# Duvvuri Subbarao: Central banking in emerging economies – emerging challenges

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First of all, my thanks to the European Economics and Financial Centre for inviting me to speak at the **Distinguished Speakers Seminar**. It is an honour to which attach a lot of value.

## Central banks – triumph and tribulation

- 2. In the years before the crisis, central bankers were a triumphant lot. The Great Moderation that they took credit for brought steady growth and low inflation in advanced economies, and rapid growth and stable inflation in emerging market economies (EMEs). This benign macroeconomic environment generated a consensus around the view that the best practice in central banking was the pursuit of a single objective (price stability) by means of a single instrument (the short-term policy interest rate). Central bankers thought they had discovered the holy grail.
- 3. It turns out they had declared victory too soon. In the event, the crisis challenged the old theology of single target central banking. It also showed up the failure of central banks to correct for the rapidly growing global imbalances and to keep regulation in pace with financial innovation. Indeed, some even argue that the extended period of steady growth and low inflation blindsided central banks from seeing the festering financial instability brewing in the underbelly of the global financial system.
- 4. The crisis has unleashed a vigorous debate on what lessons central banks should take away from the crisis, and how they should respond to them. This debate has thrown up some important questions: (i) Should central banks persist with pure inflation targeting? (ii) If not, should their objective function also include real sector variables? (iii) What is the role of central banks in preventing asset price bubbles? (iv) What should be their responsibility in regard to financial stability? (v) Are there synergies in the central bank being also the regulator and supervisor of banks? (vi) Will responsibility for financial stability compromise their autonomy? (vii) What should be the institutional arrangement for coordination among regulators and the government?
- 5. That indeed is a long list of questions. Even as there are no definitive answers yet, several advanced economy governments have gone ahead with redesigning their regulatory architectures, in the process redefining the mandates of their central banks.

# **Central banking in EMEs**

- 6. Are central banks in EMEs struggling with the same questions? In a broad sense yes, although both the questions and answers are slightly different in their case. To understand why, a bit of context is necessary.
- 7. Central banks in EMEs have historically differed from the advanced economy central bank model in an important way. Their mandates have typically extended beyond price stability to supporting growth and to external sector management. They also have responsibility, in varying forms and degrees, for financial stability. In addition, many of them have a development mandate of building institutions, deepening financial markets, modernizing financial sector infrastructures and furthering financial inclusion.

# Think global, act local

- 8. Given this difference, there was no settled view in EMEs about the optimal institutional design for their central banks. In the years before the crisis, there was a growing view that the way forward for EME central banks lay in embracing the minimalist model of the advanced economy central bank. Now, with that minimalist model itself unravelling, there is a rethink among EMEs on whether that is the best way forward. They are sensitive to the fact that the issues in the global debate are relevant to them; but they also realize that they have to adapt the lessons of the crisis to their specific macroeconomic and institutional contexts.
- 9. What are the challenges confronting EME central banks as they embark on this task? What are the emerging issues? This is what I want to focus on. In particular, I will address five specific issues.

# I. Treading the growth-inflation knife-edge

- 10. Managing the growth-inflation balance is a particularly complex challenge in EMEs for a number of reasons. By far the most important is the fact that in EMEs, supply shocks, especially in the food and fuel sectors, have historically been important drivers of inflation. How should monetary policy respond to such supply shock driven episodes of inflation?
- 11. Text book economics tells us that if the supply shock is temporary, monetary policy need not react to it; on the other hand, if the supply shock is structural in nature, it can lead to generalized inflation in the first round by the higher input costs, and in the second round through its impact on inflation expectations and wage bargaining. In the presence of excess demand relative to supply, the generalization of inflation could be rapid unless prevented through a forward looking anti-inflationary monetary policy stance. In short, when supply shocks impact the core component of inflation, monetary policy should respond. Determining whether the supply shock is temporary or structural is a frequent challenge that EME central banks confront. There is a possibility here of both type I and type II errors<sup>1</sup>, and either type of error can be costly in terms of foregone growth and loss of welfare.
- 12. Another important reason why managing the growth-inflation balance in EMEs is a bigger challenge is because of their relatively higher poverty levels. Inflation, as we all know, is a regressive tax, and it hurts the poor the most. On the other hand, the most effective way of reducing poverty is through higher growth. But higher growth is sustainable only in an environment of price stability. Drawing the right balance between combating inflation and supporting growth is a complex challenge that EME central banks face.
- 13. Estimating the potential output is another factor that complicates the management of the growth-inflation balance in EMEs. This is a difficult task everywhere, but is particularly difficult in EMEs because of large under-utilized capacity coexisting with supply constraints. Consequently, it is difficult to get an accurate estimate of the output gap and of the excess demand embodied in it, making the challenge of monetary policy calibration that much more complex.
- 14. I could go on with several other examples to illustrate how the growth-inflation dynamics in EMEs are structurally and analytically different from those in advanced economies. The short point is that EME central banks have to tread the growth-inflation knife edge with much greater judgement and caution than advanced economy central banks because of the several known unknowns and many unknown unknowns.

Type 1: No monetary policy response to a shock that turns out to be structural. Type 2: Aggressive monetary policy response to a shock that turns out to be temporary.

# II. Central banking in a globalizing world managing the impossible trinity

- 15. Let me move on to the second issue, about how globalization has complicated macroeconomic management for EME central banks, as indeed demonstrated by the crisis.
- 16. As the crisis erupted, it spread ferociously from the sub-prime US markets to financial markets around the world, demonstrating the interconnectedness of national financial systems and the spillover impact of external developments on domestic policy actions. Importantly, central banks found that sentiment and confidence were remarkably correlated across countries.
- 17. In a globalizing world, external developments interact with the domestic economy in complex, uncertain, and even capricious ways. EME central banks have to deepen their understanding of these interactions. Some of the channels through which cross-border transmission occurs are quite familiar global prices, including commodity price movements; synchronization of business cycles; capital flows; strong comovement of asset prices; exchange rates of key international currencies; and interest rate policies of central banks. Some of the transmission channels are less familiar. For example, the crisis has shown that even differences in regulatory regimes can trigger arbitrage-based action and dilute the efficacy of domestic policies.

# Impossible trinity

- 18. The best way to understand the challenge of monetary policy formulation in a globalizing world is through the "impossible trinity" trilemma. This trilemma asserts that a country cannot simultaneously maintain all three policy goals of free capital flows, a fixed exchange rate and an independent monetary policy.
- 19. Given the "impossible trinity" trilemma, countries have made different choices. The most common choice, typical across advanced economies, is to give up on a fixed exchange rate so as to run an open economy with an independent monetary policy. On the other hand, economies that adopt a hard peg give up on the independence of monetary policy. Examples include the currency boards set up by Hong Kong and, for a time, Argentina.
- 20. In contrast to advanced economies which opt for corner solutions, emerging economies here typically opted for middle solutions, giving up on some flexibility on each of the variables to maximize overall macroeconomic advantage.

#### India's approach to the impossible trinity

21. In India too, we have opted for a middle solution on the "impossible trinity" whose contours are the following: (i) We let our exchange rate be largely market determined, but intervene in the market to smooth excess volatility and/or to prevent disruptions to macroeconomic stability; (ii) Our capital account is only partly open; while foreigners enjoy mostly unfettered access to our equity markets, access to debt markets is restricted; there are limits to the quantum of funds resident corporates and individuals can take out for investment abroad, but the limits are quite liberal; and (iii) Because of the liberalization on the exchange rate and capital account fronts, some monetary policy independence is forfeited. What the middle solution also implies is that we have to guard on all the three fronts with the relative emphasis across the three pillars shifting according to our macroeconomic situation.

## Managing capital flows

22. What does the impossible trinity mean in practical terms? Let us examine this in terms of capital flows. EMEs, especially those with current account deficits (CAD), need capital flows. In an ideal world, they will want capital flows just about sufficient to finance their CADs; also they will typically prefer equity flows over debt flows and long term flows over short term flows. But in the real world, countries seldom find themselves in such a sweet spot; capital flows are either too much or too little.

- 23. Not only are capital flows too much or too little, they are also volatile. They respond to both push and pull factors. The important push factors are the monetary stance of advanced economy central banks which determines the liquidity in the global system and the need of investors for asset diversification. The pull factors that have influenced capital flows are the promise of growth in EMEs, their stable and credible policy environments and improved governance.
- 24. Over the last decade, EMEs have had to contend with both volatile inflows and outflows, with the problem often reversing direction rather abruptly. Let me sketch this out briefly to give you a flavor of the challenge that EMEs confront in managing their capital accounts.
- 25. The years before the crisis the period of the Great Moderation saw EMEs receiving large capital inflows, much more than they needed. This was driven by both push and pull factors. EME currencies appreciated sharply, out of line with fundamentals, denting their competitiveness and pressuring asset prices. EMEs responded to this surge either by capital controls or intervention in the forex market or both. Experience shows that no matter how EMEs responded, no option was totally benign.
- 26. The capital inflow problem turned abruptly into an outflow problem with the outbreak of the financial crisis in September 2008. Unnerved by the extreme uncertainty, global investors fled from emerging economies to return to safe havens. The sudden exit put downward pressure on their currencies, and this time round they had to intervene in the foreign exchange market to contain the depreciation of the exchange rates.
- 27. The capital flow problem has become more complex in recent years not only because of its intensity but also because of its increased volatility. The quantitative easing policies of advanced economy central banks have left the global system awash with liquidity. Much of it has flown into EMEs, posing the familiar problem of capital surges. But because the global system has switched between risk-on and risk-off rather frequently and swiftly, EMEs have also become vulnerable to sudden stops and reversal of capital flows.
- 28. I have gone at length to describe the developments over the last nearly ten years to give a flavour of the problem EME central banks face on account of global uncertainties. What this demonstrates is that globalization is a powerful phenomenon. It offers immense opportunities, but also poses formidable challenges. The challenge for EMEs is to learn to maximize the benefits and minimize the costs of globalization. In particular, EME central banks have to learn to factor in global spillovers into their domestic policies.

## III. Are EMEs seeing a return of fiscal dominance of monetary policy?

- 29. The third issue I want to address in the context of emerging economy central banks is whether they are seeing a return of fiscal dominance of monetary policy.
- 30. This question has surfaced with vigour in the context of the euro zone crisis. The ECB claims that its bond purchase programme is aimed at restoring liquidity and improving monetary transmission. But many analysts believe that this is a thinly veiled attempt to shore up sovereign borrowing and that the ECB is actually acquiescing in fiscal dominance. Although this tension between the central bank mandate and sovereign debt sustainability is playing out in Europe, it is not new; nor is it unique to Europe.
- 31. The eighty odd years since the Great Depression saw a famous rivalry between monetary and fiscal policy for dominance. For at least three decades after the Great Depression, Keynes' intellectual legacy ruled; governments borrowed as much as they wanted and at the price they wanted without worrying about the implications of debt build-up, and central banks had willy-nilly acquiesced in this profligacy.
- 32. This trend began to reverse as a result of very influential work during the 1960s by Milton Friedman and others arguing that inflation is a monetary phenomenon always and

everywhere, and that output gains from debt financed public expenditure will not only be temporary, but also eventually inflationary. Supportive evidence for this came from the repeated episodes of stagflation during the 1970s, which saw a baffling combination of unemployment and inflation. The belief that continued fiscal deficits are clearly not sustainable gained ground during the 1980s especially as countries integrated into the global system, and fiscally irresponsible economies realized that the world capital markets penalized them by demanding higher premia.

- 33. The trend since the mid-1990s has been for a growing number of countries to adopt fiscal rules placing limits on deficits and/or debt, and also prohibiting primary financing of debt by the central banks. One of the broad outcomes of this effort has been that central banks found themselves able to conduct monetary policy free of fiscal compulsions and in a predictable fiscal framework.
- 34. That happy state of affairs ended in the aftermath of the crisis, and fears about fiscal dominance of monetary policy have resurfaced.

# Monetary and fiscal policies in India

- 35. As in many economies, in India too, monetary policy was dominated by fiscal considerations during the 1970s and the 1980s. Large and growing fiscal deficits ended up being financed by the Reserve Bank which ultimately resulted in inflation. Following the global trend, we too put in place a fiscal responsibility legislation the Fiscal Responsibility and Budget Management (FRBM) Act, 2003 with ceilings on deficit and debt ratios and provisions prohibiting primary financing of government debt by the central bank. The Government's commitment to the FRBM mandate during 2003–08 afforded the Reserve Bank the necessary space to implement monetary policy aimed at low and stable inflation.
- 36. Like elsewhere in the world, both monetary and fiscal policies were eased in India too in response to the crisis. In particular, this meant interrupting the fiscal consolidation process enjoined by the FRBM Act. However, even as the crisis started unwinding and inflation rose sharply to double-digits, the government persisted with an expansionary fiscal stance.
- 37. By far the biggest concern stemming from the large fiscal deficit, especially from the Reserve Bank's perspective, is that it adds to aggregate demand and thereby to inflation pressures. By crowding out the private sector, the fiscal deficit could also inhibit, if not impair, monetary policy transmission to the private sector. Credible fiscal consolidation is, therefore, a necessary pre-condition for stabilizing inflation and securing non-inflationary growth.
- 38. Over the last one year, the Government embraced fiscal consolidation with commendable resolve. The fiscal deficit for the last fiscal year (2012/13), at 4.9 per cent of GDP, was better than earlier projected and it clearly enhanced the credibility of the Government's current year (2013/14) fiscal deficit target of 4.8 per cent of GDP.
- 39. Economies will be best served if governments ensure that their central banks are able to conduct monetary policy independently and free of fiscal compulsions. This will require, among other things, responsible and credible fiscal consolidation.

# IV. The role of central banks in safeguarding financial stability

- 40. Let me now move to the next issue financial stability. Indeed, some of the most forceful lessons of the crisis are in this area of financial stability.
- 41. Note that the crisis erupted during a period of extraordinary price stability and macroeconomic stability. What this told us is that price stability and macroeconomic stability do not guarantee financial stability. We also learnt that no country is an island. Although the crisis originated in advanced economies, emerging economies too were affected, indeed by much more than they had thought possible. The contagion brought home a simple message.

In a rapidly globalizing world, national and international financial stability are interlinked. They are really two sides of the same coin.

- 42. Another important lesson we learnt is that financial markets are not self correcting. Indeed in the pre-crisis years, a consensus was building around the view that modern risk management has increased the resilience of the financial sector, and that any excess would self correct in good time. The crisis proved that to be wrong. As we unlearnt that, we also learnt some new lessons that it is difficult to detect signs of pressure building up in the system in real time, that the financial sector can contain pressure for a longer time than we think possible, and as a consequence, when the inevitable implosion takes place, it can be quite disastrous, or even catastrophic. We learnt that it is difficult to predict the precise nature of the implosion. For example, in the pre-crisis years, even the few who sensed stress building up in the system, thought there would be a currency crisis; in the event the implosion took the form of a financial sector crisis.
- 43. There were other lessons too. That a collection of rational financial institutions does not necessarily make a rational financial sector. In other words, rational behaviour at the individual institutional level does not aggregate to collective rationality because of the fallacy of composition. Financial institutions are notoriously prone to herd behaviour. They have a strong collective tendency to over expose themselves to the same type of risk during an upturn, and become overly risk averse during a downturn which can lead the whole system on a downward spiral of risk aversion, market seizure and instability.
- 44. These lessons from the crisis have triggered a vigorous debate on whether financial stability should be made an explicit mandate of central banks. There are powerful arguments for why central banks should be at the centre of safeguarding financial stability. Let me list a few important ones.
- (i) Generally, monetary policy and financial stability are mutually supportive. This interdependency between the two dimensions suggests that the central bank, with inherent responsibility for monetary policy, should also be entrusted the responsibility for financial stability so that it can take a holistic view of policy options by factoring in costs and benefits in both dimensions.
- (ii) That the central bank should have the responsibility for monetary policy is unquestioned. Because banks are the conduits through which monetary policy decisions are transmitted to the real economy, it is synergistic to entrust the responsibility for microprudential supervision of banks also to the central bank. And if the central bank is the microprudential supervisor, there is a strong case for it to have responsibility for regulation of systemic risk at the macro level.
- (iii) By far the strongest argument in favour of entrusting the financial stability responsibility to the central bank is that it is unquestionably the lender of last resort (LoLR) for the financial system. A central bank can discharge its LoLR function more efficiently if its mandate extends beyond merely monitoring financial institutions to taking preventive action. This becomes possible if the central bank is also in charge of financial stability.
- 45. On the issue of financial stability, even as the lessons of the crisis are clear, the policy responses to those lessons are not yet clear. There are some common trends, but there are also variations across countries on the precise manner in which they are redesigning their regulatory architectures, the additional responsibilities they are assigning to their central banks and the coordination bodies that they are setting up.
- 46. Are the concerns of EMEs in regard to financial stability any different from those of advanced economies? Admittedly, financial instability is costly everywhere, including in EMEs. Indeed, financial stability is a necessary pre-condition for securing growth. Nevertheless, the cost-benefit calculus for EMEs of tighter regulation in order to safeguard financial stability can be quite different from that of advanced economies. This is because

EMEs are in a higher growth phase with higher credit elasticity of GDP than advanced economies. Increase in the cost of credit on account of tighter regulation can inhibit their pace of growth. EMEs therefore need to strike the right balance between preventing financial instability and supporting growth. Experience shows that managing this challenge is more a question of good judgement than analytical skill.

# V. Communication as a central bank policy tool opportunities and risks

- 47. Hours after the September 2001 terrorist attacks, the US Federal Reserve put out a two sentence statement: "The Federal Reserve System is open and operating. The discount window is open to meet liquidity needs."
- 48. Those two seemingly banal sentences had a remarkable calming effect on the US, and by extension, on the global financial markets. The "announcement effect" was simply stunning.
- 49. Again Mario Draghi's famous words that the ECB will do "whatever it takes" to save the euro prevented, more than anything else, what many thought was an imminent collapse of the euro.
- 50. Both the above are emphatic examples of the potency of central bank communication. Given this power, one would have thought that central banks would have more actively resorted to communication as a vehicle to further their policy objectives. On the contrary, they used to be quite reticent, believing that their policies must speak for themselves, and that any overt attempt to communicate could be misleading or distortionary.
- 51. Over the last two decades, however, this overly rigid attitude has gradually yielded to open and transparent communication as central banks have come to realize its positive impact. This shift in central bank theology from deliberate obscurity to greater transparency actually reflects a shift in the theory of monetary policy. Up until the early 1990s, monetary policy was strongly influenced by Nobel Laureate Robert Lucas' argument that monetary policy affected real variables, like growth, only if the policy changes were unanticipated. This encouraged obscurity over openness and clarity. However, lost in the message was that monetary policy always affected nominal variables like inflation even if fully anticipated. In the 1980s, two economists, also Nobel winners, Finn Kydland and Ed Prescott, argued that fully transparent rules rather than discretionary policy changes were more efficient and credible. This was the beginning of the push towards rules over discretion and greater central bank transparency.
- 52. The most eloquent illustration of this shift towards transparency is the change in the communication strategy of the US Fed. Hard as it might be to imagine from today's perspective, prior to 1994, the US Fed was not even announcing the target Fed Funds Rate; the market was expected to infer the rate from the timing, sequencing and magnitude of its open market operations. In sharp contrast, today the Fed not only announces the rate but also gives a clear indication of future policy trajectory. Indeed, it is standard practice for central banks these days to indicate the policy rates, the rationale behind the policy action, the expected outcomes, and oftentimes forward guidance on future policy actions.
- 53. Sometimes, instead of being a vehicle for policy, communication can be the policy itself. This issue came into sharp focus in the debate surrounding the quantitative easing (QE) policies of the US Federal Reserve. Against the QE policies, there is an influential view that after the policy interest rate has been brought to the zero lower bound, nothing else needs to be done except for the central bank to say that it will keep interest rates low in the future too. It is argued that this communication, just by itself, would encourage people to borrow more and spend, bailing the economy out of recession.
- 54. But this idea of topping up monetary easing with communication may not always work. People may not believe that the central bank will keep its promise of low interest rates.

Even if they believe the central bank, they may not still borrow since what they may be trying to do is to get out of debt rather than get into further debt as is the case today.

- 55. So, how do central banks improve their credibility? By tying their promise of low interest rates to specific quantitative real sector variables? The US Federal Reserve has recently led the way in this direction by saying that it will keep interest rates low as long as the unemployment rate remains above 6.5 per cent, and in the process, is willing to tolerate inflation slightly above its long-run target. Another way of reinforcing this promise of low interest rates is the idea of shifting from targeting inflation to targeting nominal GDP.
- 56. Is communication an equally potent policy tool for EME central banks? How effectively are they using communication as a policy tool? Although I have not made an exhaustive study, it would be fairly accurate to say that they too are learning to use communication constructively, both as a vehicle for policy and sometimes as the policy itself. Let me give an illustration from the crisis period.
- 57. In the pre-crisis years, it was intellectually fashionable to subscribe to the "decoupling" hypothesis which held that even if advanced economies went into a downturn, EMEs would not be affected because of their improved policy framework, robust external reserves and resilient banking systems. Yet the crisis affected virtually all EMEs, denting the credibility of the decoupling hypothesis. EME central banks found that transparently communicating why and how they were affected by the crisis, notwithstanding the decoupling hypothesis, actually helped assuage concerns and revive market confidence.
- 58. In the post-crisis period, the major way in which EME central banks have used communication is in giving forward guidance on monetary policy.
- 59. In the Reserve Bank too, we have started the practice of giving forward guidance on monetary policy. Because of its potential impact, we pay much more attention to the language and nuancing of the "forward guidance" paragraphs than other parts of the statement. Our experience in this regard has been quite positive. Nevertheless, we face some challenges. Let me give you a flavor of that.
- 60. Forward guidance is always conditional. The dilemma then is how precisely the conditionality is to be communicated, and how to ensure that the market does not ignore the conditionality and interpret the guidance as an irrevocable commitment. Conversely, how does the central bank ensure that it does not become hostage to its guidance?
- 61. Also, the more uncertain the situation, the greater the need for guidance. But also, the more uncertain the situation, the more difficult it is to give definitive guidance. For example, when the forward outlook is uncertain, we are not able to precisely define the conditions under which the guidance holds and the conditions under which we may have to deviate from it. When we are not forthcoming on specifying the conditions, the market starts speculating on them, thereby raising the "noise" to message ratio.
- 62. Despite these challenges, in the Reserve Bank, our experience with greater openness has been quite positive. We found that effective communication can be a powerful tool provided the central bank has credibility.
- 63. As their financial sectors get deeper and more sophisticated, EME central banks can usefully leverage on communication to enhance their policy effectiveness. To do so however, they have to improve their policy credibility as well as capacity levels.

## Conclusion

64. Central banks and central bankers have been at the heart of the global financial crisis. They have been blamed for policies and actions that got the world into the crisis; they have also been praised for leading from the front in getting the world out of the crisis. I believe this is fair critique – central banks have been a part of the problem and a part of the solution.

- 65. As we emerge out of the crisis, central banks have their task cut out for them: to distil the lessons of the crisis, translate them into concrete reform measures and get cracking on implementing them. I believe this involves central banks changing in important ways both in terms of what they do and how they do it.
- 66. The challenge of post-crisis transformation is not only different but also sharper for EME central banks because of their different macroeconomic and institutional contexts. EME central banks need also to learn to manage policy making in a globalizing environment. They need to learn from the best in the world, but adapt that learning to the demands and context of their economies. They need to be constantly pushing the envelope, be at the frontiers of domain knowledge, oftentimes reinvent it, but all the time remain sensitive to their core concerns.