

RIGOROUS CAPITAL REQUIREMENTS UNDER BASEL III POSSIBLE IMPACT ON TURKEY'S FINANCIAL SECTOR

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ABSTRACT

Turkey has experienced the biggest financial and economic shock in 2001 resulting a massive overhauling of its entire banking system that eventually cost the government over \$50 billion. The IMF was involved in the recovery process from the beginning providing Turkey nearly \$24 billion of financial assistance between the fragile years of 1999 and 2002. After 19 Stand-By arrangements, the Turkish government recently announced that it had decided to put an end to its partnership with the IMF since 1947 and it also said that it would not commit to another arrangement after the last payment of the existing loan is made on April 2013. The resilient Turkish banking system capable of absorbing shocks during financial stress, thanks to the extraordinary work by the BRSA, a decade long political stability (one-party government since 2002) along with improved global investor confidence enabled Turkey becoming the 16th largest economy in the world with over \$1 trillion in GDP.¹ On the contrary of common arguments, a large number of Turkish government officials and the top banking executives believe that Basel III's new rigorous capital requirements will have little or no impact on the Turkish banking sector which currently has a capital adequacy ratio (CAR) of little over 16%, that is significantly higher than Basel III's 10.5% in effect by January 2019.

Keywords: Basel III, liquidity management, financial crises, and Turkey

JEL Classification Code: G01, G21, G28, G30, F30, E52

INTRODUCTION

In order to understand and make any sense of the planned future events in the context of global banking sector, one really needs to understand what had occurred in the past that brought us to the present. Everything began nearly four decades ago when two critical events gave birth to the creation of the Basel Committee on Banking Supervision (BCBS), headquartered in Basel, Switzerland; first, oil crisis suddenly erupted in 1973 due to the Arab-Israeli Yom Kippur War of that year; then the following year, the case of Germany's Bankhaus Herstatt took place in 1974 when the German regulators misused their regulatory power to liquidate the bank, which later led to dissolution of the bank. The first of Basel Accords, known as Basel I, was introduced in 1988 to address credit risk. Then, series of macro and microeconomic events such as Mexican peso crisis in 1994; Turkish economic crisis in 1994 and 1999; Asian currency crisis in late 1997

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¹ See CIA – The World Factbook states that Turkey's GDP (purchasing power parity) is \$1.087 trillion (2011 est.), and GDP (official exchange rate) is \$778.1 billion (2011 est.)

and early 1998; Russian financial crisis in 1998; the dot-com bubble crash of the United States in 2000–2001, another Turkish economic crisis in 2001 paved the way for the Committee to introduce Basel II in 2004. Basel II, differently than Basel I, included operational risk, supervisory review process and disclosure requirements. Furthermore, Basel II allowed banks to develop their own internal rating mechanism to assess the risk of credit, operation, and management of capital. What we have now as of 2010 is, Basel III; with the help and support of its current 27 member nations, Basel III promises to create a strong and resilient banking system capable of absorbing financial and economic shocks during crises or at times of global financial stress.

The Committee's number one focus with Basel III is to strengthen the quality and quantity of capital, which the BCBS strongly believes as the underlining reason behind the 2008 global financial crisis. One of Basel II flaws was that the definition of capital was unclear presenting a higher risk exposure for banks. Also, there were too many confusing tiers and sublevels in each tier with own limits and requirements. The worst of all was that under Basel II, it was nearly impossible for the market participants or regulators to assess the strength or weakness of the banking system due to some banks reporting stronger Tier 1 than the actual figures; in addition, no international harmonization, weak transparency, inefficient regulatory process, and lack of governance made things get terribly out of control resulting a global scale financial crisis.

Looking at Basel II under the Microscope

Banks in many countries throughout the world were able to build up excessive on-and-off-balance sheet leverage under Basel II, which in turn led to erosion of capital quality. More importantly, banks were not ready to absorb substantial amounts of systemic trading and credit related losses because as mentioned earlier banks were not in a position to handle large off-balance sheet exposure. When all this was going on, what made things uncontrollable was that investors (market) lost confidence in the whole banking system as well as its questionable ability to take the crisis under control. This alone, created a panic situation resulting further deterioration in the global financial system. Chain reactions of investors worldwide got intensified and caused illiquidity in the marketplace. This is when governments felt the need to step in by injecting additional liquidity and giving promises of further capital support for failed financial institutions.²

Banks were naturally at the epicenter of the crisis. The committee felt that one of Basel II's flaws had to be corrected right away. The solution was to raise the quality and quantity of capital and to make sure that all banking systems in member countries and worldwide are consistent and transparent. Next, the BCBS promised to strengthen the area of risk coverage and its management, which was also believed to be one of the underlining Basel II deficiencies. A leverage ratio is introduced to help contain the excessive leverage in the banking system. Because lack of appropriate liquidity was a fundamental problem before and during the crisis; to take care of this issue, the Committee is introducing a capital buffer called 'conservation buffer' to let banks buildup of capital buffers to be available for use during a financial or economic stress. Moreover, another buffer called countercyclical will be introduced under Basel III to ensure a more stable banking system. The BCBS wanted to take care of another flaw in Basel II by introducing a 30-day liquidity coverage ratio for all internationally active banks.³

Because banks are critical intermediaries of financial transactions, it would be almost impossible to handle complex economic activities of modern living; thus, as the Committee defined "a strong and resilient banking system is the foundation for sustainable economic growth, as banks are at the center of the credit intermediation process between savers and investors. Moreover, banks provide critical services to consumers, small and medium-sized enterprises, large corporate firms and governments who rely on them to conduct their daily business, both at a domestic and international level."⁴ The Committee is set out to create a resilient banking system, but first, it is fully committed to correct Basel II flaws through following measures:

² See Basel III: Strengthening the resilience of the banking sector, p.10

³ See Basel III: Strengthening the resilience of the banking sector, p.11

⁴ See Basel III: Strengthening the resilience of the banking sector, p.9

- a. Raising the quality, consistency and transparency of the capital base. The capital quality and quantity under Basel II were not sufficient which resulted in a higher risk exposure for banks. Also, there was a question of inconsistency in the definition of capital across banks. Under Basel III, Tier 1 capital will predominantly consist of common shares and retained earnings from which credit losses and writedowns cannot be deducted as observed during the 2008 crisis. Under Basel III, innovative hybrid capital instruments (15% of Tier 1 capital) will be phased out; and sublevels (Tier 3) will be eliminated. Finally, minimum Tier 1 capital will be increased from 2% to 4.5%.⁵
- b. Enhancing risk coverage. Limited risk coverage under Basel II was apparent and this needed to be enhanced. Off-balance sheet risks and derivative related exposure are seen as the key destabilizing factors. VaR, value-at-risk, is introduced as part of Basel III to strengthen supervisory review process and disclosures. The BCBS said that the Pillar 2 risk management standards became effective immediately. Interconnectedness between different financial institutions and marketplaces still remains to be a major problem. Addressing this, the Committee is supporting establishing of a Payment and Settlement System.⁶
- c. Supplementing the risk-based capital requirement with a leverage ratio. Leverage build-ups were a major problem during the 2008 crisis and have also been problematic in previous crises as well (i.e. 1998 Asian crisis). Leverage build-up, as the crisis intensifies, becomes a downward force on banks to reduce prices of assets. The Committee eliminates the banking sector's destabilizing and deleveraging effects by setting a limit for how much leverage banks can build up.⁷
- d. Reducing procyclicality and promoting countercyclical buffers. The Committee claims that market participants have the tendency to behave in a procyclical manner which may have been the most destabilizing element of the crisis. Therefore, the BCBS is introducing a number of critical measures to transform the banking system from being a shock transmitter to a major shock absorber. Some of the key objectives include: reducing excess cyclicality, building capital buffers at individual banks, and preventing excess credit growth by adopting the broader macroprudential goal of protecting the banking system.⁸
- e. Addressing systemic risk and interconnectedness. The Committee saw a flaw under Basel II that prior to the crisis, the policy options were not developed in such a way to ensure systematically important banks being subject to same regulatory requirements.⁹

According to the BCBS, the current definition of capital under Basel II suffers three fundamental flaws: (1) regulatory adjustments currently applied to either Tier 1 or both Tier 1 and Tier 2 when they are supposed to be applied to the common equity component of Tier 1 because common equity not only can best absorb the losses but it can also work as the best barometer to show financial stress related concerns; (2) lack of a harmonized list showing all regulatory adjustments, which noticeably differ from country to country resulting major inconsistency; (3) capital disclosures of banks seriously lack necessary detailed information about their regulatory capital bases, which in turn makes it very difficult for the banking industry participants and regulatory bodies to come up with an accurate assessment of the banking system's actual status.¹¹

Key Elements of Proposal under Basel III

- Banks that are set up as joint stock companies, Tier 1 capital must only consist of common shares and retained earnings of the firm; in addition, regulatory adjustments must be applied to this component. It is also absolutely necessary to harmonize regulatory adjustments and their application internationally.

⁵ See Basel III: Strengthening the resilience of the banking sector, p.12

⁶ See Basel III: Strengthening the resilience of the banking sector, pp.13-14

⁷ See Basel III: Strengthening the resilience of the banking sector, p.15

⁸ See Basel III: Strengthening the resilience of the banking sector, p.15

⁹ See Basel III: Strengthening the resilience of the banking sector, p.18

¹¹ See Basel III: Strengthening the resilience of the banking sector, p.21

- Tier 1 capital's other instruments beside common equity will be strengthened. Quality eroding 'step-ups' feature of Tier 1 will be phased out. The idea is that all Tier 1 instruments must be loss absorbent on a going-concern basis. Payments on Tier 1 instruments will be considered a distribution of earnings under the capital conservation buffer proposal.
- Tier 2 will be simplified by removing any sub categories. Under Tier 2 capital, instruments subordinated to depositors and creditors must have an original maturity of 5 years which will be amortized using the straight line approach.
- The Tier 3 was redundant, so it was abolished. The capital used to meet market risk requirements will be of the same quality of composition as capital used to meet credit and operational risk requirements.
- To improve transparency and address disclosure issues, the Committee will make sure that banks will be required to disclose the following items in their reporting: the balance sheet will contain a full reconciliation of regulatory capital elements; separate disclosure of all regulatory adjustments; a description of all positive and negative limits that the capital has been subject to; when banks disclose any ratios used, they also need to provide explanation how these ratios have been calculated.
- Finally, the Committee requires that all banks on their websites have to provide full terms and conditions of all instruments used as part of the regulatory capital.¹²

Table 1. Basel III Capital Reforms Implementation Timetable¹⁰

	2012	2013	2014	2015	2016	2017	2018	2019
Countercyclical buffer					0.625%	1.25%	1.825%	2.5%
Capital conservation buffer					0.625%	1.25%	1.875%	2.5%
				Future Possibility	9.25%	10.50%	11.75%	13.0%
					8.625%	9.25%	9.875%	10.50%
Total Capital	8%	8%	8%	8%	8%	8%	8%	8%
				6%	6%	6%	6%	6%
Tier 1 Capital	4%	4.5%	5.5%	4.5%	4.5%	4.5%	4.5%	4.5%
			4%					
CET 1 Capital	2%	3.5%						

The financial markets worldwide is faced with yet another crisis; born as a sub-prime mortgage crisis of the U.S., and then turned into a full blown 2008 (began late 2007) global financial crisis adversely affecting securities (stock) markets all over the world like a massive tsunami. IMF called it as "the largest financial shock since Great Depression" and just prior to the crisis, a TV personality in US even called it an economic "Armageddon" on the air on August 1, 2007 and accused the Fed (especially the former Fed Chairman Allen Greenspan) not taking enough actions. By September 2007, the financial crisis made its way to Europe where Britain's Northern Rock bank got emergency support from the bank of England showing signs of weakening deposits. Finally, former Fed Chairman Alan Greenspan warned of "large, double-digit declines" in home values (Kuhnenn, 2010). In the first 12 months of the 2008 crisis, Wall Street's many high flying financial companies' stocks got pounded very hard by already nervous investors resulting in staggering losses in shareholders' value that amounted to insane \$4 trillion dollars. The stock market's total value at its peak on

¹² See Basel III: Strengthening the resilience of the banking sector, p.24

¹⁰ Slightly modified from Ernst & Young approach on Basel III, the table prepared by the author

October 2007 prior to the crisis was \$19.1 trillion, and less than a year later on September 12, 2008, the value quickly plummeted to \$15.1 trillion. As the table 2 data shows, on October 9, 2007, the market capitalization of America's 25 biggest financial firms was \$1.75 trillion dollars; about 11 months later by September 12, 2008, the market capitalization of the same 25 financial firms plunged to mind blowing \$874 billion dollars, a colossal loss of 50.03% (\$872.9 billion) in shareholder value.¹⁴ Several banks largely exposed to sub-prime lending (i.e. Countrywide) unfortunately could not continue operations and eventually they went bankrupt.

Table 2. Market Capitalization of 25 USA Financial Firms Before & After Crisis (in USD \$ Billion)¹³

No	Financial Firm	October 9, 2007 (before)	September 12, 2008 (after)	Change %
1.	Citigroup	\$236.7	\$97.8	-57.8
2.	Bank of America	236.5	152.2	-36.5
3.	American Int. Group	179.8	33.2	-82.0
4.	JP Morgan Chase	161.0	142.2	-11.7
5.	Wells Fargo	124.1	113.2	-8.8
6.	Wachovia	98.3	30.8	-68.6
7.	Goldman Sacs	97.7	61.3	-37.2
8.	American Express	74.8	45.0	-39.8
9.	Morgan Stanly	73.1	41.1	-43.8
10.	Fannie Mae	64.8	0.7	-98.9
11.	Merrill Lynch	63.9	24.2	-62.1
12.	Bank of New York Mellon	51.8	45.5	-12.3
13.	Freddie Mac	41.5	0.3	-99.3
14.	Lehman Brothers	34.4	2.5	-92.6
15.	Washington Mutual	31.1	2.9	-90.7
16.	Capital One Financial	29.9	17.1	-42.7
17.	Suntrust Banks	27.0	16.5	-38.8
18.	BB&T	23.2	18.8	-19.0
19.	Fifth Third Bancorp	18.8	8.2	-56.3
20.	National Citi Corp	16.4	3.7	-77.5
21.	Bear Sterns	14.8	0.0	-100
22.	Keycorp	13.2	6.5	-51.0
23.	Marshall Ilsley	11.6	4.7	-59.4
24.	Leg Mason	11.4	5.6	-51.0
25.	Countrywide Financial	11.1	0.0	-100

In order to clean up the enormous financial mess left behind by the 2008 crisis, the Federal Reserve (Fed) of the U.S. came up with three critical and urgent action plans; (1) lending funds to troubled companies and investors (\$345 billion); (2) buying up treasury bonds (\$770 billion, the balance was 300 billion before the crisis); and (3) purchasing toxic assets that nobody wanted (over \$1 trillion in troubled assets). At the end, when the dust settled, the Fed was left with a ballooned balance sheet standing at \$2.3 trillion including the highly criticized \$700 billion dollar Wall Street bailout.¹⁵ Average US citizens were more worried about keeping their jobs than thinking about how the stock market was doing. Unemployment became a devastating

¹⁴ See New York Times "A Year of Heavy Losses" September 15, 2008

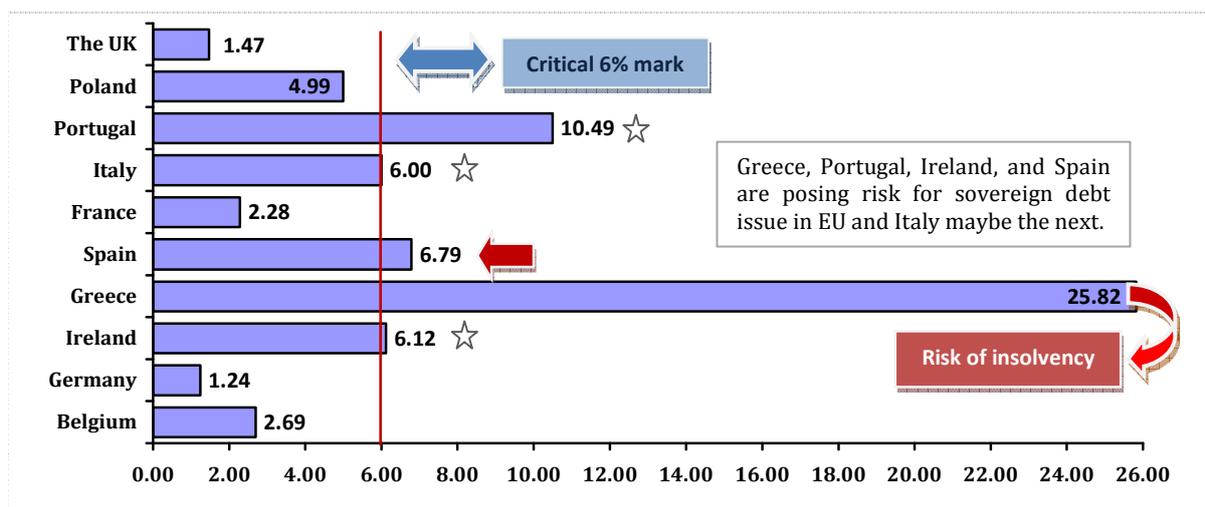
¹³ See Wilshire Associates (reported by New York Times on September 15, 2008), the table and calculations done by the author. <http://www.nytimes.com/interactive/2008/09/15/business/20080916-treemap-graphic.html>

¹⁵ See CNNMoney.com (October 9, 2009), "The Fed's \$2.2 trillion fire hose"

issue because just over a 12-month period, nearly 2.6 million jobs were casualties of the crisis in 2008 alone, and this unbelievable unemployment data easily made the headlines as the worst level in 70 years since the WW-II (1945).¹⁶ After the United States' bail-out actions, Europe broke its silence and the leading finance ministers were forced to take similar actions as the U.S., approving a €750 billion (\$940 billion) rescue package; plus, an agreement was reached by private creditors to erase nearly 54% of Greece's public debt.¹⁷

The 2008 global financial crisis started showing some serious side effects for the few troubled countries in the Eurozone and the situation quickly turned into a sovereign-debt crisis for these nations where public debt well exceeded their GDPs. For instance, Greece carries the highest risk of potential insolvency with 161.7% public debt (\$482 billion) to GDP (\$298.1 billion) ratio. Portugal (\$284.5 billion public debt/\$252.2 billion GDP) and Ireland (\$193.8 billion public debt/\$183.9 billion GDP) are the next two high-risk countries with debt to GDP ratios of 112.8% and 105.4% respectively.¹⁸ As of July 2012, Spain joined these three financially high-risk countries with its own recently appeared risk of sovereign debt crisis due to rising long-term interest rates in the country; and according to Wearden (2011), any country with a yield of 6% or more (see figure 1.1) indicates that financial markets have serious doubts about credit-worthiness; as a result, Spain is having tougher time lately to raise new capital to re-finance or re-structure its sovereign debt.

Chart 1. Long-Term Interest Rates in Euro Area as of July 2012 (%)¹⁹



The 2008 crisis certainly qualify as the costliest wake-up call for governments of the developed nations and for the BCBS to seriously consider developing a new regulatory framework under Basel III, which is highly promoted having the capability of strengthening the resilience of the current global banking system to absorb financial and economic shocks during times of financial stress.²⁰ The invaluable lessons learned from the 2008 crisis (certain Tier 1 capital instruments under Basel II were unable to absorb losses) prompted the Committee to tighten up its definition of regulatory capital, lack of which was believed to be one of the main contributors to the crisis. The BCBS firmly believes that full, timely and consistent implementation of Basel III by its members is more essential for restoring confidence in the regulatory framework for banks and to help ensure a safe and stable global banking system.²¹ Under Basel III, the minimum capital requirement will be

¹⁶ See CNNMoney.com (January 9, 2009), "Worst year for jobs since '45"

¹⁷ See Wikipedia, European sovereign-debt crisis, http://en.wikipedia.org/wiki/European_sovereign-debt_crisis

¹⁸ Source of GDP and public debt figures: CIA-The World Factbook, <https://www.cia.gov/>

¹⁹ Source: European Central Bank, <http://www.ecb.int/stats/money/long/html/index.en.html> (percentages per annum; period averages; secondary market yields of government bonds with maturities of close to ten years)

²⁰ See Basel III: Seoul G20 Summit document

²¹ See Basel III: Report to G20 Leaders on Basel III implementation

increased to 7% (4.5% Tier 1 plus 2.5% conservation buffer which will be in full effect by January 1, 2013). When Tier 1 is raised from 4% to 6% on January 1, 2015, then the new minimum capital requirement will be 8.5% including the 2.5% conservation buffer. However, the total capital ratio will still remain as 8% of the weighted assets under Basel III. The main difference will be that the 8% of weighted assets must consist of 6% Tier 1 and 2% Tier 2. In addition, Basel III simplifies Tier 2 (no sub-tiers as before) and eliminates Tier 3 category (see table 1). By 2019, the minimum capital requirement will be 10.5% (8% + 2.5%).²²

Tougher global banking capital rules will barely hinder economic growth, said a study on Wednesday, casting doubt on claims from the banking sector that the new capital requirements under Basel III would result in a credit squeeze that would derail economic recovery (Huw, 2010). Two major studies have been conducted in 2009 in order to assess the liquidity levels of banks (financial institutions) in relation to capital requirements under both Basel II and Basel III. Quignon (2011) asserts that the study done by the Bank for International Settlements (BIS) has found that the 74 group 1 banks²³ would have had an average common equity Tier 1 ratio of 5.7% under Basel III on December 31, 2009, assuming full application of the new rules. Their common equity ratio was 11.1% under Basel II at the same date. 133 mid-sized banks would have seen these same ratios ease from 10.7% to 7.8%, suggesting a much greater impact for larger financial institutions.

The Committee of European Banking Supervisors (CEBS) study of the 33 major European banks had a slightly lower common equity Tier 1 ratio under Basel III definitions (4.9%) and a common equity ratio of 10.7% under Basel II. Echoing the BIS impact study, 157 mid-sized banks suffer a less pronounced decline in their ratio under the new rules, from 11.1% to 7.1%. At the end of 2009, according to the Basel Committee's study, the additional capital needed to be raised by banks with a common equity ratio of below 7% in order to reach that level (7%) amounted to €602 billion, of which €577 billion for group 1 banks and €25 billion for group 2 banks. In the CEBS study, the capital needed to be raised was €291 billion, of which €263 billion by group 1 banks and €28 billion by group 2 banks (Quignon, 2011). When the two studies are compared, the additional capital that group 2 banks need to raise in both studies come relatively close to each other; however, the results for group 1 banks are significantly different where the Basel Committee's study figure of new capital to raise is twice more than what CEBS study shows.

Table 3. Macroeconomic Impact of a 100 Basis Point Increase in Bank Lending Rates²⁷

Country (region)	GDP level (%)					GDP growth (%)
	Year 1	Year 2	Year 3	Year 4	Year 5	Annual
United States	-0.08	-0.31	-0.54	-0.77	-0.93	-0.18
Euro area	0.00	-0.23	-0.93	-1.40	-2.10	-0.42
Japan	0.00	-0.33	-0.50	-1.17	-1.33	-0.27
Turkey						-0.65
Average (simple)	-0.03	-0.29	-0.66	-1.11	-1.45	-0.29
Average (GDP weighted)	-0.03	-0.28	-0.69	-1.08	-1.45	-0.29

The OECD working paper²⁴ on "Macroeconomic Impact of Basel III" estimated the medium-term impact of Basel III implementation on GDP growth is in the range of negative -0.05 to -0.15 percentage point per annum. Economic output is mainly affected by an increase in bank lending spreads as banks pass a rise in bank funding costs, due to higher capital requirements, to their customers. To meet the capital requirements effective in 2015 (4.5% for the common equity ratio, 6% for the Tier 1 capital ratio), banks are estimated to increase their lending spreads on average by about 15 basis points. The capital requirements effective as of 2019 (7% for the common equity ratio, 8.5% for the Tier 1 capital ratio) could increase bank lending spreads

²² See Basel III: Strengthening the resilience of the banking sector

²³ The 94 group 1 banks, of which 91 supplied information, have excess Tier 1 capital of over €3 billion are diversified and active internationally. All other banks are in group 2.

²⁷ Source: OECD Economics Department Working Papers No. 844 "Macroeconomic Impact of Basel III"

²⁴ See "Macroeconomic Impact of Basel III", OECD Economics Department Working Papers, No. 844, p. 3, OECD Publishing

by about 50 basis points (Slovik & Cournède, 2011, p.3). The OECD study also points out that banks will need to increase their common equity ratio on average 1.2% and Tier 1 capital ratio by 0.5% in order to meet total capital requirement by 2015. However, with the capital conservation buffer of 2.5% in full effect by January 1, 2019 by which, minimum total capital requirement becomes 10.5%, and this will mean that banks will have to increase common equity ratio on average by about 3.7% and Tier 1 capital ratio by 3.0% (Slovik & Cournède, 2011, p.7).

The 2008 global financial crisis did not disappoint expectations in the sense that rigorous new capital requirements were going to force banks worldwide to become more conservative to achieve increased levels of quality and quantity of liquid capital to enable them to absorb shocks arising from financial and economic stress. Between the years of 2006-2009, the United States has improved both its Tier 1 and common equity capitals; 9.8% to 11.4% (+1.6%) and 8.6% to 10.5% (+1.9%) respectively. During the same period, the Euro area has achieved 1.4% increase in its Tier 1 ratio (from 8.0% to 9.4%) and 1.2% increase in its common equity ratio (from 6.8% to 8.0%). Tier 1 and common equity capital levels were much lower in Japan prior to the crisis (2006) and after the crisis (2009); Tier 1 increased from 5.4% to 6.9% (+1.5%) and common equity improved to 4.1% from 3.3% (+0.8%).²⁵ In the three main OECD economies (the US, the EU, and Japan), a one percentage point (100 basis points) increase in the ratio of bank capital to risk weighted assets would result in an average negative impact on GDP level of -0.20% five years after the implementation, which translates into a negative -0.04 percentage point impact on annual GDP growth.²⁶

LITERATURE REVIEW

Quignon (2011) argues that alterations have been made (i.e. Basel 2.5) to the original Basel III; therefore, it does not represent all the changes in banks' prudential rules since the first version of Basel II. Quantitative impact studies suggest that the new standards will make such a big difference to bank balance sheets that they will significantly affect the structure and volumes of financial savings and funding. Findings of a study by Otcker-Robe and Pazarbaşıoğlu (2010) indicated that most banks worldwide would have no problem meeting the new minimum capital requirements under Basel III in 2013 (7%) and 2014 (8%), but more banks close to 2019 would start failing one after another as the Tier 1 capital will be increased bringing the minimum requirement to 10.5%. Slovik and Cournède (2011) argue that the estimated medium-term impact of Basel III implementation on GDP growth is in the range of -0.05 to -0.15 percentage point per annum. According to the World Pensions Council (WPC), European legislators have pushed dogmatically and naively for the adoption of the Basel II recommendations forcing private banks, central banks, and bank regulators to rely more on assessments of credit risk by private rating agencies (Nicolas & Firzli, 2011). The findings of a comprehensive study by Angelini et al. (2011) suggests that each percentage point increase in the capital ratio causes a median 0.09 percent decline in the level of steady state output, relative to the baseline. The impact of the new liquidity regulation is of a similar order of magnitude, at 0.08 percent. The U.S. Federal Deposit Insurance Corporation Chair Sheila Bair explained in June 2007 that "...without proper capital regulation, banks can operate in the marketplace with little or no capital. And governments and deposit insurers end up holding the bag, bearing much of the risk and cost of failure" (Blair, 2007).

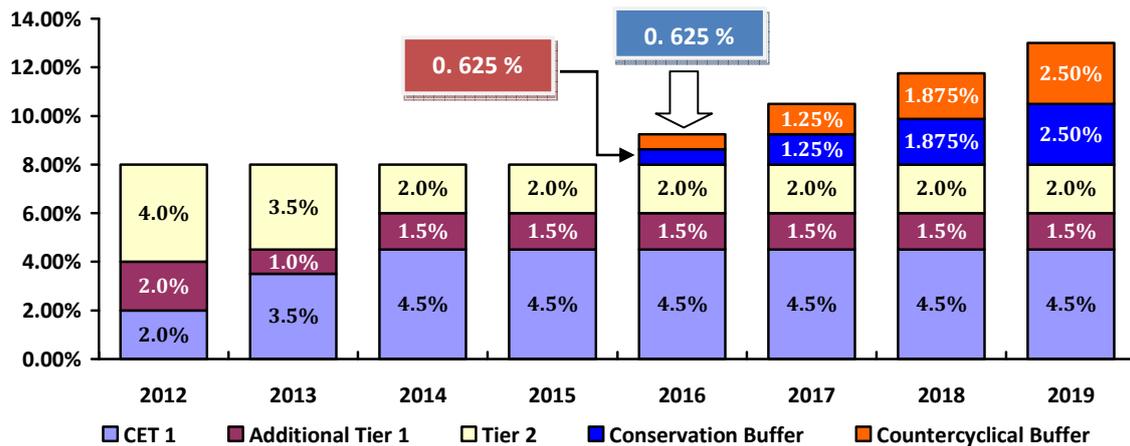
The data presented in the paper of Cosimano and Hakura (2011) suggests that large banks would on average need to increase their equity-to-asset ratio by 1.3 percentage points under the Basel III framework. GMM (generalized method of moments) estimations indicate that this would lead large banks to increase their lending rates by 16 basis points, causing loan growth to decline by 1.3 percent in the long run. Elliott (2010) asserts that the banking industry argues that Basel III will seriously harm the economy. For example, the Institute of International Finance (IIF) calculated that the economies of the US and Europe would be 3% smaller after five years than if Basel III were not adopted. For example, the French banking association offered calculations that suggested a 6% hit to the French economy which is double the size of impact suggested by the IIF. Therefore, Gordy (2003) says: "A single factor model cannot capture any clustering of firm defaults

²⁵ Source: IIF - Institute of International Finance (2010), "Interim Report on the Cumulative Impact on the Global Economy of Proposed Changes in the Banking Regulatory Framework", Calculations done by (Slovik & Cournède, 2011)

²⁶ See "Macroeconomic Impact of Basel III", OECD Economics Department Working Papers, No. 844, p. 10

due to common sensitivity to these smaller scale components of the global business cycle.” Gordy (2003) also points out that calibrating a single factor model to a broadly diversified international credit index may significantly understate the capital needed to support a regional or specialized lender. Jackson (1999) argues that the Committee released Basel II despite many issues with Basel I, most notably of all that regulatory arbitrage was rampant.

Chart 2. Phase in Arrangements of Basel III Capital Requirements²⁸



On the contrary to what many in the banking industry fear, Allen et al. (2012) feel that the long-term effect of Basel III will be much less; however, they agree with critics of Basel III that risk management and governance will be the key to avoiding severe shortages of liquidity. Caruana (2010), unlike everybody else, does not point to Basel II as the architect behind the 2008 crisis for two reasons: first, he argues that the crisis manifested itself in 2007 on the basis of imbalances that had built up prior to the implementation of Basel II; second, he says that majority of Basel II adopting countries did so in 2008 or later. So, this means that Basel II was aftermath of the crisis which hit the surface in late 2007 and early 2008 and it would be sort of irrational to hold something or somebody responsible for the part that was not taken.

A comprehensive research by McKinsey & Company claims that Basel III's new capital requirements, increased quality and quantity of capital, will create a severe shortage of funds in the European banking sector that by 2019 the industry will need about €1.1 trillion of additional Tier 1 capital, €1.3 trillion of short-term liquidity, and about €2.3 trillion of long-term funding, absent any mitigating actions. Although the story for the U.S. banking sector is not much different, the impact seems to be slightly smaller according to the McKinsey & Company estimates that Tier 1 capital shortfall at \$870 billion (€600 billion), the gap in short-term liquidity at \$800 billion (€570 billion), and the gap in long-term funding at \$3.2 trillion (€2.2 trillion). After full implementation by 2019, McKinsey's research also highlighted that European banks' pretax return on equity (ROE) would decrease by between 3.7 and 4.3 percentage points from the pre-crisis level of 15 percent (between 11.3% and 10.7%).²⁹ It is understood from the McKinsey report that all segments of banking operations to a varying degree will be affected by higher capital and liquidity requirements. For instance, retail banking business will be probably more affected than that of wholesale banking. Retail banks have been already operating under lower capital ratios for some time compared to wholesale banks. Increased capital requirement at the retail banking end will push some of the cost to consumers in the way of either higher fees or higher interests on loans (70 basis points).³⁰ Corporate banking may see its fair share of adverse impact as

²⁸ <http://www.accenture.com/SiteCollectionDocuments/PDF/FinancialServices/Accenture-Basel-III-Handbook.pdf>

²⁹ See McKinsey & Company, *Basel III and European banking: Its impact, how banks might respond, and the challenges of implementation*, http://riepis.org/European%20banking_McKinseyCo.pdf, p.3

³⁰ See McKinsey & Company, http://riepis.org/European%20banking_McKinseyCo.pdf, p.10

in rising cost for the following product and services; uncommitted credit lines, long-term corporate loans, and long-term asset based finance businesses. Of the three different segments, investment banking will probably face more changes in product and service offerings because they are more complex in nature than those offered by retail or corporate banking.³¹

A recent OECD study shows minor macroeconomic impact of a one percentage point increase in bank capital ratios. Based on this study, one percentage point increase in the ratio of bank capital to risk weighted assets (i.e. increase from 7% to 8%) in the three main OECD economies, would result in an average impact on GDP level of -0.20% five years after the implementation, which translates into a -0.04 percentage point impact on annual GDP growth. As a result, the annual GDP growth in the United States would be negative -0.04% per annum. The largest impact on GDP growth is in the Euro area with -0.06%, and Japan seems to be the least affected (-0.02%). The same study shows that Basel III's capital requirements (4.5% for the common equity ratio, 6% for the Tier 1 capital ratio) fully effective as of 2015 further reduces GDP growth on average by -0.23% five years after implementation. Although Basel III's increased level of capital requirements by 2015 produces bigger impact on annual GDP growth for the Euro area (-0.08%) and Japan (-0.04), however in the case of U.S., the impact on GDP growth slows down considerably (half of what it was before prior to 2015). The highest level of Basel III capital requirements (10.5% - 8% plus 2.5% conservation buffer) will be in full effect as of January 1, 2019, and by this time, the negative impact of Basel III on annual GDP growth will be at its peak; -0.12% in U.S., -0.23 in the Euro area, and -0.09% in Japan.³²

Slovik and Cournède (2011) argue that the estimated medium-term impact of Basel III implementation on GDP growth is in the range of -0.05 to -0.15 percentage point per annum. They also claim that the impact on GDP is further scaled by the share of banks in total credit intermediation because the Basel III capital requirements affect the banking sector. The analysis of Slovik and Cournède (2011) shows that the banks in the United States account for 23.6% of the total credit intermediation compared to 73.8% in the Euro area and 52.6% in Japan.³³ Shearman & Sterling said in a report that the U.S. has pledged to implement Basel III into U.S. law through agency rulemakings. Nonetheless, the U.S. may determine not to apply the standards to all U.S. banks or may otherwise determine to apply the standards selectively.³⁴ The estimated medium-term impact of Basel III implementation on GDP growth in Turkey could be more than a half of a percentage point (-0.65%)³⁵ or higher per annum due to Turkey's developing-country status and close business ties to the Euro area. In addition to that, Turkey will have the domino effect of negative impact once the banks in Europe go under major banking structural changes to meet the new Basel III's minimum capital requirements (7% - 4.5% Tier 1 plus 2.5% conservation buffer) in full effect by January 1, 2013. Banks in Turkey probably account for a larger percentage (close to 60-70%) of the total credit intermediation than the Euro area because banks there are pretty much the only sources for obtaining credit unlike the situation in U.S. where consumers, businesses, or investors have more financial intermediaries to choose from for their credit needs.

Enhanced Risk Coverage under Basel III

The priority aside from increasing the quality and quantity of capital, the Committee's other top focus area is to strengthen the risk coverage of Basel II and the BCBS is already taking a number of steps just to do that. Under Basel II, the counterparty credit risk³⁶ (CCR) was not properly covered and according to the Committee's assessment, the capital related to CCR was inadequate in several areas. The Committee's findings show that roughly two-thirds of CCR losses were due to CVA losses and only about one-third were due to

³¹ See McKinsey & Company, http://riepis.org/European%20banking_McKinseyCo.pdf, pp.11-12

³² See OECD Economics Department Working Papers No. 844 "Macroeconomic Impact of Basel III"

³³ See Institute of International Finance (2010), "Interim Report on the Cumulative Impact on the Global Economy of Proposed Changes in the Banking Regulatory Framework", Washington, DC

³⁴ Shearman & Sterling report "The New Basel III Framework: Implications for Banking Organizations" 3/30/ 2011

³⁵ The impact of Basel III on GDP growth in Turkey is assumed to be at least 50% greater than the Euro area (-0.42x1.5)

³⁶ Counterparty credit risk means, risk associated with credit that goes into default leaving behind a positive balance; in other words, a positive balance is remaining on the loan (credit) that still needs to be paid.

actual defaults.³⁷ The BCBS also introduced internationally harmonized leverage ratios (LCR-short-term liquidity = Stock of high-quality liquid assets/Total net cash outflows over the next 30 days = $\geq 100\%$; and NSFR-long-term liquidity = Available amount of stable funding/Required amount of stable funding = >100).³⁸ Ernst & Young approach on Basel III claims that banks are required to back 100% of the liquid assets by stable funding; however, qualifying residential mortgages need to be only backed up by 65% NSFR.³⁹

$$\text{Capital Adequacy Ratio (CAR)} = \frac{\text{Tier 1 (T1)} + \text{Tier 2 (T2)}}{\text{Credit Risk RWA} + \text{Market Risk RWA} + \text{Operational Risk RWA}} \geq 10.5\% \text{ by 2019} \quad (1)$$

$$\text{Short-term Liquidity Ratio (LCR)} = \frac{\text{Stock of high-quality liquid assets}}{\text{Total net cash outflows over the next 30 days}} \geq 100 \quad (2)$$

$$\text{Long-term Liquidity Ratio (NSFR)} = \frac{\text{Available amount of stable funding}}{\text{Required amount of stable funding}} > 100 \quad (3)$$

Basel III Impact on Asian Countries

Prior to the 1998 Asian crisis, Asian-5 countries (Thailand, Indonesia, Malaysia, Philippines, and South Korea) attracted nearly half of the foreign capital inflows (FDIs and FPIs) to developing countries – almost \$100 billion in 1996 (Fisher, 1998). Consequently, during the 1998 Asian crisis, investors had lost close to a trillion dollars which prompted the BCBS to work on new banking reforms under Basel II. Baig and Goldfajn (1998) called the 1998 crisis as “Asian Flu” and claimed that the crisis was a case of contagion where one country’s ill fate quickly transmits to other neighboring countries. Bill Clinton, the 42nd President of the United States, called the Asian crisis as a “glitch.” As Nanto (1998) pointed out, in January 1998, the U. S. Federal Reserve Chairman Alan Greenspan indicated that because of the financial crisis, foreign investors in Asian equities (excluding those in Japan) had lost an estimated \$700 billion-including \$30 billion by the Americans. Nanto (1998) also claims that the crisis caused liquidation of nearly half of the banks in Thailand (56 of 91), South Korea (16 of 30), and permanent closure of 16 banks in Indonesia. Calvo and Mendoza (1997) argue that investors in financial markets of developing countries and/or emerging markets make buy/sell decisions concerning financial securities based on what everybody else is doing (herd mentality), which can be considered as an irrational approach where rumors or incidents are not checked or confirmed. Masson (1998) also asserts that already once jittery investors will have a minimum threshold for the next bit of bad news which may be just enough to trigger a collective sell-off and ultimately lead to loss of investor confidence.

Fitch, one of the “big three credit rating agencies” (Standard & Poor’s, Moody’s Investor Service and Fitch Ratings), does not foresee any major obstacles for banks in Malaysia to meet new Basel III capital requirements. Although, a recent report by Fitch showed that Tier1 (CET1) ratio of a small group of banks in Malaysia ranged from 8% to 11%; however, the banking sector average in the country was around 8.7%

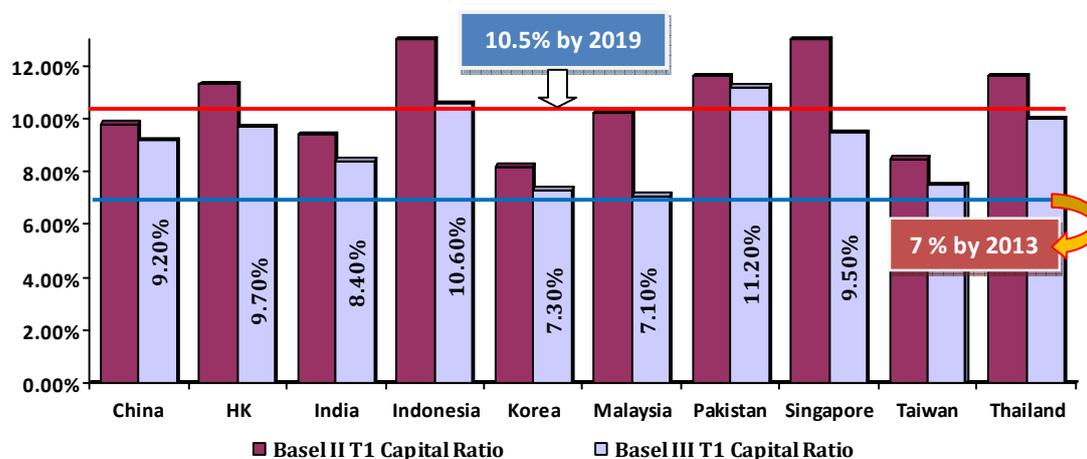
³⁷ See Basel III: Strengthening the resilience of the banking sector, p.36

³⁸ See Basel III: Report to G20 Leaders on Basel III implementation, p.9

³⁹ Ernst & Young approach on Basel III

under Basel III, which was slightly lower than 9.3% under Basel II. Fitch also mentioned in its report that several banks with CET1 less than 8% in Malaysia may come short of meeting CET1 capital requirement under Basel III.⁴¹ Citi Research indicated in a report that banking sectors in Taiwan and Malaysia have relatively low equity Tier1 capital and relatively high leverage ratios (LCR).⁴² Anita Menon, executive director for financial risk management services at KPMG in Malaysia, said that she sees capital requirement for most Asian countries as non-problematic, but implementation of Basel III poses challenges in the area of liquidity in many Asian countries including Malaysia due to a shortage of high-quality liquid assets for banks to hold as liquidity.⁴³ Anandakumar Jegarasasingam, Malaysian Rating Corp Bhd vice-president and head of financial institution ratings, sees the biggest challenge in Malaysian banking sector as the investor expectation of high dividends because almost all banks in Malaysia are traded on Bursa Malaysia (stock exchange).⁴⁴

Chart 3. Basel III Impact on Asian Countries⁴⁰



Tier 1 capital under Basel III must ensure a bank's solvency; in other words, Tier 1 capital must help banks continue their operation during periods of financial or economic stress. Therefore, common equity (common stock) under Basel III is recognized as the highest quality component of capital which is the primary form of funding to help banks remain solvent. It is important that Tier 1 should consist of non-common equity elements but banks nevertheless must not overly rely on these elements. The Committee also says that in the past some non-common equity elements have been included in Tier 1 to reduce cost; however, these elements negatively affecting the quality of capital will have to be phased out. Regulatory adjustments must be applied at the level of common equity along with retained earnings. The logic behind this is that banks will not be able to show strong Tier 1 ratios while having low levels of tangible common equity. The BCBS argues that there should not be too many tiers and sub-tiers of capital which makes it very difficult to form an internationally harmonized definition of capital. That's why Basel III introduces only Tier 1 and simplifies Tier 2 (no sub-tiers as before) and eliminates Tier 3 category. Basel III will ensure a full disclosure of various components of the regulatory capital so that appropriate analyses or comparisons can be made.⁴⁵

⁴¹ See news: "Fitch: Malaysian banks able to meet Basel III capital rules"

<http://biz.thestar.com.my/news/story.asp?file=/2012/8/10/business/20120810112749&sec=business>

⁴² See news: "Basel 3 poser for banks"

<http://biz.thestar.com.my/news/story.asp?file=/2010/3/1/business/5708878&sec=business>

⁴³ See news: "Malaysian banks need to adjust to comply with Basel III"

<http://biz.thestar.com.my/news/story.asp?file=/2012/1/12/business/10246038&sec=business>

⁴⁴ See news: "Basel 3 poser for banks"

<http://biz.thestar.com.my/news/story.asp?file=/2010/3/1/business/5708878&sec=business>

⁴⁰ Source: Citigroup Global Markets 22 January 2010 (as cited in KPMG report "BankTech Asia 2011.")

⁴⁵ See Basel III: Strengthening the resilience of the banking sector, pp.22-23

In its report to G20 Leaders on Basel III implementation, the Committee said that as of end of May 2012, 21 of the 27 Basel member countries have implemented Basel II and Indonesia and Russia have implemented only Basel II's Pillar 1 (minimum capital requirements). In addition, Argentina, China, Turkey and the United States are still in the process of implementing Basel II. Furthermore, Argentina, Hong Kong SAR, Indonesia, Korea, Russia, Turkey and the United States have not yet issued draft Basel III regulations. Although these seven countries above believe that they could meet the January 1, 2013 deadline, nevertheless time consuming bureaucratic domestic rule-making processes will make it considerably challenging.

A Quick Overview of the History of Turkish Economy

The 2008 financial crisis and its huge impact on nations worldwide earned the crisis the title of 'global financial crisis,' some economists even called it 'financial meltdown;' however, Turkey seemed to be the least affected by it, even though the crisis' high magnitude impact, according to Haidar (2012), contributed to the European sovereign-debt crisis. Turkey would have been the last country that was prone to crises before 2001 during which time political instability, high inflation and frequent economic crises were just usual scenes in daily life; but today, thanks to brilliant work of the Banking Regulation and Supervision Agency (BRSA or BDDK in Turkish), Turkey now has an envied banking system that is both resilient and capable of absorbing financial and economic shocks during a global scale crisis. In order to understand the nature of Turkey's banking system today, one really needs to look at its unique evolution throughout four specific periods in its history: (1) rise & fall of the Ottoman Empire; (2) rebuilding the young Republic under Atatürk's reforms; (3) political instability amid privatization; and (4) economic progress through political stability.

Rise & Fall of the Ottoman Empire

Unlike its counterparts in the Western world (monetary policy was mainly used), the Ottoman Empire, for its fiscal policy (Fiscalism), predominantly relied on military expansionism and aggressive collection of numerous taxes from the agrarian society primarily found in Anatolia, plus various fees were collected from those merchants in Istanbul who had trade related business dealings with administrative branches of the Empire. So called the "Enlargement" or 'Rise of the Empire' period began with Mehmet II (1451 to 1481) or popularly known as 'Sultan Mehmet the Conqueror' who, at the age of 21, conquered Constantinople and brought an abrupt end to the Byzantine Empire (Greek). However, the Ottoman Empire experienced its apex years of power by every imaginable measure under the reign of Kanuni Sultan Süleyman (1520 to 1566) or as the West liked to call him 'Suleiman the Magnificent.' Thereafter, the Empire soon went into stagnation period (1680 to 1825) which gave the West the opportunity to gain strength and later to reclaim its previously lost territories knowing that the ailing Ottoman Empire was not in any position to fight back especially with its diminishing military power and slumping treasury. The decline (1825 to just before WWI) and soon after the fall of the Ottoman Empire happened rather quickly with weak and incompetent Sultans who were more interested in entertainment through a lavish palace lifestyle than safeguarding the interests of the Empire.

Despite all the efforts by France and Russia to keep the Ottoman Empire out of World War I; nonetheless, Enver Pasha, as being the Major General of the Ottoman army then, was the main actor who secretly orchestrated an Ottoman-German alliance to enter the WWI because he thought that this would greatly benefit him personally as well as the Empire. On the contrary to his thoughts, already financially drained and militarily weakened Ottoman Empire ended up losing more of its critical territories in the Balkans and Mediterranean. However, the worst was yet to come; although the Ottoman army was victorious in some hard-fought battles; but nevertheless, the Empire's bleak future after WWI was unfortunately decided on the negotiation table where it was forced to sign the 'Treaty of Sèvres in 1920' containing harsh terms and giving the Western powers (Great Britain, Italy and France) the right to territorially carve up the Ottoman land.

Rebuilding the Newly Formed Turkish Republic under Atatürk's Reforms

The financial burden of the Crimean war of 1853-1856 forced the Ottoman Empire for the first time to borrow money from the Europe. Although there were some small banking operations in Istanbul (i.e. Galata bankers and Bank of Constantinople), according to Raccagni (1980), they were not even near the financial capacity to

undertake such borrowing. However, the Ottoman's increasing foreign debt had to be administered somehow in the absence of its own banks. With the involvement of France and England, the Imperial Ottoman Bank was founded in 1856 as a joint venture; England owning 59%, France 37% and the Ottoman Empire having mere 4% of ownership.

Turkey's modern history started in 1922 with one brilliant man, soldier, politician, strategist, genius; Mustafa Kemal (Atatürk), who abolished the Ottoman Empire in 1922 by overthrowing Sultan Mehmet VI Vahdettin and a year later forming the Turkish Republic in 1923. To make things right, Atatürk first rejected the 'Treaty of Sèvres' 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. With the 'Treaty of Lausanne' in 1923, Turkey started negotiations afresh to correct some of Sèvres' 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. Atatürk realized that any type of factory to produce goods had to be built by the government due to lack of skilled labor, resources, and potential investors. This was the start of an era in which any sort of production was done by state-owned enterprises.

Next, Atatürk focused on establishing Turkey's banking system because he knew it perfectly even then that Turkey's forward progress was only going to be possible with creation of a strong national banking system that would be capable of serving the young country's extensive and challenging financial needs as well as enabling and fostering other industries through financial assistance. Therefore, Atatürk wanted to create a truly national bank that was going to do all that; İş Bank (ranked 102 of 'Top 1000 World Bank'⁴⁶) was founded in 1924 assuming this enormous responsibility. Ziraat Bank (Agricultural Bank) was primarily focused on meeting the financial needs of farmers who were a significant part of the Turkish economy at the time. Later, Atatürk ordered the name of 'the Imperial Ottoman Bank' to be changed back to 'the Ottoman Bank' and he allowed it to remain as a state-owned bank with limited central bank functions until 1931 when the Turkish Republic's own central bank was finally established in the same year. Furthermore, Atatürk initiated introduction of a couple more new banks into the country's growing financial system; Sümerbank in 1932 and Etibank in 1935.⁴⁷ Before the start of World War II, Atatürk's reforms helped Turkey create a financial sector of its own which in turn provided necessary financial means to develop other vital industries.

Political Instability Amid Privatization Attempts

Although state-owned enterprises were first initiated by Atatürk as a way of rebuilding the young Turkish Republic after the abolishment of the Ottoman Empire and the Turkish war of independence; however, by the 1980s, still nearly half of all production in Turkey was done by the inefficient state companies with excessive staffs on payroll. These state enterprises were incurring huge financial losses and becoming a real burden on the government budget leading to further borrowing from foreign sources. A Rawdanowicz (2010) claims that the Turkish financial crises in 1994 and 2001 (biggest financial and economic shock in Turkish history) are a direct result of Turkey's long standing record of high current account imbalances.

Mody and Schindler (2005) feel that growth during Özal administration responded strongly to the liberalization and opening up of the economy, but the impact of the reforms was ultimately undermined by poor financial discipline. Turgut Özal, as the Prime Minister in 1983 after the military coup ended⁴⁸ (1982), was the main architect behind the challenging transformation work of the Turkish economy from import-focused to export-focused through privatization of major state-owned companies, which meant a much reduced government role in the general economy. Özal's roadmap of re-structuring the economy included other key factors such as developing sound monetary policies, encouraging foreign direct investments (FDIs), reducing subsidies, and putting a stop on price controls. However, the success of Özal's economic programs

⁴⁶ See Financial Times Survey: http://en.wikipedia.org/wiki/Financial_Times

⁴⁷ See Wikipedia: Economic History of the Ottoman Empire
http://en.wikipedia.org/wiki/Economic_history_of_the_Ottoman_Empire

⁴⁸ In less than a century old modern history, Turkey has witnessed 4 military interventions; the military coups of 1960, 1971, and 1980; and the 1997 military memorandum (also known as the "coup by memorandum").

was later overshadowed by the rising current account deficit bubble due to massive foreign debt amounting to more than \$65 billion at the end of 1993. According to Rijckeghem and Üçer (2005), high level of political instability, growing concerns about bank soundness, and political uncertainties, created a 'perfect storm' that subverted market confidence. Furthermore, adverse effects of the first Persian Gulf War (1990-1991) and its embargo on Iraq by the United States (negatively affecting Turkish trade) along with chronic inflation (constant fluctuation in consumer prices) caused current account deficit to swell.⁴⁹

Until 1991, all of the banks in Turkey were government banks and establishing a private bank was almost impossible due to stringent government control and excessive bureaucratic steps. The situation suddenly changed by the end of 1991 just before the general election that year; Mesut Yılmaz, who was the Prime Minister at the time, made a politically motivated move and granted a special permission to five businessmen with strong ties to the government to open private banks in Turkey. In just five years from 1994 to 1999, 14 new banks started operations bringing the number of banks to 81 before 2001 crisis. Some of these banks were used by owner companies as a channel to siphon money.⁵⁰ Things got so out of control by 1999 that a second financial crisis in less than a decade (the first was in 1994) was about to surface the markets, which further intensified by 2001 resulting the biggest financial shock that Turkey experienced in its short history of private banks. The financial meltdown slashed the number of banks in Turkey and resulted in massive layoffs, predominantly in the banking sector (about 15,000 bank employees lost jobs).

Turkish Banking Sector before the 2001 Domestic Financial & Economic Crisis

Bredenkamp et al. (2009) argue that the Turkish economy, like many of its peers in the developing world, was characterized by heavy regulation, protection from foreign competition, and extensive state involvement in commercial activity. Following the series of boom and busts between the late 1980s and the early 2000s, Turkey enjoyed strong and uninterrupted expansion until 2007 (Rawdanowicz, 2010). Turkey witnessed a high degree of political instability during 1980s and 90s (15 governments, 10 of which were coalitions or minority governments), which was also accompanied by skyrocketing inflation (over 70% by 1990s) and chronic budget deficit fueled by regular money printing. When the massive earthquake (7.6 of magnitude) on August 17, 1999 (epicenter Kocaeli) was added into the equation, things became uncontrollable. By December of 1999, the government, headed by the Prime Minister Bülent Ecevit (DSP: Democratic Left Party), was forced to sign a 'Stand by Arrangement' with IMF for in excess of \$10 billion (original agreement was about \$4 billion). The final bill of Turkey's worst financial disaster ever was nearly \$50 billion. Bredenkamp et al. (2009) point out that by the end of 2000, the state banks' duty losses had grown to some \$19 billion, their short-term liabilities to some \$22 billion and their foreign exchange exposure to \$18 billion. When the crisis hit in February 2001, the value of Turkish lira depreciated almost half of its value overnight.

Table 4. Overview of the Turkish Banking Sector in 2000⁵¹

Bank Type	Total Assets		Total Loans		Total Deposits	
	In \$ billion	%	In \$ billion	%	In \$ billion	%
State Banks	53.15	34.2	13.73	27.0	41.09	40.3
Private Banks	73.59	47.4	27.75	54.5	44.35	43.5
5 Largest Private Banks	50.53	32.6	20.49	40.2	30.10	29.5
Other Private Banks	23.06	14.8	7.26	14.3	14.25	14.0
Foreign Banks	8.40	5.4	1.44	2.8	3.30	3.3
TMSF Banks	13.19	8.8	3.31	6.5	13.14	12.9
Total	148.34	95.6	46.23	90.8	101.88	100.0

⁴⁹ See http://www.mongabay.com/reference/country_studies/turkey/ECONOMY.html

⁵⁰ See Wikipedia: Economy of Turkey, http://en.wikipedia.org/wiki/Turkish_economy

⁵¹ Source: BDDK and The Banks Association of Turkey

Development & Investment	6.90	4.4	4.70	9.2	0	0
Banking Sector Total	155.24	100.0	50.93	100.0	101.88	100.0

Banks in Turkey during the 1990s enjoyed a very loosely monitored financial sector; plus, the banking rules were so easily manipulated in order to show better financial results than actual numbers. In addition, all the major banks were family owned (i.e. Akbank by Sabancı family and Yapı Kredi by Koç family both of which are the two richest families in Turkey) which allowed them to be used as a way of funneling money to other family-owned businesses for either paying less or no tax to the government. The Savings Deposit Insurance Fund-SDIF (TMSF in Turkish) managed banks (2 in 1998) increased to 8 by 2000 and 13 by 2001. By 2003, a total of 11 banks with combined assets of \$11.4 billion failed and they were transferred to the TMSF.⁵² Before the 2001 crisis, the Turkish banking sector had \$117.7 billion in total assets; all together 61 banks had 6,885 branches with 138,962 employees. Private banks' risk exposure to FX (foreign exchange) positions on balance sheets was at an alarming level by November, 2000 (\$10.67 billion); however, the FX risk improved a bit (16.03%) by February, 2001 (\$8.96 billion), then diminished and became no issue in few years later.⁵³

After the 1994 economic crisis in Turkey and the negative effects of the late 1997 and early 1998 Asian crisis and 1998 Russian devaluation of its ruble along with its debt default; establishment of the Banking Regulation and Supervision Agency of Turkey (BRSA or BDDK in Turkish) became absolutely necessary in 1999. Amid macroeconomic uncertainties, Turkey still witnessed rather a quick expansion of its banking sector during most part of the 1990s; the number of banks increased from 43 in 1980 to 66 in 1990 and to 79 by the end of 2000. However, 5 banks (Egebank, Bank Kapital, Yurtbank, Yaşarbank and Ulusal Bank) were merged under Sümerbank when they were transferred to the Savings Deposit Insurance Fund (TMSF), reducing the number of banks to 74 by mid-2001. Of these 74 banks, 56 banks were deposit money banks and 18 were investment & development banks. Of the 56 deposit money banks, 4 were state banks, 26 were private domestic banks, 18 were private foreign banks and 8 were still under the management of the TMSF.⁵⁴

Table 5. Overview of the Turkish Banking Sector: Financial Indicators⁵⁵

in Billion \$USD	1990	1994	1999	2000	2001	2002	2003
Total Assets	58.2	52.6	133.5	155.2	117.7	130.1	151.4
Total Loans	27.3	20.6	40.2	50.9	23.4	30.1	37.0
Securities Portfolio	6.0	5.9	22.9	17.8	41.2	52.7	69.2
Total Deposits	32.6	33.2	89.4	101.9	76.6	84.4	95.4
Number of Banks	66	67	81	79	61	54	51
Number of Branches	6,560	6,087	7,691	7,837	6,885	6,216	6,169
Number of Personnel	154,089	139,046	173,988	170,401	138,962	124,009	123,770

A series of events, both macro and microeconomic, had major adverse impacts on Turkey's financial sector prior to the 2001 crisis, which was the biggest financial shock in Turkish history since its establishment as a young Republic in 1923. Turkey experienced two major financial crises in less than a decade (1994 & 2001). Inadequate capital base; significant risk exposure to FX positions; lack of internal control, poor risk management and corporate governance at each bank; and a weak regulatory system can be shown as the key microeconomic reasons behind the crisis of 1994 when the Turkish lira lost 50% of its value. Moreover, political instability also contributed to the financial system's further deterioration (parliamentary elections of 1990s produced two-party or three-party coalition governments; and finally the military coup of 1980 when coalition parties created an unstable situation negatively affecting life in general). The following global events were sort of indicating that another major economic crisis after 1994 in Turkey may be the case in the new

⁵² See BDDK, <http://www.bddk.org.tr/WebSitesi/English.aspx>

⁵³ See BRSA presentation in London by Ercan Türkan (2003) "Vulnerability Assessment of the Turkish Banking Sector"

⁵⁴ See BDDK: "Towards a Sound Turkish Banking Sector" May 15, 2001

⁵⁵ Source: The Banks Association of Turkey, BRSA & Ercan Türkan BRSA London presentation, October 20, 2003

millennium; Mexican peso crisis in 1994; the late 1997 and early 1998 Asian currency crisis, which Baig and Goldfajn (1998) called it as "Asian Flu" and claimed that the crisis was a case of contagion where one country's ill fate quickly transmits to other neighboring countries; the 1998 Russian currency crisis and Russia's default on its debt; and the sudden crash of the dot-com bubble of the United States in 2000–2001. As predicted and anticipated by many, Turkey experienced the inevitable; the biggest economic crisis in 2001.

Turkish Banking Sector after the 2001 Domestic Financial & Economic Crisis

Öniş (2009) offers four key inter-related elements for the expansion of the Turkish economy fueled by a resilient banking system post 2001 financial crisis; the crucial role of the IMF and the World Bank; transformation of the relationship between the state and Turkey's financial sector through regulatory reforms; significant inflow of foreign direct investment; and introduction of numerous reforms aiding Turkey's bid to join into the European Union (EU). Bredenkamp, Josefsson, and Lindgren (2009) argued that Turkey's immediate challenge in the aftermath of 2001 crisis was to decide what steps to take to restore investors' confidence. Therefore, it became absolutely apparent that the government's first critical step was to form a new, strong economic team that would be capable of taking extreme measures to tackle government's urgent financing issues. Kemal Derviş, a senior World Bank executive (vice president), was overwhelmingly considered for the job to head this new economic team whose challenging task was to design a new economic program to repair the wreckage in the banking system, stabilize the swelling budget due to huge repair costs (over \$50 billion), and keep the inflation under control.

The Banking Regulation and Supervision Agency (BRSA), as the independent authority by law to regulate and supervise the banking sector, identified four fundamental areas to work on to strengthen the banking system; (1) improve the position of the devalued Turkish lira-TL against other currencies (macroeconomic instability and ongoing chronic inflation volatility along with unstable political environment reduced the investors' confidence in TL and forced them to take significant positions in foreign currencies); (2) resolve inadequate capital base in public sector (insufficient liquidity enabled private banks to borrow from overseas banks at low interest rates and supply the funds to the public sector with very high interest rates, this in turn led to a substantial risk increase of private banks' in FX position); (3) develop a state bank reform (inefficient, illiquid, and ineffectively operated state banks caused further deterioration in the whole financial system due to their frequent borrowing activity at high interest rates and short maturities to cover their losses); (4) create a sound, well working regulatory and supervisory framework (Existence of deposit insurance along with ineffective supervision and an absence of a strong regulatory process made banks pay less or no attention to both risk assessment and risk management). All of these deficiencies or banking flaws have been sufficiently addressed by the BRSA in a decade-long process, these issues are also covered under Basel III.⁵⁶

The political insatiability and its negative effects in Turkey's economic growth could be understood better when the next lines are analyzed. There had been six parliamentary election periods between 1983 and 2002 (1983, 1987, 1991, 1995, 1999, and 2002) and 9 different parties took part in the government. The election years of 1991, 1995, and 1999 saw two-party or three-party coalition governments. Moreover, Turkey's political process has been intervened by the country's military at four different times causing further instability (the coups of 1960, 1971, and 1980; and the 1997 military memorandum (also known as the "coup by memorandum"). The study by Feridun (2004) points out that the political considerations were an important factor behind the 2001 financial crisis. In particular, his study suggests that political insatiability in the 1990s in Turkey was primarily the direct result of divided coalitions which were mainly interested in political gain of power than the good of the country. Furthermore, frequent elections seriously affected the Turkish government's judgment to correct some of the macroeconomic misalignments and fiscal severity, which resulted in frequent devaluation of Turkish lira.

When Turkey's recent economic history is viewed, it is full of shockingly surprising events of forward progress, which is not really accustomed or likelihood view of Turkey's past history. For instance, to outsiders, Turkey is more known for its frequent economic crises where chronic case of inflation is a usual scene;

⁵⁶ Source: Sunday's Zaman & BDDK, <http://www.bddk.org.tr/WebSitesi/English.aspx>

unstable political atmosphere is always present (parliamentary elections leading to two-party or three-party coalition governments); poor financial regulation, constant corruption, worrisome budget and trade deficits, and weak governance. But not anymore, the financial and social achievements of Turkey in less than a decade are envied by many people; moreover, even some countries have been considering adopting what Turkey has done with its banking system through the resilient work of the TMSF. When the recent economic numbers are analyzed (see table 6), it is better understood what enormous success Turkey was able to accomplish especially aftermath of the biggest financial and economic shock in its modern history since 1923.

Table 6. Turkish Banking Sector Before and After 2001 Crisis⁵⁷

in \$ billion USD	2001	2010	in \$ billion USD	2000	2001	2010
Loans (\$)	21.7	300.6	GDP (\$)	173.6	166.8	753.2
Deposits (\$)	57.4	352.6	Growth (%)	6.8	-5.7	8.9
Employees	140,879	191,180	PPI (%)	32.7	88.6	8.8
Branches	6,983	10,066	CPI (%)	39	68.5	6.4
Total Assets (\$)	117.7	576.0	Export (\$)	41.3	21.8	114.0
Profit/Loss (\$)	-6.0	12.5	Budget Deficit (\$)	19.5	19.8	30.4
Banks	67	49	Unemployment (%)	6.5	8.4	11.0

11 failed banks were trasfered to the TMSF; Demirbank (2000), Ulusal Bank (2001), Iktisat Bank (2001), Kentbank (2001), Ege Bank (2001), Bayındır Bank (2001), Sitebank (2001), Milli Aydın Bank (2001), Toprak Bank (2001), Pamukbank (2002), and Imar Bank (2003). Exchange rate \$1 = 1.75 TL is used.

Turkey is a natural energy resources poor country; thus, it heavily depends on foreign resources in order to grow. The IEA data shows that Turkey's lower energy import dependence and higher energy efficiency would help redress current account imbalances. Energy self-sufficiency in Turkey was around 30% in 2008, implying a heavy reliance on energy imports. Consequently, trade deficits in energy were high (Rawdanowicz, 2010). On top of that, Turkey is always in desperate need of healthy foreign direct and portfolio investment inflows (FDIs & FPIs) to make up for the usual gaps in its deficits. Rawdanowicz (2010) believes that a successful energy strategy would also support stronger economic growth. Although Turkey has done a spectacularly fine job in most parts of the economy, but it has not been able to successfully tackle urban unemployment, budget, current account, and trade deficits. Reuters reported on October 6, 2012 that Turkey's budget deficit was set to widen sharply to 33.5 billion lira (\$18.5 billion) this year, and Finance Minister Mehmet Simsek said on Tuesday that this was exceeding the official forecast by more than half.⁵⁸ Last October (2011), the current account deficit ballooned to a record \$78.3 billion, or 10% of GDP, spooking investors and prompting a lira selloff that by December led to double-digit inflation for the first time in three years. However, officials say that the current account deficit is expected to narrow until October 2012 and the year-end target remains to be \$59.1 billion. Unemployment rate in urban cities is still above 11%.⁵⁹

Globalization of finance made Foreign Direct Investments (FDIs) and Foreign Portfolio Investments (FPIs) become crucial components of further development for emerging and developing countries; however, excessive FPI inflows can have potentially adverse effects because as easily they inflow, they can also outflow the same way. This characteristic alone makes FPI one of the hottest and most volatile types of foreign investments. As Razin (2002) put it, FDIs' long-term contributions to the general economy can be more lasting and therefore less volatile than those of FPIs. It is true that any investment, whether physical (FDI) or non-physical (FPI), can be irreversible once made, however in the case of a FDI, funds associated with that particular investment may not be irreversible (Sarno and Taylor, 1999). There are two camps of thoughts; on one hand, Broner and Rigobon (2004) argue the case of more volatility of FPI inflows to emerging markets

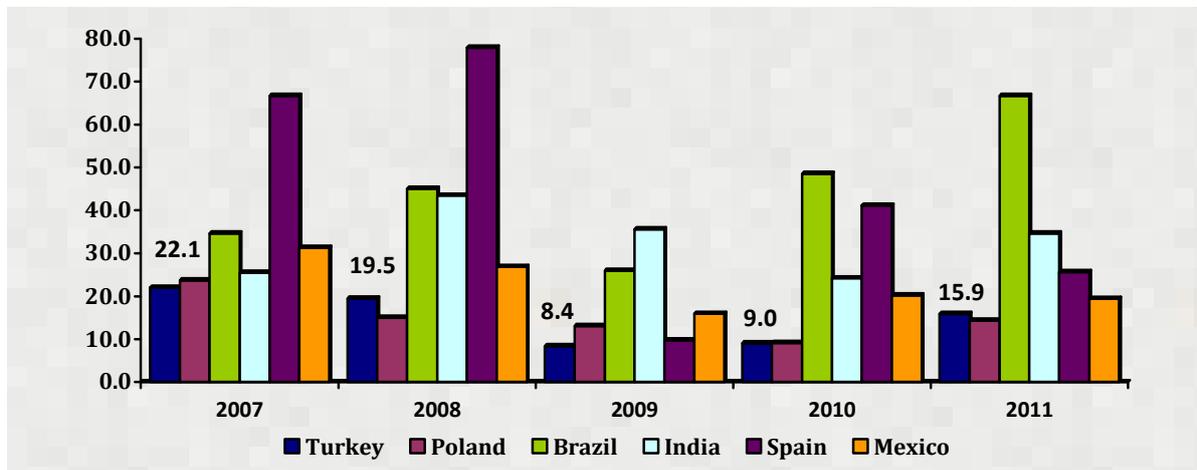
⁵⁷ Source: BDDK: "Structural Changes in Banking" Volume 6, December 2011, ISSN-1307-5691, prepared by the author

⁵⁸ See Reuter: <http://www.reuters.com/article/2012/10/16/turkey-budget-idUSL5E8LG63L20121016>

⁵⁹ See WSJ: <http://online.wsj.com/article/SB10000872396390444017504577645031874268416.html>

than those to mature markets; Bekaert and Harvey (2003), on the other hand, believe the reverse being true meaning FPI inflows to emerging markets are less volatile than developed countries.

Chart 4. Foreign Direct Investment, Net Inflows (in billions USD)⁶⁰



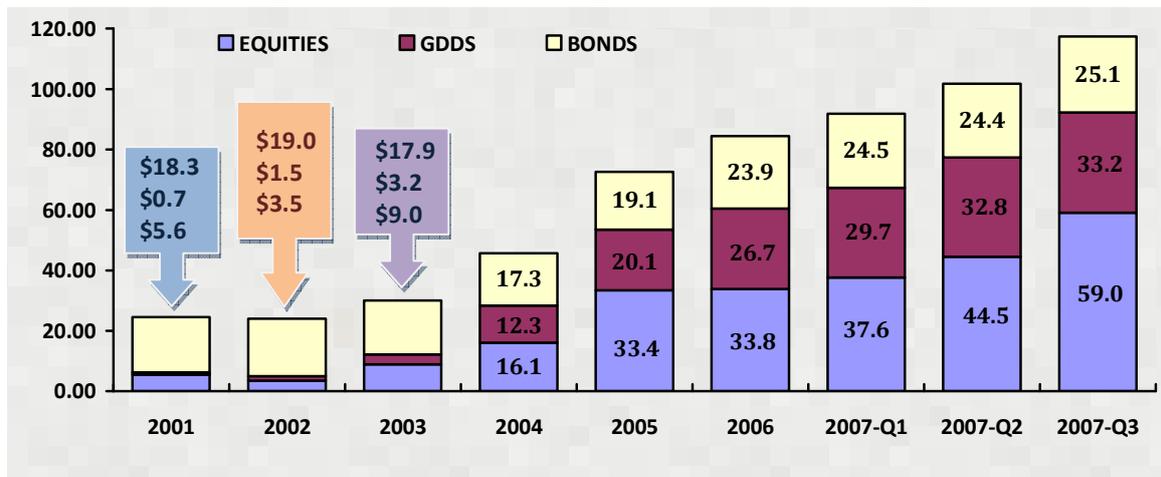
Turkey's unprecedented economic progress in recent years has been contributed in part due to foreign capital inflows as in FDIs or FPIs. However, Turkey still has a long way to catch up with the FDI levels of countries such as the United States which is still by far the number one FDI recipient (nearly \$200 billion in 2010); China comes as second with little less than half of the US (almost \$90 billion). As of 2010, Turkey received \$61.5 billion worth of FPI inflows invested in the equity market and received another \$32.7 billion of FPI inflows invested in the bond market. The top five European countries with high FDI inflows (\$46.2 billion which was 53.2% of all FDI inflows in 2006) to Turkey in 2006 were; Netherlands (\$18.5 billion), United Kingdom (\$7.3 billion), France (\$7.3 billion), Germany (\$7.2 billion), and Belgium (\$5.8 billion). Out of the three main FDI receiving sectors from all countries, services sector (\$58.8 billion) was the top recipient, industrial sector came as second with \$27.9 billion, and as expected agriculture came last (\$141 million). As far as FPI inflows were concerned, Turkey received a total of \$117.3 billion foreign portfolio investments in equities (\$59 billion), \$33.2 billion in government domestic debt securities (GDDS), and \$25 billion for bonds issued abroad.⁶¹

Chart 5. Foreign Portfolio Investment, Inflows (in billions USD)⁶²

⁶⁰ Source: The World Bank, "Foreign direct investment, net inflows, current US\$" chart is prepared by the author

⁶¹ See The Central Bank of Turkey, "International Investment Position Report"

⁶² Source: The World Bank, "Foreign direct investment, net inflows, current US\$" chart is prepared by the author



A nonperforming loan (credit) is either delinquent (past due) for 90 days or more, or it is a loan that is close to being in default. One of the most obvious outcomes of a crisis is a natural tendency for payment delinquencies and loan defaults to increase. Thus, Turkey is no different, which saw the largest non-performing loans during the first couple of years after the 2001 crisis (12.7% in 2002 and 11.5% in 2003). However by 2004, non-performing loan figures sharply declined to a more manageable level, and then continued descending all the way to 3.1% in 2011 except a little spike in 2009 (jumped from 3.8% in 2008 to 5.6%) which may be contributed to the global effects of the 2008 crisis. The rate of non-performing commercial and consumer loans and credit cards, which totaled 4.7 billion lira (\$2.69 billion) in September 2011, rose by 65 percent to 7.9 billion lira (\$4.51 billion) in April 2012. In 2011, 447,000 people were not able to pay their consumer loans to the banks (an increase of 183%); furthermore, in the first two months of 2012, 154,000 people could not pay their card debts. As of January 2012, there was a significant rise in all nonperforming loans; 13.96% increase in consumer loans, 13.51% in commercial loans, and 10.43% in credit cards.⁶³ Ergün Özen, the CEO of Garanti Bank, said that rising non-performing loans in 2012 will hit profits. He also mentioned that nonperforming loans are increasing both for Garanti and Turkish banks in general, Garanti's nonperforming loan ratio was 1.9 percent in the first quarter and the industry's was 2.7%.⁶⁴ Even with increasing nonperforming loan numbers in recent months, the percentage (ratio) to the total gross loans still remains to be fairly small, which were 3.1% in 2011 and 2.7% in 2012 up to the date. The World Bank nonperforming loans data of 2012 shows that the Turkish banking industry figure (2.7%) is closely compatible with the figures of other banking industries in developed nations. For instance, Turkey's nonperformance figure is better than those of Italy (7.8%), the United States (4.9%), Spain (4.6%), France (4.2), the United Kingdom (4.0%), Malaysia (3.4%), and Germany (3.3%). However, Canada (1.2%) and China (1.1%) had better nonperforming figures than Turkey.⁶⁵

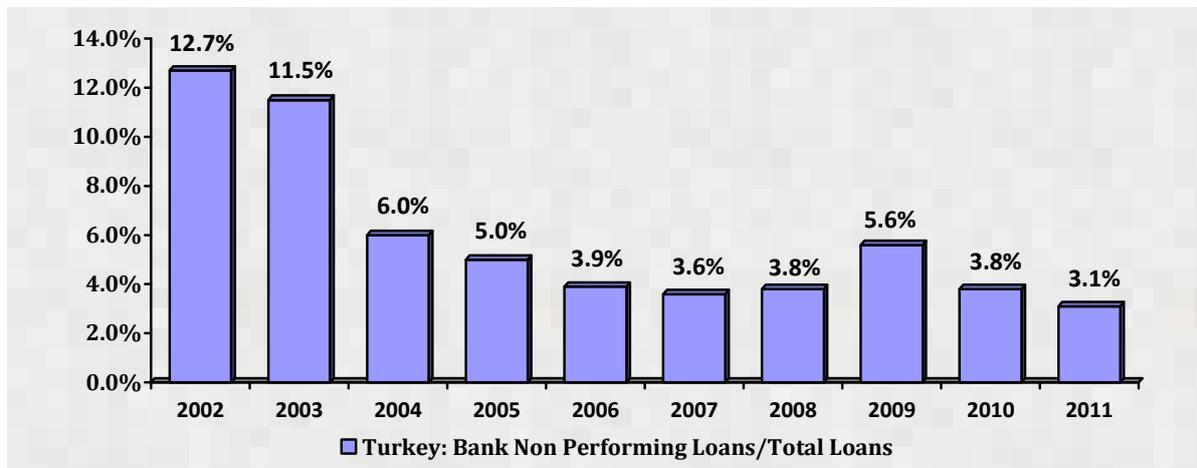
Chart 6. Bank Nonperforming Loans to Total Gross Loans (%)⁶⁶

⁶³ See Hürriyet Daily News, <http://www.hurriyet.com.tr/english/finance/11507810.asp?gid=236>

⁶⁴ See <http://www.bloomberg.com/news/2012-04-25/rising-non-performing-loans-will-hit-profit-garanti-says-1-.html>

⁶⁵ Source: The World Bank, "Bank nonperforming loans to total gross loans (%)"

⁶⁶ Source: The World Bank, "Bank nonperforming loans to total gross loans (%)" chart is prepared by the author



The Turkish Banking Sector Today: A Decade Long Transformation aftermath the 2001 Crisis

A considerable consolidation and structural changes took place in Turkish banking sector after the biggest financial shock of the Turkish modern history resulting from the 2001 crisis. The number of banks in operation came down from 81 in 1999 to 48 as of 2012. The Banking Regulation and Supervision Agency (BRSA and BDDK in Turkish) is now well established with a strong commanding regulatory authority over all banking operations in Turkey. By December 2012, the Turkish banking sector consisted of three main segments by asset size; money deposit banks (92%), profit/loss sharing (interest free) banks (4.6%), and development & investment banks (3.4%). Foreign banks' presence in the banking sector has also grown very strong in recent years; moreover, the foreign companies' share in the sector's total profit from 2010 to 2011 has more than tripled, 2.1% and 7.5% respectively. Bank loans continue to dominate all banking activities, especially consumer loans and mortgage loans (after 2007) are two major growth areas in all bank loans.

After 19 IMF Standby arrangements and a total borrowing of over \$50 billion (remaining \$1.7 billion IMF debt will be paid in April 2013), Turkey finally decided to end its long-running relationship with IMF since 1960s and said that it would not sign another standby arrangement after the conclusion of the 19th arrangement which ended in May 2008. The last three standby arrangements were particularly important for Turkey to manage the 2001 crisis adequately; Turkey received \$34.5 billion from IMF, \$15.0 billion at the 17th (1999-2002), \$12.8 billion at the 18th (2002-2005), and \$6.7 billion at the 19th arrangements (2005-2008). Turkey's recent pledge of \$5 billion to help boost IMF account, which is first ever in Turkey's 90-year history and its unique transformation as a strong economy from being a borrower to now being a contributor, shows clearly how far the Turkish economy has developed in just a decade since the 2001 crisis.⁶⁷

Table 7. Turkish Banks by Deposit, Loans and Assets⁶⁸

all numbers in %		2005	2006	2007	2008	2009	2010	2011
Assets	Large Banks (4)	74.0	75.2	74.0	74.3	75.5	74.8	73.2
	Medium Banks (9)	16.0	14.9	16.5	16.4	16.3	16.8	18.5
	Small Banks (14)	10.1	9.8	9.5	9.3	8.2	8.5	8.2
	Money Deposit Banks	90.4	92.5	91.9	92.0	90.5	91.1	91.0

⁶⁷ See The Central Bank of Turkey, "International Investment Position Report"

⁶⁸ Source: BDDK: "Structural Changes in Banking" Volume 6, December 2011, ISSN-1307-5691, prepared by the author

Deposit	Development & Investment	3.7	3.3	3.1	3.2	3.5	3.0	3.4
	Profit/Loss Sharing Banks	5.9	4.3	4.9	4.8	6.0	5.9	5.6
	First 5 Banks	63.9	63.2	62.2	62.3	62.6	63.1	59.8
	First 10 Banks	86.9	87.3	86.3	86.1	86.1	86.9	86.5

As of December 2011, the top five banks (1. İş Bank, 2. Ziraat Bank (public), 3. Garanti Bank, and 4. Akbank) in Turkey enjoyed 63.47% (\$405.14 billion) of the sector's (31 banks) total money deposit accounts amounting to \$1.12 trillion lira (\$639.95 billion). Same way, three of the 13 development & investment banks also controlled 73.3% of the segment's (13 banks) \$41.64 billion of assets. High concentration of assets by few banks in both money deposit bank and development & investment bank segments may be viewed as posing possible risks because limited diversification. There was no major dominance by any banks in four of the profit/loss sharing banks, interest free banking (\$56.15 billion), as observed in other two segments. The banking sector is divided into four areas by bank asset size⁶⁹: 7 large money deposit banks comfortably enjoy 73.2% of the industry; 9 medium-size money deposit banks' share is 18.5%; 14 small-size banks have 6.8%; and 18 micro-size banks have an insignificant 1.4% share of the banking sector. Out of the 18 micro-size banks, the share of the 13 banks is below 0.1% (less than \$12 billion).⁷⁰

A great deal of competition between banks exists; for instance, 4 of the 18 micro-size banks in 2010 (2 money deposit banks and 2 development & investment banks) moved into small-size bank segment in 2011; and one of the small development & investment bank was promoted to the medium-size bank segment. The ownership of the Turkish banking sector consists of 26.5% (public), 35.4% (global investors), 27.3% is publicly traded in the Istanbul stock exchange. Out of the 48 banks in Turkey, 35 banks currently have foreign investment in their ownership composition. Also, 22 of 48 banks have operations outside of Turkey. Furthermore, the Turkish banking sector could be seen by potential foreign investors as less risky due to the fact that 71% of all the banks in Turkey is structured as main partnership by several owners.⁷¹

As of December 2011, banks' activities by asset size are comprised 84.9% domestic and 15.1% international. Especially due to the 2008 crisis, Turkish banks' international positions have been descending since then; banks' overseas assets dropped from 19.5% in 2008 to 15.1% as of December 2011. In 2011, banks in the sector through their bank branches provided \$393.27 billion worth of loans; of these loans, \$361.7 billion was provided by the domestic branches and \$28.6 billion was given by the branches in overseas markets. Part of the \$361.7 domestically generated loans, 23.6% of the loans were in foreign currencies (\$85.36 billion); and out of the \$28.6 billion of the internationally generated loans, and 2.3% was in Turkish lira (\$657.8 million). Although deposit generation by the banks' overseas branches has been declining for the past few years, however the share of the foreign residents' deposits in the Turkish banking sector has increased to 4% as of December 2011, which happens to be the highest level in a decade.⁷²

Table 8. Top 10 Turkish Banks Credit Business Volume, 2011⁷⁵

Business loans % of total		Consumer loans % of total		SME loans % of total	
Garanti Bank	13.2	Ziraat Bank	17.2	Yapı Kredi Bank	12.4
İş Bank	12.0	Vakıflar Bank	11.4	Halk Bank	12.3
Ziraat Bank	10.2	İş Bank	11.2	İş Bank	11.9

⁶⁹ Large banks (5% or higher), medium (between 1% and 5%), small (between 0.20% and 1%), micro (below 0.20%)

⁷⁰ See BDDK: "Structural Changes in Banking" Volume 6, December 2011, ISSN-1307-5691, p.19

⁷¹ See BDDK: "Structural Changes in Banking" Volume 6, December 2011, ISSN-1307-5691, p.22

⁷² See BDDK: "Structural Changes in Banking" Volume 6, December 2011, ISSN-1307-5691, p.30

⁷⁵ Source: BDDK: "Structural Changes in Banking" Volume 6, December 2011, ISSN-1307-5691, prepared by the author

Akbank	10.2	Garanti Bank	10.7	Garanti Bank	10.4
Yapı Kredi Bank	9.5	Akbank	9.2	Akbank	9.1
Vakıflar Bank	8.3	Halk Bank	8.3	Ekonomi Bank	5.4
Halk Bank	8.1	Yapı Kredi Bank	7.9	Vakıflar Bank	5.3
Finans Bank	4.3	Finans Bank	6.1	Ziraat Bank	4.9
Ekonomi Bank	3.6	Deniz Bank	4.1	Finans Bank	3.7
Deniz Bank	3.2	Ekonomi Bank	3.7	ING Bank	3.3
Total	82.6%	Total	89.8%	Total	78.7%

Even though profits of the foreign owners in the banking sector have increased from 2.1% in end of 2010 to 7.5% in December 2011; however, this huge rise in profits is overshadowed when the market size (15.1% of all banks in Turkey) of the foreign banks is taken into consideration. 2011 saw a limited activity in mergers and acquisitions (M&A); a domestic bank and an international bank merged bringing the bank total to 48. In addition, the BRSA awarded a banking license to a foreign investment group in 2011. As of last year, nearly 2/3 of all 48 banks are money deposit banks (31) and about 50% of these banks contain foreign investment. One thing is strikingly interesting; within the last decade, there has been no change in the public bank number and there has been a decline in privately funded banks.⁷³

More than half (51%) of the banks' branches are located in five big cities (30% in Istanbul, Ankara (capital city), Izmir, Antalya, and Bursa). Banks in the Turkish banking sector have operations in 34 different countries. Most of overseas operations are located in Northern Cyprus Turkish Republic (KKTC) and other Turkish speaking countries. Although branch operation in the European zone is more evenly distributed, the Nederland has a considerably larger share among the other EU countries. Banks continued opening new branches in 2011 as they did in past years; banks increased domestic branches by 4% (402 more branches) bringing the total to 10,468. Out of those 88 overseas branches, 76 are off-shore and 12 of them are on-shore branches. For further growth, banks opened 10 branches in Bahrain, 4 in Iraq, and one in Saudi Arabia.⁷⁴

Significant portion (88.2%) of commercial (business) loans were generated by money deposit banks by the end of 2011; the remaining was shared by development & investment banks (4.8%) and profit/loss sharing banks (7%). Small business loans are 35% of all business loans generated by all banks in the sector. Nevertheless, the credit market for SMEs has been shrinking since 2006, but the declining period ended in 2011. Just like in all banking segments, the SME credit market is also fundamentally dominated by the large money deposit banks having 66.4% (7 of the 31 banks); medium-size banks had a respectable 24.6% share; and 7.2% was handled by the small banks. All 31 money deposit banks enjoyed 88.8% of loans given to small-medium size businesses. The profit/loss sharing banks have shown a noticeable growth in this segment and increased their market share to 9.5%.⁷⁶

As of December 2011, 96.3% of consumer loans were provided by the money deposit banks, and 3.3% was handled by the profit/loss sharing banks. Public banks have the highest market share (26.8%) in this segment. Except one bank (ING Bank), the top 10 list has not changed from 2010 to 2011. The largest public bank, the Ziraat Bank, kept its number one place in 2011. Vakıf Bank, number two largest public bank, improved its ranking from number 4 in 2010 to number 2 in 2011. The position of the third largest public bank, Halk Bank, remained same as the number 6 place. The EU countries on average gave €68 billion as consumer loans, and this number for Turkey was around €32 billion.⁷⁷

Table 9. The Overview of Turkish Banks by Segments (in millions USD)⁷⁸

⁷³ See BDDK: "Structural Changes in Banking" Volume 6, December 2011, ISSN-1307-5691, p.32

⁷⁴ See BDDK: "Structural Changes in Banking" Volume 6, December 2011, ISSN-1307-5691, p.34

⁷⁶ See BDDK: "Structural Changes in Banking" Volume 6, December 2011, ISSN-1307-5691, pp.45-46

⁷⁷ See BDDK: "Structural Changes in Banking" Volume 6, December 2011, ISSN-1307-5691, pp.47-48

⁷⁸ Source: BDDK: "Structural Changes in Banking" Volume 6, December 2011, ISSN-1307-5691, prepared by the author

Rank	Name of Bank	Deposits \$	% of Sector	% of Group
Money Deposit Banks		31 banks total = \$639.95 billion USD		
1	Türkiye İş Bank	92,443	13.29	18.14
2	T.C. Ziraat Bank	91,818	13.20	18.02
3	Türkiye Garanti Bank	83,795	12.04	16.45
4	Akbank	76,315	10.97	14.98
Total		344,371	49.5%	67.59%
Profit/Loss Sharing Banks		4 banks total = \$32.07 billion USD		
1	Asya Katılım Bank	9,822	1.41	30.62
2	Kuveyt Türk Katılım Bank	8,544	1.23	26.66
3	Kuveyt Türk Katılım Bank	7,730	1.11	24.09
4	Albaraka Türk Katılım Bank	5,978	0.89	18.63
Total		32,074	4.64%	100%
Development & Investment Bank		13 banks total = \$23.79 billion USD		
1	İller (cities) Bank	6,510	0.94	27.36
2	Türk İhracat Kredi Bank	5,520	0.79	23.20
3	Türk Sınai Kalkınma Bank	5,403	0.78	22.71
4	Türk Kalkınma Bank	1,600	0.23	6.72
Total		19,033	2.74%	79.99%
Grand Total		395,478	56.88%	61.80%

Turkey's remarkable economic development and financial growth along with a major decline in interest rates created a perfect opportunity for establishment of the real estate mortgage industry which has been the fastest growing segment in Turkish banking industry. As of December 2011, mortgage loans make up 11% of all loans and 33% of personal loans (individual loans). A decline of mortgage loans in small-size banks has been observed; thus, 97.7% of all mortgage loans are provided by the large and medium-size banks. The money deposit banks, as usual, hold 93.3% of the mortgage loan market; the remaining 6.7% is provided by the profit/loss sharing banks whose market share improved from 5.5% in 2010 to 6.7% in 2011. Even though the banking industry experienced a strong growth in real estate mortgage sector, the volume of mortgage loans was around €21 billion as of 2009; this was \$3 trillion for the U.S., \$992 billion for the UK, \$962 billion for Germany, \$716 for France, \$657 for Spain, \$378 for Holland, \$68 for Greece, and \$27 for Russia.⁷⁹

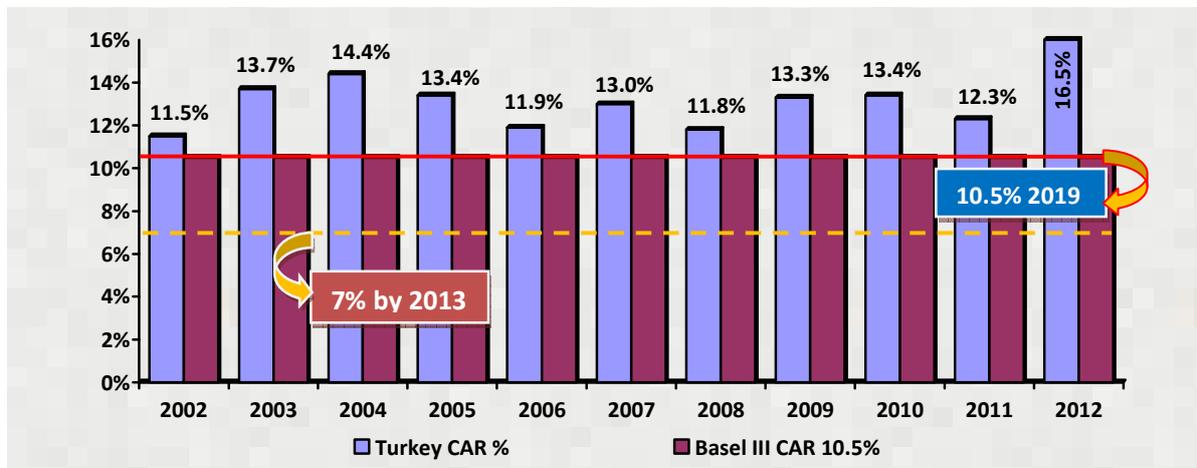
The credit card segment (8% of all loan types and 25% of consumer loans) continues to be one of the most important business areas in Turkish banking sector. The market share of large and medium size banks has not changed from 2010 to 2011, which is 98.1% as of December 2011. The top banks by volume in the credit card segment included two public banks and eight private banks. Yapi Kredi Bank was number one in both 2010 and 2011; the two public banks were Vakıf Bank (ranked number 7) and Ziraat Bank (number 8). In 2010, The United States was on top of the list with 39% of all transactions done by credit card; the U.S. fell to the second place for payments by check (30.9%), China with 44.9% took the first place.⁸⁰

Chart 7. Bank Capital to Assets Ratio (CAR) of Turkish Banking Sector (%)⁸¹

⁷⁹ See BDDK: "Structural Changes in Banking" Volume 6, December 2011, ISSN-1307-5691, p.50

⁸⁰ See BDDK: "Structural Changes in Banking" Volume 6, December 2011, ISSN-1307-5691, p.53

⁸¹ Source: The World Bank, "Bank capital to assets ratio (%)" chart is prepared by the author



Due to recent crises in the past two decades alone (1994 & 1999 Turkish economic crises, 1997-1998 Asian crisis, 1998 Russian ruble and debt default crisis, 2001 US dot.com crash, and 2007-2008 financial crisis), most banks worldwide tend to hold considerably more capital than required by regulators just to be on the safe side. Banks understand that regulatory requirements set under Basel I, II, and III or other country specific regulatory requirements are not the only determining factors of actual capital levels (Slovik, 2011).

Simon Clark, Bloomberg Businessweek – Global Economics, reported that Turkish Finance Minister Mehmet Simsek said Turkey's banking industry would have a capital adequacy ratio of about 17% if the country implemented the Basel III's new rules today.⁸² Regardless of new capital requirements under Basel II or III, Turkish banking system has already been under a great deal of scrutiny for some time and they are subject to heavy regulation under the BRSA since 2002. For a decade now since 2001 crisis, Turkish banks have been operating under stringent rules of the BRSA and besides banks operating in Turkey must keep a capital adequacy ratio of 12% under the BRSA regulation in order to be able to open new branches. A great number of banks in Turkey feel that Basel III's rigorous capital requirements will not pose a significant challenge because Turkish banks since 2002 are already operating under very strict rules of the BRSA. Wolfgang Schilk, executive vice-president for risk management at Yapı Kredi Bank (fourth largest bank in Turkey), feels that "local regulation is very strict and very clear, so either it will go on like this or we will need to see some harmonization with European Union countries."⁸³ Ali Ulvi Sargon, Halkbank's risk management president, claims that "although the return on equities might be adversely affected because of the additional capital requirements under Basel III, it is highly expected that these measures will make positive contributions to the growth rates in the middle term. Besides, it is quite obvious that a banking system with stronger capital structure will have a more effective role in the creation of macroeconomic balances."⁸⁴

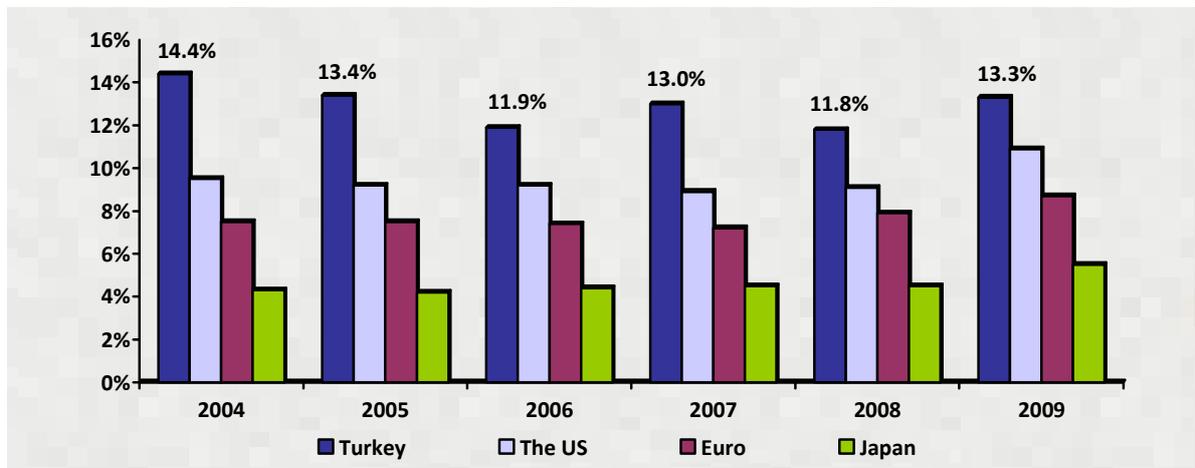
Chart 8. Bank Capital to Assets Ratio (CAR) of Different Regions (%)⁸⁵

⁸² See Bloomberg Businessweek, <http://www.businessweek.com/stories/2010-11-24/turkish-banks-would-have-17-percent-basel-iii-capital-simsek-saysbusinessweek-business-news-stock-market-and-financial-advice>

⁸³ See Risk Magazine news, "Turkish banks seek freedom as Basel II hits capital ratios" <http://www.risk.net/risk-magazine/feature/2183190/turkish-banks-seek-freedom-basel-ii-hits-capital-ratios>

⁸⁴ See Today's Zaman article, "Turkish banks indifferent about Basel III criteria," <http://www.todayszaman.com/news-222747-turkish-banks-indifferent-about-basel-iii-criteria.html>

⁸⁵ Source: The World Bank, "Bank capital to assets ratio (%)" chart is constructed by the author



According to a press release on August 6, 2012, the BRSA reported that the asset size of the Turkish banking sector has reached \$727.87 billion (\$1 = 1.75 TL used) as of June 2012. The sector's total asset has increased by \$32.04 billion (4.6%) comparing to the end of last year (\$30.63 billion). As of June 2012, loans were 57.9% of total assets amounting to \$421.44 billion. In the same period, the sector's profit is \$6.61 billion, which is an increase of \$674.85 million (11.4%) compared to the same period of previous year (\$605.80 million). The sector's return on assets (ROA) and return on equity (ROE) are 1.9% and 16.3% respectively, which are considerably high compared to the results of banks in the Euro zone. The Turkish banking sector's capital adequacy standard ratio has been higher than Basel II or Basel III CAR requirement since 2002. As the BRSA reported recently, the banking sector's CAR is 16.5% as of June 2012, which is even much higher than the 10.5% CAR requirement under Basel III which will be in full effect by January 2019. The sector's total non-performing loans (gross) have increased slightly from the end-2011 levels; however, when this slight increase is evaluated, it is contributed to the growth experienced in credit portfolio in recent years, and not from the increase due to the number of loans that have gone into default.⁸⁶

Usual factors like countries' growth expectations, economic and political stability, corporate governance, tax laws, well-developed financial system and modern accounting standards can certainly influence investors' decisions. As an emerging market, according to IMF International Financial Statistics, Turkey still receives a tiny fraction of gross foreign portfolio inflows (see figure 1.8) compared to countries such as Brazil and South Africa (twice more), Korea (three times more), and Spain (thirteen times more). Foreign portfolio inflow can be increased significantly if Turkey's rating is raised to 'investment country' or Turkey is included in internationally recognized 'Morgan Stanley Capital International' (MSCI) equity indices; according to which, Turkey represented 0.05% of the MSCI compared to the US (53.99%), Spain (1.32%), Korea (0.86%), India (0.20%), Mexico (0.31%), Brazil (0.21%), and Poland (0.05%). If Turkey really wants to get more FDI, then as a top priority, it must develop non-bank financial institutions (NBFIs) such insurance companies, mutual funds, leasing and venture capitalist firms, all of which together only account less than 20% and the Turkish banking sector still continues to dominate with over 85%.⁸⁷

Turkey finally succeeded in fixing traditional sources of fragility that was affecting forward economic progress (irresponsible monetary policies, unsustainable fiscal expenditures, poor financial regulation, or inconsistent exchange-rate policies). Monetary policy is now governed by an inflation targeting framework and an independent central bank focused on developing sound monetary policies. Fiscal policy has been generally restrained and the public debt-to-GDP ratio stable or declining. Turkish Banks in general have strong balance sheets, and regulation and supervision are much tighter than before. The currency is afloat. When it comes to macroeconomic management, Turkey has adopted all the best practices (Rodrik, 2009).

⁸⁶ BDDK (BRSA) Press Release (NO: 2012/21) on 6/8/ 2012: General Outlook of the Turkish Banking Sector, June 2012

⁸⁷ Source: MSCI - Morgan Stanley Capital International equity indices, A World Bank country study report (2003), "Non-Bank Financial Institutions and Capital Markets in Turkey"

Enhancing Risk Coverage under Basel III

The Basel Committee on Banking Supervision (BCBS) clearly observed during the recent crisis that risk coverage of the capital framework under Basel II was insufficient and needed to be strengthened; in addition, banks worldwide were ineffective capturing on- and off-balance sheet risks, as well as derivative related exposures. These fundamental deficiencies in the banking system were key destabilizing factors before, during, and aftermath the 2008 financial crisis. As an enhanced treatment of risk coverage, the BCBS introduced a stressed value-at-risk (VaR) capital requirement based on a 12-month period of significant financial stress.⁸⁸

The Committee also introduced something called “resecritizations” of both banking and trading books where banks are required to carry higher capital. The adverse effects of counterparty credit exposures arising from banks’ derivatives, repo and securities financing activities before and during the crisis not only affected the banking system but the broader economy was significantly affected as well. With these new additional enhanced risk coverage, Basel III standard will attempt to reduce procyclicality which in turn will help reduce systemic risk across the financial system.

Banks will have to determine how much capital to put aside for counterparty credit risk because there were concerns before regarding capital charges being too low to address procyclicality. Going forward, banks will be subject to a capital charge for mark-to-market losses. During the 2008 crisis, the Committee saw a major flaw in Basel II’s risk coverage of counterparty defaults, which did not even address the associated risk resulting from “credit valuation adjustment (CVA).” The potential losses from this particular source were much greater than those losses related to counterpart defaults. Moreover, better collateral risk management practices are also introduced under Basel III.⁸⁹

To address the issue of the buildup of excessive on- and off-balance sheet leverage in the banking system, the Committee is introducing the leverage ratio which is intended to improve the risk-based capital requirement. The mentioned issue above has been a familiar feature in previous financial crisis such as the late 1997 and early 1998 Asian crisis, 1999 and 2001 Turkish crisis. With the leverage ratio, banks will not be allowed to buildup on- and off-balance sheet leverage because Basel III will enforce a limit (floor) to what extent banks can buildup leverage. This way, it is envisioned to protect the banking system and the broader economy from any risk of destabilizing deleveraging processes. The important thing is that the leverage ratio will be calculated the same way (equivalent) across countries worldwide.⁹⁰

The Committee felt that Basel II completely failed to cover any of the potential risks related to complex trading activities, resecritizations and exposures to off-balance sheet vehicles, in fact, according to the Committee, Basel II was in a way responsible for the risk sensitivity and coverage of the regulatory capital requirement to increase. To better handle this matter, the BCBS is introducing downturn loss-given-default (“LGD”). Banks are also required to conduct stress tests during an economic recession or financial stress to determine the direction (downward) of their credit portfolios. The Committee said that it received a number of proposals on two of which an impact study is being conducted. These two proposals under review are; use of the highest average probability of default (“PD”) estimate; and use of an average of historic PD estimates for each exposure class.⁹¹

The Committee introduced two liquidity ratios; (1) short-term liquidity – Liquidity Coverage Ratio (“LCR”) which will be in full effect as of 2015. This basically means that banks must have high quality liquid assets at any given time as produced by the LCR. In spite of that, banks will be required to maintain enough liquid assets for a month-long (30 days) under a specified acute liquidity stress; (2) long-term liquidity – Net Stable

⁸⁸ See Basel III: Strengthening the resilience of the banking sector, p.13

⁸⁹ See Basel III: Strengthening the resilience of the banking sector, p.14

⁹⁰ See Basel III: Strengthening the resilience of the banking sector, p.15

⁹¹ See Basel III: Strengthening the resilience of the banking sector, p.16

Funding Ratio ("NSFR") of which the implementation is scheduled for 2018. With NSFR, banks will be required to have stable funding in place to address funding needs over a stressed one year period. The idea through NSFR to ensure that banks do not carry longer-term structural liquidity mismatches in their balance sheets. It became explicitly obvious as the 2008 crisis intensified that a good number of financial institutions possessed instable forms of funding which made them extremely vulnerable to the financial and economic shocks during stress. What this means is that illiquid assets must be backed with 100% NSFR. In the case of residential real estate mortgages, NSFR can be as low as 65%.⁹²

Table 10. Existing Dividend Payment Strategy of Banks in Turkey⁹³

	CAR > 18%	16% < CAR < 18%	13% < CAR < 16%
Max Distribution	20%	15%	10%
Maximum Allowable Decrease in CAR After Distribution	100bp	70bp	40bp
Existence of General Reserves for Potential Risks	Additional 15% of General Reserves	Additional 10% of General Reserves	-----

CONCLUSION

As highlighted by the Basel Committee on Banking Supervision, healthy and strong banking system was extremely vital in Turkey's economic progress. Establishment of the Banking Regulation and Supervision Agency (BRSA or BDDK in Turkish), creation of an independent central bank, and explicit inflation targeting framework were the best reforms on the government part enabling a much quicker economic recovery post 2001 crisis, which was considered the biggest financial and economic shock in the history of Turkey in nearly a century. Political stability (one-party government in the last three parliamentary elections since 2002) along with the EU harmonization process created a positive impact and served well the appetite of potential global investors to consider investing in Turkey in terms of FDIs and FPIs. A decade of transformation through devotion, full commitment and relentless hard work, Turkey now deservedly enjoys being the 16th largest economy in the world with over \$1.087 trillion in GDP⁹⁴. When banks in so many countries throughout the world are being liquidated, taken into government control, or bankrupt as well as some European countries are facing sovereign-debt issues; no bank in Turkey, before, during or after 2008 crisis, has asked the government to receive any financial support; and probably more importantly, there has not been a single case of any bank liquidation or bankruptcy in Turkey since 2003.

Political instability and recurrent military intervention may have been the real reasons behind Turkey's more accustomed history of economic struggles during much of the 1980s and 1990s. Violence, political and economic instability, and social unrest plagued Turkey's trivial chance of forward development in those years and the country was gradually drifted into a state of chaos. Every time Turkey was about to record any means of positive progress, the process was toppled plentiful times by other domestic or foreign shocks. For instance, six parliamentary elections occurred between 1983 and 2002 (1983, 1987, 1991, 1995, 1999, and 2002) in which 9 different parties took part in the government. Moreover, the election years of 1991, 1995, and 1999 produced two-party or three-party coalition governments. Furthermore, Turkey's political and economic developments have been intervened at four different times by the country's armed forces causing further instability (the coups of 1960, 1971, and 1980; and the 1997 "coup by memorandum" which is nothing less than an ultimatum by the armed forces asking the government to resign).

⁹² Shearman & Sterling report "The New Basel III Framework: Implications for Banking Organizations" 3/30/ 2011

⁹³ Source: BRSA (BDDK) – Banking Regulation and Supervision Agency of Turkey

⁹⁴ See CIA – The World Factbook states that Turkey's GDP (purchasing power parity) is \$1.087 trillion (2011 est.), and GDP (official exchange rate) is \$778.1 billion (2011 est.).

The capital adequacy ratio of banks in Turkey on average is substantially higher than the banks in the U.S. or in the Euro region. According to a press release on August 6, 2012, the BRSA reported that the asset size of the Turkish banking sector has reached 1.27 trillion TL or \$727.87 billion (\$1 = 1.75 TL used). The Turkish banking sector's capital adequacy standard ratio (CAR) has been higher than Basel II (8%) or Basel III (10.5% by 2019) requirement since 2002. As the BRSA reported recently, the banking sector's CAR is 16.5% as of June 2012, which is significantly higher than the 10.5% CAR requirement under Basel III which will be in full effect by January 2019.

Turkey's decade long social, economic and political stability (no military intervention and one-party government in last three elections since 2002) fostered a great deal of economic development, which in turn created positive progress in various parts of the society. However, Turkey must continue its mission of enhancing structural and macroeconomic policies to further improve the resilience of its banking system. Becoming the 16th largest economy in the world puts extra pressure on Turkey to prove to the world that its unique story of economic success is not a fluke as some people might think. Turkey now needs to take the advantage of favorable macro and microeconomic environment to tackle four problematic areas constraining long-term growth; high urban unemployment rate, current account deficit, budget deficit and trade deficit.

It is extremely tough for Turkey to prevent having a large current account deficit because it highly depends on energy import to continue its economic growth which in turn tends to create a massive current account deficit at present hovering around little over \$70 billion. However, Turkish economists believe that the deficit will improve and continue its gradual descend until end of 2012 to meet the central bank guidance for the year. As far as the banking industry is concerned, the BRSA must encourage further development of the Turkish banking sector in order to become a full-fledged financial system consisting some of the following critical components of a modern financial industry:

- The insurance sector is very limited and it is not sufficient; therefore, it needs further development.
- An over the counter (OTC) market for securities does not exist and its establishment is necessary.
- Venture capitalist firms should be formed and the initial public offering (IPO) should be expanded.
- Privatization work needs to continue, maybe even a bit accelerated.
- The securities market needs to be further developed to include options, derivatives, and other financial investment instruments.

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BIOGRAPHY

John Taskinsoy has been teaching business communication, marketing, finance and various other business courses for several years. Since 2011 he has been teaching at Universiti Malaysia, Sarawak (Unimas), where he has worked as senior lecturer. John has served in a variety of leadership roles in technology companies. Other experiences in corporate management include manufacturing manager, system integration manager, project manager, international business manager, overseas operations director, project director, senior editor, director of global manufacturing & procurement, and operations director. Over 20 years of professional experience in sales, manufacturing, operations, marketing, human resource, budgeting, forecasting, outsourcing, ISO implementations, new product introduction, international marketing, and management positions enable John to bring "real world" examples and cases into his classroom teaching environment. After graduating from San Francisco State University (SFSU) in 1997 with a BSc degree in business administration, he was offered a management position at Nortel Networks where he worked from 1997 to 2001, and then he

joined Flextronics International, LSI Logic, and Trexta in later years. While he was employed, he also went on completing his first master's (MBA) degree in 1999 at University of Phoenix, and then he decided to finish a second master's (MSc - Telecommunication) at Golden Gate University in 2002.

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