regulation, the financial institution must either convert the relevant debt instruments capital share, fully write-down the loan instruments from its records in return for sharing of capitals or partially write-down the tools of borrowing. And this implementation will be as follows:

- The quantity of receivable arising out of the debt instruments must be reduced if banks are liquidated
- The repayment amount must be minimized if the amount of the refund alternative is carried on

- The dividend payments or the coupon payments must be cancelled or pay part of it

Chapter 6

CONCLUSION AND SUGGESTIONS

This thesis sought to study the existence of banks, financial institutions and the changes they are facing. Transaction and information cost rational for the assistance of banks also pointed toward more understanding of the underlying principles of regulation. To summarize this paper, some important points are needed to be expressed:

The weakness of Basel 1 based on the capital adequacy ratio due to the absence of promoting growth and harmony between the international banking and the lack of considering the market and operation risk faced by banks pushed the Basel committee to release Basel 2 project, which took the market and the operational risk into consideration. The reform of the banking industry increased the prevention of risk exposure by the bank in all its businesses and also to restore the importance of international and national supervision bodies. Yet, many countries in the world faced some challenges to implement this project and this anticipated the 2008 financial crisis as a result.

The world banking regulation and supervision have come up with a new capital requirement in 2010. The new Capital requirement Basel 3 framework will indeed mean significant strengthening in the loss absorbency of the financial institutions. It provided that all the risks can be captured for the given solvency level.

During the past years Turkey was known for its frequent financial crises (budget and trade deficits), weak financial supervision and regulation, but this is not anymore the case in Turkey after restructuring the financial system and the implementing a robust local banking regulation and supervision (BRSA).

This study is based on the findings in which BRAS have strengthening the financial sector of Turkey. The recent financial crisis was an opportunity for the country to show its worthiness by meeting the entire requirement of the Basel 2. Turkish capital adequacy ratio was 16.5%, while the capital requirement of the Basel committee was 8%. However, this did not stop them to apply Basel 3 plan, and Turkey is working on a draft regulation to follow the plan (Karagoez and Kouyoumdjian).

The Turkish banking Capital adequacy was higher than the Capital adequacy of European countries. The BRSA reported that the asset size of the Turkish banking sector has reached $727.87 billion or 1.27 trillion Turkish Lira; considering the rate of $1 to 1.75 Turkish Lira was used. The Turkish banking system (CAR) has been 8 percent or Basel 3 (10.5% by 2019) requirement since 2002. As the BRSA reported recently, the banking sector’s Capital Adequacy is 16.5 percent in 2012, which was significantly higher than the 10.5 percent Capital requirement under Basel 3, which will be fully implemented by January 2019. This shows that the country will not face a problem to meet the requirement of BIS convention of Basel 3.

This thesis suggests some changes for global trading banks. Banks should push to limit the volume of transactions with other banks and other financial institutions. In addition, the counterparty risk in derivatives should be better controlled.

Basel committee needs to tighten the banking supervision by implementing efficient international regulation system, because having strong global financial institution will have a positive impact on the world economy.

Turkish financial institution should do everything possible to meet the requirement of the Basel 3 page because Turkish financial sector’s ability to implement the international rules would be more contributive to the economic growth, sustainable development and structural transformation of the country in general. Also other structural problems and main macroeconomic instability issues of the Turkish economy will be resolved.

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REFERENCES

Balin, B. J. (2008). Basel I, Basel II, and emerging markets: A nontechnical analysis. *The John Hopkins University School of Advanced International Studies*.

Bank for International Settlements (BIS). (1998). *Instruments Eligible for Inclusionin Tier 1 Capital*. http://www.bis.org/press/p981027.htm .

Bank for International Settlements (BIS). (2009a, July 13). *Basel 2 Capital Framework Enhancements Announced by the Basel Committee*. http://www.bis.org/press/p090713.htm.

Bank for International Settlements (BIS). (2009b). *History of the Basel Committee and Membership and History of Basel Committee.* .

Bank for International Settlements (BIS). (2011). *Measures for Global Systemically Important Banks Agreed by the Group of Governors and Heads of Supervision*: http://www.bis.org/press/p110625.htm. .

Basel Committee. (1988). *International Convergence of Capital Measurement and Capital Standards.* Bank for International Settlements. .

Basel Committee. (2010). *Guidance for National Authorities Operating the Countercyclical Capital Buffer.* Bank for International Settlements.

Basel Committee on Banking Supervision. (June 2004). *International Convergence of Capital Measurement and Capital Standards*: *http://www.bis.org . Retrieved June 20, 2014*

Brinke. K. (2013, September 4*). Banking Financial Crisis Turkish 2000-01 https://economics.rabobank.com/publications/2013/september/the-turkish-2000-01-banking-crisis/ .*

Banking Regulation and Supervision Agency. (2010). From Crisis to Financial Stability (Turkey Experience, Working Paper).

Ergüneş, N. (2008). Transformation of the Turkish Banking Sector within the Financialisation Process of Turkish Economy. *Change*, *109*(160.0), 149-0.

Gedik and Eraksoy. (2014). *Implementation of the Basel III Capital Accord in Turkey*.http://www.gedikeraksoy.com/Implementation_of_Basel_III_Capital_Accord_*February_2014.PD*.

Global Settlements of Banks (BIS). (1998). *Instruments Eligible for Inclusionin Tier 1 Capital*. http://www.bis.org/press/p981027.htm *Retrieved June 29, 2014.*

Gormez, Y. (2008). *Banking in Turkey: History and evolution.* http://www.bankofgreece.gr/BogEkdoseis/Paper200883.pdf. *Retrieved April 19. 2014*

Kibritçioğlu, A. (2005). Banking Sector Crises and Related New Regulations in Turkey. *Retrieved June 29, 2014.*

Norton, J. J. (1989). The Work of the Basle Supervisors Committee on Bank Capital Adequacy and the July 1988 Report on International Convergence of Capital Measurement and Capital Standard. *Retrieved June 30, 2014.*

Ødegård, G. (2011). Basel III.Implications for the Danish banking sector
Copenhagen Business school.

Repullo, R., & Saurina Salas, J. (2011). The countercyclical capital buffer of Basel III: A critical assessment.

Standardandpoors. (2012). How Basel 2 may Affect the Turkish's Banking sector? http://www.standardandpoors.com/spf/upload/Ratings_EMEA/2012-12-05_HowBaselIIMayAffectTurkeysBanking.pdf .

Taskingsoy.J. (2013). Rigorous Capital Requirements under Basel 3:
Possible Impact on Turkey's Financial Secto*r*. http://www.westeastinstitute.com/wp-content/uploads/2013/02/ANT13-177-John-Taskinsoy-Full-Paper.pdf.