

# Monetary Policy Options and Tools

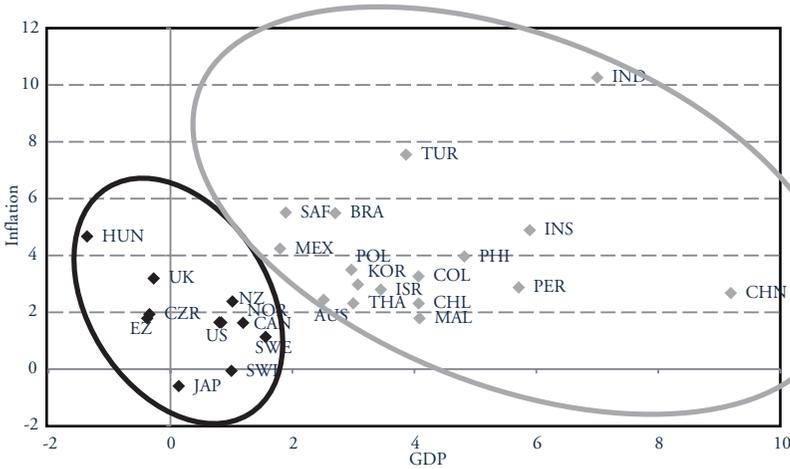
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As I understood, the objective of this panel is basically to address three issues. One, to assess if countries other than the main advanced economies have engaged in unconventional monetary policies, and in a given case, what have been the strategies and tools they have used. The second is to identify the main implications of unconventional monetary policies on other economies. And the third, what have been the policy reactions of countries that have been affected by unconventional monetary policies? By electing me as a speaker, I think the organizers were trying to get the view from emerging markets, so that's what I will do.

And I will start by addressing the following question: Is there a case for unconventional monetary policies to have been applied by emerging markets in the recent crisis period? By and large, the emerging markets have not been forced by events to modify in a significant way their monetary policy stances and policy instruments. This is because conventional approaches remained operational and effective. We have not been constrained by the zero lower bound. Emerging markets, for a change, were not the epicenter of the crisis. And even though the impact of the crisis on growth, trade and financial stability has been considerable, the side effects have been manageable mostly with traditional instruments. In the handout, you can see in Chart

**Chart 1**  
**Economic Growth and Inflation**  
**Annual Percent Change, Average, 2009-2012**



Note: The sample includes the following countries: Australia, Brazil, Canada, Chile, China, Colombia, Korea, United States, Philippines, Hungary, India, Indonesia, Israel, Japan, Malaysia, Mexico, Norway, New Zealand, Peru, Poland, United Kingdom, Czech Republic, South Africa, Switzerland, Sweden, Thailand, Turkey, euro area.  
 Source: International Monetary Fund.

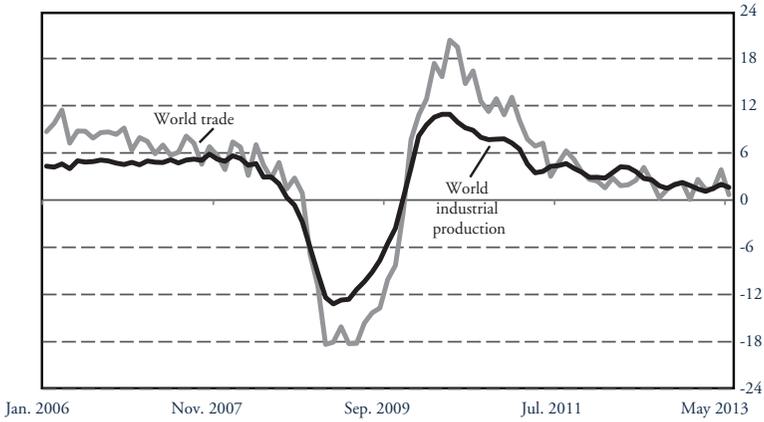
1 a very simple scatter diagram, in which it is shown that emerging markets have been in a situation in which traditional monetary policy tends to work, i.e., in a situation with moderate, but positive inflation and growth. We are not as close to the origin as advanced economies, so I think this is probably the main reason why we have not been faced with the need to implement unconventional monetary policies. Advanced economies have also been forced to take very unconventional fiscal policies, and I would like to remark that we have not paid enough attention to this factor, nor to the relationship between unconventional fiscal and monetary policies. For completeness, let me say that emerging markets have not been in a situation where they needed to implement unconventional fiscal policies.

So let me move now to the second question, meant to assess the impact of unconventional monetary policies on emerging market economies. First, we have to say at the outset that it is impossible for emerging markets economies to decouple from advanced economies. The crisis that started in 2007 in the advanced economies has affected a very large percentage of the world's GDP and the effect has

been felt by most economies. So, in Chart 2, you see the very close correlation between world trade and world industrial production, and then when you map these in a more detailed way to emerging market economies, you see how world industrial production correlates extremely closely to exports from emerging markets, affecting their growth rate. Certainly there have been some effects on financial markets, and I will address them later. The conventional wisdom basically is that unconventional monetary policies have been very effective in stabilizing financial markets, and somewhat effective in stimulating economic growth, but with diminishing returns. These achievements contained the spread of the negative consequences of the crisis, enhancing financial stability and world economic growth. In this sense, unconventional monetary policies have been favorable for emerging markets. So this means that if there hadn't been unconventional monetary policies, very likely the situation in emerging markets would have been worse.

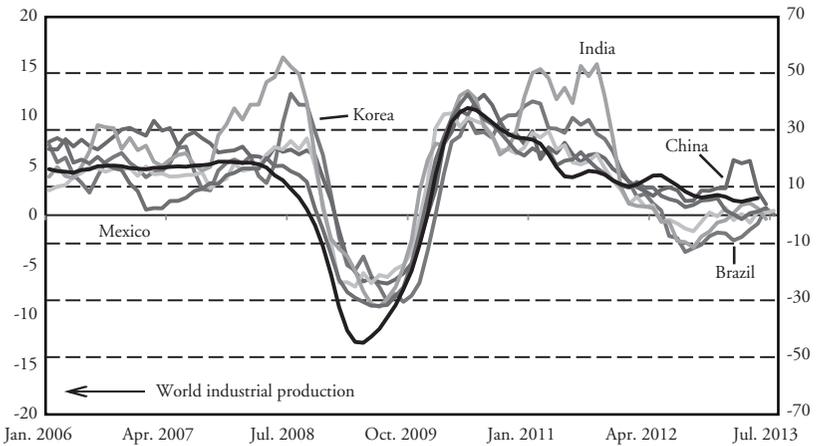
On the other hand, there also have been undesirable side effects coming from unconventional monetary policies in advanced economies that have made the implementation and design of emerging markets monetary policy very challenging. The main issue has been the impact of unconventional monetary policies on capital flows. I would say, in general, that unconventional monetary policies have stimulated capital flows to emerging markets, in some cases generating mispricing in local asset markets, including the foreign exchange market, and increasing financial stability risks. Reversals have happened and they could become much larger in the future as unconventional monetary policies exit strategies progress. Volatility of flows has also been very pernicious, and to some extent unconventional monetary policies have affected such volatility. Here I would like to call your attention to Chart 3, where I plotted weekly capital flows to emerging markets. You can see how the volatility increased dramatically at the outset of the crisis, and that it certainly has not diminished; as a matter of fact, in May-June 2013 it is noticeable that the outflows and volatility were larger than what we saw at the outset of the crisis.

**Chart 2A**  
**World Trade and Industrial Production**  
**Annual Percent Change\***



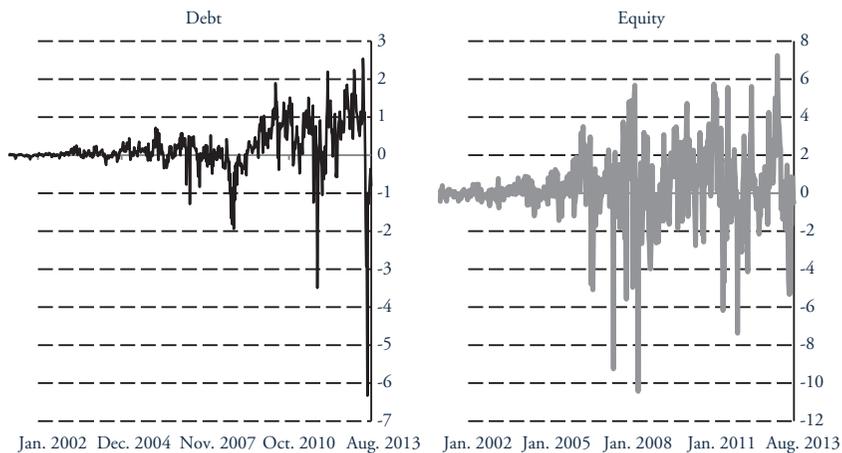
\*Seasonally adjusted data  
 Source: CPB Netherlands.

**Chart 2B**  
**Emerging Economies' Exports and World Industrial Production**  
**Annual Percent Change of Three-Month Moving Average**



Source: CPB Netherlands, Haver Analytics and INEGI.

**Chart 3**  
**Emerging Economies: Weekly Capital Flows**  
**Billions of Dollars**

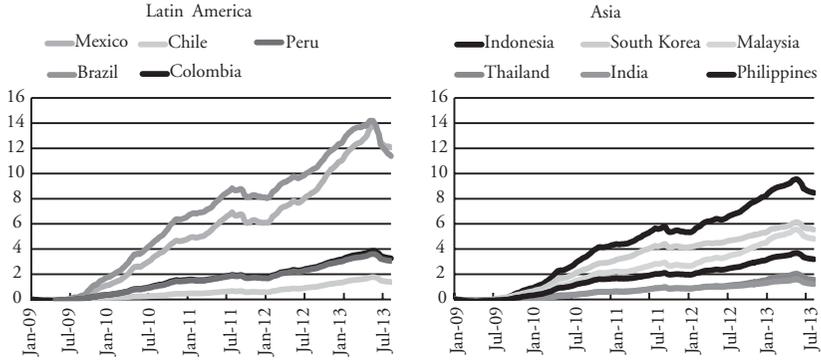


Source: Emerging Portfolio Fund Research.

It would be unfair to blame unconventional monetary policy for all this volatility. We are in a major crisis, and that plays a significant role. But without doubt unconventional monetary policies have affected the evolution of the crisis. As the crisis has evolved, advanced economies have faced sequential episodes with high probability of them being associated with catastrophic events and widespread contagion, which in turn have triggered capital outflows from emerging markets economies. In most of these episodes, unconventional monetary policies helped to stabilize markets. A very clear example is what happened when the European Central Bank announced its outright monetary transactions in the summer of 2012.

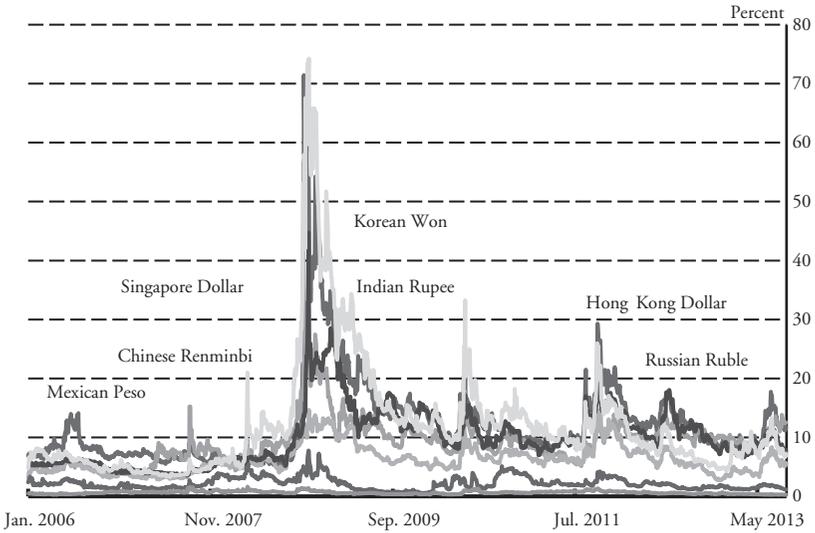
On the other hand, under a crisis environment, typical macroeconomic relationships and models break down, making the situation akin to navigating in a storm without sufficient instruments. In this setting, it is unavoidable for authorities to articulate prompt policy responses in the face of a shock or development in a crisis without full information or an inappropriate reference framework, a scenario that often leads to mistakes and/or insufficient responses. Based on this, it is difficult to rule out the possibility of unconventional monetary policies in some instances to have contributed to augment the volatility of capital flows.

**Chart 4**  
**Country Allocation of Bond Fund Flows, 2009-2013**  
**Accumulated Flows in Billions of U.S. Dollars**



Source: Emerging Market Portfolio Fund Research.

**Chart 5**  
**Daily Implicit Volatility on One Month at the Money Options**

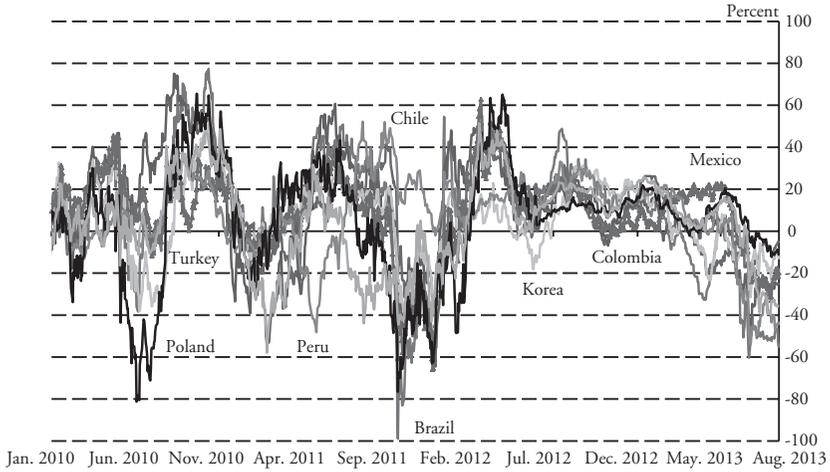


Source: Bloomberg.

For emerging markets, these flows are very important. Most of these economies have adopted a floating exchange rate regime. Given that they are small open economies, the exchange rate is a very important component of the monetary policy transmission mechanism. Therefore, having enhanced volatility in exchange rates (see Chart 5) as a result of more volatile capital flows makes the design and implementation of monetary policy very challenging. Despite the high foreign exchange rate volatility, I would say that the very low interest rate environment in advanced economies, together with frictions in financial markets, have generated persistent opportunities for relatively long periods of time for uncovered interest rate arbitrage. This factor has opened up opportunities to market participants to implement massive carry trade strategies, inducing large short-term speculative capital inflows to emerging markets, which have deepened the mispricing in local markets and increasing the risk of substantial reversals, as we have seen recently. As you can see in Chart 6, it is remarkable the persistence of these opportunities, and at the same time, their volatility which by a large extent is explained by the very short term, massive capital inflows and outflows into emerging markets.

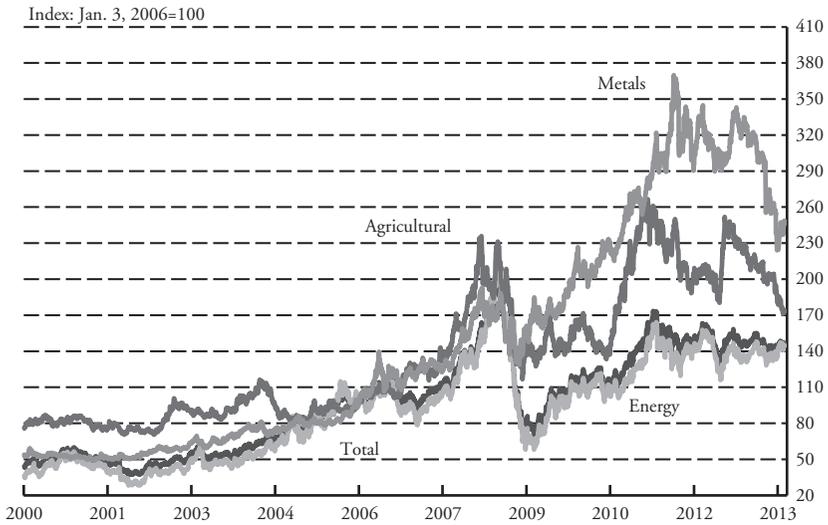
For the management of monetary policy, an additional complicating factor has been the simultaneity through most of the period of increasing but volatile capital flows with an underlying upward trend in world commodity prices (Chart 7). This has presented a difficult dilemma in the management of monetary policy for emerging markets because commodity prices have often affected inflationary expectations which would have required higher interest rates as a response. At the same time, the massive net capital inflows that emerging markets have experienced called for lower interest rates. Several countries have been hesitant to allow the downward adjustment of interest rates given that inflationary expectations were high due to commodity prices. The side effect of this reaction has been increased capital inflows, more pressure on the exchange rate and the buildup of potential financial instability due to the potential of larger reversals. So this has been a major problem. At the end of the day, this problem facing emerging markets' central banks is one of insufficient credibility. If they had a longer record in keeping inflation in line, and thus their commitments would be credible, probably they would

### Chart 6 Returns of a Three-Month Carry Trade Investment Strategy, 2010-2013



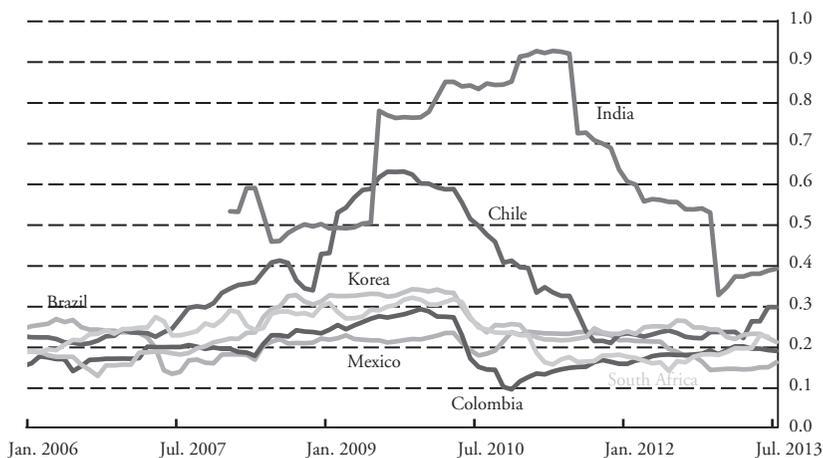
Notes: The returns of the carry trade strategy are the percentage change in the exchange rate between periods  $t$  and  $t-h$  ( $h =$  three months) plus the three month return of the JP Morgan Government Bond Index-Emerging Markets (GBI-EM) for each country minus the three month T-Bill quarterly rate. These returns are annualized.  
Source: Estimated by Banco de México with data from JP Morgan.

### Chart 7 Commodity Prices Index



Source: Standard & Poor's.

**Chart 8**  
**Emerging Economies: Volatility of Monthly Inflation**  
**24-Month Moving Standard Deviation\***



\*Seasonally adjusted data.

Source: Estimated by Banco de México with data from Haver Analytics.

not have faced an important impact of higher commodity prices on inflation. All this has also resulted in an increasing volatility in inflation (Chart 8), which by the way makes it more difficult to anchor inflation expectations through monetary policy.

Given the above, the question for emerging market economies has been how to respond to large, potentially destabilizing capital net inflows, in an environment in which monetary policy might be facing more than one objective (for example, financial and price stability) and multiple challenges. I am afraid there is no overall good answer. Orthodoxy would prescribe an adjustment in the policy mix, calling for a tighter fiscal policy stance, in combination with an easier monetary policy. The fiscal restraint would induce a real exchange rate depreciation, which in combination with lower interest rates, could provide room for the resulting appreciation pressures coming from capital inflows, and reduce the incentives for such flows. But the problem is that this option (in particular, the fiscal tightening) is very difficult to implement politically, more so in today's environment in which economic growth in emerging market economies has been slowing.

Looking for other options, here is where emerging market economies (EMEs) have in a way innovated, adopting some unconventional policies, moving basically into the territory of what has been called macroprudential policies in a broad sense. They have been used mostly pursuant to three objectives:

To limit capital inflows, some EMEs have imposed capital controls, and they have taxed either the inflows or their returns; other countries have demanded higher reserve requirements on commercial banks' liabilities derived from borrowing abroad or deposits by foreigners.

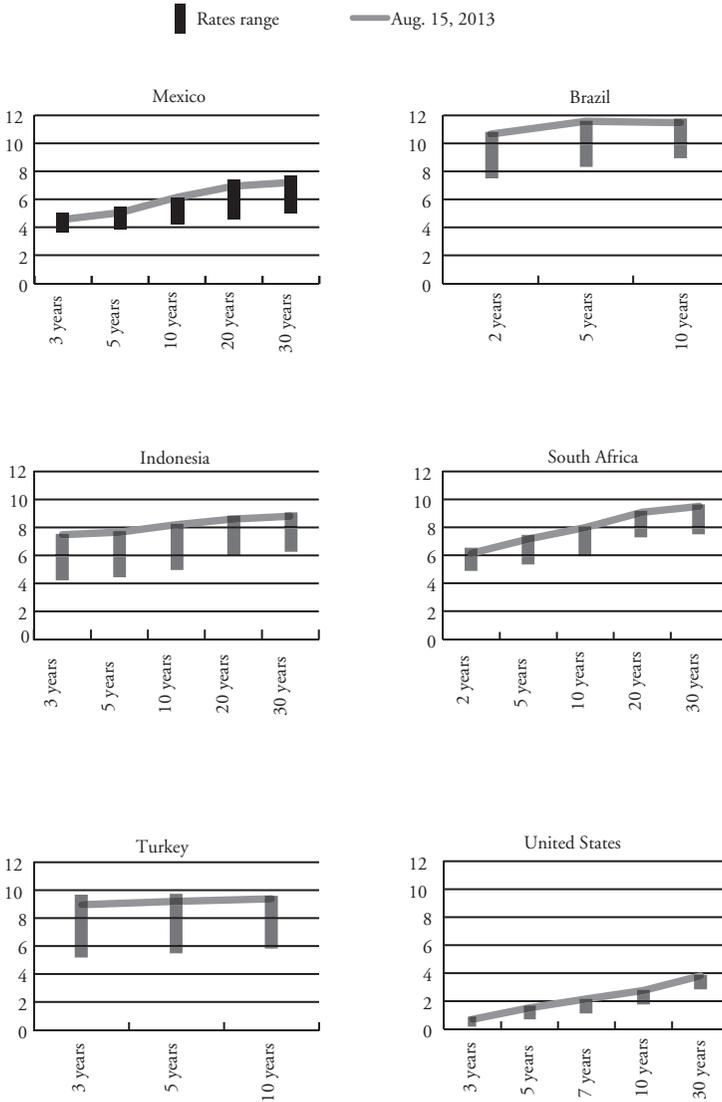
To control the impact of flows on the exchange rate, some EMEs have relied on heavy intervention in the foreign exchange market, accumulating large international reserves.

To prevent asset price bubbles, some countries have adjusted loan to value for specific credits, established debt to income limits on potential borrowers, increased risk weights on some banks' assets and/or adopted time varying dynamic loan-loss provisioning.

It has been a good start, but the evidence is still inconclusive about the effectiveness of such macroprudential policies. At the same time, we need to understand better how these policies work, and establish best practices in their implementation. In a few cases, "beggar-thy-neighbor" policies were adopted under the umbrella of macroprudential policies; this is clearly unacceptable. Macroprudential policy actions should be tailored to address well-identified distortions and should be preferable short-lived.

To conclude, I would say that the most pressing challenge that emerging economies are currently facing and will face in the coming months is how to react to the implementation of the exit of unconventional monetary policies by some major central banks. Since last May, we have seen turbulence in financial markets around the world, once the "tapering talk" started, that is once the possibility increased that the Fed would soon taper its asset purchases. As a result of this, we have seen impressive capital reversals from emerging market economies' as shown in Chart 3, a substantial upward shift in the yield curve of several countries (Chart 9), and a sharp depreciation of their

**Chart 9**  
**Yield Curves of Selected Emerging Market Economies**  
**Jan. 2 to Aug. 15, 2013**  
**(percent)**



Source: Bloomberg.

currencies against the U.S. dollar. Countries with relatively weaker economic fundamentals, basically with higher fiscal and current account deficits, have been affected the most. This has come at a time when economic growth in emerging markets has been slowing.

So what can we do to prevent the situation from getting worse, in a way to prevent it from getting out of control? First, in advanced economies it would be desirable for them to implement a gradual and predictable exit from unconventional policies. Better communication by the Fed, to speak in one voice, would be very important at this time as well. Advanced economies' central banks should also mind the spillover effects of their actions. Otherwise the lingering crisis will be reactivated, but probably with new actors. In the case of emerging market economies, they need basically to strengthen their economic fundamentals. In particular, it is important to maintain sovereign risk under control, to reduce inflation risk premiums and to enhance the resilience of domestic financial institutions. In short, they need to build up the credibility of their macroeconomic framework, assuring markets that such frameworks will be resilient enough to withstand the removal of the favorable winds that they have enjoyed for a while in the forms of a very expansionary monetary policies in advanced economies. Many of them should consider the use of credibility enhancement mechanisms, such as the IMF Flexible Credit Line.

There is a very good paper that was prepared by the IMF for the April meeting which establishes in a credible way that two-thirds of the spread compression that took place between 2008 and early 2013 in emerging markets could be explained by external factors.<sup>1</sup> And the main external factor has been the unconventional monetary policies pursued by advanced economies. Only one-third is explained by internal sources. Now that such external factors will be reverted, it is to be expected that some decompression of spreads will take place. Therefore the main issue is how can emerging market economies buffer such decompression; the only answer for me is by enhancing their internal strength through structural reforms to enhance growth.

Finally, central banks of emerging markets should be ready to perform as “market makers of last resort,” in exceptional circumstances, mostly to smooth volatility and avoid incomplete markets which could lead to bad market equilibria in turbulent times

## **Endnote**

<sup>1</sup>Global Financial Sector Report, IMF, April 2013.