Current and Future Challenges to Monetary Policy in Emerging Market Economies[1]

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1. Introduction

It is my honor to address the participants of 5th SEACEN-CCBS/BOE Advanced Course on Macroeconomic and Monetary Policy Management. I will focus my presentation on current and future challenges to monetary policy in emerging market economies which have now become the most dynamic and economically important ones in the world economy. As these economies become larger and more integrated into international trade and finance, they face an increasingly complex set of policy challenges including that on monetary policy front.

Monetary policy is typically the first line of defense against various internal and external financial shocks. With rapid globalization and financial liberalization, emerging market economies face a number of difficult challenges in designing monetary policy that works well in terms of promoting macroeconomic and financial stability. An unintended consequence of financial globalization is the growing exposure of emerging and developing countries to financial turbulences occurring in the advanced economies.

Despite their growing economic size, many emerging market economies still have relatively underdeveloped financial markets and institutions; their financial system is vulnerable to external shocks; and their central banks are less independent to carry their core functions. Besides, mostly being populous countries, their per capita income is low relative to that of advanced industrial economies-despite having high economic growth, and a significant fraction of their population still lives in absolute poverty. These features call for a wider role of the central bank in these economies, thus posing constraints on setting a single objective and instrument for monetary policy.

This presentation is in the following order. Section 2 delves on the objectives of monetary policy, particularly what it can achieve and what not. Section 3 will focus on monetary policy framework adopted by SEACEN countries. Emerging challenges to monetary policy, which have been creating dilemma on selecting right objectives for monetary policy will be covered in section 4. Operational environment for monetary policy will be discussed in section 5. The paper will conclude with a few remarks on addressing the monetary policy challenges.

2. Identifying Objective(s)*:*

Increasing fragility of the financial system has been the main challenge to selecting right objectives for monetary policy. A key question is: which objectives should be assigned to monetary policy and can it continue for long in a dynamic and financially integrated

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world? There is a general recognition that the primary role for monetary policy is price stability in line with the Quantity Theory of Money and policy ineffectiveness proposition of neoclassical economic theories. The rationale is that the best way that a central bank can promote growth and employment is by keeping inflation low and stable. However, as central banks are also viewed responsible for financial stability after the eruption of the most recent financial crises in the advanced economies, it has posed a challenging dilemma as to whether central banks should be choosing price stability or financial stability, if they were to have a single objective.

The objective(s) of monetary policy is (are) guided by the structure of the economy-they could be higher output and employment, low inflation, favorable balance of payments, stable exchange rate or financial stability. In a closed economy where wage - price flexibility also exists, monetary policy could influence output or employment along with prices. But in an open economy, monetary policy is constrained in achieving these objectives and its effectiveness would be seen in balance of payments and exchange rate depending upon the exchange rate regime the country has followed. Besides, the size of non traded goods in consumer basket vis-à-vis the trade goods determines the effect of monetary policy on domestic inflation.

There is not yet a consensus on the link between monetary policy and financial stability – there could be either trade-offs or synergies between them. Some argue that monetary policy should be regarded as a legitimate tool in the financial stability toolbox while others argue that monetary policy and financial stability policy are distinct and should not be confused with one another. Notwithstanding this, as evidence shows that credit booms precede the financial crisis, monetary policy should not ignore financial stability concern. Hence, many central banks have started to give due attention to financial stability while conducting monetary policy. On the other hand, transmission of monetary policy depends on the health of the banking systems, and the implementation of monetary policy depends on the payment systems and institutional as well as regulatory framework. Hence, financial stability is a precondition for monetary stability. Equally, bad monetary policy certainly causes financial crisis such as over tight monetary policy would weaken the banks' solvency and over expansionary monetary policy could inflame bubbles and increase risks to the financial system.

However, just good monetary policy is not sufficient to ensure financial stability and there are no clear cut monetary policy instruments for maintaining financial stability. Many emerging economies' central banks use short-term interest rates as monetary policy instrument. Moreover, there is no straight forward monetary mechanism to maintain financial stability. This situation demands coordinated efforts between regulatory policy and monetary policy. Recently, macro prudential policy measures are gaining importance in a right direction, although they still need to be understood clearly.

The task of maintaining financial stability was overshadowed in the last decades despite having a series of crises, having over confidence on market mechanisms. The financial stability work has, however, gained a more prominent position recently after the recent financial crisis in advanced economies. Now, that the economies and financial sectors have been slightly recovering, the stance of monetary policy seems to have changed gradually, which will increase the interest rate, impacting adversely the sovereign debts. Any debt default by the governments will again translate into a financial crisis. Fortunately, it is not a prominent issue for most of the emerging market economies of the SEACEN region, thanks to the Asian crisis of later 1990s which taught them strong lesson on macroeconomic management.

3. Monetary Policy Framework

The world economies have been adopting varieties of monetary policy framework amid continuing debate on choosing the right one amongst varied monetary policy frameworks. Although inflation targeting framework has been gaining momentum since 1990 until recently, only a small number of countries in the world have adopted it. According to IMF's classification as of April 2011, 16.3 percent of IMF's member countries have adopted inflation targeting, 15.3 percent monetary targeting, 51.1 percent exchange rate targeting (majority of them have pegged exchange rate with the US dollar) and 17.4 percent have other systems (see Table 1 in the Appendix).

Inflation targeting framework involves the public announcement of numerical targets for inflation, with an institutional commitment by the monetary authority to achieve these targets, typically over a medium-term horizon. The major issue in inflation targeting is considering headline vs. core inflation. Ignoring headline inflation and focusing on core one would undermine the impact of food and energy prices on consumers. As such these items constitute more than half of the consumer spending in many developing economies. So a key feature in inflation targeting includes increased communication with the public and the markets about the scope and objectives of monetary policymakers and increased accountability of the central bank for achieving its inflation objectives. With new challenges emerging in the global economy, the proportion of countries opting for inflation targeting has declined from 22.9 per cent of the IMF members in 2008 to 16.3 per cent in 2011 (see Table 3 in the Appendix).

Under the monetary targeting framework, central banks or monetary authorities use their instruments to achieve a target growth rate for a monetary aggregate, such as reserve money, narrow money or broad money, and the targeted aggregate becomes the nominal anchor or intermediate target of monetary policy. The number of countries considering monetary aggregates has increased modestly after 2009, indicating the relevancy of quantitative or balance sheet variables in monetary policy decisions. Recent quantitative easing policies adopted by the Fed and other central banks, although called unconventional policies, are also related to quantitative variables. In emerging economies where financial markets are not developed and interest rate does not clear the market, monetary and credit aggregates hold a greater significance in monetary policy framework. Also when other intermediate targets have not functioned well, some countries have reverted back to monetary targeting. As such, the number of countries opting for monetary targeting has increased from 11.5 per cent of IMF members in 2008 to 15.3 per cent in 2011.

Exchange rate targeting framework involves foreign exchange market interventions (buying and selling foreign currencies) by the central bank to maintain the exchange rate at its pre-determined level or within a range. The exchange rate thus serves as the nominal anchor or intermediate target of monetary policy. This framework is associated with exchange rate arrangements with no separate legal tender, currency board arrangements, pegs (or stabilized arrangements) with or without bands, crawling pegs (or crawl-like arrangements), and other managed arrangements. As some countries have away to other monetary frameworks, the number of countries opting for exchange rate targeting has decreased from 59.9 per cent of IMF members in 2008 to 51.1 per cent in 2011.

Some countries have adopted other frameworks whereby countries do not explicitly state nominal anchor but instead monitor various indicators in conducting monetary policy. European Monetary Union is one example. The number of countries opting for some hybrid framework has increased in the recent years – from 5.7 per cent of IMF members in 2008 to 17.4 per cent in 2011 (including new reporting).

Exchange rate has been the nominal anchor of monetary policy in six of the 16 SEACEN countries taken into consideration, despite these countries having different exchange rate arrangements (see Table below). Four countries each are having monetary aggregates and inflation as the anchor of their monetary policy while two countries are having other kinds of monetary policy framework.

Monetary Policy Framework in SEACEN Countries

Exchange Rate Arrangement	Ex Rate Anchor	Monetary Aggregate	Inflation Targeting	Other
Currency Board	Brunei			
Conventional Peg	Nepal			
Stabilized Arrangement	Cambodia, Lao PDR Vietnam			
Crawl-like Arrangement		China Sri Lanka		
Other Managed Arrangement	Singapore (composite)			Malaysia Myanmar
Floating		Mongolia, PNG	Indonesia, Korea, Philippines, Thailand	

Source: Annual Report on Exchange Arrangements and Exchange Restrictions 2011.

4. Emerging Challenges to Monetary Policy

During the neo-liberal era, the world economy has been observing a series of crises such as Latin American Debt crisis of the 1980s, Mexican crisis of 1994, East Asian crisis of 1997-98, Argentinean crisis of 1999-2002, US financial crisis of 2007-09 and the recent European sovereign debt crisis of 2010 -11. This shows that the current global financial system is prone to different types of crises like currency crisis, banking crisis, and sovereign debt crisis. Since 1970, the world observed 124 banking crises, 208 currency crises, 63 sovereign debt crises, 26 twin crises (banking and currency) and 8 triple crises[2].

After the Latin American public debt crisis, the current European debt crisis has, however, renewed interest on the sovereign debt crisis in new dimension. After the US financial crisis, which was triggered by the meltdown of housing market bubble amidst the widespread shadow banking, exotic financial engineering and deregulation, the sovereign debt crisis emerged in the European Union, particularly in Greece. Other EU countries such as Italy, Spain, Portugal and Ireland have also faced some ripple of the crisis.

The weak global economic growth since the US financial crisis has exposed the unsustainable fiscal policies of advanced economies, particularly of Europe and USA, making high budget deficit unsustainable. The budget deficit reflects large war and welfare costs of these economies which can only be resolved through political-economic decision. Also, the unprecedented monetary easing and fiscal stimulus have resulted in the swelling of sovereign debts in many of these countries. With government bonds getting a junk rating, European financial institutions, holding a huge amount of government bonds on the assumption that they were safe assets, have incurred huge losses. Hence, a vicious cycle of spreading of a problem originated on the fiscal front to the financial front and further to the real economy has emerged.

The cheap money policies of many central banks have also added debt in the household and corporate sectors. Credit driven consumption at a low interest rate and low investment did create a setback to economic growth. Experience till now has shown that unsustainable debt built-up, in both private sector and public sector, can create an unstable financial situation leading to a financial crisis. Also, any mismatch in the balance sheets of any sector of the economy could pose a great threat to financial stability because of growing inter-linkage among the different sectors of the economy.

Vulnerability of the financial system has, in fact, increased due to asymmetric international monetary system, where currencies of a few countries are largely accepted as reserve currencies. Besides, slower capital account liberalization and preventing the currencies of some larger economies from emerging as reserve currency have also added vulnerability, as the portfolio choice for risk diversification have been low. Increasing volatility of capital flows – normally of short-term nature – has made the financial system more vulnerable.

In the absence of developed financial markets and instruments in Asia, most of the savings of the Asian economies have been flowing towards the advanced economies. With low return, fragility of the financial system, and poor growth outlook, such saving are rerouted to Asia in different form of capital inflows. Such flows may have both the

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[2] Laeven, L. and Valencia, F. (2008), "Systemic Banking Crises: A New Database", *IMF Working Paper WP/08/224.* This dataset does not include the recent sovereign debt crisis in Europe.

transitory and permanent character- depends on how fast the advanced economies will recover from the crisis. Maintaining financial stability has, hence, emerged as a main challenge to monetary policy because of growing financial fragility emanating from the volatile capital flows. Financial liberalization with deregulation has contributed to such volatility in the market. Financial fragility can emerge internally as well as externally.

In fact, globalization and liberalization have made monetary policy more vulnerable to external developments. Policies adopted by any important country or region or financial turmoil happening there can spill over to others through the channels of trade and finance. As a result, the linkage between monetary policy and price is weakening. So, relevancy and necessity of maintaining price stability by monetary policy has been debated. Although advanced and many emerging countries have observed low and stable inflation after 1990 claiming the success of inflation targeting framework, the world has witnessed a series of financial crises. Nobody disagrees that technological advancement leading to productivity improvement in many emerging countries, particularly in China, has contributed to have low and stable inflation. On the other hand, frequent commodity price shocks have even made the objective price stability vulnerable. More importantly, in case of large capital inflows, monetary policy finds difficulty to raise interest rates to manage domestic inflation as that would have drawn in more capital inflows.

Experience shows that maintaining price stability does not ensure financial stability. Normally, against the background of price stability, financial fragility builds up through Minsky's financial instability hypothesis – the financial status of economic agents changes from hedge to speculative and then to Ponzi. Price stability plus financial liberalization leads to credit flows and credit boom, which fuels asset price bubbles in the economy. Hence, promoting both price stability and financial stability at the same time is becoming a challenge for monetary policy. There is no consensus on how to tackle the asset price bubbles by the monetary policy.

Financial deregulation and globalization have led the volatility of capital flows, managing of which has been another challenge to monetary policy. Both inflows and outflows of capital can destabilize the financial system and the overall economy. Mainly emerging countries have time and again witnessed swing in capital flows abruptly. Despite sound macroeconomic situation, sudden outflows of capital ignited the Asian financial crisis of 1997-1998. Further, during and in the aftermath of financial crisis of 2007, emerging countries have again observed up and down in capital flows, posing a serious problem of maintaining exchange rate stability. Financial flows are increasingly able to find their ways even in countries that have de jure capital control.

In the aftermath of the recent US financial crisis, capital inflows to emerging countries have been rebounding, fuelled by easy money policy and thus abundant liquidity in the advanced countries. Surge in capital inflows in emerging market economies have been causing appreciation of domestic currencies, which erodes the export competitiveness on the one hand and threatens financial stability through the rise in asset prices along with creating the possibility of sudden stops and outflows of such capital at any time. There is no concrete ways for monetary policy to easily handle these issues. Policymakers in these emerging countries have been responding through various policies measures such as allowing currency appreciation, accumulating international reserves through foreign exchange intervention, monetary easing and fiscal tightening. Some emerging countries have even introduced some sort of capital control and prudential measures to minimize the risks to financial stability. It seems that surge in capital flows like surge in asset prices may not always be the result of rational investor decisions but may often reflect unstable herd behavior. Moreover, sudden capital inflows lead to excessive currency appreciation, credit booms, domestic price bubbles and financial fragility.

Another important challenge to monetary policy is to have prudent fiscal policy. Fiscal behavior of the government has monetary implications on the economy. Not only monetization of budget deficit, an elevated level of public debt stock can endanger financial stability since high public debt affects the government's balance sheet adversely by raising the future fiscal costs and thereby lower the credibility of the government. In addition, a higher stock of public debts affects the prices of financial assets which ultimately affect the soundness of the financial sector's balance sheets.

Importantly, vulnerability of public debt increases if there is foreign –currency dominated and short-term debts in total debts. The former is subject to exchange rate risk, while the latter is subject to rollover and refinancing risks. It has been a well-established fact that inappropriate debt structure and poor debt management can ignite the financial instability by increasing country's risk perception and deteriorating the balance sheets of economic agents.

The New Trilemma on monetary policy objectives is critical. It is based on the notion of impossible trinity when the central bank cannot achieve all of inflation, interest rate and exchange rate objectives. The trilemma shows impossibility of policy authorities in pursuing the three goals of a free capital account, fixed exchange rates and an "independent" monetary policy at the same time. This has informed that the appropriate approach of central banks, operating in this trinity framework, is to focus on inflation and let market forces adjust other economic parameters. But it is also recognized that, though inflation targeting enables central banks to maintain low rate of inflation in the extended period before the financial crisis of 2008, such intensive focus on single objective leads to build-up space for financial instability due to the emergence of a shadow banking system.

Current sovereign debt threat is the direct fallout of the response of both monetary and fiscal authorities to infuse massive liquidity into the economy and the financial system to prop up consumption and boost credit during the period of financial crisis. Banks' holding of large share of sovereign debt has also contributed to their increased vulnerability. The constellation of outcomes has now resulted in the emergence of the impossible trinity into new trilemma of price stability, financial stability and sovereign debt sustainability. As there is no polar solution to this trilemma, central banks require optimizing monetary policy objectives by looking into an intermediate solution amid the constraints.

Given the volatility and growing integration of the world economy, time has now come to put crisis management mechanism in place in the armory of the central bank. Policy makers have to be ready with crisis management mechanism having contingency plans to maintain public confidentiality in the financial sector, in addition to prudent fiscal policy, and dynamic and conscious monetary policy. More importantly, central banks have to now focus on macro prudential policies and measures to make macroeconomic policies counter cyclical to prevent the built-up of financial fragility. Central banks also need to pay attention to the quality of credit flows since excessive credit flows to unproductive sectors always tend to precede financial instability.

5. Operational Environment for Monetary Policy

Central banks in emerging markets face a unique operational environment which constraints effective implementation of monetary policy. Fiscal dominance is a key problem facing emerging markets central banks. In many of these countries, long term fiscal discipline is lacking and monetary policy is often a subservient to fiscal policy, particularly since the latter is seen as having important political clouts and undertaking redistributive functions. An unsustainable fiscal policy, characterized by continuing high levels of government budget deficits and public debt, acts as a severe constraint on monetary policy as the central bank then has to take account of the government's debt management objectives in setting interest rates, rather than focusing exclusively on the price stability objective. It also makes harder for them to manage inflation expectations.

Many central banks of emerging market economies operate in a situation where they are not fully independent. This includes both the institutional and operational independence. On the institutional domain, some central banks perform under the purview of the Finance Ministry while others are independent in principle but can be influenced by Finance Ministry. Operational independence of the central bank, in some cases, is constrained by other operational environments such as exchange rate objective. Maintaining the exchange rate at a particular level or within a specified range often limit the room that the central bank has in using policy instruments such as the interest rate to pursue an independent domestic monetary policy aimed at managing domestic activity and inflation. It demands for a legislative or other mechanism to insulate monetary policy from fiscal spillovers

External environment is also getting increasing influential constraint in monetary policy operation due to increasing openness of the capital account in emerging market economies. Greater trade openness, the rising sophistication of domestic and international investors and the sheer volume financial flows have all made it increasingly difficult to keep capital bottled up when the incentives for it to cross national borders are strong enough. As outlined in the Mundell-Fleming 'impossible trinity', an open capital account of course makes it much harder to maintain an independent monetary policy when the central bank is also trying to manage the exchange rate.

Many emerging market economies are adopting macro-prudential measures to promote financial stability by reducing the systematic risk that may result from internal and external shocks. In this context, monetary policy needs to interact with those policies to produce its output. Indeed, asset prices are one channel via which monetary policy operates. On the other hand, macro-prudential polices can have macroeconomic spillovers. Only recently few studies started analyzing interactions between monetary policy and macro-prudential measures. In this new setting, the coordination of monetary policy and macro-prudential policies has become increasingly important challenge before central banks in emerging market economies. This becomes all the more difficult when the monetary and regulatory or supervisory authorities of the financial institutions, particularly the banking institutions, are different entities.

The effectiveness of monetary policy depends on the strength of transmission mechanism. The lack of well developed financial market in emerging market economies means that the traditional interest rate channel of monetary policy transmission mechanism is less effective. Further, lack of full integration of financial markets within emerging markets has led to asymmetrical responses to monetary policy by individual countries. Also, the lags in effects of monetary policy on economic activity are even longer and variable than in advanced economies. And, a fragile banking system can also make it difficult for a central bank to aggressively use policy interest rates to achieve domestic objectives, as large changes in interest rate can have potentially devastating consequences on balance sheets of weak banks.

The increased cross-border financial flows have also weakened the influence of domestic monetary policy over domestic interest rates leading to weak transmission mechanism of monetary policy. Increasing transactions of derivative products not only for hedging but also for speculation and financial innovations have diluted the traditional concept of money and thereby weakened the traditional monetary transmission mechanism. Besides, volatility in fuel prices in international market and the resulting adjustment in domestic fuel prices is also creating difficulty in maintaining policy objective of price stability in emerging market economies.

6. Concluding Remarks

Monetary policy is at a cross road after the financial crisis. When inflation is driven by structural and supply side factors like the cost and availability of goods and services, the link between monetary aggregates or interest and inflation has been weak in the recent years. This has raised a question on the framework of monetary policy that price stability is the core objective for central banks. Some have already announced that monetarism is long dead! Notwithstanding this, despite temporary hitches in the money – price relations, central banks cannot overlook their primary role of containing unsustainable demand for preventing price escalations.

There is growing view that monetary policy does not operate in a vacuum, it has a strong interface with the government. Supporting the state policies on growth and employment along with serving the core function are taken as the secondary responsibility of the central banks.

Because of complex challenges in a financially integrated world, no single approach to monetary framework will work. There cannot be a choice between price stability and financial stability – both are equally important. That is, monetary policy should not ignore the financial stability, despite focus on price stability. Also the choice of objectives and instruments are conditioned by country context – one framework does not serve all.

Sovereign debt is a setback to monetary policy credibility and prudent debt management is an essential complement to sound macroeconomic policies. Monetary policy must consider the environment under which it is operating. If sustainable debt management is also the function of the central bank, then the trilemma has to be resolved with optimal solution of the conflicting objectives.

Macro-prudential measures are emerging as complements to monetary policy. The coordination or consolidation of the monetary and regulatory authorities is crucial for forging an effective complement between the two measures. Also a logical and rule based approach for the adoption of macro prudential measures has to develop.

Although global inter-linkages among countries warrant coordinated efforts to maintain financial stability in the world, materialization of such an effort in practice is relatively difficult and challenging because of over concerns on domestic situations, resulting in a state of Prisoner's Dilemma. A greater regional monetary cooperation would be needed if an effective result of domestic monetary policy in attaining price and financial stability is expected without any cross border spill over of the effect or counter measures by other partner economies is to be avoided.

Autonomy of the central is a must for an effective operationalization of monetary policy. But it must also be linked to clear performance indicators and accountability. An autonomous central bank without measurable performance indicators and public accountability runs the risk of losing credibility.

Appendix Table 1: Monetary Policy Framework

	Exchange Rate Anchor	**Monetary Aggregate**	**Inflation Target**	**Other**
No separate legal tender (13)	13			
Currency Board (12)	12			
Conventional Peg (43)	43			
Stabilized Arrangement (23)	17	4		2
Crawling peg (3)	2	1		
Crawl-like Arrangement (12)	3	7		2
Pegged with Bands (1)	1			6
Other Managed Arrangement (17)	6	5		
Floating (36)		12	22	2
Free Floating (30)			9	21

Source: Annual Report on Exchange Arrangements and Exchange Restrictions 2011.

Table 2: Monetary Policy Framework & Exchange Rate Anchor (% of IMF Member Countries)

Year	**U.S. $**	**Euro**	**Composite**	**Other Currency**	**Money Aggregate**	**Inflation Targeting**	**Other**
2008	34.4	14.1	7.8	3.6	11.5	22.9	5.7
2009	28.7	14.4	7.4	4.3	13.3	15.4	16.5
2010	26.5	14.8	7.9	3.7	13.2	16.4	17.5
2011	25.3	14.2	7.4	4.2	15.3	16.3	17.4

Source: Annual Report on Exchange Arrangements and Exchange Restrictions 2011.