

## **Deepak Mohanty: Price stability and financial stability – an emerging market perspective**

Address by Mr Deepak Mohanty, Executive Director of the Reserve Bank of India, in the 2012 Central Bank of Nigeria (CBN) Board Retreat, Cape Town, South Africa, 27 June 2012.

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“A system of credit which has slowly grown up as years went on, which has suited itself to the course of business, which has forced itself on the habits of men, will not be altered because theorists disapprove of it, or because books are written against it.” Walter Bagehot, *Lombard Street, 1873*.

It is indeed an honour for me to be addressing the distinguished members of the Board of Directors and Senior Management of the Central Bank of Nigeria. I thank Governor Sanusi Lamido Sanusi for this opportunity. The recent global financial crisis has generated an intense debate on the role and responsibility of central banks in maintaining financial stability. Over the centuries, the world has experienced periodic financial crises, prompting changes in the way we think about monetary and financial stability. Yet, we are not immune from crisis.

In the present context, several questions arise. What ought to be the objectives of central banks or more specifically that of monetary policy? Is there a trade-off between price stability and financial stability? Were central banks blindsided by the success of price stability to the neglect of financial stability? Do central banks have the necessary mandate and instruments to handle multiple objectives and at the same time maintain credibility? How does one ensure accountability with multiple objectives? Is there a need to revisit the best practice in monetary policy? While we currently grapple with these issues, they are by no means new.

Against this background, I sequence my presentation as follows. First, I briefly trace the evolution of central bank objectives over the centuries. Second, I review central bank objectives and practices in emerging market economies (EMEs). Third, I highlight our experience in India in the conduct of monetary policy and how we have combined it with financial stability. Finally, I conclude by drawing three practical lessons in central banking in terms of monetary policy framework, institutional design and communication in pursuit of both monetary and financial stability.

### **Evolution of central bank objectives**

Let me first turn to central banking history for some insights. What was the motivation for setting up central banks in the 17th century? While the early central banks were set up for issuance of currency and financing governments, financial stability considerations got embedded as trade expanded and the banking and financial sectors developed. For instance, the Swedish Riksbank, the first central bank, was set up in 1668 as a joint-stock bank to lend funds to the government and to act as a clearing house for commerce. The Bank of England (BoE) was set up in 1694 to act as the government’s banker and debt-manager.

How did central bank objectives change in the 19th century? Most central banks began assuming financial stability function though it was not articulated the way we understand it now. Drawing from the criticism on its functioning during the panics in 1825, 1837, 1847, and 1857, the BoE adopted the “responsibility doctrine” proposed by Walter Bagehot. The doctrine required the BoE to subsume its private interest to that of public interest of the banking system as a whole. As per the Bagehot’s rule, the BoE was to lend freely on the basis of any sound collateral offered, but at a penal rate to prevent moral hazard. Thus, the

role of the central bank as the lender of last resort (LOLR) as espoused by Bagehot remains the cornerstone of financial stability function even today.<sup>1</sup>

How did central banks change in the 20th Century? The functions of central banks came to be further aligned with public policy objectives. Frequent bank panics in the US led to the creation of the Federal Reserve in 1913 with LOLR as one of its main functions. However, the Fed could not prevent the Great Depression as monetary policy followed the “Principle of Real Bills Doctrine”.<sup>2</sup> After the Great Depression, central banks transformed themselves as growth and employment facilitators and put in place deposit insurance. This kept the world economy insulated from any major banking crisis from the late 1930s until the mid-1970s. But fiscal activism and the belief that employment can be permanently increased at the cost of inflation, supported by the early version of the Phillips Curve,<sup>3</sup> led to accommodative monetary policy. This manifested in high inflation in the 1970s.

In order to address the inflation surge and the accompanying economic stagnation, intellectual opinion swung in favour of price stability supported by the work of economists like Milton Friedman, which advocated a dominant role for monetary policy.<sup>4</sup> Thus, price stability emerged as a primary objective of most central banks during the 1980s. How did financial stability fit into this framework? The understanding around that time was that monetary policy directed at maintaining price stability would lessen both the incidence and the severity of financial instability. The argument was that price stability obviates the information problems for both borrowers and lenders and ensures financial stability through efficient allocation of resources. Studies based on the experience of advanced countries such as the US, the UK, Canada and Japan also concurred with the view that price instability contributed to financial instability (Bordo and Wheelock, 1998).<sup>5</sup>

Did the financial crisis of the 21st century with its epicenter in the advanced countries change the world view of central bank objectives? The dominant view, particularly among the advanced economies, was that monetary policy should ideally have a single objective, a corresponding single tool, and an operationally independent and accountable central bank. In fact, following this wisdom, many countries, both advanced and emerging markets, set explicit inflation targets and mandated inflation control as the paramount objective of monetary policy since the 1990s. Explicit emphasis on price stability often came with certain legislative changes in central banks and emphasis on fiscal rules in many countries. Although central banks were cognisant of the importance of financial stability for conduct of monetary policy, a distinction between monetary policy and financial stability policy was generally maintained.

The current global crisis seems to have undermined the view that monetary policy should only have a single objective of price stability. The pre-crisis view, also called the “Jackson Hole Consensus”, was that central banks should respond to asset prices and financial imbalances only to the extent that they affect the shorter term inflation forecast. However,

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<sup>1</sup> The term was first used by Francis Baring (1797) but systematically explained by Thornton (1802) who first identified it as a function of Bank of England. Thornton, H. (1802), *An Inquiry into the Nature and Effects of the Paper Credit of Great Britain*, edited with an Introduction by F.A. von Hayek. New York: Rinehart and Co., 1939.

<sup>2</sup> If only real bills are discounted by banks, the expansion of bank money will be in proportion to the needs of trade. It was assumed that monetary system will be self regulating.

<sup>3</sup> Phillips, A. W. (1958). "The Relationship Between Unemployment and the Rate of Change of Money Wages in the United Kingdom 1861–1957", *Economica*, 25 (100): 283–299.

<sup>4</sup> Milton Friedman (1968), “The Role of Monetary Policy”, AEA Presidential Speech, *American Economic Review*, Vol LVIII, No.1.

<sup>5</sup> Bordo, Michael D. and David C. Wheelock (1998), “Price Stability and Financial Stability: The Historical Record”, *Federal Reserve Bank of St. Louis Review*, September/October.

such perception was belied by the recent crisis (Gali, 2011).<sup>6</sup> It became clear that financial stability can be jeopardised even if there is price stability and macroeconomic stability (Subbarao, 2009).<sup>7</sup> Consequently, post-crisis assessment increasingly veered towards explicit recognition of the financial stability objective. But there are unsettled issues and the jury is still out.

First, should financial stability be considered as an explicit objective of the central bank or, more specifically, as an additional objective of monetary policy? It has been argued that central banks are not only the lenders of last resort, but also better equipped to look at both financial system and economic cycles. In this context, Eichengreen, Prasad and Rajan (2011) suggest a dual mandate of price stability and financial stability so that “monetary policy is recognised as a legitimate element of the macroprudential supervisor’s toolkit.”<sup>8</sup> Similarly, Woodford (2012) argued that monetary policy might indeed lessen the severity of risks to financial stability.<sup>9</sup> Gokarn (2010) was of the view that broader mandates for central banks will need to be made explicit and conditional on the priority of the core mandates.<sup>10</sup> In contrast, Svensson (2010) argued that it was important to distinguish financial stability policy from monetary policy to avoid conceptual and practical confusion between the two policies. Using monetary policy for the financial stability objective can lead to poor outcomes.<sup>11</sup>

Second, how compatible is inflation targeting framework with financial stability as an additional objective? The views are quite diverse. While some recommend eschewing of inflation targeting altogether, Woodford (2012) suggested modifying inflation-targeting practice for making interest rate policy a more effective tool for financial stability.<sup>12</sup> In contrast, Svensson (2010) opined that flexible inflation targeting remains the best-practice monetary policy before, during, and after the financial crisis.<sup>13</sup>

Third, should financial stability be the sole or shared responsibility of the central bank? A BIS survey shows that in practice an overwhelming majority of central banks have either full or shared responsibility for financial stability, but the mandates are rarely explicit.<sup>14</sup> Similarly, Čihák (2010) found that the remit for central bank’s role in financial stability was weaker than in the case of price stability.<sup>15</sup> The dominant view, however, seems to be that financial stability should be a shared responsibility, as monetary policy instruments of central banks can only have a partial impact on the ultimate objective of financial stability.

Fourth, do central banks have the instruments to ensure both price stability and financial stability? Central banks functioning with a single instrument of short-term interest rate,

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<sup>6</sup> Gali, Jordi (2011), “Monetary Policy and Rational Asset Price Bubbles”, Barcelona GSE Working Papers Series No.592.

<sup>7</sup> Subbarao, D. (2009), “Financial Stability: Issues and Challenges”, RBI Bulletin, October.

<sup>8</sup> Eichengreen, Barry, Eswar Prasad and Raghuram Rajan (2011), “Central Banks Need a Bigger and Bolder Mandate”, Opinion, Brookings Institution, October.

<sup>9</sup> Woodford, Michael (2012), “Inflation Targeting and Financial Stability”, NBER Working Paper 17967, National Bureau of Economic Research.

<sup>10</sup> Gokarn, Subir (2011), “Monetary Policy Considerations After the Crisis: Practitioners’ Perspectives”, RBI Bulletin, January.

<sup>11</sup> Svensson, Lars E O (2010), “Monetary Policy After the Financial Crisis”, Speech at the Second International Journal of Central Banking (IJCB) Fall Conference, Tokyo, September.

<sup>12</sup> As in footnote 9.

<sup>13</sup> As in footnote 11.

<sup>14</sup> Bank for International Settlements (2009), Issues in the Governance of Central Banks, A Report from the Central Bank Governance Group, [www.bis.org/publ/othp04.htm](http://www.bis.org/publ/othp04.htm).

<sup>15</sup> Čihák, Martin (2010), “Price Stability, Financial Stability, and Central Bank Independence” 38th Economics Conference at the Oesterreichische Nationalbank, Vienna.

particularly those with inflation targeting framework may not be equipped to achieve multiple objectives following Tinbergen's assignment rule.<sup>16</sup> In this context, many have argued that interest rate is too blunt an instrument for dealing with overall financial stability issues (for example, Bernanke, 2011).<sup>17</sup> Goodhart (2008) opined that many central banks with only one instrument of monetary policy may find these two objectives often conflicting with each other.<sup>18</sup> In contrast, it is argued that though identifying the bubble is difficult, and therefore a risky strategy, the cleaning up cost after the bubble burst may be costlier than leaning against the bubble (Stark, 2010).<sup>19</sup>

Finally, there are additional complexities in the context of EMEs as asset price bubbles are often accompanied by exchange rate appreciation emanating from large capital inflows or trade surplus. Therefore, raising interest rate in an attempt to burst asset bubble may engender further capital inflows aggravating the bubble itself. Thus, it has been emphasised that even if monetary policy is used to lean against the wind, it needs to be supplemented by counter-cyclical instruments. Some economists believe that combining financial supervision with monetary policy tasks, as indeed the case in many EMEs, can lead to synergies and a more effective conduct of monetary policy (Borio, 2009),<sup>20</sup> and it can be usefully connected to the central banks' lender-of-last-resort function (Blinder, 2010).<sup>21</sup> Danthine (2012) suggested that central banks should be endowed with macroprudential instruments that directly target the root causes of the problems generated by excessive risk taking in times of low interest rates.<sup>22</sup>

In this regard, Mohanty (2011) argued that while interest rate continues to be the dominant instrument for implementing monetary policy, supplementing it by other quantity or macroprudential instruments even in normal times will enhance the flexibility of monetary policy to attain multiple objectives.<sup>23</sup> Therefore, post-crisis, there has been greater emphasis on introducing additional instruments for central banks to deal with aspects of financial stability. In short, the role of central banks in ensuring overall stability of the financial sector has now got a fresh impetus. Against this background, I turn to the experience of EMEs.

### **Central bank objectives in emerging markets**

How have the central bank objectives in EMEs been different? Historically, price stability has been a key objective for central banks in EMEs as in the case of advanced economies. However, given the level of financial market development and institutional structure, financial

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<sup>16</sup> Tinbergen, J. (1952), *On the Theory of Economic Policy*, 2nd Edition, North-Holland, Amsterdam.

<sup>17</sup> Bernanke, B. (2011), "The Effects of the Great Recession on Central Bank Doctrine and Practice," Speech at the Federal Reserve of Boston 56th Economic Conference.

<sup>18</sup> Goodhart, Charles A.E. (2008), "Central Banks' Function to Maintain Financial Stability: An Uncompleted Task", <http://www.voxeu.org/index.php?q=node/1263>.

<sup>19</sup> Stark, Jürgen (2010), "In Search of a Robust Monetary Policy Framework", Keynote Speech at the 6th ECB Central Banking Conference "Approaches to Monetary Policy Revisited – Lessons from the Crisis", Frankfurt am Main, November 19.

<sup>20</sup> Borio, C. (2009), "Implementing the Macroprudential Approach to Financial Regulation and Supervision", Banque de France Financial Stability Review No. 13, 31–41.

<sup>21</sup> Blinder, A. (2010), "How Central Should the Central Bank Be?", *Journal of Economic Literature*, 48(1), 123–133.

<sup>22</sup> Danthine Jean-Pierre (2012), "Reconciling Price and Financial Stability", Speech at the University of Zurich, Zurich, January 24.

<sup>23</sup> Mohanty Deepak (2011), "Lessons for Monetary Policy from Global Financial Crisis: An Emerging Market Perspective", Paper Presented in the Central Banks Conference of the Bank of Israel, Jerusalem, RBI Bulletin, April.

stability has been important to policymaking, considering the greater incidence of financial crises in EMEs in the 20th century. Moreover, many of them were also responsible for macroprudential regulation even though only a few of them directly derive it from the explicit mandate (**Table 1**).

Indeed, the resilience of the financial systems in the emerging markets during the recent global financial crisis owes to financial stability already being an important monetary policy objective (De Gregorio, 2011).<sup>24</sup> Even as many EMEs formally adopted inflation targeting (e.g., Chile, Brazil, South Africa, Indonesia, Thailand and Mexico), in practice they followed a “flexible inflation targeting” framework, as discretion was used to respond to shocks and also to pursue other objectives.<sup>25</sup> EMEs which did not formally adopt inflation targeting (e.g. China, Nigeria, Malaysia and India) have price stability as one of the key objectives of monetary policy (**Table 2**).

Multiple instruments, including quantitative tools such as the cash reserve ratio, were used to moderate the pace of domestic credit growth as well as monetary impact of large capital inflows in China, India and Russia. In the East Asian EMEs, the importance of financial stability and the need to prevent financial imbalances by active use of macroprudential policy measures was emphasised after the Asian crisis. Accordingly, central banks were given either the sole or shared responsibility in pursuing financial stability in addition to the traditional mandate of monetary stability (Watanagase, 2012).<sup>26</sup> In South Africa, the prudential regulation and supervision of banks assisted and complemented the central bank in its pursuit of financial system stability. Similarly, the Central Bank of Brazil actively used macroprudential measures to deal with emerging financial risks, particularly from excess capital flows in the economy. According to a BIS survey (2010), EMEs significantly outnumbered advanced economies as users of some type of macroprudential instrument.<sup>27</sup>

Global financial crisis highlighted the importance of using a broader set of instruments for financial stability. In this regard, most central banks in EMEs where monetary policy and prudential supervision were within their purview seem to have been better equipped to address financial stability issues as compared to advanced economies. Now, I turn specifically to our experience in India.

### **Financial stability: Indian framework**

The core functions of the Reserve Bank of India (RBI) are enshrined in the preamble to the Reserve Bank of India Act, 1934 as, “to regulate the issue of bank notes and keeping of reserves with a view to securing monetary stability in India and generally to operate the currency and credit system of the country to its advantage”. In addition, the RBI is also microprudential regulator as the Banking Regulation Act, 1949 entrusts it with the power to regulate and supervise commercial banks and co-operative banks. The RBI also regulates

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<sup>24</sup> De Gregorio, José (2011), “Price and Financial Stability in Modern Central Banking”, Keynote Speech, Governor of the Central Bank of Chile, at the joint Latin American and Caribbean Economic Association (LACEA)-Latin American Chapter of the Econometric Society (LAMES) Conference 2011, University Adolfo Ibáñez, Santiago, November 11.

<sup>25</sup> Flexible inflation targeting (IT) framework which requires achievement of the desired inflation target over the medium-term makes it easier for central banks to look not only for price stability, but also consider other variables, such as the output gap or the exchange rate. In a sense, flexible IT also implies a departure from the corner solutions of the ‘Impossibility Trinity’ of fixed exchange rates, independent monetary policy and perfect capital mobility.

<sup>26</sup> Watanagase Tarisa (2012), Remarks at Monetary Policy Workshop on Strengthening Macroprudential Frameworks organised by IMF Regional Office for Asia and Pacific (OAP) March 22–23, Tokyo, Japan.

<sup>27</sup> Bank for International Settlements (2010), “Macroprudential Instruments and Frameworks: a Stocktaking of Issues and Experiences”, CGFS Papers, No. 38.

and supervises non-banking financial companies (NBFCs) under the Reserve Bank of India Act, 1934. Similarly, the Foreign Exchange Management Act, 1999 empowers it to regulate the foreign exchange market and the oversight of the payment systems is derived from the Payment and Settlement Systems Act, 2007.

Drawing from a wider mandate, monetary policy in India has evolved to have multiple objectives of price stability, financial stability and growth. These objectives are not inherently contradictory, rather mutually reinforcing. The Reserve Bank's approach recognises that price and financial stability are important for sustaining high levels of growth which is the ultimate objective of public policy. The Reserve Bank's approach to financial stability has been proactive and preventive rather than reactive. Its role as monetary policy authority, well integrated with macroprudential regulation and microprudential supervision, with an implicit mandate for systemic oversight has enabled the Reserve Bank to exploit the synergies across various dimensions (Subbarao, 2011).<sup>28</sup>

Even before the crisis, the institutional arrangement in the financial sector was already in place for inter-regulatory co-ordination to monitor financial stability in the economy. A High Level Co-ordination Committee on Financial Markets (HLCCFM) was set up in 1992 with the Governor of the Reserve Bank as Chairman, and the Chiefs of the Securities and Exchange Board of India (SEBI), the Insurance Regulatory and Development Authority (IRDA) and the Pension Fund Regulatory and Development Authority (PFRDA), and the Finance Secretary to Government of India as members. However, post-crisis, the collegial approach to financial stability has been further strengthened by constituting the Financial Stability and Development Council (FSDC).

The FSDC, headed by the Finance Minister, was set up in December 2010 in the wake of the global financial crisis with a specific mandate, *inter alia*, for systemic financial stability. The FSDC is expected to deal with issues relating to financial stability, financial sector development, inter-regulatory co-ordination and macroprudential supervision of the economy including the functioning of large financial conglomerates. A Sub-Committee of the FSDC, headed by the Governor of the Reserve Bank, replaced the HLCCFM and is the primary operating arm of the FSDC. This Sub-Committee has also set up a dedicated Crisis Management Framework.

In addition, various committees of the Reserve Bank's Central Board monitor financial stability issues: the Board for Financial Supervision reviews the Reserve Bank's supervisory and regulatory initiatives and the Board for Payment and Settlement Systems oversees the overall functioning of the payment system.

Another development signifying the Reserve Bank's role in the context of financial stability is the setting up of Financial Stability Unit in the Bank in July 2009 with a mandate to conduct effective macroprudential surveillance of the financial system on an ongoing basis and enable early detection of any incipient signs of instability. The Reserve Bank also brings out biannual Financial Stability Reports. Incidentally, the IMF has just concluded a Financial Sector Assessment Programme, which in fact comes close on the heels of a comprehensive self assessment of financial sector carried out by the Reserve Bank. Thus, the RBI is one of those central banks to recognise financial stability as one of the objectives of monetary policy even before the crisis.

### **Lessons for central banks**

In my opinion, the global financial crisis has fundamentally altered the way we used to view monetary policy and financial stability and the interface between them. However, there are

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<sup>28</sup> Subbarao, D. (2011), "Financial Stability Mandate of Central Banks: Issues in the International and Indian context", RBI Bulletin, July.

issues which entail further work in three key areas. First, a relook at monetary policy framework in terms of both objectives and instruments towards a clear recognition of financial stability. Second, to put in place an appropriate institutional mechanism drawing upon countries' own experience and history for better co-ordination among the concerned regulatory entities to deliver on financial stability. Third, address the communication challenge of multiple objectives to preserve central bank credibility to ensure price and financial stability. Let me now elaborate on each of these three aspects.

**(i) Monetary policy framework**

The view that monetary policy framework should allow policymakers to lean against the build-up of financial imbalances, even if near-term inflation expectations remain anchored, is gaining importance. While there is little doubt that monetary policy framework of central banks needs to change, the moot point is what should be the ideal monetary policy framework for better analysis of the macroeconomic effects of financial imbalances? One approach could be to formally broaden the set of information variables for monetary policy decision making: in a way, for example, the two pillar approach of the ECB or the multiple indicators approach of the Reserve Bank of India that factors in financial considerations into monetary policy.<sup>29</sup> The multiple indicators approach has the advantages of broad-basing monetary policy operations on a large set of information such as money, credit, asset prices, interest rates and exchange rate and providing flexibility in the conduct of monetary management. Such approach, however, may involve a greater element of judgment.

At an operational level, the most widely accepted presentation of monetary policy reaction function that combines both inflation and growth objectives is the "Taylor Rule". The Taylor rule can be augmented by adding financial variables to the standard monetary reaction function based on inflation and the output gap so as to enhance central banks' ability to react to financial stability concerns. However, efficiency of such a formulation needs to be tested. Whichever framework is adopted, there should be flexibility for the central bank to respond to potential imbalances and the risks, apart from growth and inflation control.

**(ii) Institutional design for better coordination**

The recent crisis and the subsequent response have shed new light on the critical role of central banks in promoting financial stability. However, it needs to be recognised that this added responsibility should not come at the cost of their conventional role for price stability. This is more relevant particularly for central banks in EMEs which admittedly, are yet to achieve that level of credibility as their advanced economy counterparts. For many EMEs, exchange rate stability is an important objective, and without price stability it is not possible to maintain exchange rate stability. Furthermore, the financial markets and institutions have grown in complexity, the oversight and regulation of which could be beyond a single entity such as the central bank. Hence, financial stability would have to be a joint responsibility, though the central bank could have a dominant role by virtue of it being the natural lender of last resort. However, there is a need to explicitly incorporate the financial stability role of the central bank into its statute to establish an accountability framework.

The challenge for a central bank is to achieve multiple objectives without losing credibility as a monetary authority solely responsible for price stability. This would be possible only if policies implemented by various stakeholders in financial stability are coherent. Accordingly, an appropriate design for co-ordination mechanism is required to derive synergies between monetary policy and macroprudential policy and make more effective use of policy tools available with multiple bodies having the mandate of financial stability.

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<sup>29</sup> For discussion on multiple indicators approach, please see: Mohanty (2010), "Monetary Policy Framework in India – Experience with Multiple-indicators Approach", RBI Bulletin, March.

The design of co-ordination mechanism may, however, vary across countries depending on the nature and size of their financial systems and their own historical experience. In fact, efforts towards greater institutionalisation of co-ordination mechanism have already begun. Most prominent examples are the newly created bodies, both in advanced countries and EMEs, like the Financial Stability Oversight Council in the US, the Financial Policy Committee (Interim) in the UK, the European Systemic Risk Board for the European Union, Financial Regulation and Systemic Risk Council in France, Financial Stability Council in Chile, Council for the Stability of the Financial System in Mexico and Financial Stability and Development Council in India (**Table 3**). In some other countries, financial stability framework has been strengthened by setting up committees in central banks to gauge systemic risk (e.g., Brazil in 2011).

Under the new institutional design, as shown in Table 3, though financial stability has been recognised as a shared responsibility, central banks have been assigned the lead role in most of the countries. Even as details of the newly created bodies differ, the thrust is the same, i.e., better co-ordination to gauge systemic risks and plan an appropriate response. Furthermore, with increasing sovereign risk concerns in a number of economies, particularly the advanced economies, better policy response is expected as fiscal authorities are also a part of the new institutional framework for financial stability. However, even under the more collegial approach to financial stability, policy co-ordination is not going to be so easy, especially when there is a problem of time-inconsistency and the objective functions of the authorities may not always be the same (Praet, 2011).<sup>30</sup> It is also important to guard against the risk that active involvement of governments should not bring back fiscal dominance and compromise the autonomy of each regulator and the central bank.

### **(iii) Central bank communication**

In a market-determined system, central banks have placed a greater reliance on transparency and communication to enhance monetary policy transmission and establish accountability to the public for their decision-making. So far the experience shows that communication on monetary policy issues has moved from complete secrecy, to constructive ambiguity to transparency. For instance, the Fed and the ECB have in recent years frequently provided fairly direct indications about future interest-rate decisions in their official statements. We, in the RBI, have also started giving forward guidance since September 2010. However, there are several challenges.

It is not easy to communicate clearly on a single objective. Going forward, as central banks broaden their mandates and institutional design grows in complexity, so also will the communication challenges. For example, if a central bank were to ease monetary policy on financial stability concerns even when inflation is high, it risks unhinging of inflation expectations, which in turn could complicate financial stability.

During the recent crisis, there were many instances of communication challenges faced by central banks. For instance, the US Fed faced communication challenge with regard to quantitative easing and the exit policy of its unconventional measures. We, in the RBI, had to face communication challenge when we reduced cash reserve ratio (CRR) of banks in January and March 2012 on liquidity concerns even when inflation was above our tolerance level. While some interpreted it as premature reversal of tight monetary policy stance, others saw this as a pure liquidity action not inconsistent with our monetary stance.

If the policy measures are not properly guided and not understood as intended, they may not transmit the right signal and eventually prove to be a noise to financial market entities.

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<sup>30</sup> Praet, Peter (2011), "The (Changing) Role of Central Banks in Financial Stability Policies", Speech at the 14th Annual Internal Banking Conference, Organised by the Federal Reserve Bank of Chicago and the European Central Bank, Chicago, November 10.

Guidance by central banks, at best, could be conditional because of the provisional nature of immediate available information set, limitations of macro models, incomplete knowledge and uncertainties about the evolution of the economy and periodic unanticipated shocks. Thus, transparency in communication is a double-edged sword which at times could produce unintended consequences. As central banks broaden their objectives so also they have to hone their communication skills.

## **Conclusion**

To sum up: Financial stability as an objective of central banks has turned a full circle from being the predominant objective, to a virtual neglect to being reinstated recently as an important objective drawing on the lessons of global financial crisis. However, financial markets and institutions have grown in complexity making it difficult for a single entity to deliver on financial stability. Therefore, financial stability has to be a shared responsibility wherein central banks have a predominant role. This necessitates a fresh look at monetary policy framework, institutional design for policy co-ordination and effective communication. Moreover, there is a need for explicit recognition of financial stability objective, particularly in the statute of the central bank, to establish an accountability framework. While it is not very apparent whether price stability can ensure financial stability, it is clear that price instability could jeopardise financial stability. Financial stability objective, therefore, cannot or should not override the price stability objective, which should continue to be the predominant objective of monetary policy.

Thank you.

<b>Table 1: Financial Stability as Objective in Central Banks</b> (Per cent of total number of central banks)			
<b>Central Bank</b>	<b>All Economies</b>	<b>Advanced Economies</b>	<b>Others</b>
1. Explicit Mandate for Financial Stability	3	9	2
2. Derives Responsibility for Financial Stability from Interpretation of Law	34	89	18
(i) from monetary policy objectives	10	26	5
(ii) from payment system tasks	8	20	4
(iii) from banking supervisory tasks	12	26	8
(iv) other interpretations	5	17	1
3. Oversees Payments system(s)	100	100	100
4. Supervises banks	47	34	51
5. Supervises all financial institutions	16	11	18
6. Publishes a financial stability report	29	77	15
7. Separate organisational unit for financial stability	32	83	17
8. Has clear general accountability (to shareholders/government/public)	45	63	40
9. Has clear accountability for financial stability	2	6	1
<b>Source:</b> A survey of 157 central banks by Martin Čihák, 2010.			

<b>Table 2: Emerging Market Economies: Central Bank Objectives and Policy Tools</b>				
<b>Country</b>	<b>Mission/Main Objectives</b>	<b>Policy Instruments</b>	<b>Trend Inflation</b>	<b>Other Functions</b>
<b>1. Brazil</b> (IT since 1999) 4.5% since 2005	Currency stability and financial stability	PR OMO RR	5.3% (2005-11)	<ul style="list-style-type: none"> <li>• Bank Regulation</li> <li>• Payment System</li> </ul>
<b>2. Chile</b> IT (1991) 3% since 2007	Currency stability	PR OMO RR	3.9% (2007-11)	<ul style="list-style-type: none"> <li>• Payment System</li> <li>• Financial System</li> <li>• Fiscal Agent</li> <li>• Foreign Exchange</li> </ul>
<b>3. China</b>	Currency stability and growth	PR OMO RR	3.1% (2005-11)	<ul style="list-style-type: none"> <li>• Payments System</li> <li>• Financial Markets</li> <li>• Debt Manager</li> </ul>
<b>4. India</b>	Currency and financial stability and growth	PR OMO RR	6.6% (2005-12)	<ul style="list-style-type: none"> <li>• Payment System</li> <li>• Bank Regulation</li> <li>• Debt Manager</li> <li>• Money Market</li> </ul>
<b>5. Indonesia</b> IT since 2005 5% in 2010-11	Currency stability	PR OMO RR	5.2% (2010-11)	<ul style="list-style-type: none"> <li>• Bank Regulation</li> <li>• Payment System</li> </ul>
<b>6. Malaysia</b>	Currency and financial stability	PR OMO RR	2.8% (2005-11)	<ul style="list-style-type: none"> <li>• Bank Regulation</li> <li>• Banker to Government</li> <li>• Financial Inclusion</li> </ul>
<b>7. Mexico</b> IT (3% medium-term since 2003)	Currency stability	PR OMO	4.3% 2003-11)	<ul style="list-style-type: none"> <li>• Bank Regulation</li> <li>• Payment System</li> </ul>
<b>8. Nigeria</b>	Currency stability and management of the financial sector	PR OMO RR	11.5% (2005-11)	<ul style="list-style-type: none"> <li>• Banker to Government</li> <li>• Payment System</li> <li>• Bank Regulation</li> </ul>
<b>9. Russia</b> (Moving towards IT)	Currency stability	PR OMO RR	10% (2005-11)	<ul style="list-style-type: none"> <li>• Bank Regulation</li> <li>• Foreign Exchange</li> </ul>
<b>10. South Africa</b> Flexible IT (2000) 3-6% (y-o-y) since 2009	Currency and financial stability	PR OMO RR	5.5% (2000-11)	<ul style="list-style-type: none"> <li>• Bank Regulation</li> <li>• Payment System</li> <li>• Banker to Government</li> <li>• Exchange control</li> </ul>
<b>Note:</b> PR: Policy Rate; RR: Reserve Requirement; OMO: Open Market Operations				
<b>Source:</b> Author's own compilation and World Economic Outlook, International Monetary Fund.				

**Table 3: Financial Stability Framework after the Crisis**

Country/ Institution	Objective and Functions	Structure
<p><b>1. Belgium</b> Committee for Systemic Risks and System-relevant Financial Institutions (CSRSFI), July 2010</p>	<ul style="list-style-type: none"> <li>To be responsible for the prudential supervision of systemic financial institutions</li> </ul>	<p>Chairman: Central Bank Governor Members:</p> <ul style="list-style-type: none"> <li>Central Bank's Board of Directors</li> <li>Management Committee of the Commission Bancaire Financière et des Assurances</li> <li>One member from Ministry of Finance as an observer</li> </ul>
<p><b>2. Chile</b> Financial Stability Council, July 2011</p>	<ul style="list-style-type: none"> <li>To oversee the integrity and solidity of the financial system, providing the mechanisms for co-ordinating and exchanging the information necessary to ensure the adequate management of systemic risk and the resolution of critical situations involved in the carrying out of the functions and powers of the superintendents in the economic area</li> </ul>	<p>Chairman: Treasury Minister Members:</p> <ul style="list-style-type: none"> <li>Superintendent of Securities and Insurance</li> <li>Superintendent of Banks and Financial Institutions</li> <li>Superintendent of Pensions (In addition, the Central Bank is invited for meeting).</li> </ul>
<p><b>3. EU</b> The European Systemic Risk Board (ESRB), November 2010</p>	<p>ESRB is part of the European System of Financial Supervision (ESFS). It</p> <ul style="list-style-type: none"> <li>ensures supervision of the Union's financial system;</li> <li>is responsible for the macroprudential oversight of the financial system within the European Union and contributes to the prevention or mitigation of systemic risks to financial stability in the Union that arise from developments within the financial system;</li> <li>presents Annual Report to the European Parliament and the Council.</li> </ul>	<p>Chairman: President of the ECB Members:</p> <ul style="list-style-type: none"> <li>Vice-President of ECB</li> <li>Governors of the member national central banks</li> <li>One member of the European Commission</li> <li>Chairperson of the European Banking Authority (EBA)</li> <li>Chairperson of the European Insurance and Occupational Pensions Authority (EIOPA)</li> <li>Chairperson of the European Securities and Markets Authority (ESMA)</li> <li>Chair and the two Vice-Chairs of the Advisory Scientific Committee (ASC)</li> <li>Chair of the Advisory Technical Committee (ATC)</li> </ul>
<p><b>4. France</b> Financial Regulation and Systemic Risk Council (FRSRC)</p>	<ul style="list-style-type: none"> <li>To foster co-operation and information exchange and consider French market/institution developments from a macroprudential perspective</li> </ul>	<p>Chairman: Finance Minister Members:</p> <ul style="list-style-type: none"> <li>Governor of the Banque de France</li> <li>President of the Financial Markets Authority</li> <li>President of the Accounting Standards Authority</li> </ul>

Table 3 (cont)

## Financial Stability Framework after the Crisis

<p>5. India Financial Stability and Development Council (FSDC)</p>	<ul style="list-style-type: none"> <li>To strengthen and institutionalise the mechanism for maintaining financial stability and strengthen the institutional framework for co-ordination among all regulators and the Government.</li> </ul>	<p>Chairman: Finance Minister Sub-Committee under the Chairmanship of Governor of the Reserve Bank Member of the Council:</p> <ul style="list-style-type: none"> <li>Reserve Bank of India</li> <li>Securities and Exchange Board of India,</li> <li>Insurance Regulatory and Development Authority</li> <li>Pension Fund Regulatory and Development Authority</li> <li>Finance Secretary and/or Secretary, Department of Economic Affairs,</li> <li>Secretary, Department of Financial Services,</li> <li>Chief Economic Adviser</li> </ul>
<p>6. Mexico Council for the Stability of the Financial System (CESF), 2010</p>	<ul style="list-style-type: none"> <li>To analyse risks and identify opportunities that may disrupt the functioning of the financial system, and thus reduce the impact on the economy.</li> </ul>	<p>Chairman: Secretary, Secretariat of Finance and Public Credit Members:</p> <ul style="list-style-type: none"> <li>Under Secretary, Secretariat of Finance and Public Credit</li> <li>President, National Banking and Securities Commission</li> <li>President, National Insurance and Surety Commission</li> <li>President, National Commission for the Pension System</li> <li>Executive Secretary, Institute for the Protection of Banking Savings</li> <li>Governor, Central Bank</li> <li>Two Deputy Governors, Central Bank</li> </ul>
<p>7. US Financial Stability Oversight Council (FSOC), October 2010</p>	<ul style="list-style-type: none"> <li>Identifying and mitigating risks to the stability of the US financial system.</li> </ul> <p>To publish Annual Report which covers:</p> <ul style="list-style-type: none"> <li>the activities of the Council,</li> <li>significant financial market and regulatory developments,</li> <li>potential emerging threats to the financial stability of the US.</li> </ul>	<p>Chairman: Secretary of the Treasury Member Agencies:</p> <ul style="list-style-type: none"> <li>Board of Governors of the Federal Reserve System</li> <li>Commodity Futures Trading Commission</li> <li>Federal Deposit Insurance Corporation</li> <li>Federal Housing Finance Agency</li> <li>National Credit Union Administration Board</li> <li>Office of the Comptroller of the Currency</li> <li>Securities and Exchange Commission</li> <li>Treasury Department</li> <li>Consumer Financial Protection Bureau</li> </ul>
<p>8. UK Interim Financial Policy Committee (FPC), February 2011</p>	<ul style="list-style-type: none"> <li>As per the Financial Services Bill (January 2012), a Financial Policy Committee (FPC) will be charged with identifying, monitoring and taking action to remove or reduce systemic risks with a view to protecting and enhancing the resilience of the UK financial system.</li> <li>Responsible for the Bank of England's bi-annual Financial Stability Report.</li> </ul>	<p><i>Structure of Interim FPC</i> Chairman: Governor of the Bank of England (BoE) Members:</p> <ul style="list-style-type: none"> <li>BoE's Deputy Governor for Financial Stability</li> <li>BoE's Deputy Governor for Monetary Policy</li> <li>Chief Executive of the Financial Services Authority</li> <li>the Chairman of the Financial Services Authority</li> <li>the BoE's Executive Director for Financial Stability</li> <li>BoE's Executive Director for Markets</li> <li>External Members : Four</li> <li>Non-Voting members: One member each from the Financial Conduct Authority and a representative of the Treasury.</li> </ul>
<p>Source: Compiled from respective central banks' website.</p>		