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GLOBAL FINANCIAL CRISES AND STABILITY IN ASIA

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ABSTRACT

Recently the International Monetary Fund has highlighted risks of a new financial crisis, cautioning that global output could be cut by 3.9% over the next five years by a repeat of the market turmoil witnessed during the 2008-09 recession. The emergence of new shocks such as U. S. monetary policy tightening; adoption of negatives interest rate policies by European central banks, Bank of Japan, and the sharp drop in oil and other commodity prices have highlighted the vulnerability of economies across the globe to volatile capital flows and trade related shocks. The East Asian financial crisis in 1997 and the global financial crisis in 2008 compelled the world community to devise the ways to avert or at least mitigate the impact of such financial crises in future. The efforts in this direction have been made by improving the macro-prudential policy underpinning the supervisory and regulatory framework for financial markets both at individual economy level and multilateral institutions level.

This paper discusses the financial crisis of 1997 in the East Asia and the global financial crisis of 2008 in context of the causes responsible and the lessons learnt. The paper then take a look on supervisory and regulatory framework adopted in Asia keeping in view the two financial crises. The improvement in the financial stability in the Asian region is assessed of the basis of certain stability measures. The paper finally assesses the vulnerability to such crises in future in Asian region.

KEYWORDS:
Financial stability, global financial crisis, macro-prudential policy, financial regulations and supervision

JEL classification Number:
G 01, G 28, F 55

I. INTRODUCTION

The financial crises cause the loss of output and employment in the affected economies. The global financial crisis (GFC) 2008 affected the economies world over. The East Asian crisis, 1997 severely affected the economies in the region and billions of dollars were doled out by the IMF to bail out these economies from the crisis. The output declined up to 13% in some of the affected economies. It took a number of years for affected economies to reach the pre-crisis level. The currencies of the affected economies were collapsed during the crisis.

The affected economies may take several years in recovering from the recession depending on the severity and the strategy adopted to tackle the crisis. It also takes huge taxpayers' money in bailing out the economies from crises. The global financial crisis-2008 almost brought down the world's financial system. Some economies in Euro zone could not reach the pre-crisis level even after 5 years.

Recently the IMF has highlighted risks of a new financial crisis, cautioning that global output could be cut by 3.9% over the next five years by a repeat of the market chaos witnessed during the 2008-09 recession. The emergence of new shocks such as U. S. monetary policy tightening; adoption of negatives interest rate policies by European central banks, Bank of Japan, and the sharp drop in oil and other commodity prices have highlighted the Asian region's vulnerability as well to volatile capital flows and trade related shocks.

This Paper reviews the improvements in macro-prudential policies and institutional arrangements in the Asian region in response to the Asian Crisis of 1997 and the global financial crisis (2008) and preparedness of the economies to tackle such crisis in future. The Paper also examines the two financial crises keeping in mind the causes and impact of the crises. This study has following objectives:

1. To analyse the past two financial crises, namely- The East Asian Financial Crisis, 1997 and the Global Financial Crisis, 2008.
2. To study macro-prudential policy underpinning the regulatory and supervision arrangements made in Asian countries in response to the aforesaid financial crises.
3. To study the initiatives taken on multilateral or regional basis in Asia in context of financial stability.
4. To assess the improvement in financial stability in Asian region attendant to macro-prudential policy adopted in response to the financial crises.

The Paper is organised as follows. Section II examines the East Asian Crisis of 1997 and the factors that caused the financial crisis. Section III discusses the global financial crisis (2008) and its impact on Asian economies. The financial regulations and supervision norms adopted by the G-20 Members in response the global financial crisis are given in Section IV. Section V describes improvements in financial regulations and supervision in Asia economies after the global financial crisis; and it also discusses institutional arrangements for macro-prudential policy in Asian economies on regional/ multilateral level. Section VI reviews the financial stability position in Asian economies. Section VII concludes the Paper and makes suggestions in context of macro-prudential policy in Asian economies.

II. ASIAN FINANCIAL CRISIS, 1997

The Asian Tiger economies had been growing at rates of 5 to 10 percent per year for a decade before the crisis. They were opening up their economies to foreign direct investments, foreign goods and services, capital flows, and were relying heavily on dollar markets, particularly the U.S., to absorb their exports. The currency exchange rates were kept in quite close alignments with the U.S. dollar or a basket of currencies dominated by the dollar so as to attract inward foreign investments and facilitate capital inflows.

The financial services sector in most of these newly industrialised countries had been developing rapidly. But, there was lack of sufficient regulations, oversight, and government controls. The financial crisis in East Asian region started in currency markets, but this exchange rate instability was caused principally by the problems in banking sectors of these countries.

The Asian meltdown began on 5 February, 1997 in Thailand. On this date the Somprasong Land, a Thai property developer, announced that it had failed to make a scheduled $ 3.1 million interest payment on an $ 80 billion euro bond loan, in effect entering into defaulting.

In the consequences, it became evident that not only were several other property developers sitting on the brink on default, so were many of the country's financial institutions, including Finance One, the country's largest financial institution.

The Thai government stooped to the unavoidable circumstances and on 2 July, 1997 announced that they would allow the Baht to float freely against dollar. Following the devaluation of the Thai Baht, the wave after wave of speculation hit other Asian currencies. Malaysia let its currency, the Ringgit, float on July 14th, 1997. Singapore followed on July 17th, 1997. Indonesia Rupiah was allowed to float on August 14th, 1997. With the exception of Singapore, whose economy was probably the most firm in the region; these devaluations were driven by similar factors to those that caused the earlier devaluation of the Thai Baht. The factors included combination of excess investment, high borrowings, much of it in dollar denominated debt, and a deteriorating balance of payments position.

The collapse of the Thai Baht was followed by an unmatched financial crisis in East Asia. A huge amount of efforts has been devoted by the economists in trying to understand its causes.

The inefficient lending and borrowing practices of banks and finance companies in the affected economies were principally responsible for the difficulties. Companies in Asia had a tendency to rely more on bank borrowing to raise capital that on issuing the bonds or stocks.

Radelet and Sachs (1998) pointed out that East Asian financial institutions had accumulated a significant amount of external liquid liabilities that were not entirely backed by liquid assets, making them exposed to panics. There was problem of maturity transformation. A maturity transformation allows banks to accept deposits with short maturities to finance loans with longer maturities. The short-term loans had fallen due before projects were operational or before they were generating enough profits to enable repayments to be made.

Consequent to the maturity transformation, some otherwise solvent financial institutions may in fact have been rendered insolvent because they were unable to deal with the sudden disturbance in the international flow of funds caused by mal-practices of otherwise financially unstable firms/ institutions.

Since the impact of the crisis varied significantly across economies, it seems that above narrative is not complete in itself. The investors tested currency pegs and financial systems in the region, and consequently, the economies with the most vulnerable financial sectors (Indonesia, South Korea and Thailand) have experienced most severe crisis. In comparison, the economies with more robust and well capitalised financial institutions (such as Singapore) have not experienced similar disruptions, in spite of slowing activity and declining assets values.

A tendency not to hedge foreign currency borrowings in countries with pegged exchange rates enhanced financial sector vulnerability. The absence of hedging also furthered to the instability in Asian financial markets as the crisis hit.

A number of East Asian economies that experienced financial crisis had two descriptions in common. First, financial intermediaries were not always free to use efficient criteria in allocating credit. Second, financial intermediaries or their owners were not expected to bear the full costs of failure, thus fading the incentives to manage risk effectively (Ramon Moreno, 1998).

At the outset of crisis, it seemed that Korea would remain unaffected from the currency turmoil sweeping through the region. However, underneath the surface, Korea also had serious problems.

As crisis spread-out, most Japanese felt that it would not affect them. Thailand had more than half of its total foreign lending from Japanese banks. The confidence of Japan was finally taken aback on November 3, 1997, when Sanyo Securities, the nation's seventh largest stock brokerage firm announced that it would file for bankruptcy.

The Asian financial crisis has been the largest test for the IMF since the Latin America debt crisis of the 1980s. The IMF doled out billions of dollars to these economies in bailing them out. Table 1 gives account of impact of the crisis in the Asian region. The real GDP declined in 1998 by 13.1% in Indonesia, 7.6 % in Thailand, 7.4% in Malaysia, 5.9% in Hong Kong, 5.7 % in South Korea, 2.2% in Singapore and 2.0% in Japan. The stock markets tumbled across the Asia.

The crisis was a lesson for these countries and others. It gave Asian countries an incentive to reform the economic system, and to initiate much needed structuring. There is need to develop macro-prudential policy which would ensure a greater ability to attain sustainable economic growth.

Table 1 Asian Financial Crisis (1997) Impact

Economy	Real GDP Growth (%)				Official Exchange Rate (LCU/$)				Stock Market Index			
	1996	1997	1998	1999	1996	1997	1998	1999	1996	1997	1998	1999
Bangladesh	4.5	4.5	5.2	4.7	41.8	43.9	46.9	49.1	---	-67.7	-38.5	-17.5
China	9.9	9.2	7.9	7.6	8.31	8.39	8.28	8.28	36.3	-25.0	-52.6	102.2
Georgia	11.2	10.5	3.1	2.9	1.26	1.30	1.39	2.02	18.0	28.0	25.2	20.1
Hong Kong	4.3	5.3	-5.9	2.5	7.73	7.74	7.75	7.76	34.7	-21.9	-14.2	58.2
India	7.5	4.6	6.2	8.8	35.4	36.3	41.3	43.1	-2.0	5.8	-23.0	81.0
Indonesia	7.6	4.7	-13.1	0.8	2342	2909	10013	7855	16.4	-73.6	-28.6	95.1
Japan	2.6	1.6	-2.0	-0.2	108.8	121.0	130.9	113.9	-13.0	-29.8	2.7	53.3
Korea	7.2	5.0	-5.7	10.7	805	951.3	1401	1188	-38.7	-68.9	120.7	106.5
Malaysia	10.0	7.3	-7.4	6.1	2.52	2.81	3.92	3.80	24.1	-72.9	-2.9	44.5
Pakistan	4.8	1.0	2.6	3.7	36.08	41.11	45.05	49.50	-19.3	26.9	-61.9	37.5
Philippines	5.8	5.2	-0.6	3.1	26.22	29.47	40.89	39.09	13.1	-61.6	9.2	0.9
Singapore	7.5	8.3	-2.2	6.1	1.41	1.48	1.67	1.69	1.2	-46.9	-3.5	51.3
Sri Lanka	3.8	6.4	4.7	4.3	55.27	58.99	65.45	70.64	-8.6	22.3	-29.2	-6.0
Thailand	5.7	-2.8	-7.6	4.6	25.34	31.36	41.36	37.81	-41.1	-78.8	34.3	42.3

Source: World Bank Data

III.GLOBAL FINANCIAL CRISIS, 2008

The collapse of Lehman Brothers, an extensive global bank, in September 2008, almost brought down the world's financial system. The crisis occurred owning to multiple causes, main being the financiers themselves. Northern Rock, a British mortgage leader, was an early casualty in the autumn of 2007.

The financial crisis occurred because banks were able to create too much money, too rapidly, and it was used to push up house prices and speculate on financial markets. After the crisis, banks refused to lend, and the economy shrunk.

The former chairman of the U.K.'s Financial Services Authority, Lord Adair Turner stated in February 2013, "The financial crisis of 2007-2008 occurred because we failed to contain the financial system's creation of private credit and money".[1]

There was a flood of irresponsible mortgage lending in America in the years preceding the crisis. Loans were provided to sub-prime borrowers with poor credit records who struggled to repay them. The financiers passed on these mortgages on to financial engineers at the big banks, who turned them into supposedly low risk securities by putting large numbers of them together in pools. The working of pooling is conditional. Pooling works when the risks of each loan are uncorrelated. The big banks argued that the property markets in different American cities would rise and fall independently of each other. But this proved wrong and consequently, starting in 2006, America suffered a nation-wide house price slump.[2]

Though the financiers were principally responsible for the crash, bankers were also to be blamed for the crisis. Central banker and other regulators also failed in their responsibility.They mishandled the crisis, failed to keep economic imbalances in check and failed in exercising proper oversight of financial institutions.

The regulators' most dramatic error was to let Lehman Brothers go bankrupt. This multiplied the panic in markets.[3]

Before the Lehman bankruptcy, the regulators made mistakes most notably by tolerating global current account imbalances and the housing bubbles that they helped to inflate. The inflow of savings from Asia and European region in America was also blamed for the crisis. Central bankers had long expressed concerns about America's big deficits and offsetting capital inflows from Asia's excess savings. It is argued that the bankers focussed on net capital flows from Asia, but left a blind eye for much bigger gross capital flows from European banks. They bought lots of risky American securities, financing their purchases in large part by borrowing from American money market funds.

But, there are some who do not blame the world savings inflow into America for the crisis. The research by Hyun Song Shin, an economist at Princeton University, finds that the glut which caused American's loose credit conditions before the crisis was in global banking rather than in world savings.[4]

There was lack of proper regulatory framework. The Basel Committee did not make any rules regarding the share of a bank's assets that had been liquid. No mechanism was set up to allow a big international bank to go burst without causing the rest of the system to confiscation.

Almost all countries in Asia experienced decline in real GDP growth along with decline in domestic currency value. Stock markets slumped across the globe during the crisis. The impact of the Global Financial Crisis on the Asian economies is shown in Table 2.

Table 2 Global Financial Crisis (2008) Impact

Economy	Real GDP Growth (%)				Official Exchange Rate (LCU/$)				Stock Market Index			
	2008	2009	2010	2011	2008	2009	2010	2011	2008	2009	2010	2011
Bangladesh	6.0	5.0	5.6	6.5	68.60	69.04	69.65	74.15	4.3	38.6	37.6	-42.3
China	9.6	9.2	10.6	9.5	6.95	6.83	6.77	6.46	-52.7	66.3	6.9	-21.7
Georgia	2.3	-3.8	6.3	7.2	1.49	1.67	1.78	1.69	--	--	--	--
Hong Kong	2.1	-2.5	6.8	4.8	7.79	7.75	7.77	7.78	-53.9	67.1	21.3	-20.2
India	3.9	8.5	10.3	6.6	43.51	48.41	45.73	46.67	-64.1	94.1	18.7	-38.0
Indonesia	6.0	4.6	6.2	6.2	9699	10390	9090	8770	-61.1	130.1	37.9	1.1
Japan	-1.0	-5.5	4.7	-0.5	103.4	93.6	87.8	79.8	-27.7	16.4	9.6	-12.2
Korea	2.8	0.7	6.5	3.7	1102	1227	1156	1108	-55.6	67.2	25.3	-10.9
Malaysia	4.8	-1.5	7.4	5.3	3.34	3.52	3.22	3.06	-43.7	46.7	35.1	-1.1
Pakistan	1.7	2.8	1.6	2.7	70.41	81.71	85.19	86.34	---	56.7	15.3	-18.8
Philippines	4.2	1.1	7.6	2.7	44.32	47.68	45.11	43.31	-53.7	71.5	56.7	0.2
Singapore	1.8	-0.6	15.2	6.2	1.41	1.45	1.36	1.26	-52.9	76.7	18.4	-23.0
Sri Lanka	6.0	3.5	8.0	8.4	108.3	114.9	113.1	110.6	---	118.0	84.6	-23.0
Thailand	1.7	-0.7	7.5	0.8	33.31	34.29	31.69	30.49	-50.5	72.8	52.1	-4.7

Source: World Bank Data

IV. FINANCIAL REGULATIONS AND SUPERVISION IN THE G-20

After the global financial crisis (2008), initiatives to improve the regulation and supervision of financial system have been taken on multilateral and regional basis by world economic community. Some of them undertaken in G-20 countries are mentioned below:

(i) The Basel Committee on Banking Supervision

The G-20 approved the new Basel III requirements for liquidity and capital in their November 2010 summit in Seoul. Basel III was developed in response to the deficiencies in financial regulation exposed by the global financial crisis of 2008. Basel III is a comprehensive set of reform measures, developed by the Basel Committee on Banking Supervision, to strengthen the regulation, supervision and risk management of the banking sector. These measures aim to[5]:

(i) improve the banking sector ability to absorb shocks arising from financial and economic stress, whatever the source,
(ii) improve risk management and governance, and
(iii) strengthen banks' transparency and disclosures.

The reforms target:

(i) Bank level or micro-prudential regulation which will help in enhancing the resilience of individual banking institutions to period of stress.
(ii) Macro-prudential system wide risks that can build across the banking sector as well as the pro-cyclical amplification of risks over time.

These two approaches to regulation and supervision are harmonizing as greater resilience at the individual bank level reduces the risk of system wide shocks.

The Basel Committee on a regular basis updates the G-20 on member jurisdictions' progress towards implementing the Basel III standards. The reports prepared by the Committee for G-20 include information on the Committee's efforts to improve consistency in reported prudential capital ratio across the banks and jurisdictions, the harmonisation of regulations across member jurisdictions, finalisation of remaining post crisis reforms that form part of the Basel regulatory framework and steps being taken to reduce variance in implementation practices. Table 3 describes the phase in requirements for member countries' banks.

Table 3 Basel III Phase-in Requirements

Requirement	2013	2014	2015	2016	2017	2018	2019
Leverage ratio	Parallel run Jan 2013- Jan 2017 Disclosure starts 1 Jan 2015					Migration to Pillar I	
Minimum Common Equity Capital Ratio	3.5%	4.0%		4.5%			4.5%
Capital Conservation Buffer				0.625%	1.25%	1.875%	2.5%
Minimum common equity plus capital conservation	3.5%	4%	4.5%	5.125%	5.75%	6.375%	7.0%
Phase in of reductions from CET1		20%	40%	60%	80%	100%	100%
Minimum Tier1 capital	4.5%	5.5%	6%				6%
Minimum total capital		8%		8.625%	9.25%	9.875%	10.5%
Liquidity coverage ratio			60%	70%	80%	90%	100%
Net safety funding ratio						Introduce minimum standard	

Source: Bank for International Settlements

(ii) The Committee on Global Financial system

The Committee on the Global Financial System has an authorization to recognize and assess potential sources of stress in global financial markets, to advance the understanding of the structure underpinnings of financial markets, and to promote improvements to the functioning and stability of these markets.

(iii) Committee on Payments and Market Infrastructure

The Committee on payments and market infrastructure (CPMI) promotes safety and efficiency of payment, clearing, settlement and related arrangements, thereby supporting financial stability and wider the economy.

V.FINANCIAL REGULATION AND SUPERVISION IN ASIA

The Asian countries have devoted greater attention to risks that threaten the stability of the entire financial system in an effort to strengthen financial regulation and supervision after the Asian financial crisis of 1997. Policy makers in Asia have also proactively used what are now considered macro-prudential instruments, such as loan to value ratio, debt to income ratio, credit ceilings, limit on net open positions, currency mismatches etc. to address emerging vulnerabilities in the financial sector. Asian countries have made their institutional arrangement for macro-prudential policy implementation to achieve and maintain financial stability. Most Asian countries have enshrined financial stability and institutional arrangement in legislation. The central banks along with few other agencies in Asia typically have a financial stability authorization.

Macro-prudential policy tools used in Asia include cap on loan to value or debt to income ratios, credit or growth ceiling, limits on net open positions, currency mismatches, countercyclical capital or provisioning requirements.

The developments in context of financial stability and institutional arrangements in the Asian economies are given below:

Hong Kong: In Hong Kong, the responsibility for supervising the financial services industry is shared among multiple agencies, including the Hong Kong Monetary Authority (HKMA), the Securities and Futures Commission (SFC), the Office of the Commissioner of Insurance (OCI), and the Mandatory Provident Fund Schemes Authority (MPFA). Each agency has its own formal authorization.

The HKMA has used macro-prudential tool extensively in recent years to limit systemic risks, particularly risks in the property sector. Caps on the Loan to Value (LTV) ratios have been adjusted several times since 2009 to control property market boom.

India: In India the responsibility for supervising the financial services industry is shared among Reserve Bank of India (RBI), Securities and Exchange Board of India (SEBI) and Insurance Regulatory and Development Authority of India and others.

Indonesia: The law on the Financial Services Authority of 2011 created an independent regulatory agency to regulate and supervise the activities of banking, capital markets, insurance, pension funds and other financial institutions.

The law also introduced a macro-prudential policy framework, which has the forum for financial system stability coordination as key component. The forum has an explicit authorization to monitor, evaluate, and maintain the stability of financial system, and is led by the Minister of Finance.

Japan: The main agencies responsible for supervising the financial services are Bank of Japan (BOJ), Financial Services Agency (FSA), and Deposit Insurance Corporation of Japan (DICJ).

Korea: The financial stability mandate is shared by multiple agencies in Korea, including the Bank of Korea (BOK), the Ministry of Strategy and Finance (MOSF), the Financial Services Commission (FSC), Korea Deposit Insurance Corporation (KDIC) and Korea Finance Corporation (KFC). Korea has used macro-prudential tools extensively to mitigate system risks, particularly arising in the housing sector and the foreign exchange market.

Malaysia: Supervision of the Malaysian financial system is principally the responsibility of the Bank Negara Malaysia (BNM) and the Securities Commission (SC). The Central Bank of Malaysia Act 2009 provides the BNM with a formal financial stability authorization and overarching powers to achieve the mandate. The BNM has broad powers to conduct macro-prudential policy for financial stability.

Several new initiatives in the Asian region were undertaken to ensure financial stability on multilateral or regional basis after the financial crises as mentioned below:

(i) Chiang Mai Initiative Multi-lateralisation (CMIM)

ASEAN member countries started the initiative to support regional reserves and to facilitate the work of other international financial arrangements and organisations like the International Monetary Fund (IMF) after 1997 Asian financial crisis.

The ASEAN countries met on 6 May, 2000 in Chiang Mai, Thailand, during the annual meeting of the Asian Development Bank. So it was named after the town, Chiang Mai Initiative (CMI). The initiative began as a series of bilateral swap arrangements of members' central banks.

Bilateral swap mechanism was found inefficient in 2009. On 24 March, 2010, it became multilateral and since then it is called Chiang Mai Initiative Multi-lateralisation (CMIM).

The member countries are ASEAN +3, namely- Brunei, Cambodia, Hong Kong, Indonesia, Japan, Laos, Malaysia, Myanmar, China, Philippines, Singapore, South Korea, Thailand and Viet Nam. Central banks of the member countries are principally responsible for governing CMIM.

CMIM's capital comprised a foreign exchange reserves pool worth U.S. $ 120 billion and was launched on 24 March 2010. That pool was expanded to U.S. $ 240 billion in 2014.

A member can swap its local currency with U.S. dollar up to the amount of its financial contribution to the reserve pool times its borrowing multiplier to manage macroeconomic difficulties or financial stability.

The size of the CMIM was doubled from initial value of U.S. $ 120 billion to U.S. $ 240 billion, and a crisis prevention mechanism- the CMIM Precautionary Line (CMIM-PL)- was introduced after an amended agreement came into effect on 17 July, 2014. The IMF delinked portion was raised to 30%, meaning that members could draw up to 30% of their maximum borrowing limit without implementing the IMF lending conditions.

The CMIM is still a work in progress despite these developments. The ASEAN +3 Macroeconomic Research Office (AMRO) - the surveillance unit of CMIM- is still preparing the operational guidelines and qualifications for access to the CMIM-PL. Once the "AMRO Agreement" is ratified by members, the CMIM will transform it into an international organisation. The working of CMIM is just like the IMF's. The main aim is to enhance the liquidity and ensure the financial stability in the region.

(ii)Asian Bond Market Initiative

This is an ASEAN +3 initiative, which members of Association of South East Asian Nations and China, Japan and South Korea set up and funded. ABMI was set up following the devastating Asian financial crisis in the late 1990s. Its task is to promote market integration and development. It helps in preventing future crisis. The Asian Development Bank acts as the secretariat and hosts regular meetings of ABMI.

The ABMI provides a comprehensive guide for each of the region's domestic bond markets, containing regulations, trading statistics and other details in a freely available document.

The ABMI set up four task forces to study supply, demand, regulation and market infrastructure. It helps in maintain and promoting the financial stability in the region.

(iii)Asian Bond Fund Initiative

The basic purpose of Asian Bond Fund Initiative is to increase the liquidity through bond market in the region. In June 2003, EMEAP (Executives' Meeting of East Asia Pacific Central Banks) launched the first phase of the Asian Bond Fund (ABF-1). It was designed to promote bond market development in the region, by facilitating the channelling of the sizable official reserves held by Asian economies back into the region. The ABF was a useful means for Asian central banks to diversify investments beyond more traditional reserve assets. It helped in increasing the liquidity in the region. The EMEAP includes central banks from Australia, China, Hong Kong, Indonesia, Japan, South Korea, Malaysia, New Zealand, Philippines, Singapore and Thailand.

ABF-1 invested in U.S. dollar denominated bonds issued by sovereign and quasi sovereign issuer in EMEAP economies other than Japan, Australia and New Zealand. In April 2016, the EMEAP group determined that ABF-1 has achieved its original purpose and that the fund should be closed.

Asian Bond Fund-1 was set up as a stepping stone to Asian Bond Fund-2 and helped to develop the regional framework for EMEAP central bank cooperation. The proceeds are being reinvested in ABF-2.

The ABF-1 was managed by Bank for International Settlements. ABF-2 is managed by private sector fund managers with the BIS as administrator. ABF-2 invests in local currency denominated bond in EMEAP economies other than Japan, Australia and New Zealand.

(iv)Asian Clearing Union

Asian Clearing Union[6] (ACU) is a permanent arrangement that existed even before the global financial crisis, whereby the participants settle payments for intra-regional transactions among the participating central banks on a net multilateral basis. The principal objectives of the clearing union are to smooth the progress of payments among the member countries for eligible transactions, thereby economising on the use of foreign exchange reserves and transfer costs, as well as promoting trade and banking relations among the participating countries. Members are: Bangladesh, Bhutan, India, Iran, Maldives, Myanmar, Nepal, Pakistan and Sri Lanka.

There is also provision of swap facility. Any participant in net deficit (ACU dollar and ACU euro account collectively) at the end of a settlement period is eligible to avail of the SWAP facility.

It helps in increasing liquidity for international transactions among the members. Every eligible participant is entitled to the facility from every other participant up to 20% of the average gross payments (ACU dollar and ACU euro account collectively) made by it through Asian Clearing Union Mechanism to other participants during the three previous calendar years.

(v)Bilateral swaps in SAARC region

On 16th May, 2012 Reserve Bank of India announced that India will offer Swap arrangements of U.S. $ 2 billion both in foreign currency and Indian rupee to SAARC Members.[7] The move for SAARC Swap facility was finalised by SAARC Finance Ministers at the Ministerial Meeting on Global Financial Crisis held on February 28, 2009. The Swap will be offered in US $, euro, Indian rupee against domestic currency or domestic currency denominated government securities of the requesting country.

The Swap facility is expected to deepen economic cooperation within the SAARC region and pave the way for an increased intra-regional trade.

VI.ASSESSMENT OF FINANCIAL STABILITY IN ASIA

The European Central Bank defines three particular conditions associated with financial stability:

1. The financial system should be able to efficiently and smoothly transfer resources from savers to investors.
2. Financial risks should be assessed and priced reasonably accurately and should also be relatively well managed.
3. The financial system should be in such a condition that it can comfortably absorb financial and real economic surprises and shocks.[8]

The two important measures of financial stability are the Bank Z-score and Non-performing loan ratio. Both these measures provide information on the potential resilience of banks in face of a financial crisis or other shocks.

Table 4 Financial Stability Indicators in Asia

Economy	2010	2011	2012	2013	2014	2015	2010	2011	2012	2013	2014	2015
	Bank nonperforming loans to total loans (%)						Bank capital to assets ratio (%)					
Bangladesh	---	5.8	9.7	8.6	9.4	---	---	6.9	5.4	6.0	5.9	---
China	1.1	1.0	1.0	1.0	1.0	---	6.1	6.4	6.5	6.7	7.2	---
Georgia	5.9	4.5	3.7	3.0	3.0	3.3	16.9	16.6	16.7	16.8	17.4	15.3
Hong Kong	0.8	0.7	0.6	0.5	0.5	0.5	12.3	8.2	8.8	8.7	9.0	9.0
India	2.4	2.7	3.4	4.0	4.3	4.2	7.1	6.7	7.0	6.9	7.1	6.9
Indonesia	2.5	2.1	1.8	1.7	2.1	2.3	10.7	11.0	12.2	12.5	12.8	12.7
Japan	2.5	2.4	2.4	2.3	1.9	1.6	5.3	5.1	5.1	5.5	5.5	5.8
Korea	0.6	0.5	0.6	0.6	0.6	---	7.6	8.1	8.2	8.3	8.0	---
Malaysia	3.4	2.7	2.0	1.8	1.6	---	9.4	8.9	9.4	9.6	10.0	10.0
Pakistan	14.7	16.2	14.5	13.0	12.3	12.4	9.8	9.6	9.0	8.9	10.0	8.3
Philippines	3.4	2.6	2.2	2.6	2.0	2.1	10.2	11.1	11.7	9.7	9.9	10.6
Singapore	1.4	1.0	1.0	0.9	0.8	0.8	9.0	8.3	8.9	8.2	8.4	8.8
Sri Lanka	---	3.8	3.6	5.6	4.2	4.3	---	8.7	8.5	8.2	8.2	8.2
Thailand	3.9	2.9	2.4	2.3	2.3	2.5	8.5	7.8	7.8	8.5	9.2	9.5

Source: World Bank Data

The Z-score is dependent on equity to assets ratio, so the capital to assets ratio can be employed to assess the financial stability in a sense. Table 4 shows bank non-performing loans to total loans and capital to assets ratios for selected economies in Asian region.

In case of capital to assets ratio, except a few, all economies show sign of financial stability improvement based on this parameter.

As far as non-performing loans to total loans ratio is concerned, with the exception of Bangladesh, Pakistan and to some extent India, all other economies manifested remarkable improvement in financial stability based on this parameter.

The 1997 Asian Crisis has changed the structure of the banking industry and the nature of firms' corporate governance in Asia. In the banking industry, Asian countries experienced a rapid growth of bank consolidation or mergers and acquisitions.

Unlike its U.S. and European counterparts, the Asia Pacific banking industry emerged from the global economic turmoil (2008) in a comparatively strong position without requiring anywhere near the same degree of government support and bailouts.

The parameters given in Table 4 and developments in financial regulations and supervision through macro-prudential policy initiatives, both at individual economy basis or regional basis, in the Asian region indicates that there has been improvement in the financial stability of the region.

VII. CONCLUSIONS

The financial crises have shown many important lessons that are applicable to events happening or likely to occur in future. The important points for enhancing the financial stability are given below:

1. There should be watch on government spending.
2. The lending and borrowing activities should be free of any interference, and be based on the principles of efficient market.
3. The flexibility in exchange rates may be needed in many cases in order to avert the shock.
4. Large borrowings in foreign currency should be hedged in order to avoid repayment difficulties.
5. Investors carefully watch out for asset bubbles in hottest economies around the world.
6. There should be watch on large imbalances in current account and capital account.
7. Multilateral institutions should also develop mechanism to deal with when needed.

All most all Asian countries have enshrined financial regulations and supervision of banking and other financial institutions in their laws after the financial crises. They have developed macro-prudential policy underpinning the institutional structure to ensure financial stability in the system. Asian countries have used in the past macro-prudential policy tools, like cap on loan to value or debt to income ratios, credit or growth ceiling, limits on net open positions, currency mismatches, countercyclical capital or provisioning requirements to maintain financial stability in the economies.

The parameters such as bank non-performing loans to total loans ratio and bank capital to assets ratio indicates that the financial stability in Asian economies has improved over the years. Some regional initiatives, like Chiang Mai Initiative Multi-lateralisation, Asian Bond Fund Initiative, bilateral swaps by SAARC members took place in the process of improving liquidity and financial stability in the region. The combination of regional/multilateral initiatives for financial stability and development of macro-prudential policies in the Asian economies have further the financial stability in the region.

Recently the IMF has highlighted risks of a new financial crisis, cautioning that global output could be cut by 3.9% over the next five years by a repeat of the market turmoil witnessed during the 2008-09 recession. If it happens or shocks take place otherwise, the initiatives taken in Asian countries in context of financial stability will be tested in real.

Notes:

1. *Lord A. Turner, Chairman of the FSA, speaking on 6th February, 2013 at Cass Business School entitled "Debt, Money and Mephistopheles: How do we get out of this mess?*
2. *The Economist, September 9th 2013, On-line Edition.*
3. *Abid.*
4. *In a lecture presented at Annual Research Conference, International Monetary Fund, 2011.*
5. *Bank for International Settlement*
6. *Agreement to establish the Union was signed in 1974.*
7. *RBI Press Release, 16th May, 2012.*
8. *Peter J. Morgan and Yan Zhang, "Mortgage lending and Financial Stability in Asia", Asian Development Bank Institute Working Paper No. 543, August 2015, Tokyo.*

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