

IV. SPECIAL TOPICS

IV.1 Approaches to Preventing and Resolving Systemic Risks: Macroprudential Policies and Funds for Resolution of Systemic Risks

While liberalization in the regulation of the financial markets has been in progress for almost the last two decades, financial market players and policy makers started to attach more importance to risk management in line with the fact that financial instruments have become more diverse and complicated. Accordingly, policies that mostly safeguard the soundness of financial institutions have been emphasized in regulations, aimed at preventing the build up of excessive risks and vulnerabilities within the financial system.

However, the last global crisis has shown that current financial arrangements, microprudential policies and financial safety networks including the deposit insurance system fell short of identifying systemic risks, containing vulnerabilities in the financial system and curbing the adverse effects of exogenous shocks on the financial system.

With a number of banks defaulting, especially in developed countries, during the crisis, the provision of capital support to uphold the financial system operational and to ensure that the existing institutions continued to perform their activities, other measures taken by the public sector, proved to be costly. This, in turn, not only damaged the market discipline, but also explicitly revealed that holistic policies aimed at the entire system are needed.

As they are complementary to micro-prudential policies, macro-prudential policies mainly aim to mitigate systemic risks, and, in turn, to prevent systemic financial crises. The IMF, FSB and BIS define systemic risk as “a risk of disruption to financial services that is caused by an impairment of all or parts of the financial system and has the potential to have serious negative consequences for the real economy”. This definition covers any component of the financial system; an institution, a market or an instrument. Moreover, considering that all these factors somewhat bear the potential to impose a systemic risk to some extent, the effects of the impairment of any of these parts on the real economy are emphasized in the definition of systemic risk.

Nevertheless, all parts of a system displaying a stable outlook does not mean that the entire system is on a stable course; because “externalities” in the system, potentially caused by all the actors with no defects in their financial structures might engender a serious fragility for the entire system. Therefore, macro-prudential policies that safeguard the whole system are needed as a complement to micro-prudential policies, which mainly safeguard the individual parts of the system.

Within this context, two dimensions of these policies come to the forefront. The first of these is the prevention of accumulation of systemic risks, which emerges as a result of the interaction among financial institutions, instruments and markets within a financial system, and the second is improvement of the resilience of the financial system against potential vulnerabilities due to procyclicality.

In the event of the emergence of vulnerabilities in a financial system stemming from systemic risks and the deterioration of financial stability due to these vulnerabilities, macro-prudential instruments are expected to create a counter-cyclical movement; in other words, to function as a “systemic stabilizer” within the system. In an environment of excessive credit expansion and increased on-balance sheet exposure of banks due to swollen asset prices, it is expected that the increase of capital buffers by banks and their use of this additional source in the event of the emergence of risks will reduce vulnerabilities in

the financial system. One of the natural outcomes of such a counter-cyclical instrument is to hamper the negative interaction between the corporate sector and the financial system especially at times of deterioration in the course of the economy.

Country practices show that many countries attach more and more importance to the prevention of systemic risks and implement certain measures that might currently be considered macroprudential in a general sense, despite the differences in structures and usage. Among these, measures such as amending the minimum ratio or credit risk weights within the scope of the capital adequacy ratio arrangements; restricted lending in fast-growing credit categories; change in provision ratios regarding credits; adoption of dynamic provisioning; imposing tax-like additional liabilities on credits; and change in required reserve ratios come to the forefront. In this sense, it is aimed to adopt a counter-cyclical stance and eliminate the adverse effects of the financial crisis as much as possible.

Another significant development is that some of the developed countries made (or have been making) radical changes in their regulatory and supervisory structures as well as in their legal infrastructures, as a way of addressing systemic risks, before the financial crisis was over.

The Dodd-Frank Act that was prepared to eliminate structural and other problems caused by the financial crisis and that took effect on 21 July 2010 establishes the “Financial Services Oversight Council”. The “Financial Services Oversight Council”, which is planned to be established in order to evaluate the vulnerabilities and shocks exposed by the financial system as a whole, will accordingly provide the necessary communication and cooperation mechanisms among the related regulation and supervision authorities. The Council will also focus on the identification, monitoring and resolution of systemic risks borne by financial institutions of a large and complicated structure. Furthermore, the Council will be able to authorize the Fed to supervise non-bank firms that might cause systemic risks. The Fed will be authorized to supervise banks with assets above USD 50 billion and as charged with consolidated supervision, it will assume the responsibility for identifying whether risks arise from banks or their affiliated associates.

The Law adopted by the European Parliament on 22 September 2010, which will take effect in 2011, establishes a “European Systemic Risk Board–ESRB” that will monitor macro risks. Although the Board will be physically established within the ECB, it is envisaged to be fully independent of the ECB. The Board consists of central bank governors of member states and European supervision authorities in addition to the president and vice-president of the ECB. Supervision authorities of member states do not have the right to vote although they are included in the Board. As the Board is a platform gathering central bank governors and supervision authorities, it will pave the way to further harmonization of micro and macro risk-oriented policies. The ESRB is legally assigned with identifying and assessing systemic risks that may emerge or has emerged within the European Union. Moreover, the European financial system has also been restructured. In this context, the existing supervisory authority unions comprising supervision authorities of EU member states have been transformed and restructured as the European Banking Authority (EBA), European Securities and Markets Authority (ESMA), and the European Insurance and Occupational Pensions Authority (EIOPA). While the former institutions replaced by the new authorities make only advisory and non-binding decisions, the mandates of the newly established European Supervision Authorities have been expanded and they have assumed a more effective role in regulation.

The UK government has been working on a law, which transfers the regulation and supervision authorities of the Financial Services Authority (FSA) to the BoE, making the BoE the single authority

within the system instead of opting for a tri-partite structure consisting of FSA, BoE and the Treasury. The FSA, on the other hand, is planned to be transformed into an entity that will defend consumer rights in a more effective way, under the name of "Consumer Protection and Markets Authority". Besides, a "Financial Policy Committee" is planned to be established in addition to the Monetary Policy Committee (MPC) within the BoE. The Committee will aim to enhance financial resilience by identifying and resolving systemic risks and vulnerabilities, and to maintain macroeconomic stability by taking measures against instabilities in the financial system.

The aim of financial structuring in developed countries is to prevent the recurrence of costs incurred due to financial crises. During the financial crisis, banks lacked liquidity and trust to other financial institutions, and even terminated their operations, as a result of which serious impairments were observed especially in the operation of advanced financial markets. In order to cope with this situation, while central banks as the lender of the last resort provided emergency funding to banks in need of liquidity, treasuries of developed countries provided banks with systemic importance, which became unoperational, with capital support at times when central bank funding remained insufficient. A lesson derived from this experience is that such funding is likely to cause more serious problems in terms of the strains they place on both public finance and central bank balance sheets. Banking sector-related measures that had to be taken by some countries (Iceland and Ireland) deteriorated public finance in these countries and led to additional vulnerabilities. Another important fact learnt from the crisis is that the cost of measures taken to restore financial stability is not sustainable in terms of social justice. Moreover, provision of funding for such measures frequently takes time, due to their urgent nature and size, and they necessitate the collaboration of countries and international agencies. This situation causes delays in timely implementation of measures, which, in turn, results in irrevocable consequences.

In the current conditions, the costs of crises are incurred mainly by the public and, in some countries; a portion of these costs is collected from financial institutions through taxes. Within this scope, in some countries exposed to crisis, it is observed that this tax is being imposed on banks to be used for financing the cost of the crisis. In the USA, it is envisaged to collect taxes from banks, thrift institutions, intermediaries, insurance companies and companies holding such financial institutions whose sizes are above USD 50 billion. The ratio of the tax is stipulated to be 0.15 percent of their liabilities and the tax is planned to be collected for duration of 10 to 12 years. Hungary opted for taxation of the assets of banks, insurance agencies and other financial institutions at a ratio of 0.07 percent for a period of 3 years. In France and in UK, where the same practice is in place, banks are also required to pay taxes on premium payments.

Another solution adopted for covering crisis-related costs is to provide financing facilities in advance for policy measures to be taken in the event of a potential crisis. Within this framework, the source of funding that comes to the forefront with regard to systemic risks is the funds to be provided by way of "ex ante" taxation of financial institutions. In practice, it is seen that some steps are being taken in this regard by some advanced economies and international agencies. Accordingly, Sweden and Germany established a systemic crisis fund to be used for measures to be taken in such circumstances in 2009 and 2010, respectively. "Ex ante" taxes (from 0.02 percent to 0.04 percent), to be collected from banks against the contribution that they would have to make for financing the cost of crisis in the aftermath of a potential banking crisis, make up the primary source of finance for such funds. Within this scope, it is expected that capital support to be provided to the banking sector and the funds envisaged to be used in credit and guarantees will be completely built up in approximately 15 years.

The European Commission and the IMF also have similar recommendations in this field, whereby either all financial institutions or investment firms besides commercial banks are also included under the tax coverage.

Table 1: Examples of Systemic Crisis Fund and Proposals

	Germany	Sweden	European Commission	IMF
Name of the Practice	The "Law on Establishment of Restructuring Fund for Credit Agencies" published in June 2010 was approved by the Cabinet on 25 August 2010.	The Law No. SFS 2008:814 (Effect on 1 August 2009)	COM(2010) 254 (Press release dated 26 May 2010)	Financial Stability Contribution Fund (The proposal mentioned in the Report submitted to the G-20 in January 2010)
Institutions where the practice is implemented / to be implemented	Banks	Banks	Banks and investment agencies	All financial institutions
Ratio	(According to the size of the bank) 0.02% - 0.04% + 0.00015% of the total value of off-balance sheet derivatives	0.036%	Not specified	Less than 0.2%
Base of the practice	Total Liabilities - deposits – equity capitals	Liabilities other than insurance coverage	Preferably liabilities. However the Commission considers other alternatives as well.	All liabilities under the insurance coverage including off-balance sheet items.
Total fund amount envisaged to be collected annually	Euro 1.2 billion is envisaged to be collected per annum (approximately 0.05 of GDP)	Roughly 2.5% of total GDP during 15 years	Roughly 2-4% of the total GDP of the EU	2-4% of the target GDP.
Time to build up the fund	Not specified	15 years	Not specified	Approximately 10 years

Systemic risk has two dimensions in general; the first is the relation of financial instabilities with macro economy, and the second is instabilities emerging in the financial system. As policies to be implemented for the prevention of systemic risks will differ according to the source of the risk, different roles fall upon the authorities that supervise the financial sector, central banks and treasuries. Meanwhile, central bank duties related to the implementation of monetary policy and functions as the lender of the last resort place them in a strategic position in terms of macroprudential policies.

IV.2 Measures Taken by Developing Countries to Restore Financial Stability during and after the Crisis

The financial crisis, which started in the USA in 2007 and spread to many countries, became a global crisis and had significant impacts on developing countries. Developing countries were severely affected by the crisis as they had increasingly been integrating into the global financial system in recent years. Therefore, as the global financial crisis started to deepen as of the third quarter of 2008, developing countries faced significant capital outflows. Meanwhile, as the effects of the financial crisis started to be observed on the corporate sectors of developed countries, this effect spread to developing countries as well. Nevertheless, their relatively stronger financial structures coupled by the measures they took during the crisis have helped developing countries to recover faster. During this process, the recovery in the economic performance of developing countries was underpinned by increased capital inflows due to the expansionary monetary policies adopted by developed countries. Therefore, with the supportive effect of global integration, developing countries actively used monetary and fiscal policies to counter-balance cyclical movements in their economies while taking various measures to restore financial stability.

Within this framework, developing countries resorted to decreasing policy rates and required reserve ratios as a measure against liquidity squeeze on the back of the decline in net capital inflows. However, these countries were faced with a liquidity surplus again as the mentioned outflow trend reversed and policy rates were kept low globally, and they started to gradually raise the required reserves to pre-crisis levels. In Turkey, a similar policy was followed with respect to monetary policy exit strategies. Accordingly, in the aftermath of the crisis, where capital flows continued, many countries enjoyed an environment free from inflationist pressure and policy rates were kept more or less at the same level, required reserves were not only used for liquidity management purposes but also as a more broad based macro-prudential instrument. In some countries, instruments such as loan-value ratios were also used to mitigate the effects of the rise in liquidity on credit volume and asset prices (IMF, 2010a).

Especially in developing countries, imposing capital controls as a direct measure against the recent rise in capital flows towards them is once again popular. Within this framework, with the aim of safeguarding financial stability, developing countries regarded capital controls as part of their policy packages to decrease the inflow of hot money, maintaining autonomy on monetary policy, remedying fluctuations in exchange rates and valuation (Ostry et al., 2010). However as countries differ with respect to their financial structures, monetary policy conditions and current account balances at the outset, the type and timing of capital controls would significantly vary from one country to another. For instance, Brazil chose to impose direct taxes to curb capital inflows while countries like Peru, Colombia, Thailand and Indonesia introduced measures like high required reserve implementation for short-term foreign credits and a minimum timeframe for foreign direct investments to stay within the country. Meanwhile, with the aim of decreasing exchange rate exposure, South Korea tried to discourage short-term foreign borrowing by introducing limitations on FX-denominated derivative operations and the net FX position.

Countries, which opt for independent monetary policy and floating exchange rate regime in the open economy paradigm (impossible trinity) suggesting an independent monetary policy, fixed exchange rate regime and free capital movement, face with the nominal appreciation of exchange rates and inflation dilemma when capital inflows surge. Besides reducing financial vulnerabilities, the reserve

policies that the countries implement also contribute to settling the dilemma in question. However, the general findings suggest that the effectiveness of sterilized FX interventions fall short of preventing the appreciation of exchange rates when capital inflows are permanent (IMF, 2007). In this framework, while sterilized foreign exchange interventions contribute to the sustainability of capital inflows with the domestic and foreign interest rate differential, they also bring out a cost aspect. Therefore, sterilization can also be achieved through raising the required reserves over the banking sector, thus increasing the importance of required reserves as a policy tool.

References

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Table 1. Measures Taken to Restore Financial Stability

Measure	Description	Country																			
		Brazil	Argentina	Mexico	Chile	Peru	Colombia	India	Hong-Kong	Croatia	Russia	Hungary	S. Africa	China	Indonesia	S. Korea	Malaysia	Philippines	Singapore	Thailand	Taiwan
Measures against excessive rise in asset prices	Loan-to-value ratio								x							x	x	x	x		
	Arrangements in real estate market							x	x							x			x		
Measure against liquidity management and credit supply	Required reserves	x				x	x	x		x	x	x		x	x						
Measures against exchange risk exposure	Measures regarding FX position		x	x				x					x			x	x	x			
	Measures making FX borrowing difficult															x					
Supervision/ Inspection	Limitations on capital adequacy, liquidity and leverage ratios								x										x		
	Macro stress tests		x						x							x		x	x	x	
Measures against capital flows	Reserve management and FX interventions	x	x					x													
	Increased control over inflows-direct taxes ¹	x																			x
	Macro-prudential measures-required reserves and other measures					x				x						x					x
	Administrative measures ²							x	x						x						x
	Liberalization of outflow controls ³		x	x	x			x								x	x	x		x	

Source: IMF (2010a, b, c), national central banks and articles on press.

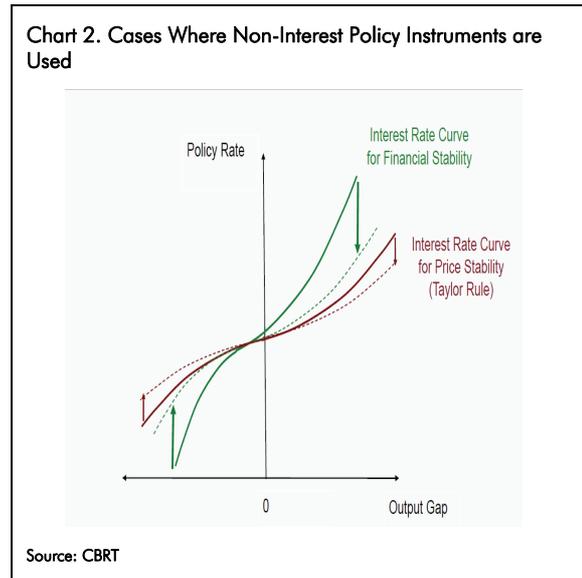
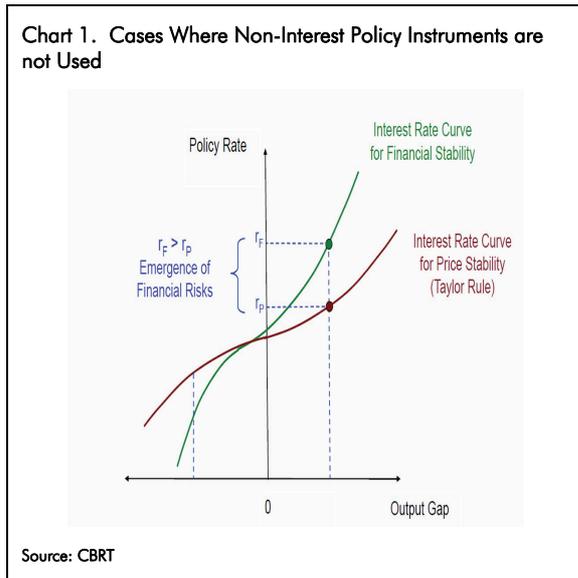
(1) Brazil: Imposed a tax of 4 percent on fixed-rate securities and equity securities purchases (March 2008- 1.5 percent, October 2009-2 percent, and October 2010-4 percent). Thailand: Imposed a withholding tax of 15 percent on income from domestic bonds purchased by foreign investors. Even if taxing capital flows cannot be used directly as a macro-prudential instrument for financial stability, it may contribute to financial stability through its potential impact on the composition of capital flows.

(2) Colombia: Introduced a minimum time frame for foreign direct investments to stay within the country, however it was removed in October 2010. Taiwan: Introduced limitations on short-term deposit accounts opened by non-residents. Indonesia: Introduced a rule that residents and non-residents shall keep the bonds that they purchase from the central bank for a period of one-month. India: Introduced limitations on foreign borrowing.

(3) Covers 2008 and before and comprises either lifting or easing control over transactions of residents abroad (IMF, 2010b). Another policy instrument that can be used to decrease net capital flows at times of strong capital inflow is to ease controls over capital outflows.

IV.3 Required Reserves as a Macroprudential Policy Instrument

Within the framework of the inflation targeting regime, the primary objective of central banks is to establish and maintain the price stability. To this end and in line with the classical Taylor Rule (1993), central banks use the policy rate as the primary instrument. The Taylor Rule defines the nominal interest rate as a function of divergence of the actual inflation rate from its targeted level and output gap. Therefore, the rule helps in determining the interest rate necessary to attain the inflation target. On the other hand, interest rates are also the primary determinants for other factors such as credit growth, asset prices and the current account deficit important for financial stability. Thence, parallel to the Taylor Rule, which gives the interest rate necessary for price stability, an interest rate necessary for financial stability can also be determined. However, the interest rate necessary for price stability in the economy may not always be compatible with the interest rate necessary for financial stability. The interest rate policy which keeps inflation under control in the periods of rapid economic growth may not be able to prevent the emergence of financial risks. On the other hand, in case of a deep recession, in order to establish price stability an interest rate may be required that is higher than the rate necessary for financial stability (Chart 1). In both cases, policy instruments other than the interest rate may be needed to make sure policy rate achieve both price and financial stability. Using the aforementioned instruments would narrow the margin between the interest curves that ensures both price and financial stability by flattening them and in this way contribute to serving both objectives (Chart 2).



In this framework, required reserves are deemed to be an effective policy instrument for establishing financial stability. As is known, the required reserve implementation foresees that a certain ratio of some of the basic sources that the banks can use for lending shall be kept at the central bank reinforcing the central bank's control over domestic money supply and liquidity management. Moreover, the implementation also functions to adjust credit volume by changing the amount of loanable funds of banks and reducing volatility in short-term interest rates. Due to their above-mentioned functions, required reserves can be used both as a monetary policy instrument and a macroprudential policy instrument and contribute to achieving price as well as financial stability.

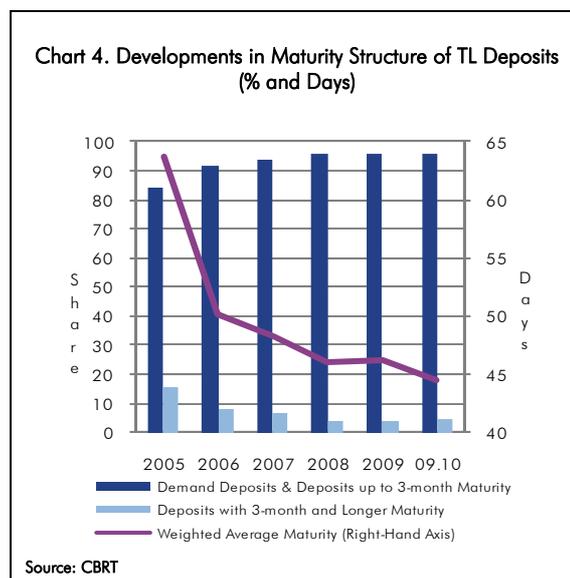
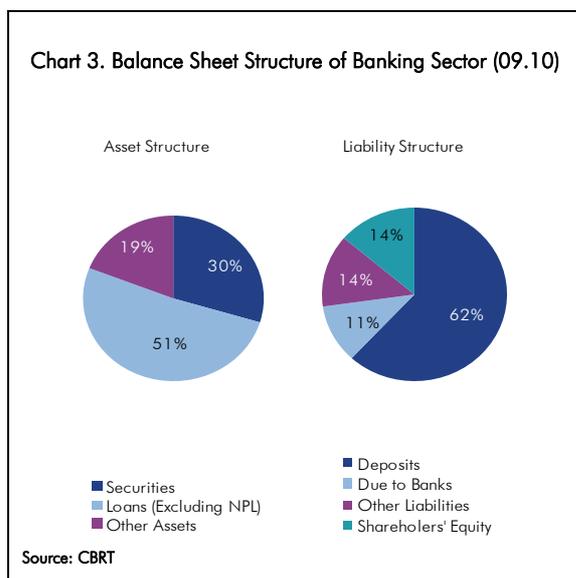
In this respect, from the onset of the crisis, required reserves, which have a direct impact on the amount, have been effectively used to restore financial stability in Turkey. The required reserve

implementation has been set out in CBT's Communiqué No: 2005/1 and the Communiqué stipulates that banks shall maintain 6 percent of the TL-liabilities and 11 percent of FX-liabilities, subject to required reserves at the Central Bank in cash.

As foreign financing facilities of the banking sector became scarce due to the global financial crisis, in addition to other measures, the CBRT reduced the FX required reserve ratio by 2.0 percentage points in December 2008, providing the banking system with additional foreign currency liquidity amounting to approximately USD 2.5 billion as of that period. Moreover, with the aim of supporting the rise in credits in 2009, the Turkish lira required reserve ratio was reduced by 1 percentage point in October 2009, providing the banking system with an additional Turkish lira liquidity of approximately TL 3.3 billion as of abovementioned period.

In the Press Release on the Monetary Policy Exit Strategy of 14 April 2010, it was stated that measures related to foreign exchange liquidity would gradually be taken to pre-crisis levels in an orderly manner as normalization in the global markets became significant and afterwards, parallel to the developments in liquidity conditions and credit markets, the ratios of firstly the FX required reserves and then the Turkish lira required reserves were gradually increased to 11 and 6 percent, respectively, which were the pre-crisis levels. Meanwhile, pursuant to the change made in the required reserve policy on 23 September 2010, the remuneration of Turkish lira required reserves was terminated.

The changes in required reserve implementation have been made with the aim of ensuring the active use of required reserves as one of the tools to reduce the risks that could emerge in the macro-economy, particularly via the current account deficit, and financial markets.



Deposits are the main source of funding for the Turkish banking sector. The total amount of deposits, which was TL 573 billion as of September 2010, comprises 62 percent of total resources. Loans and securities make up the biggest shares in assets with 51 percent and 30 percent, respectively (Chart 3). The ratios of total loans and securities to deposits are 83 percent and 48 percent, respectively. Therefore, the Turkish banking sector is mostly dependent on individual and corporate depositors for obtaining and distributing funds.

However, the ongoing maturity mismatch problem between loans and securities, and the deposits continues to increase. The maturity of Turkish lira deposits, which have gradually been

declining since 2005, decreased to 44 days by September 2010 (Chart 4). This increases the banking system's interest rate and liquidity risks and constitutes a risk to the stability of the financial system. Therefore, with the aim of reinforcing financial stability, within the framework of macro-prudential policy implementation, it is planned to rearrange the required reserves so as to encourage extending the maturities of Turkish lira deposits.

IV.4 Systemically Important Financial Institutions

One of the most important lessons learned from the global financial crisis is that some concrete measures on a national as well as international scale are needed to mitigate the risks created by systemically important financial institutions. There are mainly three widely-accepted criteria for determining the degree of systemic importance of these institutions. These are: size (total of assets and market share), financial interconnectedness (the volume and frequency of transactions made with other financial institutions) and limited substitution opportunities with respect to their function in the financial system (for instance having a high share in the payments system). Due to their above-mentioned characteristics, a problem in systemically important institutions can spread to the entire system and damage the economic activity that is hard to compensate. Actually, the authorities in many developed countries especially the United States, had to provide systemically important financial institutions with unprecedented amounts of financial support from public funds to bail them out. This support deteriorated budget balances in countries that already had high indebtedness ratios and led to new vulnerabilities originating from public finance.

As a consequence of all these developments, one of the main topics on the agenda of the G-20 for reforming the global financial system became formulating special measures to lift the implicit public support guarantee for systemically important financial institutions and erase the “too big to fail” perception among market players. G-20 leaders assigned this agenda topic to the Financial Stability Board (FSB) and asked it to coordinate international studies and draw up a policy framework by November 2010.

Pursuant to the directives of the G20 leaders, the FSB submitted a policy framework to the G-20 leaders suggesting the effective supervisory oversight of systemically important financial institutions, the development of resolution mechanisms, improved loss absorbency capacity for these institutions and the strengthening of the financial market infrastructure. The mentioned policy framework was laid down in the “Reducing the moral hazard posed by systemically important financial institutions – FSB Recommendations and Timeline” document and the document was voted on at the G-20 Summit in the South Korean capital, Seoul, on 11-12 November 2010 and announced on 12 November 2010. The document comprises the FSB’s 51 recommendations and the efforts to be made by member states and international standard-setting bodies, and the deadlines to be finalized. Accordingly, the FSB and national authorities will determine globally systemically important financial institutions (G-SIFI) by using the quantitative and qualitative indicators to be set by international standard-setting institutions, and the Peer Review Council to be established within the FSB will inspect whether the additional measures are implemented in the same way in all countries proportionally to the risks that these institutions pose.

The following are the main items of the policy framework endorsed by FSB members –Turkey included- to reduce the risks posed by systemically important financial institutions functioning nationally or globally:

- Necessary improvements in national bank resolution regimes will be carried out so that all banks can be resolved without destabilizing the financial system and public support;
- Because of the risks they engender, systemically important financial institutions and in particular financial institutions that are globally systemic (G-SIFIs) shall be exposed to a higher loss absorbency capacity than those stipulated in Basel III standards.

- A more intensive supervisory oversight shall be provided for all financial institutions that can pose systemic risk;

- Necessary standards to achieve a robust national financial infrastructure shall be implemented to reduce the contagion risk;

- The appropriateness and consistency of the measures implemented by national authorities of the home country and the host country regarding globally systemically important financial institutions shall be inspected regularly by the Peer Review Council and reported to the FSB;

Additionally, home jurisdictions for global SIFIs (G-SIFIs) should:

- enable a rigorous co-ordinated assessment of the risks that the G-SIFIs cause, through international supervisory colleges;
- make international recovery and resolution planning mandatory for G-SIFIs and negotiate institution-specific crisis cooperation agreements within Cross-border Crisis Management Groups (CMGs);
- subject their G-SIFI policy measures to review by the proposed Peer Review Council.

The national authorities are expected to have completed some studies by the end of 2011 to be able to implement the FSB's policy framework on systemically important financial institutions, the main pillars of which have been mentioned above. The level of completion of these studies and deficiencies that may arise during implementation will be subject of FSB thematic or country peer review assessments and they will also be assessed as part of the IMF/World Bank FSAP.

In Turkey, thanks to the structural reforms made in the aftermath of the 2001 crisis, a sound supervision and oversight structure for the banking system has been achieved and the current resolution regime endows the authorities with detailed and broad powers. Moreover, the financial positions of all banks within the system are subject to on-site and off-site supervision; in case a bank fails to fulfill its obligations, they are warned on time and urged to introduce additional measures.

In the Turkish legislation, there are no special clauses for banks that might be considered as systemically important due to the size of their balance sheet, however the utmost importance is attached to the supervision and oversight of such banks. Besides, in the upcoming period, some steps can be taken regarding systemically important institutions within the framework of our commitments in international platforms and in our country's interests.

Table 1. Timetable for actions regarding FSB Recommendations on Systemically Important Financial Institutions

Action	Responsible	Completed by
Higher loss absorbency		
Studies on additional loss absorbency	BCBS	Mid-2011
Assessment of legal, operational, market capacity and other issues relating to contractual and statutory bail-ins	FSB and members	Mid-2011
Recommendations on additional degree of loss absorbency and instruments	FSB in consultation with BCBS	December 2011
Resolution		
Assessment of SIFI resolvability and needed legal and regulatory reforms	FSB members	March 2011
Formulation of resolvability criteria and key attributes of effective resolution regimes	FSB in consultation with BCBS, IMF, IAIS, IOSCO	Mid-2011
Assessment on the basis of resolvability criteria and key attributes of needed changes and improvements of national resolution regimes and policies	FSB members	End-2011
Thematic peer review on key attributes of effective resolution regimes	FSB in consultation with BCBS CBRG	End-2012
Recommendations on the legal and operational aspects of contractual and statutory bail-ins	FSB working group (to be established)	Mid-2011
Institution-specific cross-border cooperation agreements for global SIFIs	Home and key host authorities of G-SIFIs	End-2011
Report on progress on institution-specific recovery and resolution plans for global SIFIs	FSB Cross-border Crisis Management Group	End-2011
Strengthening SIFI Supervision		
Self-assessments against relevant Basel Core Principles on effective supervision	FSB members	Mid-2011
Self-assessments against relevant IOSCO Core Principles on effective supervision	FSB members	Early 2012
Review of relevant Core Principles relating to supervisory powers, mandates and consolidated supervision	BCBS, IAIS, IOSCO	End-2012
Report on improvements of supervisory colleges	BCBS, IAIS, IOSCO	End-2012
Status report on implementation of SIFI supervisory Intensity and Effectiveness Recommendations	FSB group of senior line supervisors	End-2011
Strengthening Core Financial Market Infrastructures		
Review of standards for financial market infrastructure	CPSS, IOSCO	Early 2011 (consultative report) End-2011 (final report)
Assessment of progress on implementation of FSB OTC Derivatives WG Recommendations	FSB OTC Derivatives WG	March 2011
Peer reviews of G-SIFI policies		
Determination of those institutions to which the FSB G-SIFI recommendations will initially apply	FSB and national authorities, in consultation with the BCBS, CGFS, CPSS, IOSCO and IAIS	Mid-2011
Provisional methodology for assessing systemic importance	BCBS	End-2010 (draft) Early-2011 (finalized)
Evaluation framework for G-SIFI policies	FSB in consultation with standard-setters	End-2011
Establishment of Peer Review Council within FSB	FSB	End-2011
Initial assessment of G-SIFI policies	FSB Peer Review Council	End-2012

IV.5 Developments Regarding Credit Rating Agencies

Rating analysis, which is one of the factors that determine the direction of capital flows in global financial markets, has gained more importance for official authorities and investors as financial markets become complicated and types of instruments and debtors become more diversified. The fact that rating analysis is followed by a broad investor group enables an increase in the number of capital markets and funding facilities that debtors can apply to. Another factor that intensifies the importance of ratings is that the supervisory and regulatory authorities use these ratings as an instrument in international regulations such as the Basel II criteria.

The global financial crisis and the fluctuations in financial markets brought the activities and positions of Credit Rating Agencies (CRAs) into question. Although CRAs provide markets and investors with important information, they have been subject to the serious criticism that they caused the crisis to deepen. The CRAs, which lost part of their reputation after the Asian Crisis of 1997-98, the Enron Scandal of 2001 and the collapse of two American conglomerates, WorldCom and Parmalat, in 2002-2003, were accused of making deficient and inaccurate rating analysis during the sub-prime mortgage crisis, which first started in the USA in 2008, and spread globally to the current financial crisis in the EU.

The primary criticism against CRAs is that they downgrade ratings after the crisis. Making adjustments in countries' ratings during the course of the crisis especially fuels concerns over the accuracy and stability of rating practices.

Another criticism against CRAs is that they are either over-optimistic or over-pessimistic in their rating criteria and ratings. In the aftermath of the financial crisis in the EU, the investment grades of some countries with a quite unfavorable economic outlook were still kept positive after downgrading their ratings, while the ratings of some countries, which were less affected by the crisis and have a more favorable economic and financial stability outlook, are still kept low. In fact, this situation, which can be regarded as a dilemma, can be clearly observed in country CDS premium levels that price the credit and collapse risk in the market (Chart I.7).

As CRAs generate most of their income from governments and companies that issue securities and thus request ratings from CRAs, some market participants claim that CRAs can make biased and inaccurate ratings for the sake of safeguarding their business relations. Moreover, the fact that these agencies can provide consultancy services for the companies they produce ratings for, increases the risk of abuse and conflict of interest.

The intense criticism of CRAs creates the need for them to be legally liable for the ratings they apply and to be under constant supervision. In this respect, focusing on oversight and transparency, many countries started to take the necessary steps to develop a regulatory framework for CRAs.

In the USA, regulations for CRAs started to be implemented before the crisis. The U.S. Credit Rating Agency Reform Act, which was enacted in 2006, endowed the U.S. Securities and Exchange Commission (SEC) with the authority to regulate credit rating agencies. With the act in question, the SEC aims to prevent a likely clash of interests and to enhance transparency and information standards for the rating process.

At international level, arrangements related to CRAs were addressed in G-20 meetings. G-20 leaders, who gathered in London in 2009 decided that a regulatory supervision regime including CRAs' registry operations would be established by the end of 2009 and that the said regime would comply

with the Main Code of Conduct of the International Organization of Securities Commission (IOSCO). Following the G-20 meeting, enhancement of the oversight and supervision of CRAs started to be addressed through national and regional initiatives. The European Union (EU) enacted a new law on the oversight and supervision of CRAs in December 2009. With the new law, it was decided that all CRAs operating in the EU would be registered and supervised by the Committee of European Securities Regulators (CESR). In June 2010, the European Commission drew up a draft that granted a special supervisory authority to the European Securities and Market Authority (ESMA) for the centralization of supervision of CRAs, which was being carried out at national level. It was stipulated in the draft that the ESMA would be authorized to request information, open an investigation and carry out on-site supervision.

Another source of criticism, which national and international authorities are trying to find a solution to, is the dependency upon rating-based regulations. The high dependency on the ratings of CRAs in internal evaluations used in the calculation of capital adequacy in Basel II gave rise to intensive efforts for the settlement of this issue in Basel III. Within this framework, parallel to the declaration of the G-20 meeting held in Toronto in June 2010, the Financial Stability Board (FSB) started to work on a draft to reduce the dependency on external ratings in regulations. In the following period, the Dodd–Frank Wall Street Reform and Consumer Protection Act took effect in the USA and reforms aimed at CRAs were introduced. It is indicated in the Law that the dependency of supervision agencies on CRAs while rating their security issues, might be reduced by alleviating some of the legal obligations promoting the use of credit ratings.

The significance of credit rating agencies is obvious for the sound functioning of financial markets. However, experiences of crises indicate that these agencies somehow contribute to the deepening of crises and financial instability due to problems originating from their current status and way of functioning. In this context, recent arrangements and studies for the decentralization of these agencies are considered to be favorable steps.

IV.6 Basel III Reform Measures

Following the latest global crisis, the Basel Committee on Banking Supervision, which our country is also a member of, embarked on regulatory works to improve the banking sectors' ability to absorb shocks and strengthen their capital. Following these works, documents called Basel III were published. The basic principles of the new regulations to be adopted within a certain timetable are stated below.

Capital Adequacy, Main Elements of Capital

The changes in the regulation of capital adequacy in Basel III target the improvement of the quantity and quality of capital besides the building up of a capital buffer depending on the phase of the economic cycle. With the regulations, the core Tier I capital ratio, which consists of paid capital that has a higher loss absorbency capacity and retained earnings, was raised from 2 percent to 4.5 percent and the Tier I capital ratio was increased from 4 percent to 6 percent. Contrary to previous standards, with the new regulations, it is envisaged that some items that used to be deducted from the capital are to be directly deducted from the core Tier I capital for the calculation of the capital adequacy ratio.

Basel III reform measures change not only the definition and amount of capital, but also the calculation of risk-weighted assets in the denominator of the capital adequacy ratio. In this context, the capital requirement regarding the trading accounts and securitization transactions has been increased and some changes were introduced in the calculation of counterparty credit risk.

Another new concept introduced with Basel III reform measures is the capital conservation buffer. The conservation buffer shall be added to the core Tier I capital, Tier I capital and the capital adequacy ratios to serve as precautionary capital. When the conservation buffer is included in calculations, the core Tier I capital ratio, the Tier I capital ratio and the capital adequacy ratio will increase to 7 percent, 8.5 percent and 10.5 percent, respectively. If the conservation buffer cannot be ensured, banks can continue to operate; however, constraints on profit distribution shall be introduced.

With the new regulations, in addition to the conservation buffer, a countercyclical capital buffer was introduced ranging between 0 and 2.5 percent according to national circumstances and the decisions to be taken by the relevant authority with a view to alleviating the economic counter-cycles in periods of excess credit growth. This capital buffer is aimed at hindering excess credit growth.

A long period of transition was envisaged to limit the adverse effects of the new regulations on the global economy and the changes related to the definition of capital and the ratios are planned to be fully effective as of the start of 2019 (Table 1).

Table 1. Timetable for Basel III Implementation

Ratios (%)	Current	2013	2014	2015	2016	2017	2018	2019
Core Tier I Capital Ratio	2.0	3.5	4.0	4.5	4.5	4.5	4.5	4.5
Tier I Capital Ratio	4.0	4.5	5.5	6.0	6.0	6.0	6.0	6.0
Capital Adequacy Ratio	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Capital Conservation Buffer					0.625	1.250	1.875	2.5
Core Tier I Capital + C. Buffer		3.5	4.0	4.5	5.125	5.750	6.375	7.0
Tier I Capital + C. Buffer		4.5	5.5	6.0	6.625	7.250	7.875	8.5
Capital Adequacy Ratio + C. Buffer		8.0	8.0	8.0	8.625	9.250	9.875	10.5

The Turkish banking system has a lower share of subordinated debt within equity capital, while that of quality capital, which consists of paid capital and retained earnings with high capacity of loss absorbency, is high. Contrary to the banking systems of developed countries, the differences among Turkey's capital adequacy ratio, Tier I capital and core Tier I capital ratios are less. Therefore, the new regulations in capital introduced by Basel III will be much more demanding for the banking systems of developed countries. Coupled with the changes in the quality of capital, the greater loss absorbency capacity of equity capital items included in the calculation of the capital adequacy ratio will greatly contribute to global financial stability.

Leverage Ratio

The recent crisis indicated that the countries' banking systems have high levels of on-balance sheet and off-balance sheet debts. It also indicated that the high risk-weighted capital adequacy ratios of banks might not be sufficient indicators of their resilience. Therefore, in Basel III rules, a non-risk-based leverage ratio regulation was covered. This is aimed at both supporting the risk-focused capital adequacy approach and hindering the debt ratios of banks.

Considering the results of quantitative impact studies and the sector's views, the Committee decided that the leverage ratio would be calculated by dividing common equity, calculated according to the new definition laid down by Basel III, by the sum of off-balance sheet items considered by certain conversion rates and the assets. The leverage ratio is envisaged as 3 percent minimum and a gradual transition period is planned. The leverage ratio, which is planned to take effect on 1 January 2018, will be subject to tests and calibrations in the transition period. It is also aimed to assess the extent of achievements in targets with the leverage ratio. Equity capital has a high weight within balance sheets in the Turkish banking sector and our banks operate with a low leverage ratio. In this context, we do not expect significant troubles in the adoption of the aforementioned regulations.

Global Liquidity Ratios

In line with the lessons we have learnt from the recent global crisis, the Basel Committee tries to develop global liquidity ratios for international banks. The purpose of these ratios is to globally harmonize the supervision of liquidity risk and to enhance its resilience.

The introduction of two ratios as global liquidity ratios is planned. Firstly, according to the Liquidity Coverage Ratio (LCR), banks will be required to hold an adequate level of unencumbered assets with high liquidity to meet their liquidity needs over a period of 30 days under a determined liquidity stress scenario. According to this ratio, the ratio of liquid assets to the net cash outflows to be made within 30 days needs to be 100 percent or above. The numerator of the ratio is obtained by applying certain discount rates to the value of assets defined as liquid assets. Liquid assets consist of cash, due from the central bank, government debt securities and securities under state guarantee, high quality corporate sector bonds and bills and asset-backed securities. In the denominator of the ratio, haircuts are applied to cash inflows emanating from on-balance sheet and off-balance sheet transactions and expected to realize within 30 days, while run-off rates are applied to cash outflows emanating from on-balance sheet and off-balance sheet transactions and are expected to realize within 30 days. Net cash outflows are obtained by subtracting the amount that is obtained by multiplying the cash inflows with the aforementioned ratios from the sum that is obtained by multiplying the cash outflows with the aforementioned ratios.

In addition to the liquidity coverage ratio, a second ratio called the Net Stable Funding Ratio (NSFR) was developed to underpin LCR, to contain structural liquidity mismatches and maintain core funding above a certain level. According to the NSFR, the ratio of a bank's available amount of stable funding to the required amount of stable funding should be greater than 100 percent. The amount of available stable funding consists of the sum of capital, liabilities with an effective maturity of more than one year, demand deposits, and a certain portion of retail deposits with maturities of less than one year and wholesale funds with maturities of less than one year. The required amount of stable funding, on the other hand, is calculated by classifying the assets from the most to the least liquid ones and subjecting them to certain haircuts. For example, while a 5 percent required stable funding factor is applied to government debt securities, 100 percent required stable funding factor is applied to tangible fixed assets. The amount of required stable funding includes the amount of required stable funding arising from off-balance sheet activities as well.

The timetable for the adaptation process of the aforementioned ratios has been scheduled. It has been decided to start information-based reporting as of 1 January 2012 for both ratios and to adopt the ratios as a requirement by 1 January 2015 for LCR and by 1 January 2018 for NSFR.

IV.7 Financial Awareness and Financial Education

Products and services are constantly getting more diversified in financial markets. This offers a great range of alternatives to individuals in decisions of investment, consumption and savings, while raising the risks taken by individuals. Meanwhile, changing social and demographic conditions require each individual of all ages and income groups to become more informed about financial issues in all aspects of their lives. When combined with poor levels of financial education, all these bear doubts about the extent of the awareness of individuals regarding the risks and decisions they take.

In this regard, the significance of raising “awareness” in financial matters and offering “financial education” to individuals comes to the forefront. Financial education provides individuals with information on financial products and services and thereby enhances the effective use of financial products.

Considering that the financial sector is still developing in our country and that our debt ratio is lower than in many countries, handling financial education in this phase will greatly contribute to the sound growth of the financial sector. For example, in view of their effect on the debt ratio of households, all types of monetary liabilities to be collected, commissions to be paid, account operating fees and interest rates on deposit accounts with overdraft facilities for banking transactions should be made clear in contracts to be made prior to opening accounts. This shall serve the benefit of individuals as well as the whole system as customers will be aware of the monetary liabilities they assume and understand the operations they undertake with the bank, and have information on the applications of the bank in a competitive environment.

Financial education not only increases the welfare of individuals, but also contributes to the increase in the social welfare and more efficient functioning of the financial markets, and thereby to the achievement of financial and economic stability. As a matter of fact, the concepts of financial stability and financial education are closely related. This is the point where the role of the central bank comes to the forefront with regard to financial education.

Nowadays, many central banks consider financial stability as a supplementary objective besides the primary objective of price stability. This objective is set down in the laws of some of the central banks including the Central Bank of the Republic of Turkey. Thus, central banks stand in the forefront regarding studies on financial education in various ways and dimensions due to legal liabilities on the one hand; and the close relationship between financial education and financial stability on the other.

Meanwhile, the recent global crisis clearly underlined the importance of financial education and its relationship with financial stability. Following the crisis, studies on financial education were conducted both on national and international platforms.

As a result of the concerns raised by its members regarding the negative effects of poor levels of financial education, the OECD launched studies on financial education in 2003. The OECD now conducts studies in three main areas, such as analytical research and analysis publications on financial education, the establishment of principles and standards and the improvement of international cooperation. The OECD has two important applications regarding the improvement of international cooperation. The first of these is the web-site, the “International Gateway on Financial Education”, established in 2008 (www.financial-education.org). The second is the international working group called INFE (International Network on Financial Education), consisting of experts on financial education

who work in the public sector. INFE, which has held two meetings since its establishment in 2008, has more than 135 members from 68 countries including Turkey.

An analysis of studies conducted by various countries on financial education suggests that many studies have been undertaken in this area for a long time; however, efforts to establish a “financial education national strategy” have recently gained importance in a gradually increasing number of countries.

The Czech Republic embarked on studies to establish a financial education national strategy in 2005. The strategy is directed by the Undersecretariat of Treasury; while the Czech National Bank and the Ministry of Education share the responsibility regarding the studies. A policy framework of three pillars, one of which is financial education, was declared in the country by the Undersecretariat of Treasury in 2007. This framework was updated in 2010 and the five-year national strategy designed for financial education was approved by the Czech Republic.

In Australia, national coordination of financial education is conducted by the “Australian Securities and Investments Commission (ASIC)”. Australia embarked on studies on national strategy at the start of 2009. In this context, the ASIC holds monthly meetings with shareholders and organizes quarterly meetings with the “Financial Literacy Board” operating under the Australian government, to which it provides secretarial services. Moreover, the ASIC founded a National Education Reference Group consisting of officials from the Education Department, non-governmental organizations and consumer associations for the exchange of information and advice regarding financial literacy in schools.

In South Africa, financial education is a part of the regulations regarding the protection of consumers and the “Financial Services Board – FSB” is in charge of national coordination. Studies to establish a national strategy were launched in 2008 and the strategy is planned to be effective in 2011.

Studies on financial education in the United Kingdom date back compared to other countries. A Steering Group for Financial Capability was started in November 2003 with a view to raising public awareness regarding financial services that are mentioned in the law of the “Financial Services Authority (FSA)”, which is the inspection authority”. A survey was done in 2006 to estimate the level of financial education and the existing national strategy was formed in March 2006. A joint working plan with the Treasury was declared in 2008. The “Consumer Financial Education Body (CFEB)” was founded in April 2010, responsible for the national strategy of the United Kingdom.

In 2002, within the context of studies on financial education, the Office of Financial Education was founded in the United States of America (USA) under the US Treasury. In 2003 the US Congress established the “Financial Literacy and Education Commission (FLEC)”. The Commission is supported by the US Treasury and consists of 22 member institutions including the Federal Reserve. After issuing a national strategy in 2006, the Commission reviewed and updated this strategy in 2009 and issued its strategy for 2011.

Studies on financial education at various platforms are carried out in the European Union as well. In December 2007 the European Commission published a communiqué on financial education to define some basic principles besides future plans. The “Expert Group on Financial Education (EGFE)” which was founded in 2008 holds regular meetings with its 25 members and continues to conduct studies on financial education such as national strategies, financial crisis and financial education, financial education in schools and pension funds. Moreover, a “European Database for Financial

Education” was set up on the European Commission web-site in 2009 to provide information on financial education programs offered by the public and private sector in the European Union.

As a matter of fact, due to the cultural, economic and social differences among countries, there is no one single strategy that would be suitable for each country and in every situation. However, various country samples and studies of international organizations constitute remarkable guidelines for every country to design its own financial education strategy.

Institutions in Turkey attach importance to the issue of financial awareness and financial education as well. Both with regard to their duties and responsibilities and in the context of social responsibility projects, many of our institutions conduct studies in various fields independently from each other. Meanwhile, considering the importance of this issue with regard to the benefits it will generate in individual and social respects, it is clear that financial education requires a national policy framework. In this respect, there is a need to create a “financial education national strategy” with the cooperation and the know-how to be offered by all relevant institutions in order to raise nationwide financial awareness and to enhance the efficiency of financial education studies.

The Central Bank of the Republic of Turkey, beyond the meaning it bears as a concept, supports and actively continues to cooperate with the relevant institutions and organizations for studies in the national and international arena regarding financial education as they are closely related to financial stability.