The Role of Central Banks in Sustaining Economic Recovery and in Achieving Financial Stability

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Abstract

Whenever a financial crisis occurs, threatening a possible financial meltdown, central banks have to be at the forefront in combating, neutralizing the crisis and restoring financial stability and economic growth. In this regards, the present sub-prime crisis which originated from the US highlights a few key issues for SEACEN Central banks. This paper reviews the policy responses to the crisis which include exit policy strategies from stimulus monetary packages. To strengthen the soundness of the financial system, going forward, the paper also highlights counter-cyclical and macro-prudential regulations that central banks may want to actively look into. These include cross-border policy cooperation and coordination, particularly in the form of the college of supervisors.

Key Words: - SEACEN; -Central Banks; - Financial Stability; - Prudential Regulation; -Supervision.

JEL Classification: E52; E58; G28

1. Introduction

The recent global financial meltdown, which originated from a dramatic rise in mortgage delinquencies and foreclosures in the United States, has caused havoc for financial institutions and markets worldwide. Fortunately, the financial sectors of the SEACEN countries have limited exposure to sub-prime and derivatives products. A series of post-crisis reforms implemented following the Asian financial crisis of 1997, have improved the overall soundness of financial institutions of SEACEN countries by contributing to the strength of their balance sheets even prior to the onset of the present financial crisis (Table 1). However, the real sectors of these economies have not been spared from the adverse consequences of the recent global economic slowdown. Largely attributed to its close trade ties with high-income countries, the Asia and Pacific region has seen a large drop in exports and industrial productions as well as declining investment.

Since the second half of 2009, signs are increasingly showing that the world's economies are stirring back to life. According to the IMF Outlook (October 2009), financial conditions have improved and the risks to the global financial systems have moderated somewhat from the extreme levels. Commodity prices have recovered and portfolio flows have resumed in many emerging markets. The unprecedented global stabilization efforts in the form of monetary and fiscal policies have prevented a deeper worldwide recession, and global economic growth is likely to resume in the first half of 2010. The Outlook also notes that emerging and developing countries are leading the economic recovery.

In his speech delivered at the annual conference of the Confederation of British Industries (CBI) in London in November 2009, the Managing Director of the IMF reminded policy makers around the globe that even though the storm may have passed, and the worst has been averted, the global economy remains highly vulnerable. This fragile recovery was made clear on November 25, 2009 when the city-state of

Table 1

Financial Soundness Indicators

	Non-Performing Loans(% of Bank Loans)		Risk-Weighted Capital Adequacy Ratio (%)		Bank Return on Assets (%)	
	2007	2009	2007	2009	2007	2009
Cambodia	3.4	6.1 Sep/	23.6	32.2 Sep/	-	-
Fiji	6.0	3.3 Sep/	13.2	16.2 Sep/	-	-
Indonesia	4.02	3.9 Oct/	19.2	17.5 Oct/	2.8	2.7 Apr/
Korea	0.64	1.2 Sep/	12.0	14.3 Jun/	1.1	0.5 Dec 08/
Malaysia	6.4	4.6 Apr/	13.2	14.1 Nov/	1.5	1.5 Dec 08/
Mongolia	3.2	16.5 Sep/	14.2	7.5 Sep/	-	-
Myanmar	2.38	2.6 Sep/	43.4	57.3 Sep/	-	-
Nepal	10.3	3.6 Sep/	-1.71	4.3 Jun/	-	-
Papua New Guinea	1.68	1.4 Jun/	-	-	-	-
Philippines	4.45	3.3 Sep/	15.9	15.5 Mar/	1.3	0.8 Mar/
Singapore	1.5	2.3 Sep/	13.5	16.5 Sep/	1.3	1.1 Dec 08/
Sri Lanka	5.0	8.6 Sep/	13.6	14.1 Sep/	-	-
Taiwan	1.83	1.4 Sep/	10.8	11.6 Sep/	0.14 Dec/	0.3 Jun/
Thailand	7.28	5.3 Sep/	15.4	16.4 Sep/	-	1.0 Dec 08/
Vietnam	1.5	2.2 Sep/	-	-	-	-

Sources: Replies to SEACEN Key Economic Indicators Survey 2010, SEACEN Member Bank Websites and IMF Global Financial Stability Report Oct. 2009.

Dubai shocked the global investment community by requesting creditors of its ports-and-property conglomerate, Dubai World, for a six-month payment standstill on its debts of billions of dollars. Although the near outlook may still remain uncertain, the recent crisis has, however, undoubtedly underscored the rising global integration of the financial sectors of the SEACEN countries and raised new and profound challenges facing the central banks in this region and around the world.

Going forward, it is important that the SEACEN central banks forge ahead and consider a number of reforms to enhance the stability of their financial systems. Some of the proposed measures may structurally alter the core anchor and operation of monetary policy. This paper also puts forward some of these pressing challenges, covering the regulatory and supervisory fronts, facing the central banks around the world, including SEACEN member banks and monetary authorities.

2. Review of Policy Responses and Exit Strategies

2.1 Review of Monetary Policy Responses

As in advanced economies, the basic thrust of monetary policy in most of the SEACEN countries is to ease the impact of the deleveraging process in the global economy on domestic liquidity, and to help mitigate the full implication of the sub-prime crisis on the real sectors of the economy. The current financial turmoil confronted the emerging market economies (EMEs) with two shocks: a ‘sudden stop’ of capital flows driven by the deleveraging and a collapse in export demand associated with the global slump.

It is imperative to note here that in contrast to previous capital account crises, including that of the 1997 East Asian financial crisis where investors lost confidence in the local currencies, the pullbacks from most of the EMEs during the recent sub-prime crisis reflect more of the consequences of financial liquidity pressures in developed economies at the epicenter of the crisis. This critical contrast implies that there should therefore, be less risk this time around, on the monetary policy easing strategies by the

EMEs which will lead to a further loss of confidence, capital outflows, and excessive pressure on the currencies.

Indeed, the central banks of the SEACEN countries have employed multiple policies and strategies to carry out their monetary policy easing (Table 2 and Appendix 1). In brief, most of the SEACEN economies lowered their policy rates considerably. Indonesia, for instance, has reduced its policy rate from 9.5 percent in December 2008 to 6.5 percent in August 2009. Similar policy measures were taken by other major SEACEN economies, including Thailand, Malaysia and Korea. For some of these economies, the policy rates by the end of third quarter 2009, hovered around the lowest ranges ever reported for a long time, between 1- 2 percent. Yet, many of the EMEs have also experienced the limitations of their interest rate policies, especially on the credit market during the present global economic slowdown. To address structural impediments to monetary transmission, a number of policy initiatives were undertaken. For the SEACEN economies, one of the most common measures has to do with the lowering of the reserve requirement ratio.

Beyond the standard interest rate policy and reserve requirement adjustments, to further stimulate the credit market in the country, the SEACEN central banks have also pressed forward a number of ‘quantitative measures’. These measures include various ‘credit easing’ (CE) and ‘quantitative easing’ (QE) policies. Korea, for instance, has been among the most active in employing various CE and QE measures. To instill market confidence and financial sector stability, the Korean government together with the Bank of Korea have announced guarantees of repayment of banks’ external borrowings; extended foreign currency liquidity through foreign exchange swaps; provided liquidity to domestic banks, including those of the Korean branches of foreign banks; and tax exemptions for foreign investment in Korean treasury bonds and monetary stabilization bonds.

Table 2

A Summary of Central Banks' Main Policy Responses to the Crisis

	Cambodia	Fiji	Indonesia	Korea	Malaysia	Mongolia	Philippines	Papua New Guinea	Singapore	Sri Lanka	Taiwan	Thailand	Vietnam
DOMESTIC FINANCIAL POLICIES													
Deposit Guarantee			●	●	●	●	●		●	● [1/]	●	●	●
Government Stake in Banks				●		●							
Regulatory Forbearance and Surveillance	●		●	●	●	●	●		●	●	●	●	●
MONETARY POLICY													
Policy Rate			●	●	●	●	●	● [2/]		●	●	●	●
Reserve Ratio	●	●	●		●	●	●			●	●		●
Liquidity Intervention	●		●	●	●	●	●		●	●	●	●	●
OTHERS													
Exchange Rate Management	●	●	●	●		●	●	●	●	●	●		●
International Swap Agreements [3/]	●		●	●	●		●		●			●	●

Notes:
1/ New scheme to be introduced in 2010.
2 /Increase in policy rate due to inflationary concerns.
3/ ASEAN+3 (Japan, China and Korea) nations have officially signed an agreement to set up a US$120 billion currency swap fund under the Chiang Mai Initiative Multilateralization (CMIM). CMIM is to be launched on 24 March 2010 (Bank of Japan website).

Sources: ADB (2009), with modifications and updates from SEACEN member banks' replies to survey for EXCO/BOG background papers, December 2009 (see Appendix 1).

Similar actions have been taken by other SEACEN members. Bangko Sentral ng Pilipinas (BSP), for instance, enhanced existing peso repurchase agreement facilities through relaxation in valuation and a broader list of acceptable collaterals. The BSP has also granted regulatory forbearance to banks by allowing reclassifications of financial assets from categories measured at fair value to those measured at amortized cost. Furthermore, the BSP has also pursued quantitative measures by increasing the rediscounting peso budget as well as broadening access to its rediscounting facility.

As in other EMEs, foreign exchange intervention is another frequent measure adopted by the SEACEN members. The volatile flows of capital imply volatile demand and supply of foreign exchanges in the local markets, hence creating unwanted volatilities in the exchange rates of the SEACEN currencies. Between the last quarter of 2008 and the first quarter of 2009, the Indonesian rupiah and the Korean won, for example, depreciated by more than 20 percent, before recovering much of their ground in the second half of 2009. Active open market operation to meet the excess demand and supply is one common measure adopted by the SEACEN central banks to stabilize the foreign exchange market. In addition, countries, such as Vietnam, widened the daily trading exchange rate band for its currency.

In their efforts to mitigate speculative pressures, a few of the SEACEN members have also introduced some administrative controls on foreign exchange transactions and outflows as their first line of defense. Furthermore, regulations on the short-term flows have also been pursued actively. A limitation and complete ban on structured product transactions have been implemented in many SEACEN members. The role of the unremunerated reserve requirement (URR) on short-term capitals was also heightened in the midst of the current volatility in the global financial markets.

In addition to the long list of the CE and QE measures, the SEACEN central banks and commercial banks have also actively strengthened their liquidity positions by vigorously monitoring a set of multiple measures and indicators (Tables 3 and 4). In general, the three primary regulations on liquidity management and measurement are the required reserve ratio, liquidity reserve ratio, and limits on maturity mismatch. The SEACEN central banks also carried out more frequent onsite and offsite examination of commercial banks' balance sheets. In addition, a large number of the SEACEN members have encouraged commercial banks to not only carry out periodical stress testing but also to actively adopt contingency plans.

The commitment to pursue comprehensive liquidity regulation contributed significantly to the overall strength of the banking system of the SEACEN economies (Table 1). In general, the average capital adequacy ratio of the commercial banks of the SEACEN economies in recent years, has been well above the Basel II requirement and much stronger than the immediate period after the 1997 financial crisis. The strength of the balance sheets is also reflected by the low non-performing loan.

The expansionary monetary policies were accompanied by a variety of fiscal stimulus packages implemented across the SEACEN countries (see Appendix 2). In many countries, a second supplementary package was introduced following the first stimulus budget. On a macro level, the packages were mainly to promote domestic consumption, provide incentives for strategic industries such as SMEs, finance infrastructure projects as in public transport, increase education spending and welfare support for the unemployed and provide support for skill development and job creation.

Table 3

Banks' Liquidity Management

	Min. holdings of liquid assets	Min. holdings of reserves	Liquidity ratio	Liquidity gap limit	Limits on concentration of funding	Cash flow projection	Max cash outflow	Stress testing
Cambodia		√	√	√		√		√
Korea	√	√	√	√	√	√	√	√
Malaysia	√	√	√	√	√	√	√	√
Mongolia								
Myanmar	√	√	√					
Nepal	√	√			√		√	
Philippines	√	√	√					√
Sri Lanka	√	√	√	√		√		
Taiwan	√	√	√	√	√	√	√	√
Thailand	√	√	√	√	√	√	√	√
Indonesia	√	√	√	√	√	√		√
Vietnam		√	√			√		

Source: SEACEN Member Banks Replies to Survey for Research Project on "Liquidity Measurement and Management", June 2009.

Table 4

Selected Central Banks' Liquidity Management Policies

	Min holdings of liquid reserves	Monitoring via data submission	Monitoring via onsite/offsite examination	Encourage contingency panning
Cambodia	√	√	√	√
Korea	√	√	√	
Malaysia	√	√	√	√
Mongolia				
Myanmar	√	√	√	√
Nepal	√	√	√	√
Philippines	√	√	√	
Sri Lanka	√	√	√	√
Taiwan	√	√	√	√
Thailand	√	√	√	√
Indonesia	√	√	√	√
Vietnam	√	√	√	√

Source: SEACEN Member Banks Replies to Survey for Research Project on "Liquidity Measurement and Management", June 2009.

2.2 Exit Policies

With recovery in sight, it is vital to review exit strategies, including practical considerations as to when and how to exit. In October 2009, the Reserve Bank of Australia (RBA) raised its cash rate by 25 basis point, and became the first country to exit from its soft monetary policy stance taken during the recent global financial crisis. Following the footstep of RBA, the Central Bank of the People's Republic of China, raised the yield on its one-year bill and the reserve requirement ratio in January 2010, to cool the economy amid worries of rising inflationary pressure driven by excess credit expansion.

During the G-20 Finance Ministers and Governors Meeting in November 2009, the IMF has crafted seven principles for exit policies which are "intended to establish common ground for the design and implementation of policies during the exit from the extraordinary support measures taken during the crisis" (IMF (2009)).The *first principle* recommends that the timing of exits be dependent on the state of the economy and the financial system, and should err on the side of further supporting demand and financial repair. Policy stimulus and other critical support measures should be withdrawn only when there is firm evidence of durable financial stability and a self-sustaining recovery in private demand. To anchor market expectation, it is important to stress the need for the exit plans to be well established early and communicated clearly by the policy makers to the public.

The strength of the fiscal position is also going to be critical for the design of a sustainable exit policy. The *second principle,* therefore, underlines the need to have fiscal consolidation as a top policy priority. The *third principle* recommends that fiscal exit strategies be transparent, comprehensive, and communicated clearly, with the goal of lowering public debt to prudent levels within a clearly-specified time frame. The *fourth principle* argues that stronger primary balances should be the key driving force of fiscal adjustment, beginning with actions to ensure that crisis-related fiscal stimulus measures remain temporary. In short, the last three principles stress the importance of avoidance of any potential ‘fiscal dominance’ which has proven to hamper and limit the effectiveness of the monetary policy in general. Meanwhile, the G20 Meeting in November 2009 notes that it may be too early to end fiscal stimulus.

Unconventional monetary policy does not necessarily have to be unwound before conventional monetary policy is tightened. This is *the fifth principle* of the exit strategy. Maintaining unconventional monetary policy measures does not necessarily constrain increases in policy rates. Exiting from the loose monetary policy stance may warrant an immediate rise in the policy rate before unconventional monetary policy stimulus is fully withdraw. In this respect, a number of issues need to be carefully considered. First and foremost are the condition of credit markets and the pass-through effects of the policy rate adjustment into the commercial bank rates. In some countries, a key challenge is to manage the reduction of government bonds from the central bank balance sheet without causing inflationary pressure or threats to economic recovery.

Past financial crises have demonstrated that the fragility of the financial system and uncertainties may last for some time after the initial stage of the systemic financial crisis. Therefore, any exit strategy must be paced out with a clear priority to avoid any market disruption. Thus, the *sixth exit principle* is that economic conditions, stability of the financial system, and market-based mechanism should dictate when and how financial sector support is removed. Key concerns here include when guarantees on bank liabilities should be phased out. It is important to establish steps to strengthen the financial regulatory framework and supervision.

The last critical point, *the seventh principle*, on the exit strategy is on the need to have a credible policy coordination of the exit policy. The unwinding of a number of stabilization policies will arguably be better carried out by informal or formal coordination among a number of countries. The uncoordinated withdrawal of deposit protection and of other bank guarantees, for instance, may trigger unwanted movements of capital from one country to another. As would be further touched upon, internationally coordinated financial regulations are necessary to avoid regulatory and other types of arbitrage. Similarly, the move to raise the domestic policy rate may warrant an international coordination to avoid any unwanted consequences. A rise in interest rate differential could potentially create havoc for the management of exchange rate and monetary policy management in general.

Furthermore, it is imperative that the SEACEN central banks weigh in the benefits and the costs of the exit policy within the overall management of global capital flows. In particular, the response of the SEACEN central banks should be carefully weighed against the policy measures taken by the major developed economies, especially those of the US Federal Reserve Board System. Since the November G-20 Meeting, the rest of the world, including the Asian countries, have expressed concerns over potential challenge posed by the US Fed's zero-percent fed-funds rate policy. This zero-rate policy, combined with the weak US dollar, has so far flooded the Asian markets with excess dollars. A rise in the domestic policy rate in any of the SEACEN countries, as a part of the exit strategy, would likely amplify capital inflows, especially portfolio flows which in turn, could fuel asset bubbles in the domestic economies.

Also, there are some fundamental challenges on the assessment of the exit policy (BIS, 2009). Firstly, due to long lags, the assessment of the full impact of monetary policy is likely to be extremely difficult and tricky. Secondly, various policies were initiated amid complicated fiscal and financial policy environments, making assessment of exit policy initiatives challenging. Thirdly, there is a need for the central bank to consider a specific set of criteria/indicators to assess the progress of the exit policy.[2]

Furthermore, when expansionary monetary policies are both conventional and unconventional in nature, it may prove rather difficult to craft and execute exit monetary

[2] The unwinding of monetary policy could result in higher interest rate which could lead to volatile capital flows. In terms of financial stability, central banks need to consider specific criteria for exit policies including the soundness of banks (for example, non-performing loans, leverage, capital adequacy and CDS spreads) and the level of turmoil in financial markets (bid-ask spreads, deviations of covered interest parity, turnover and volatility).

policies. In principle, conventional and unconventional monetary policies are dictated by output-inflation considerations and the proper functioning of the financial market respectively. However, in reality, these objectives are intertwined and thus withdrawal of balance sheet policies is virtually indistinguishable from interest rate tightening (Caruana 2009). How are exit policies going to be implemented? Should it be simultaneously or via sequencing? These questions continue to be debated today. Yet, one consensus is that the time to execute exit policies should be well before the expansionary policies start to exert pressures on inflation and when inflation expectation is above the consistent level for price stability (Kohn 2009). Thus, to manage inflation and inflation expectations, central banks need to move ahead of the curve in the implementation of exit policies. Perhaps, though not always necessarily so, those measures related to liquidity-enhancing can be withdrawn as soon as there are signs of a return in domestic liquidity or sustained economic recovery, while policy rate adjustments can be kept for some time to ensure that economy recovery has indeed taken place.[3]

3. Going Forward and New Challenges

3.1 Counter-cyclical and Macro-prudential Regulation

Financial institutions have demonstrated that they are vulnerable to the collective draw to lend aggressively when times are good, only to excessively cut lending when the economic cycle experiences a downturn. This behaviour amplifies the impact of the economic cycle on bank lending and is termed as "pro-cyclicality". The recent sub-prime crisis underscores the severity of the boom and bust consequences of the pro-cyclicality feature of bank lending in particular and activities of the financial institutions in general.

Unfortunately, present available measures and regulations are gravely inadequate to manage this pro-cyclicality. Many have argued, for instance, that the Basel II capital adequacy requirement (CAR) is inadequate, especially during a financial crisis or

[3] However, especially in the present crisis, it is extremely difficult to determine whether the economic recovery will be in the form of a quick recovery of "V" or a double-dip recession of "W-shape growth".

economic slowdown. The ‘risk-weighted averages’ is incomplete as it does not attach sufficient weight to (a) macro-prudential risk and (b) liquidity risk. The Basel II capital requirement focuses solely on the relative weight charged against different classes of assets. Moreover, many reports have also drawn attention to different ‘interpretations’ of the weights associated with different assets of different central banks.

Furthermore, there has been too much focus on the risk associated with the individual institutions (micro-prudential), rather than on the level of leverage building up in the whole financial system (macro-prudential). In particular, the micro-prudential regulation evaluates each firm/bank independently and in isolation, largely without much regard to spillover and feedback effects. In any case, until recently, many believed that when individual financial institutions are strong, it is a sufficient condition for financial stability. By contrast, on a wider perspective, the objective of macro-prudential regulation is to reduce the probability of distress for the entire financial system. The source of distress incorporates a host of potential channels, including interdependence and linkages among financial institutions through clearing and settlement systems, and common exposures.

The past experiences of financial crisis highlight the importance of macro-prudential framework. For instance, Goodhart (2004) gives the example of Japan in the 1990s where banks were individually strong but systematically weak in response to real estate shocks. Therefore, central bankers and other relevant supervisory authorities should be armed with macro-prudential tools to prevent the build-up of systemic risk. One of the recent much-debated tools is known as “dynamic provision” which involves estimating long-run expected losses on assets rather than actual current loan losses. Thus, in good times, banks are in effect holding higher reserves when actual losses are below the long-run average. The proponents of this approach claim that it not only helps rein in the growth of credit and leverage as financial imbalances build up; it also protects the core of the financial system when such imbalances unwind. In June 2000, the Banco de Espana introduced a dynamic (also known as ‘statistical’) provision for Spanish banks and other credit institutions. This measure aims to ensure that aggregate provisioning - including the dynamic provisioning - equals average annual net losses suffered by the banking system in the past decade.

On a similar note, the Supervisory Capital Assessment Program (SCAP), or better known as the bank 'stress test', was undertaken in the United States from February to May 2009.[4] The SCAP applied a common, probabilistic scenario analysis of the participating banks but it looked beyond the traditional accounting-based measures to determine the needed capital buffer. A key objective of SCAP is to critically examine the feedback loops between the banking institutions' financial standings, their anticipated behaviour and the real macroeconomic activities (Hirtle,et.al. (2000)). Thus, SCAP highlighted the importance of investigating different institutions simultaneously based on prospective economic conditions: i.e., examining overlapping micro and macro-prudential concerns. The programme required the banks to project losses, revenues, and loan loss reserve needs over a two-year, forward looking horizon under two economic scenarios. The first scenario reflects consensus expectations (or the baseline scenario), while the second one is a 'more adverse' scenario that assumed substantially worse macroeconomic performance than the baseline.

There is little doubt of the importance of macro-prudential orientation for financial institutions. However, a number of practical challenges have emerged and been debated widely with regards to the actual implementation of macro-prudential tools. Should they be adopted as rigid rules or should they be left to the discretions of the individual banks? Given many large banks operate across national boundaries, it is indeed a rational necessity to consider an international agreement on the way forward for these macro-prudential regulations. Also, countercyclical macro-prudential measures may pose a number of practical difficulties. The adoption of dynamic provision measure

[4] The supervisors of the SCAP were the Federal Reserve, the Office of the Comptroller of the Currency, and the Federal Deposit Insurance Corporation. All domestic bank holding companies with assets exceeding $100 billion as of December 2008 were required to participate in the SCAP (Hirtle, et.al. (2009)).

and its successful implementation may require the ability of the country's relevant institutions to estimate accurately its economic /business cycle. An integrated economy, like most of the SEACEN economies, is highly sensitive to the global economic developments, thus making it extremely difficult to accurately forecast the changing nature of the domestic business cycle.

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Macro-prudential policies may be most successful in the presence of an overall policy framework that fosters complementary management of monetary and macro-prudential policies. For example, incentives to circumvent countercyclical regulations may prove too strong when accommodative monetary policy fuels the demand for credit. As such, central bankers may need to critically rethink the role of monetary policy in contributing to the success of financial stability policies, not just by softening the impact of the unwinding of financial imbalances, but also by containing the build-up of these imbalances.

In addition, it is imperative to recognize the need to balance the objective to counter financial excesses with a need for a dynamic financial sector, capable of supporting economic growth. While there are advantages of designing policy rules upfront, such as reducing supervisory discretion and introducing pre-commitment, these rules may have their limitations and may entail periodic updating in order to avoid the risk that they be arbitraged; and more generally to ensure that they keep pace with developments in the financial sector. At times, policy rules may also need to be complemented by discretionary actions that respond to developments in particular markets (See Turner (2009), pg. 60-61). This leads to another fundamental question as to whether the central bank should be fully involved in the management of financial stability. If the answer is a resounding yes, what is the basic financial framework, in particular with reference to asset prices, leverage, and credit growth which central banks must adopt?

3.2 Financial Stability Frameworks and the Role of Central Banks

The recent crisis has reopened the debate about how and whether central banks should take into account developments in asset prices, leverage, and credit growth. As this crisis has shown, by aiming to achieve - and by achieving - a narrow price stability objective, central banks may come to neglect developments in credit growth and asset prices. They may then miss a build-up of credit and leverage in the system that, over a longer horizon, proves unsustainable.

The Bank for International Settlements (BIS) has argued for a long time that the financial system is inherently pro-cyclical and thus chronically prone to bubble-like behaviour (Borio and Shim (2007) and Borio and White (2004)). A very rapid credit growth leads to increases in asset prices above fundamental values, which in turn fuels a boom in consumption and investment (White, 2008). As demonstrated during the Great Depression in the U.S., Japan in the 1990s, and East Asia in 1997, crisis were preceded by rapid credit creation which manifested in higher asset prices and thus higher collateral values leading to further increases in credit.

While the channels of transmission from credit expansion to asset price bubble are now increasingly well understood, policy makers and academics have not come to a consensus about what central banks can do to resolve the problem.[5] Some have advocated 'leaning against the wind' interest rate policy to counter an increase in asset prices and acceleration of credit expansion. Others, such as Bernanke and Gertler (2001) have argued that using interest rate policy in this way may not be effective to dampen the upswing of asset prices and leverage, and that if it were used, it would create costs and possibly conflict with the central bank's other objectives. Furthermore,

[5] The current cub-prime crisis adds another dimension to asset prices. It is obvious that if asset price inflation is not addressed adequately, exit policies may be harder to implement given that large fluctuations in asset prices may derail the recovery efforts as they normally respond much quicker to economic developments and news.

Bernanke and Gertler claim that asset bubbles are not easily detected and their impact on the economy not easily assessed.[6]

However, if monetary authorities behave in this way, they are effectively adopting an asymmetrical position. Essentially, these policy makers facilitate a 'contract' that enables financial markets to sell the financial chaos to the authorities ex-post. In principle, the monetary authorities around the globe, included those of the SEACEN countries, offer some monetary insurance explicitly or implicitly. This 'insurance' policy has indeed been one of the most frequently extended when market failures lead to an endogenous downward spiral of falling asset prices and tightening credit, adversely affecting real activity and overall welfare (Diamond and Rajan, 2006).

However, as the past financial crises have demonstrated, there are a number of important qualifiers to be fully appreciated (Nier (2009)). To start with, the expectation of a (monetary) bail-out creates moral hazard. Furthermore, it is by no means easy or costless for monetary authorities to clean up the fall-out ex post. Monetary policy may lose its effectiveness in "cleaning up the mess," when the unwinding of financial imbalances adversely affects or puts in doubt, the solvency of the banking system as was the case during Japan's lost decade and the U.S. Great Depression, and is evident since the breakdown of interbank markets and the inability of banking institutions to raise capital during the most recent crisis. Moreover, as the nominal zero bound is approached, monetary policy can fall into a liquidity trap. This is a situation when real rates remain positive, due to deflationary consequence of weak demand, despite efforts to ease monetary conditions.

Looking at the US experience, an apparent policy shift in the Federal Reserve System should be expected in the near future. In his recent remarks at the American Economic

[6] In his recent address at the American Economic Association Meeting in January 2010, Bernanke has expressed the need for the Federal Reserve to carefully consider asset bubble. This issue will be taken up further at the later stage of this paper.

Association Meeting in January 2010, the Chairman of the U.S. Federal Reserve, Ben Bernanke, has firmly indicated that the Federal Reserve must remain open to using monetary policy to rupture asset bubbles (Di Leo (2010)). Bernanke has also been pushing for the Fed to have a greater oversight power over financial institutions and system.

3.3 Cross-Border Policy Cooperation and Coordination: College of Supervisors

The effectiveness of various prudential measures to supervise cross-border financial institutions can be enhanced (and sometimes depends on) with adequate cross-country supervisory cooperation and coordination to avoid loopholes, such as currency substitution, or switching from domestic lending in foreign currency to direct foreign credit.[7] Cross-border cooperation and coordination will become increasingly vital as banking systems become more globally integrated. For example, coordination among host- and home-country regulators and monetary authorities will also be critical when it comes to liquidity (and solvency) support in case of a bust.[8] One potential and effective method to facilitate cross-border policy cooperation and coordination is through the college of supervisors. [9]

The college of supervisors is defined as ‘permanent, although flexible, structure for cooperation and coordination among the authorities of different judrisdictions responsible for and involved in the supervision of the different components of cross-

[7] Limited coordinated efforts have already been proposed and implemented. In July 2009, the Hong Kong Monetary Authority, Bank Negara Malaysia and the Monetary Authority of Singapore announced the establishment of a tripartite working group to map out a coordinated strategy for the scheduled exit from the full deposit guarantee by the end of 2010 in their respective jurisdictions (BNM website).

[8] As the sub-prime crisis shows, the lack of information on cross-border risk exposure resulted in under-appreciation of systemic risks and connections by supervisors and regulators (Kodres and Narain (2009)).

[9] As of September 2009, there are more than 30 colleges to supervise complex institutions (G20 2009).

border banking groups (The Committee of European Banking Supervisors (CEBS (2007)). The CEBS also clearly defines the following objectives of a college:

- It facilitates the exchange of information, views and assessments among supervisors in order to allow for a more efficient and effective consolidated and solo supervision and timely action;
- It enables supervisors to develop a common understanding of the risk profile of the group as the starting point for risk based supervision at both group and individual institutional levels;
- It achieves coordination of supervisory review and risk assessment, establishing supervisory plans, arranging any division of tasks and joint onsite visits, thus avoiding duplication of work and reducing the regulatory burden; and,
- It coordinates decisions taken by individual authorities.

Thus, the rationale of a college of supervisors is to strengthen supervision with the same efficacy as national supervisors of all major cross-border financial institutions to prevent future crises.

In the SEACEN region, the presence of potentially systemic financial institutions which requires cross-border supervision is well recognized. A recent survey conducted by The SEACEN Centre clearly identified at least three major financial institution (FI) groups, namely the Citigroup, the Hong Kong Shanghai Bank and Corporation (HSBC), and the Standard Chartered, being systemically important FI groups based on their financial sizes, services provided and interconnectedness of their activities with other financial and non-financial institutions (Table 5). As for the regional financial institutions, a number of Malaysian banks such as MayBank and CIMB, and Singapore banks (OCBC and UOB) are also recognized.

3.3.1 Challenges of Setting up Supervisory Colleges

The setting up of a college of supervisors is subject to two main challenges. The *first* is the need to have an efficient and effective informational exchange. Moreover, the informational exchange between national supervisors must be a two-way flow with organized and aggregated data in a central database. The scope, frequency, and mechanics of information sharing depend on “the operational risk approach pursued by banks on a group-wide basis and at a subsidiary level; the operational risk profile of the subsidiary; the degree of centralization or decentralization of the banking group’s operational risk management processes; the measurement methodology deployed; and the significance of the subsidiary in relation to the group and to the home and host jurisdictions” (BIS 2007, p.4.). The informational sharing involves cooperation between supervisors according to a prior understanding of the nature of the communication (CEBS 2007). Some leeway must be given as to what type of information is to be exchanged. Due to the constant changing nature of the operational risk profile of banks, any “rigid protocol for information” may be not useful (BIS (2007)).

The process of informational sharing requires supervisors to share more than just raw data with their foreign counterparts. It may involve sharing of sensitive information such as stress tests results and risk assessments on the cross-border institutions (Saccomanni (2009)). Thus, members of a college must be willing to share sensitive and confidential information on an ongoing basis. Experience in the European Union shows that as the current crisis developed, the national superiors were not willing to disclose information regarding the vulnerabilities of financial institutions they supervised (de Larosière Group (2009)). In this respect, supervisors have to build up a sense of trust among each other so as not to feel that their sovereignty is threatened when it comes to information sharing (Reuters 2008).

Table 5
Presence of Key Financial Institution Groups in Selected SEACEN Economies

Central Banks	Top 3 domestic FIs in your jurisdiction that have significant presence in the region	Top 3 foreign FIs in your jurisdiction that are originated from SEACEN member countries	Top 3 other foreign FIs (apart from originating from SEACEN member countries) that have significant presence in your country
MOF, Brunei Darussalam	The domestic banks have a presence only within the country.	- MayBank (Malaysia), - UOB (Singapore) - and RHB Bank Berhad (Malaysia)	- HSBC - Standard Chartered Bank - Citibank
NBC	Not Applicable	- MayBank (Malaysia) - Public Bank Berhad (Malaysia) - Siam Commercial Bank (Thailand)	- ANZ Banking Group (Australia) - First Commercial Bank (Taiwan) - SHINHAN Khmer Bank (Korea)
BI	- Bank Mandiri - Bank BRI - BCA	Bangkok Bank	- Citibank - HSBC - Standard Chartered
BOK	There are no Korean financial institutions which hold significant volumes (more than 3% of their total assets) of regional assets. Korean banks' exposures to Asian nations as end-September 2009 (proportion to total assets: 2.5% for Hana, 1.1% for Woori, and 2.2% for Korea Exchange Bank)	From SEACEN member nations, the three financial institutions with the largest holdings of Korean domestic assets are Singapore's DBS, UOB, and OCBC	- HSBC - Standard Chartered Bank - Citibank
BNM	- Malayan Banking Berhad - CIMB Group - Public Bank	- OCBC Bank - United Overseas Bank - Bangkok Bank (insignificant – Asset size: RM1.8 billion)	- HSBC - Standard Chartered Bank - Citibank

Central Banks	Top 3 domestic FIs in your jurisdiction that have significant presence in the region	Top 3 foreign FIs in your jurisdiction that are originated from SEACEN member countries	Top 3 other foreign FIs (apart from originating from SEACEN member countries) that have significant presence in your country
BOM	KHAAN Bank, Trade and Development Bank of Mongolia and Golomt Bank		
CBM	Domestic FIs in my country do not have oversea branches.		
BPNG	Bank South Pacific	MayBank (Malaysia)	ANZ Bank and Westpac Bank
BSP	- Metropolitan Bank Corporation (Metrobank) - Philippine National Bank (PNB)	Based on total assets in the published statements: - Chinatrust - Maybank - Korea Exchange Bank	Based on total assets in the published statements: - Citibank, N.A. - Hongkong & Shanghai Banking Corp - Standard Chartered Bank
MAS	- DBS Bank Limited - Oversea-Chinese Banking Corporation Limited - United Overseas Bank Limited	- Malayan Banking Berhad - Bangkok Bank Public Company Limited - RHB Bank Berhad	- Citi Group - HSBC Group - Standard Chartered Group.
CBC	In terms of asset size as of the end of September 2009, they are: (1) Bank of Taiwan; (2) Taiwan Cooperative Bank; and (3) Mega International Commercial Bank	In terms of asset size, they are: - DBS Singapore - OCBC Bank Singapore - Bangkok Bank.	In terms of asset size, they are: - Citibank - Standard Chartered Ban - Hongkong and Shanghai Banking Corporation (HSBC)
BOT	- Bangkok Bank - Kasikorn Bank - Siam Commercial Bank	- UOB - CIMB Thai - OCBC	- GE Capital - ING - Standard Chartered

Source: SEACEN Member Banks' Replies to Survey for EXCO/BOG Background Papers, December 2009.

Second, for a college of supervisors to work, it requires a strong lead in coordinating and planning all group-wide supervisory activities (Deutsche Bank (2008)). This is normally the task of a lead supervisor (typically from the country where the bank is domiciled (Kodres and Narain (2009)). However, more likely than not, in the setting up of a college, the lead supervisor is not delegated with the necessary power as it is deemed “politically unfeasible” (Véron (2008)). In addition, having the delegation of tasks and responsibilities within the team in the college is also necessary to ensure the optimal performance of the college. Therefore, all the formalities have to be clearly defined before the setting up of a college.

3.3.2 Further Development of a College

As mentioned earlier, the role of a college of supervisors can be extended beyond cooperation and sharing of information. Moving forward, for the college to be effective at this stage of development, it requires enforcement of decisions in an environment of harmonized laws and regulations in various jurisdictions. Indeed, there will be a need for legally binding enforcement.

To further develop the capacity to enhance the efficacy of the college of supervisors, the college should be able to, apart from making risk assessment, recommend policy options and more importantly, enforce decisions (de Larosière Report, 2009). However, this then brings to the surface, the issue of conflicts of decisions between national supervisors. How can conflicts among supervisors be resolved? It is recommended that if national supervisors “fail to act” upon a recommendation, then it is their responsibility to give a public explanation of such failure to act (Saccomanni (2009)). Moving forward in that respect, a central body can be formed (with mutual agreement) as a legally binding mediator to resolve potential conflicts. In the European Union (EU), it has been recommended that the European Central Bank (ECB) take on this particular responsibility (de Larosière Group (2009)). It is emphasized that the lead supervisor must be vested with the ‘group-wide authority” to determine the soundness of the institution in which the college is set to supervise in the first place (Deutsche Bank (2008)). It is noted that currently in the EU, where the colleges of supervisors have taken off in significant numbers, the colleges have no legal means to impose national supervisors to take a common decision.

In addition to the legal framework, there is also a need for the harmonization of laws and regulations. There are differences in national supervisory practices even in harmonized areas are such as the EU (Saccomanni (2009)). It is undeniable that the adoption of a set of fully harmonized rules will ensure consistent supervisory decisions. It can also reduce the need to vet through different rules and regulations thus avoiding unnecessary administrative burden (EFS (2009)). Another compelling reason for harmonization is that it is easier to reach a general consensus in decision making. Failure to reach a general consensus would likely result in undue delays in the implementation of policy recommendations. It is observed that even if the college is given full legal mandate to enforce decisions, the lack of consistent supervisory powers across national supervisors implies the inability of the college to impose a common stance in various jurisdictions.

3.3.3 Exploratory Attempts

As an exploratory attempt, emerging countries such as those in the SEACEN region, may want to set up what is called a "General College' - a platform for sharing of information on multilateral basis and discussion on overall supervision policy (Table 6).[10] The general college can eventually evolve into a 'Core College' where a more structured approach is implemented in term of cross-border supervision. Moving forward, it is desirable for emerging countries to also participate in colleges already set up by developed countries to supervise cross-border institutions.

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[10] One way to enhance the performance of a college is to form a formal secretariat (BBA 2008).

Table 6

Possible Evolvement of Development of Supervisory Cooperation

Initial Stage Exploratory Attempt	Stage 1 Crisis Prevention	Stage 2 Crisis Management	Stage 3 Crisis Resolution
General college • Informal cooperation • Information sharing • General discussion on policy issues	Core college • Information sharing • Structured & formal approach • Joint supervision	Financial Stability Group • Decision enforcement (preferably required harmonization of Laws) • MOUs • Provision of liquidity	• MOUs • Sharing of burden • Deposit Guarantee Insurance • Restructuring

Source: IMF (2009).

Before setting up of a particular college, it may be desirable to engage the institutions so that the expectations of both parties can be met. From the point of view of supervised institutions, they see the colleges as opportunities to enhance cooperation between banks and national supervisors in various countries and this can "lead to a reduction in the burden on banks of regulatory supervision without any corresponding increase in risk to the financial system" (BBA 2008).

The role of the college of supervisors can be eventually extended to include a broader sense of cross-border crisis management (the White House 2008, EFS 2009), and the sharing of burden of crises (Saccomanni (2009)). Another natural extension of a college will be the setting up of cross-border stability group to "minimize" the possibility of contagion of the wider market" (BBA 2008).

4. Brief Concluding Remarks

Finding the most appropriate exit strategy from the present expansionary monetary policy stance remains one of the delicate policy decisions for central banks around the globe at the present juncture. Unnecessary and hasty pull-outs from the stimulus policy could jeopardize the still fragile recovery process while a prolonged expansionary package, on the other hand, would be costly and misallocate crucial resources and trigger unwanted build-up in asset bubbles. As discussed, the importance for coordination with the fiscal authority when tightening up monetary policy cannot be overstated. The strength of the fiscal position is equally important as the state of the financial system for any exit strategy of monetary policy. In any case, one must also be aware of the approaches taken by other central banks and perhaps exit in a coordinated fashion to avoid adverse spillover effects (e.g., large capital movements from one country to another). It is worthwhile to note that communicating the exit also needs to be artfully crafted to reduce and eliminate "knife-edge market reactions" to news of withdrawal (Caruana 2009).[11]

Going forward, the structural overhaul of monetary policy objectives and operations may be warranted. The advent of globalization has, undoubtedly, brought about new and different challenges for the conduct of monetary policy and central banking activities around the world and the SEACEN countries. The current global financial slowdown, which originated with the sub-prime mortgage defaults in the United States, has tested the limits of conventional monetary policy, both in terms of the current thinking about how monetary policy is conducted, as well as the effectiveness of the current approach to monetary policy (Watanagase (2009)).

Accordingly, this paper has looked into a number of the broiling concerns facing central bankers globally. The need to carry out 'leaning against the wind' or counter-cyclical measures has been well recognized. However, practical challenges facing the implementation, especially in identifying suitable and viable macro-prudential measures and tools, are still far from being resolved. The need to place counter-cyclical measures within the overall monetary framework that incorporates financial stability as one of the

[11] It is interesting to note that Indonesia has developed the "Crisis Management Protocol (CMP)" that covers four key areas of crisis: major operational disruption, market disruption, financial infrastructure disruption and crisis in financial institutions. In line with the crisis protocol framework, many regulations have been refined to deal with changes in the financial and capital markets.

objectives, has also been underscored in this paper. Macro-prudential regulations should play an integral part on the overall monetary policy measures available for the central banks to manage asset prices.

Globalization of the financial markets of the SEACEN economies has also heightened the urgent need to coordinate monetary policies and regulations regionally and internationally. The role of banks' balance sheets and their lending activities as one of the primary contagion channels of the global financial meltdown in recent years profoundly underlines the need to coordinate supervisory activities of the banking sector. Recognizing the challenge is indeed a first step forward. However, carrying out the gradual phases toward a full implementation of colleges of supervisors requires much effort and commitment on the part of the SEACEN central banks in the years to come.

Finally, it has been proven time and again that having a strong and resilient financial system in times of crisis is important to enable these institutions to continue to intermediate between borrowers and lenders. Therefore, in normal times, strengthening the soundness of the financial system must be accorded priority with emphasis given to improving corporate governance, risk management and internal control practices and processes in banks through enhancing banking supervision and surveillance processes. SEACEN central banks and monetary authorities must also continuously be on the alert and monitor inherent sub-optimal procyclicality policies as well as be ever ready to review their regulatory and surveillance frameworks and amend them according to best practices, as well as development in the financial market.

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Appendix 1

CENTRAL BANKS' MAIN POLICY RESPONSES TO THE CRISIS

Brunei Darussalam
Brunei Darussalam employs a currency board regime where the Brunei Dollar is at par with the Singapore Dollar at 1:1. The benefit of the currency board regime is that it provides the economy with a stable platform for the conduct of economic activity. Brunei Darussalam also has an open capital account, allowing for the free flow of funds. From a monetary policy standpoint, it ensures sufficient liquidity is present in the financial system through prudent management and supervision of the local financial industry.
Cambodia
Highly dollarized (around 90 %) which naturally introduces constraints in implementation of monetary policies (e.g interest rate) but it has also limits the impact of price changes that are the consequence of significant movements in the currency exchange rates Increase reserve requirement ratio in July 2008 from 8% to 16% on foreign currency deposits in a bid to absorb excess liquidity (half of the 16% are not remunerated, while other half yield ½ of 1-month SIBOR) to reduce inflationary pressure. Inflation reached a decade high of 35.6% in May 2008. As inflationary pressure eased, the reserve requirement was reduced to 12% (8% of the RR are not remunerated, while other 4% yield ½ of 1-month SIBOR) and the removal of the 15% limit on credit to the real estate sector was implemented. Introduced overdraft facility for banks eventually in need of liquidity. The local currency was under pressure, depreciating around 3% yoy in July-August 2009 and this prompted the largest USD liquidity injection in the last 10 years, when USD net sale reaching around USD 40 million.
Fiji
Worsened BOP resulted in foreign reserves falling sharply to FJD$430 million in March 2009, equivalent to 1.5 months of imports of goods and non-factor services. Devalued the currency by 20% in April 2009 and tightened exchange controls. The credit ceiling policy, which was implemented following the political crisis in December 2006, was kept in place. Imposed direct interest rate policies on banks and other deposit taking institutions. These policies included placing an interest rate ceiling on bank lending rate, as well as a maximum interest spread for banks.

Support for credit to priority sectors. A specialized division within the Reserve Bank was established in April 2009 in order to facilitate the development and streamlining of micro-finance services in the country. The Reserve Bank recently announced the need to further reduce the deficit in the current account to 5% of GDP, signalling that monetary tightening will continue to be a key feature of monetary policy until external stability is restored.
<u>Indonesia</u>
Reduction in BI rate 300 bp to 6.5% to date. Ease liquidity into the market, such as: Reducing reserve requirement from effective 9% to only 7.5%; Reducing foreign reserve requirements for conventional commercial and Islamic banks from 3.0–1.0%; Enhance Export Financing BI is available to purchase export draft (WEB) with rediscount scheme; and, Expanding BI's facility through the short-term funding facility (FPJP) for banks facing liquidity problems. Reducing over-night repo rate from BI Rate+ 300 bps to the BI Rate+ 100 bps. Adjusting Bank Indonesia Deposit Facility from BI rate - 200 bps to BI Rate - 00 bps. Extending maturity of Fine Tune Operation from 1-14 days to 1 day-3 months. Abolishing restrictions on daily balance position of foreign short term borrowing. In support of exchange rate stability, Bank Indonesia took actions on: Adopting prudential regulations related to the capital movement, by implementing the banking risk management system and the necessary prudential regulations. E.g., on net open position limit, margin trading and flows related to the derivative transaction, prohibiting structured derivative product transactions associated with foreign exchange transactions; Strengthening monitoring system of the foreign exchange market by e,g., some early warning systems; Extending foreign exchange swap tenors from a maximum of 7 days to 1 month; Signing a Bilateral Currency Swap Arrangement with other East Asian countries; Preventing and managing crisis by: Increasing the value of bank deposit guaranteed by the Government from Rp100 million to Rp2 billion; Setting-up financial sector safety net, and providing emergency financing facility for banks facing financial difficulties which may have systemic

impact and potentially to cause financial instability

Korea

From 9 Oct 2008 to 12 February 2009, the BOK base rate was reduced on six occasions from 5.25% to 2.00%.

The BOK also expanded financial support to vulnerable sectors through increasing aggregate credit loan ceiling, making a one-time interest payment on required reserves, and supporting the Bank Recapitalization Fund and the Bond Market Stabilization Fund.

The BOK also increased its liquidity provision through open market operations, while broadening the list of counterparties and collateral eligible for Open market Operations (OMOs- 18.5 trillion won) including RP purchases (OMOs from 2008 Sep. 18 to 2009 Nov. 10. There had been no RP repurchases since March 2009, and 16.8 trillion won was automatically withdrawn as existing RPs reached maturity. One trillion won of government bond purchases and 0.7 trillion won of Monetary Stabilization Bond purchases before maturity were one-off support).

12 securities companies were newly included in the list of eligible counterparties for RPs.(Some of them were included again when financial institutions eligible for RP transactions were selected once again in July 2009).

Bank bonds and special bonds were newly included in eligible collateral for Open Market Operations.

At the same time, the BOK strengthened backstop at the international level by signing currency swap agreements with major central banks. It also focused on providing foreign currency liquidity quickly and sufficiently, in response to worsening foreign currency funding conditions due to sudden outflows. The BOK signed a currency swap agreement with the US Fed worth $30 billion on October 30, 2008. On December 12, 2008, it also made swap agreements of 180 billion yuan and $20 billion-equivalent with the People's Bank of China and the Bank of Japan, respectively. From October 2008 to February 2009, the BOK provided foreign currency liquidity worth of $26.8 billion through competitive auction swap facility and foreign currency lending, utilizing its foreign reserves and currency swap funds with the US Fed.

Malaysia

i. Liquidity measures – to ensure the adequacy of funds and to preserve confidence in the banking system
   - BNM shortened the maturity of its monetary operations, allowing banks more flexibility in managing liquidity when dealing with capital outflows.
   - BNM also instituted a full guarantee on deposits placed with banks to preserve confidence in the financial system.
   - BNM widened access to its liquidity facility beyond banks to also include insurance companies and takaful operators.

ii. Interest rates measures - monetary policy was loosened to reduce the cost of financing and provide support to domestic demand
   - BNM reduced its Overnight Policy Rate (OPR) from 3.50% in November 2008 to 2.00% in February 2009.To ensure greater transmission from the policy rate to retail lending rates BNM also:

Reduced the Statutory Reserve Requirement (SRR) by 300bps from 4.00% to 1.00%.

- As at Oct. 09, the average lending rate (ALR) on outstanding financing has declined by 108 basis points compared to its level in Nov. 2008
- As at Oct. 09, the base lending rate (BLR) has declined by 115 basis points compared to its level in Nov. 2008

– Encouraged banks to reduce monthly loan repayments on floating rate loans.The Bank also issued Bon Simpanan Merdeka amounting to RM2 billion to provide higher returns to the segment of savers that depend on interest income for their livelihood, mainly Malaysian citizens aged 56 and above.

With a nominal return of 5% per annum, the real return on the bond is expected to average above 2.5% in 2009.

iii. Measures to improve access to financing for businesses and household

- Establishment of various funds and guarantee schemes by the Government and BNM have ensured that viable businesses, especially SMEs and micro-enterprises continue to have adequate access to financing.

  As of early December 2009, more than 21,000 applicants have benefited from the funds and schemes approved financing amounting to more than RM10.6 billion.

– Special funds to help SMEs with viable businesses obtain financing:

  (i) SME Assistance Facility (RM700 mil) – August '08
  (ii) SME Modernisation Facility (RM500 mil) – August '08
  (iii) Micro Enterprise Fund (RM200 mil) – November '08
  (iv) SME Assistance Guarantee Scheme (RM2 bil) – January '09
  (v) Working Capital Guarantee Scheme (RM5 bil) – April '09

– (vi) Industry Restructuring Loan Guarantee Scheme (RM5 bil) -April '09BNM held dialogues with the banking institutions and the business community to bridge the concerns faced by both parties.

– More intensive outreach efforts to assist borrowers under distress, including providing avenues for debt resolution and restructuring.

  o For individuals, the Credit Counselling and Debt Management Agency (AKPK) established in April 2006, intensified efforts to provide assistance to individual borrowers in developing a personalised debt repayment plan in consultation with their banks.
  o For SMEs, the Small Debt Resolution Scheme (SDRS) was established to facilitate restructuring and rescheduling of all non-performing loans of SMEs. The Small Debt Restructuring Committee provided an independent assessment on the viability of the SME's businesses and proposed a loan restructuring and financing plan. Previously, only non-performing loans of an aggregate amount not exceeding RM3 million were allowed to be restructured under this scheme.

  o For corporates, the Enhanced Corporate Debt Restructuring Committee helps corporations to restructure their debt, including bank loans and private debt securities.
  o One year loan moratorium for retrenched workers for repayments on their housing loans.

– The establishment of Danajamin (Financial Guarantee Institution) to provide credit enhancements to corporations with viable businesses and investment grade ratings to enhance their access to the Malaysian bond market.

- In addressing general enquiries relating to banking services and credit issues from individuals and businesses, BNM established the Integrated Contact Centre comprising BNM Link, BNM Telelink and Complaints Management and Advisory section within the Bank. In addition, ABMConnect Toll Free Channel was set up in December 2008 by the Association of Banks in Malaysia (ABM) in collaboration with banking institutions.
- The Bank also ensured sufficient dollar liquidity to support international trade through its foreign reserves. This is to avoid a shortage of dollar liquidity from hampering Malaysia's international trade activities.

Mongolia

A joint decree of the Minister of Finance and the Governor of Bank of Mongolia to formalize the exchange of information between the two institutions. The decree mentions the need for coordination when issuing Central Bank bills for monetary policy purposes, and government securities for debt management purposes.

Between Sept 8 and Sept 9,the 7-day Central Bank bill rate was reduced from 10.25 to 10%. In early March, the Mongolian togrog overshot its equilibrium level and BoM responded by increasing its policy rate to 14% on March 11, 2008 and by introducing a two way multiple price forex auction on March 24, 2008.

Reverse repo regulation was approved in Sept 8.

Reserve required ratio was cut by 0.5 percentage points from 5.5% to 5.0% while the total amount of liquidity injection to commercial banks by the Bank of Mongolia reached 260 billion togrogs. The capital adequacy ratios or commercial banks to 12 from 10% and Blanket Deposit Guarantee on the bank deposits was introduced.

On April 1, 2009, IMF approved an 18-month SBA in an amount equivalent toUSD229.2 million to restore macroeconomic stability through fiscal, monetary and financial sector policies. The program aims to assist with a re-alignment of the monetary framework to a quantity based framework, where reserve money is the operational target.

Myanmar

The economy was not directly affected by the global crisis. Central bank has issued instructions and regulatory guidelines to both stated-owned and 13 private banks related to lending activities (to create quality loans and reduce NPLs).

Nepal
The CRR and bank rate was revised upward by 0.5 and 0.25 percentage points respectively in October 2008. A high level committee was formed by the government headed by vice-chairman of National Planning Commission including members from ministry of finance and the NRB in order to closely monitor the impact of crisis in the country.
Papua New Guinea
The global financial crisis did not have a direct adverse impact on the PNG economy because banks and financial institutions in the country have none to little exposure to the troubled financial institutions abroad. The indirect impact was through the low global demand on PNG's exports resulting in current account deficit. The current account deficit was, however, more than offset by a huge financial and capital account surplus. The Bank of PNG was more concerned about getting the inflation rate down from the high of 13.5% in the September quarter of 2008. It tightened monetary policy by increasing the policy signaling rate (Kina Facility Rate) progressively from 6.0% in June 2008 to 8.0% by December 2008, and has maintained it at that rate for most of 2009.
Philippines
Policy rate cuts: The successive easing of BSP policy rates from mid-December of 2008 to July 2009 is a reflection of its expansionary policy stance to influence market rates to sustain credit growth and stimulate economic activity. *Liquidity:* Since the height of the global financial market turmoil in late 2008, the BSP has been moving to ensure there is sufficient liquidity in the system. The BSP enhanced the existing peso repurchase agreement (repo) facilities through relaxed valuation and a broader list of acceptable collateral; established the US dollar repo facility to augment dollar liquidity in the foreign exchange market and ensure the ready availability of credit for imports and other legitimate funding requirements; reduced the regular reserve requirement by two percentage points; and, increased the rediscounting budget from ₱20 billion to ₱60 billion and liberalized access to the facility.
Singapore
MAS shifted to a zero percent appreciation of the S$NEER policy band in October 2008, reflecting the moderation of inflation from its peak in mid-2008 as well as the deterioration in the external outlook. MAS re-centered the exchange rate policy band down to the prevailing level of the S$NEER in April 2009, while maintaining the width of the band and zero percent appreciation path. MAS maintained the zero percent appreciation of the S$NEER policy path in October 2009.

Internal macro-prudential assessment was stepped up through higher frequency surveillance. Some of the specific measures undertaken by MAS to instill market confidence and ensure the stability of the financial system include: (1) 0n October 16, 2008, the government announced a guarantee on all S$ and foreign currency deposits of individual and non-bank customers in banks, finance companies and merchant banks until end-2010;(2) MAS kept a higher level of liquidity in the banking system and stood ready to inject additional liquidity.; (3) On October 30, 2008, the US Federal Reserve and the MAS established a precautionary swap facility that provides US$ liquidity of up to US$30 billion.

Sri Lanka

The Statutory Reserve Ratio (SRR) for rupee deposit liabilities of banks reduced on three occasions. Effective from 17.Oct. 2008, the SRR was reduced by 75 basis points to 9.25% and by 150 basis points to 7.75% with effect from 28.10.2008. It was further reduced by 75 basis points to 7.00% on 27.Feb.09.

The penal rate of interest rate that was charged on Reverse repurchase transactions which had remained at 19% since its introduction in November 2007 was gradually reduced from January 2009 and then completely removed on 21 May 2009.

In 2009, the Central Bank reduced its policy interest rates in several steps. The Repurchase rate has been reduced by 275 basis points to 7.50% and the Reverse Repurchase rate has been reduced by 225 basis points to 9.75% by November 2009.

The Central Bank eased the restrictions on the number of times a participating institution could access the Reverse Repurchase facility of the Central Bank.

The Central Bank injected liquidity through the purchases of Treasury bills in the primary market as well as the secondary market to address the shortfall in rupee liquidity in the domestic money market.

Several prudential measures introduced in 2008 and before to limit the demand for credit for certain categories of imports were removed in 2009. This includes increasing the margin deposit requirement on Letters of Credit (LCs) for the import of certain categories of vehicles from 100% to 200%, margin deposit requirement of 100% against LCs for import of some categories of non-essential items and the import of the same items on DA terms

In order to build up reserves to comfortable levels as prevailed in mid 2008 and to build up investor confidence, Sri Lanka requested for a SBA facility with exceptional access from the IMF. Accordingly, on July 24, 2009 the IMF approved a SBA facility of US$ 2.6 billion (SDR 1.65 billion), which is equivalent to 400 per cent of country's current quota

Taiwan
Measures adopted for monetary easing since September 2008 include: Cutting the policy rate seven times by a total of 237.5 basis points; Lowering required reserve ratios on deposits; Expanding the scope of repo operations; and maintaining banks' excess reserves at a higher level. In terms of exchange rate policy, when seasonal or irregular factors cause the NT dollar exchange rate to become more volatile than can be explained by economic fundamentals, the CBC will step in to maintain market order. In addition to the CBC's easy monetary policy, the government has implemented financial stabilization measures and expansionary fiscal policy, including the blanket coverage of deposit insurance, consumption coupon program, public infrastructure projects scheduled for 2009 to 2012 totaling NT$500 billion, tax reduction and subsidy programs, and employment promotion program. These coordinated policy efforts have helped reduce impact from the global financial turmoil and bring economic growth back on track.
Thailand
Major policy measures include: Monetary policy has been substantially eased. Since December 2008, the Bank of Thailand has lowered the policy interest rate cumulatively by 250 basis points to the historic low level of 1.25% currently. The objectives of these cuts were: to help cushion the economic slump while allowing fiscal policy the needed time to fully materialize; to aid the process of economic recovery and resumption of private sector spending. to alleviate financial burdens of households and firms. The BOT conducted additional sell-buy swap transactions to provide more dollar liquidity to the market during the drying up period of dollar liquidity overseas. Exchange rate policy has been to allow the value of the baht to be determined by market forces, while managing the volatility of the exchange rate within the appropriate level in light of economic fundamentals and national competitiveness. Given that the volatility of baht may be increasing going forward as a result of increased capital flows, the BOT will continue to closely monitor the exchange rate to ensure that the

volatility remains within the acceptable level Other policy measures taken included fiscal stimulus package, blanket deposit guarantee and credit guarantee scheme for SMEs.
Vietnam
Specifically, the monetary, credit, and exchange rate measures issued by State Bank in 2009 were: Reduce basic, refinancing, and discount rates down to 7%, 7% and 5% respectively since February 2009. In December 2009, these rates were adjusted to 8%, 8% and 6% respectively; Issue interest rate arrangement mechanism of credit institutions for consumption loan, loan for issuance operation, credit card usage; Adjust the VND reserve requirement rate for demand deposit and less than 12 months deposit from 6% down to 3%, deposit more than 12 months from 2% down to 1%; Conduct open market and refinancing operations flexibly to control money supply, ensure soundness of payment system, and stabilize money market. Adjust the exchange rate corridor from ±3% to ±5% (on 24 March 2009) and adjusted it to ±3% (on 26 November 2009); the average exchange rate in the inter-bank market on 26 November 2009 increased to 17,961 VND; Intervention in the exchange market, increase information dissemination together and administrative penalties to reduce foreign exchange withholding; Implement simultaneously all the interest rate support mechanisms for agricultural production. Enhance banking supervision, review, and monitor to ensure the soundness of the banking system; focus on 4 key areas which are: interest support loans, foreign exchange

Source: SEACEN Member Banks' Replies to Survey for EXCO/BOG Background Papers, December 2009.

Appendix 2

FISCAL STIMULUS PACKAGES IN SELECTED SEACEN COUNTRIES

Korea		
Fiscal expenditure and tax cuts under "2009 Budget and Public Fund Operations Plan to Overcome Economic Difficulties" (KRW 35.6 trillion, USD 26 billion, 4% of GDP)	- Creation of more jobs by providing better job training through expansion of the internship system, vitalizing venture enterprises, increased job positions for the underprivileged - Increase welfare support to stabilize livelihoods of low-income classes and provide aggressive support in reducing childcare costs - Increase social overhead capital investment with focus on investments in construction projects including leading projects for advancement of the metropolitan economy and provincial traffic network expansion - Support stabilization of SMEs and the financial markets by increasing SME guarantees - Support regional finances to offset reduced real estate tax	Dec 13, 2008
Fiscal expenditure under "Green New Deal Job Creation Plan" - measure expected to generate 950,000 jobs over 4 years (consolidation of previous plans) (KRW 50 trillion, USD 37 billion)	- Energy conservation, recycling and clean energy development to build an energy-saving economy - Green transportation networks and clean water supplies to upgrade the quality of life and environment - Carbon reduction and stable supply of water resources to protect the earth and future generations - Building of industrial and information infrastructure and technology development to use energy efficient in the future	Jan 2009
Fiscal expenditure (supplementary budget bill) KRW 29 trillion	-Maintaining job security and revitalizing provincial economies & supporting industries with future growth potential (17 trillion Won) - Remaining amounts to plug tax revenue shortfalls	March 2009
Indonesia		
Fiscal expenditure and tax cuts (IDR 73.3 trillion USD 6.7 billion 1.4% of GDP)	- General income tax cut (43 trillion) - Government borne-tax and import duties (13.3 trillion) - Infrastructure spending (9.7 trillion) - Energy subsidy and financing for the support of small business activities (7.3 trillion)	Jan 2009

Second stimulus spending (IDR 61.2 trillion USD 6 billion) (2010)	- Poverty reduction - Infrastructure spending - Education and health development	Aug 2009
Fiscal expenditure (MYR 7 billion, USD 1.9 billion 1% of GDP)	- Investment funds to promote strategic industries and high-speed broadband (1.9 billion) - Small-scale infrastructure projects (1.6 billion) - Education and skills training programs (1 billion) - Public transport and military facilities (1 billion)	Nov 2008
Fiscal expenditure (MYR 60 billion, USD 16.2 billion 9% of GDP)	- Fiscal injection (15 billion) - Equity investment (10 billion) - Tax incentives (3 billion) - Guarantee funds (25 billion) - Private finance initiatives and off-budget projects (7 billion)	Mar 2009
Malaysia		
Fiscal expenditure (MYR 7 billion, USD 1.9 billion 1% of GDP)	- Investment funds to promote strategic industries and high-speed broadband (1.9 billion) - Small-scale infrastructure projects (1.6 billion) - Education and skills training programs (1 billion) - Public transport and military facilities (1 billion)	Nov 2008
Fiscal expenditure (MYR 60 billion, USD 16.2 billion 9% of GDP)	- Fiscal injection (15 billion) - Equity investment (10 billion) - Tax incentives (3 billion) - Guarantee funds (25 billion) - Private finance initiatives and off-budget projects (7 billion)	Mar 2009
Philippines		
Fiscal expenditure and tax cuts (PHP 330 billion, USD 6.5 billion, 4.6% of GDP)	- Job creation program expected to provide 824,000 temporary jobs at government departments by July 2009 - Tax reduction in corporate income tax and waiver of personal income tax for minimum wage earners - Infrastructure projects - Waiver of penalties on loans from social security institutions	Jan 2009
Singapore		
Fiscal expenditure and tax cuts (SGD 20.5 billion, USD 13.7 billion,	- “Job Credit Program”; cash transfers for employers to cover part of their wage bills and avoid massive lay-offs - “Special Risk Sharing Initiative”; government guarantees working capital loans to individual firms	Jan 22, 2009

8% of GDP)	to stimulate bank lending - Tax cuts; corporate tax rate from 18% to 17% and personal income tax rebates of 20% of taxes due.	
	Sri Lanka	
Package to support export sectors (LKR 16 billion USD 141 million 0.3 % of GDP	-Incentives for the agricultural and industrial export sectors (tea, textiles, tourism, leather, rubber) -Reduction in fuel prices -Waiver on 15% electricity surcharge	Dec 30, 2008
	Thailand	
Supplementary budget (THB 116.7 billion, USD 3.3 billion, 1.3% of GDP)	- One time living cost allowance of THB 2000 for those earning < THB 15,000 per month - Extension of 5 public service subsidies program for 6 months - Support given to unemployed workers - Free education for students - “Sufficient Economy Fund for Improvement in Quality of Life” fund for rural villages - Old-age support payment of THB 500 per month - Infrastructure projects - Tax measures to boost real estate sector, SMEs and the tourism industry	Jan 2009
Thai Khem Khang (or Thai Strength) (THB 1.43 trillion, USD 42 billion) (2010-2012)	-Infrastructure investment in mass transit; transportation and communication; energy; education; healthcare; housing; water resources	June 2009
	Vietnam	
Fiscal expenditure (VND 17 trillion, USD 1 billion, 1.1% of GDP)	- 4% interest subsidy on loans to SMEs - Reduction in corporate income tax for SMEs - Exemption on personal income tax from Jan to May 2009	Dec 2008
Fiscal expenditure (VND 300 trillion, USD 17.6 billion, 21% of GDP)	- Infrastructure projects - Measures to support manufacturing and export sectors - Projects designed to support social security and welfare	Mar 2009

Source: ESCAP (2009)