

The Pursuit of Monetary and Financial Stability in

Emerging market Economies^{*}

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First, let me thank the CCBS and the Cornell University for the invitation. Today my topic is the pursuit of monetary and financial stability in emerging market economies, based largely from the draft paper that has been circulated.

What the paper attempts to do is to draw attention to the unique context of emerging markets compared to developed economies in the attainment of monetary and financial stability. Specifically, the paper discusses the underlying cause of the differences, and highlights the key implications of these differences for the pursuance of monetary and financial stability in the emerging market context, in terms of short-term stabilization challenge, long term structural challenge, and the challenge in implementing structural reform.

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I The Unique Context

A good starting point to discuss the issue is to take note of the two stylized facts of emerging market that are unique to its policy setting. The first is the greater income and consumption volatility in emerging markets, both in terms of level and growth, relative to developed economies. And the second is the observation that economic agents in emerging market face limitations in the ability to smooth consumption in response of shocks.

Table 1: Output and Consumption Moments

Aguiar and Gopinath (2007): Quarterly data up to 2003Q2		
	Emerging Markets	Developed Markets
$\sigma(Y)$	2.74	1.34
$\sigma(C)$	3.97	1.26
$\sigma(\Delta Y)$	1.87	0.95
$\sigma(C)/\sigma(Y)$	1.45	0.94
Kose, Prasad, and Terrones (2005): Annual data 1961-2000		
	Emerging Markets	Developed Markets
Median ΔY	2.61	2.80
Median ΔC	1.89	2.71
$\sigma(\Delta Y)$	4.07	2.59
$\sigma(\Delta C)$	5.63	3.32
$\sigma(\Delta C)/\sigma(\Delta Y)$	1.38	1.28

Table 1 summarizes the empirical evidence from the two recent studies. As documented in Aguiar and Gopinath (2007), consumption in emerging markets is around 40 percent more volatile than income at business cycle frequencies. The same is true when

comparing relative volatility in growth rates of consumption and income. A study by Prasad and his colleagues in 2005 also shows greater income and consumption volatility in emerging market relative to developed economies. Such heightened volatility in macroeconomic outcomes undoubtedly has adverse implications for welfare.

Our central proposition is that a large part of the explanation for higher macroeconomic volatility rests with key differences in the *nature* of shocks hitting emerging economies as well as the way in which their economic systems *propagate* those shocks.

Figure 1: Determinants of macroeconomic outcomes

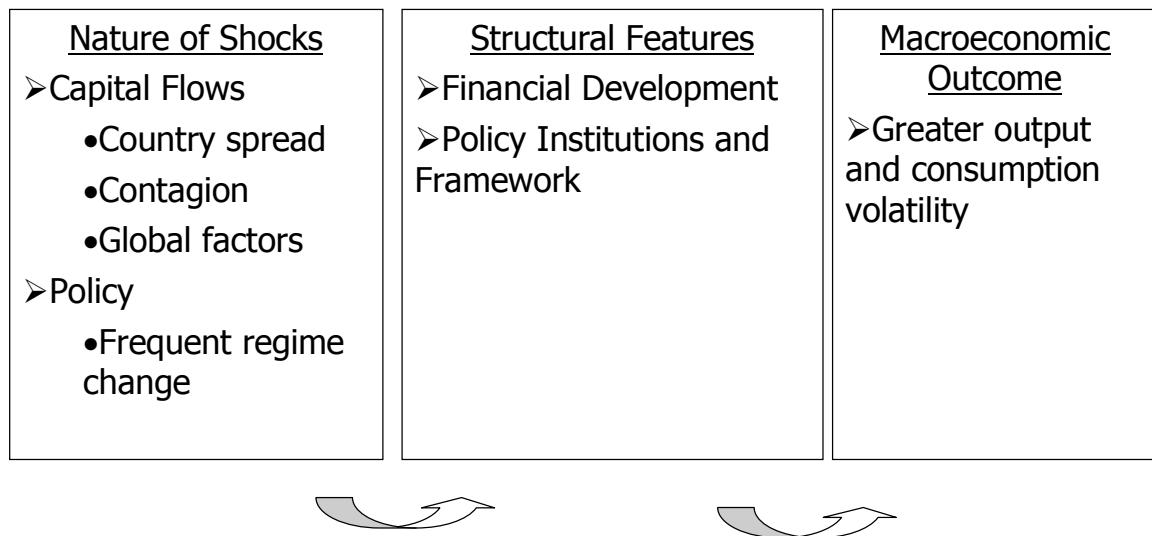


Figure 1 depicts how observed macroeconomic outcomes are the result of the interaction between the nature of shocks hitting emerging market and the structural features of the economic system.

On the nature of shocks, a particularly pertinent example in this context is capital flow shocks. As shown in Table 2, capital flow shocks, especially debt and equity, are more volatile in emerging markets relative to advanced economies, as well as relative to other developing economies.

Table 2: Capital Inflow Volatility

	FDI/GDP	Equity/GDP	Debt/GDP
<i>Coefficient of Variation</i>			
All Countries	0.85	0.98	0.76
Advanced Economies	0.92	0.99	0.64
Emerging Markets	0.75	1.07	0.85
Other Developing Economies	0.9	0.7	0.8

Source: Table 3 of Kose, Prasad, Rogoff and Wei (2006). The coefficient of variation is the standard deviation divided by the mean. Data shown in this table are the cross-country means for each group of countries of the different categories of gross capital inflows over the period 1985-2004. The sample comprises 21 industrial, 20 emerging market and 30 other developing countries.

Such volatility, which sometimes manifest themselves in “sudden stop”, is linked to a variety of factors including the pro-cyclical nature of the flows. For example, the pro-cyclical nature with respect to sovereign bond ratings. On the other hand, information asymmetries in emerging market may also make the flows more susceptible to contagion effect, resulting in large swings in capital flows unrelated to changes in fundamentals. Macroeconomic

conditions in industrial countries is another candidate that can make emerging market more susceptible to a wide array of global shocks.

Domestic political shock in the form of policy uncertainty can also be more pronounced in emerging markets, as evidenced by more frequent regime switches i.e, from fixed to floating exchange rates, as well as reversals in policies. Such shocks can exacerbate capital flow volatility and manifest themselves in terms of greater macroeconomic volatility.

The second key difference between emerging markets and developed economies is the structural features of the economic system which influences how various shocks are propagated through the economic system. While there are many key differences in this regard, two features are especially important in the context of monetary and financial stability. The first is financial development. And the second is institutional framework of monetary and financial supervision policies.

Financial development is an important process for channeling resources to their most productive uses. For example, a strong banking sector with highly disciplined risk management can help mitigate the risk of financial imbalance. This feature can be lacking in emerging

markets. Also the existence of a deep and liquid financial market that offers a breadth of financial instruments and improves the ability of the economy to absorb shocks is generally lacking. Indeed, a number of empirical studies indicate that financial development, especially greater financial access, is associated with lower macroeconomic volatility.

The institutional framework of monetary and financial supervision policy also has an important influence on the extent to which various shocks make their way through the economy. For example, a lack of independence and credibility in monetary policy to anchor long-run inflation expectation is likely to undermine macroeconomic outcomes. In contrast, a credible policy framework and central bank independence provide the necessary preconditions for alleviating the impact of shocks on the economy. Similarly, weak supervisory framework also increases risks to financial imbalance build-up.

Overall, our proposition is that the unique combination of shocks and structural features of the economic system in emerging market give rise to a macroeconomic backdrop that is characterized by significantly higher output and consumption volatility than in developed economies. The Asian financial crisis ten years ago is a

good example of this interaction, where large and persistent capital flows interacted with financial system underdevelopment and rigid policy regime resulting in a boom-bust cycle.

Against this backdrop, the pursuit of monetary and financial stability in emerging market, therefore, has two key facets. The first is addressing the immediate short run concerns emanating from various shocks; and the second is implementing structural reforms to ensure that financial stability becomes embedded in the underlying structure of the economy in the long run.

In terms of challenges, the former essentially concerns the challenge of maintaining economic stability through appropriate policy settings and actions to offset the various shocks hitting the economy at any given point in time. The latter, on the other hand, focuses on strengthening the institutional framework for monetary policy and financial supervision as well as fostering financial system development that improves the ability of the system to absorb shocks by itself in a way that minimizes the impact on the real economy without the need for policy intervention.

Let me now discuss some specific challenges to monetary and financial stability in emerging markets from both the short and the long

run perspectives. For short-run stabilization, it is clear that one of the important challenges at present is how to contain financial vulnerabilities that accompany an influx of short-term capital.

In coping with capital flows, lowering interest rates to reduce the relative attractiveness of the country to capital inflows may be a first appropriate way to ensure price stability. But, in most cases, fast appreciation may not subside as exchange rates tend to behave more like asset prices than relative goods prices. So, there is a risk that central bank may cut interest rate by too much, hence, sowing the seeds for inflation and an asset price boom down the road as well.

On the other hand, sterilized intervention also entails quasi-fiscal costs, as well as adding to inflation risk from the build-up of local currency debt should there be future fiscal stresses. Moreover, international reserves accumulation can also risk damaging central bank credibility as they can incur balance sheet loss when reserves are marked to market in local currency. These are all important and delicate points for policy consideration.

The second challenge is the ability of emerging market central banks or financial supervision authorities to identify and quantify risks of potential financial instability in advance. On this, we

find stress testing to be a powerful tool to assess financial stability ex-ante. Unfortunately, financial institutions and regulators in emerging markets have significantly lagged behind their counterparts in advanced economies, especially on credit and liquidity risk stress testing.

Therefore, regulators in emerging markets should move faster to increase the use of macro stress testing. They should also push financial institutions to invest in human resource and technology to conduct macro stress testing at least on an annual basis. And regulators and monetary policymakers must increase coordination in order to arrive at more relevant and convincing macro stress testing scenarios.

The third challenge is the role of prudential measures. While it is unclear how effective domestic monetary policy can be in checking excessive asset price volatility, the threat of financial instability has given rise to a more prominent role for macro-prudential measures to reduce the procyclicality of the credit market. As we see it, the primary challenge in this respect is how best to move forward. Combining the use of prudential measures with monetary policy is a useful policy option, but it is still an unsettling issue because of the concern for efficiency. In practice, discretionary prudential measures

pose difficulty in the form of potential regulatory forbearance, market distortion, timing effectiveness, and the difficulty in modeling early warning system. Rule-based prudential measures, on the other hand, pose difficulty in policy calibration. This is to say calibrating this type of policy tools has so far proven difficult for emerging market where data availability is limited and large structural breaks are usually present.

Turning to longer-term perspective, the attainment of monetary and financial stability is determined predominantly by embedded structural features of the economy. This points to the importance of pursuing long run structural reforms. On this issue, we discuss the role that financial sector development and policy institutions and framework can play in this respect.

First, Financial Development

The first point we make on financial development is the importance of a well-balanced financial structure.

Efficient and well balanced financial system will allow the system to better manage and absorb shocks as the market would be less

prone to one-way market conditions and possesses greater liquidity. A well balanced financial structure contributes positively to information processing, price discovery, and risk management. The experience of the Asian crisis, for example, points to the critical importance of the development of long-term local currency debt market, to increase the depth and the breadth of financial market. In relation to this, BIS identified that the lack of diversified structure and market may lead to increased risk from concentration of credit and maturity risks in the banking system as lack of markets may lead to the mispricing of risk and excessive delay in correcting large exposures, as well as increased vulnerabilities from capital inflows.

The second point we want to make is the importance of strong financial market infrastructure.

One the key issues for emerging markets is the structural weaknesses which can create disincentive and moral hazard. The presence of such distortions contribute to built-up of financial vulnerability, hinder growth of market solution for tackling risk, and complicate policy actions in events of crisis management. Progress in correcting these weakness however may be slow.

Market-driven financial market developments need the support of critical infrastructure, namely: (1) *Information that allows efficient decision making and pricing* on various asset markets, financial as well as related market such as real estate market, which are still very lacking in many emerging markets, and may be an area of public support. (2) *Legal reform to ensure enabling environment for innovation in products and business models of financial system.* And (3) *Human resource with proper competency in modern financial and risk management* are scarce and is becoming a bottle neck for development. The authority may need to step in to facilitate training and accreditation of professional standards, if it has external benefits.

Notwithstanding these challenges, notable progress has been made by emerging markets in the past decade, much of which catalysed by comprehensive economic reform in which market-oriented economic and financial liberalization been main features. For East Asia, despite the progress made, significant gap still exists in diversification, efficiency and robustness when compared to the role played by financial markets in the developed economies. Looking ahead, in addition to the pressure from globalization, the shift in demographic structure will also be an additional pressure. This is to say some smaller emerging markets will face aging population and increase demand of wealth management, while supply of local

products are limited for diversification. This will pose challenges for inter-temporal allocation of resource and risk. Thus, it is imperative that emerging market devise a proper strategy and process to expedite reforms and develop the financial system.

The second long-term reform I want to bring up is on policy institution and framework. On this, two institutions are upmost important for attaining monetary and financial stability. The first is a credible monetary framework that effectively anchors the public's expectation of inflation. On this, the key issue is the importance of independence and transparency of the monetary policy process. Our view is that lack of independence can come at a great cost in terms of lower central bank credibility and a less favorable trade-off between inflation and output volatility. Likewise, weaknesses in monetary policy transparency can contribute to policy uncertainty and exacerbate the impact of shocks on macroeconomic volatility.

The second important policy institution is an effective supervisory policy and domestic financial institution's capacity for sound risk management. The logic for this is clear. With less effective supervision and limited capacity to manage risk, the ability of the economic system to absorb volatility from global markets is significantly compromised.

Reflecting this emerging market has put enormous emphasis on building up the necessary institutions with regards to effective supervision. But the challenges are many. For example, at this time many emerging markets are facing the challenge in implementing Basel II.

(i) Stronger Risk Management Culture

The objective of Basel II is to strengthen the soundness and stability of the banking system through more risk-sensitive capital requirements and rigorous internal risk assessment process. This has a direct bearing on ensuring financial stability. But because Basel II is developed from the current practice among banks in developed countries, some banks in emerging markets may have a large gap to fill. For example, in moving away from collateral-based to credit-based loan approval, banks must focus more on the ability to pay of customers and to make loan decisions in a forward looking manner. This requires a different set of expertise that focuses on risk assessment in the environment changing economic cycle and asset quality.

(ii) Information System and Resource and Capacity Building

Next is the information system which is the most important foundation for achieving financial stability through capital adequacy. Whereas developed countries generally already have in place the necessary infrastructure in this regard, financial institutions in emerging countries have to build the system from the ground up, involving areas such as data collection, storage, analysis, and ways to effectively embed the information in the decision making process. This step may take more time and effort because it involves building a knowledge base for quantitative analytical skills and ability to apply international best practices to the unique local settings of emerging market.

(iii) Involvement of stakeholders

Another difficulty in Basel II implementation is that other players in the wider financial industry will be playing more active role in the banking sector's risk assessment. For instance, the simple approach of Basel II ties the amount of required capital to ratings by External Credit Assessment Institutions (ECAIs) because they have the strength in both the wealth of data and expertise in credit risk assessment. Unfortunately, only a few large companies in emerging countries are rated. Therefore, a challenge for regulators lies in the process of ECAI recognitions and risk-weight mapping processes as

they must ensure stability of the banking system while at the same time foster the development of local ECAs and the bond market. These efforts will undoubtedly take considerable time and patience, but it is a road that has to be taken.

The Challenge of Implementing Structural Reforms

The two facets of monetary and financial stability that I discussed are present in all economies. But in the emerging market context, the interaction between them and the tensions that arise in terms of where the policy emphasis is placed are arguably more complex with greater welfare implications. Let me end by touching on some of the complexities that arise in this regard and highlight some of the challenges in implementing structural reform in emerging markets.

The first problem is that the gains from reform are hard to quantify because they are often indirect and thus rarely fully appreciated by the wider public. Also the fact that many structural reforms entail short run costs compounds the problem. This time mismatch between the costs and benefits of reform is a prime reason why they are hard to sell. And where the costs and benefits accrue to different segments of the economy, the difficulty of instilling reforms is exacerbated since it is hard to create satisfactory compensation

schemes while those who lose out tend to be concentrated and thus more effective in organizing opposition to the reform.

Next, even if the obstacles to selling the reforms have been overcome, one of the most important issue that follows is the proper pace and sequencing of structural reform. In the context of financial sector reforms, for example, the underlying challenge is the proper mitigation of the additional risks that are injected into the financial system as markets develop and become more sophisticated. These risks consist of both financial risks borne by market participants as well as macroeconomic risks that may be associated with greater financial market volatility. Hence, the consensus on the importance of structural reform efforts does not carry over with the same strength to the issue of the appropriate pace and sequencing of policy changes.

And finally, in the context of emerging market, the main stumbling block for structural reforms is the high degree of political fragmentation. The need to accommodate many, and sometimes conflicting, interests not only slows the reform process but often leads to compromised solutions that fail to address the original underlying goal of the reform. Therefore, it is vital to have a well thought-out strategy for the timing and manner with which structural reforms are instigated.

To conclude, the central theme running through the paper is to point to the intricacy of achieving monetary and financial stability while at the same time maintaining the delicate balance of short run stabilization efforts and long run structural reforms. This is perhaps the toughest challenge for emerging market. But despite the challenge, the overall direction of change in emerging market economies to date is fundamentally reassuring. Much has been achieved in term of strengthening the monetary framework and financial system development.

Thank you.