Notes on Crisis Prevention in Emerging Market Economies (EMEs)

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1. The Fundamentals: EMEs are characterized by lower capital:labor (K/L) ratios than advanced countries and improving total factor productivity (TFP). Sizable capital inflows are likely to be an essential part of the income convergence process. The marginal product of capital (MPK) is a positive function of TFP and a negative function of the capital:labor ratio:

MPK = F(TFP, K/L)

Given relatively low K/L ratios, there are likely to be high returns and thus large inflows as TFP levels converge with better institutions and economic governance.

2. Do capital inflows necessarily lead to vulnerabilities?

Perhaps not in an ideal world where:

- Unhedged domestic corporations are financed only through domestic-currency bonds and equity
- Only robust, naturally hedged corporations (i.e., exporters) borrow in forex
- Consumers borrow in domestic currency paper with large own-equity requirements
- The government borrows very little and only in domestic currency
- And banks do maturity transformation with prudent asset-liability management; all forex loans are to hedged corporations

This would leave no balance-sheet vulnerabilities.

But in the real world some countries cannot borrow in domestic currency or long term; therefore use of foreign capital necessarily entails some forex exposure and maturity mismatch. This raises some critical questions. Do we know whether:

- Households with forex liabilities have enough equity to withstand a serious devaluation?
- Corporations (especially unlisted private corporations) with forex obligations are hedged?
- Banks' forex loans are only to hedged borrowers?

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- Banks with fixed interest long- or medium-term loans could survive a serious increase in interest rates?
- Households and/or businesses with floating rate debt could survive a serious increase in interest rates?
- Govenments could resist political pressures to bail out private debtors when a crisis and the ensuing bankruptcies would entail a large transfer of assets from domestic to foreign ownership?
- The bankruptcy laws and judicial institutions and procedures could handle a spate of bankruptcies without systemic economic seizure?

3. There are two approaches to dealing with these uncertainties in the real world: either the data intensive approach—i.e., requiring data on all exposures, including unlisted private businesses, to assess vulnerabilities on a frequent systemic basis—or an institutions-based approach—i.e., set institutional incentives such that there is little likelihood of systemic risk (e.g., New Zealand and South Africa which have high amplitude exchange rate floats, unforgiving prudential supervision, excellent bankruptcy laws, and no implicit government guarantees. It is also true, however, that these countries can borrow to a large extent in domestic currency and thus limit their forex exposure.)

4. As is clear from the background paper by Rex Ghosh, **it is the combination of underlying balance-sheet vulnerabilities and a trigger event that precipitates a crisis**. Clearly, the first order of business is to lessen balance-sheet vulnerabilities—see points 2 and 3 above and point 5 below. Strong domestic policies and robust balance sheets do not change the probability of detrimental exogenous shocks, but they do mute their trigger effects. Moreover, confidence-boosting policies or the availability of contingent financing may prevent contagion spreading to the particular country under discussion.

5. Because errors in macroeconomic management can be swiftly and severely punished in countries with open capital accounts, rule 1 in a world of globally-integrated financial markets is: "Proceed with caution!" This means sensible cushions in reserves and in fiscal management, a strong prudential and regulatory framework, and avoiding implicit government guarantees of exchange rate or other private exposures.

6. But huge capital account swings can happen for reasons unrelated to domestic policies—i.e., pure contagion events. A critical question for governments is whether they should seek to discourage large capital inflows so as (a) to lessen the difficulties that ensue for macroeconomic management, and (b) to guard against possible capricious capital account reversals. Do Chilean-style price-based inflow restrictions work—either to reduce inflows or to lengthen their maturity? What could countries do to reduce the huge inflows that have led to very rapid credit growth and large current account deficits? (The Baltic states are a telling example.)

7. The vast amount of IMF work on Standard and Codes, Best Practice, and Financial Sector Assessments is aimed at assessing vulnerabilities and taking steps to lessen them. It is unclear, however, that there are any easy, formulaic safeguards in circumstances that are less than ideal with spontaneous large-scale unhedged foreign inflows.

8. Countries have adopted a variety of approaches to lessening vulnerabilities and reducing the likely impact of detrimental external shocks.

9. Some countries—most prominently in Asia—have built up very large reserve stocks as self insurance against capital account crises. Besides the direct effect of the availability of reserves for financing, it is probable that a high level of reserves reduces the covariance of borrowing spreads with other countries and thus safeguards against contagion. But this strategy raises 3 questions:

- What level of reserves is sufficient for this purpose?
- Does the strategy undermine monetary policy or entail expensive sterilization operations?
- What is the cost to the country of holding such a high level of reserves—both the possible financial cost and the cost of foregone domestic expenditure?
- What is the cost to the global economy if the amassing of reserves entails mercantilist policies?

10. Clearly regional (or indeed global) swap arrangements are a potentially useful mechanism for combating capital account reversals. This is true either (a) if the capital outflows are capricious and reversible—i.e., more of the nature of liquidity crises than solvency crises—or (b) if the swap arrangements are coupled with peer pressure to ensure the correction of policy errors when the outflows are triggered by policy shortfalls. Obviously, if the whole region is simultaneously afflicted by contagion, a regional arrangement would be similar to an insurance company providing flood insurance to a group of households in the same flood plain. Nevertheless, it is clear that regional arrangements of this sort could, at a minimum, be a useful complement to any global insurance mechanism.

11. Private contingent financing lines face a problem: either they are expensive (insofar as they subsume a sizable insurance premium) or they are subject to renegotiation when the contingent event occurs.

12. Given the speed at which capital account crises unfold, any global official financing mechanisms, possibly through the IMF, would need to be preemptive. Thus far it has been difficult to find consensus on the details of such a mechanism.

- The IMF's CCL facility sought to safeguard resources without a large insurance premium by being available only to countries with outstanding policy records. It faced five principal difficulties: (i) The only countries that obviously qualified did not

see any likelihood of needing the credit line and thought that it's availability would do little to strengthen their reputations. (ii) Allowing access to less well-managed economies was impossible without tainting the facility and ensuring no applications by the best run economies. (iii) The requirement of an activation review contributed to an unacceptable level of uncertainty. (iv) The small scale of the initial tranche raised further questions about the usefulness of the CCL for preventing capital account crises. (v) There was no clear way of disqualifying countries when their policies weakened without exacerbating any negative market assessment.

- The use of precautionary stand-by arrangements as a preemptive financing mechanism of a size that would be adequate for dealing with large-scale capital account reversals has been opposed by some on grounds of moral hazard and the fact that there is no clear distinction in the Fund between a precautionary arrangement and a regular arrangement. Nevertheless, the high access precautionary arrangement with Brazil was an exemplary case of a country with a rigorous adjustment program using the Fund arrangement as a useful way to orchestrate the credibility of its policies.

- Drawing on these lessons, a successful IMF "crisis prevention" instrument would need to (i) provide member countries (and markets) with the assurance that financing would be available if needed on a scale relevant to the need, as long as macroeconomic policies remained appropriate; (ii) provide a framework for policy commitment, monitoring, and signaling sound policies to markets; (iii) limit the potential for inadvertent negative signals that could precipitate or exacerbate crises; (iv) find a way to safeguard IMF resources; (v) minimize moral hazard; and (vi) ensure that conditionality was tailored to forestalling crises rather than to broader or more general objectives.