

“Coping with Crises in Emerging Markets: Adjustment versus Financing”

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In the early 1990s, an unprecedented number of developing countries joined world financial markets, as a step in the processes of liberalization, globalization, and industrialization. Then a wave of emerging market crises began in Mexico in December 1994, exploded in East Asia in 1997, and over the subsequent four years hit also Russia, Brazil, Turkey, and Argentina, among other countries. These crises and their severe real effects pose a challenge to those who manage emerging market economies, and to those who advise them.

This note concerns how such economies respond to sudden adverse developments in their balance of payments. It falls into four parts: (i) the general framework of financing vs. adjustment as we have hitherto understood it, (ii) what instruments are to be employed to attain the adjustment targets, (iii) the actual pattern of adjustment that we have seen in recent crises, and, finally, (iv) the question as to whether and how the financing-vs.-adjustment framework can still be viewed as relevant today after what we have learned.

The central question is: in the aftermath of an adverse real shock, e.g., a movement in the terms of trade, how much of the impact on the trade balance should be financed by borrowing from abroad, from capital inflows, and how much offset by adjustments to macroeconomic policies? The standard answer from economic theory is that if the shock is largely transitory, then it should be mostly financed. Given the growth and globalization of financial markets over the last 25 years, most of this financing should be from the private sector; but if sufficient private capital flows are not available, then official finance, particularly from the IMF, should supply the rest (conditional, of course, on the country following sound policies).

In practice, we have seen from the international crises of the 1980s and 1990s that private capital flows tend to exacerbate shocks rather than offset them, to be procyclical rather than countercyclical as they should be in theory. In the early 1980s, for example, a contraction in markets for many of the commodities produced by developing countries was followed by reduction in capital

¹ This is a revised version of a comment in *Issues in Reform of the International Monetary System*, edited by Peter Kenen and Alexander Swoboda (International Monetary Fund: Washington DC), 2001. At the time the original comment was presented, the author had recently departed the position of Member, U.S. Council of Economic Advisers, under President Bill Clinton.

flows, not an increase. Thus the “share of the shock that is financed” has turned out to be, not just small, but negative -- perhaps worse than negative 100%. In some cases it appears that the entire shock *was* the withdrawal of capital. Sometimes it is possible to identify an initial real shock; in the case of the 1997 East Asia crisis it would be the downturn in the world market for semi-conductors and other manufacturers in 1996. But even in these cases, the loss in capital inflows is clearly the dominant change in the balance of payments, more than doubling any plausible measure of the initial loss in the trade balance. These are the “sudden stops.”² The recent reversal in capital inflows to Thailand -- from 18% of GDP in 1996, to an outflow of 8% of GDP in 1997 -- is apparently the record-holder. Even in more common cases, the swing is large. As a result the affected countries have been forced to convert large trade deficits quickly into large trade surpluses.

Decidedly the balance has indeed shifted away from financing, and perforce toward adjustment. Given the countercyclical nature of the capital flows, is the “financing vs. adjustment” framework even relevant? Perhaps we should dispense with it altogether? We could interpret the initial shock as trade balance *plus private capital account*, and interpret the financing response as solely official finance. Then the question would be: to what extent should the IMF and other public institutions step in to fill the gap? This is an extremely important question, involving key issues of moral hazard, of greater private sector involvement as a component in public rescue packages (“bailing in” rather than “bailing out”), and of political willingness in G-7 countries to provide resources on the unprecedented scale that would seem to be required. Although these issues are important, they generally are discussed under rubrics other than “financing vs. adjustment,” and are discussed in other sessions of this conference. So I will retain the emphasis on private sector financing. But before I offer my interpretation of where the financing-adjustment framework can still be useful, I want to consider how adjustment is carried out, both in the traditional framework and in actual recent episodes.

In the traditional framework there are two classes of policy instruments: expenditure-reducing policies such as monetary contraction and expenditure-switching policies such as devaluation. The pair matches up nicely with the existence of two policy targets: internal balance and external balance. Consider a graphical representation with the interest rate and exchange rate (price of foreign currency) on the axes. To satisfy external balance, there is an inverse tradeoff between the two instruments. A devaluation and an increase in the interest rate are each ways of improving the trade balance -- the latter by reducing expenditure -- and so the more you have of one the less you need of the other. (If external balance is defined as equilibrium in the overall balance of payments, including the capital account along with the trade balance, the relationship is still downward-sloping, since a devaluation and an increase in the interest rate are both ways of making domestic assets more attractive to global investors.) To satisfy internal balance, the tradeoff is traditionally considered to be upward-sloping. An increase in the

² Guillermo Calvo and Carmen Reinhart, “When Capital Inflows Come to a Sudden Stop: Consequences and Policy Options,” in Key Issues in Reform of the International Monetary System (International Monetary Fund), edited by Peter Kenen and Alexander Swoboda, 2001.

interest rate reduces the domestic demand for domestic goods, while a devaluation increases the net foreign demand for domestic goods; if you have more of one, you also need more of the other, to prevent excess supply or excess demand. The existence of two independent instruments implies the possibility of attaining both targets simultaneously, at the intersection of the internal and external balance schedule. In the aftermath of an adverse shock in the foreign sector, for example, the right combination of devaluation and monetary contraction will restore balance of payments equilibrium while maintaining real economic growth (as illustrated in the first figure).

This is not the way things actually work.³ By now we have had enough experience with crises in emerging markets that the traditional framework needs to be modified. The simple generalization seems to be that all developing countries that are hit by financial crises go into recession. The reduction in income is the only way of quickly generating the improvement in the trade balance that is the necessary counterpart to the increased reluctance of international investors to lend. External balance is a jealous mistress that can only be satisfied if internal balance is left to go wanting.

Some critics of the IMF say that the recessions are the result of Fund policies, specifically the insistence on monetary contraction. They claim that the mix of a lower interest rate combined with a devaluation would successfully maintain internal balance. They often make the point that high interest rates are not in practice especially attractive to foreign investors when they carry increased probability of default (and associated recession). This is true. But in my view it is not the most important correction in the traditional framework. Even if interest rates do not have as big a positive effect on the capital account as our earlier models of high financial integration suggested, so that the graphical relationship may be flatter, I believe that the sign of the effect is still the same. One cannot normally attract many investors by *lowering* interest rates. Therefore the external balance line still slopes downward. Claims that high rates are damaging to the real economy willfully ignore the lack of an alternative, if the external balance constraint is to be met.

³ Paul Krugman, "Latin America's Swan Song," <http://web.mit.edu/krugman/www/swansong.html>.

Where the traditional framework needs most to be modified is the relationship giving internal balance, not that giving external balance. By now the evidence seems strong that devaluation is contractionary, at least in the first year, and perhaps in the second as well. We have long been aware of various potential contractionary effects of devaluation in developing countries. A total of ten such effects are identified in textbooks⁴, of which the difficulty of servicing dollar debts has turned out to be by far the most important in recent crises. But a mainstream view has been that any negative effects from a devaluation were eventually offset by the positive effect of stimulus to net exports, so that by the second year, when the latter had gathered strength, the overall effect on output had turned positive.⁵ Now however, one must judge the negative effects stronger than we thought, and the positive effects weaker. Calvo and Reinhart calculate that exports do not increase at all after a devaluation, but rather are down for the first 8 months. The export side, at least, was supposed to be unambiguously positive. Apparently production is derailed by corporate financial distress, absence of trade credit, and increased costs of imported inputs, even when the production is for the purpose of export. Imports fall sharply; indeed crisis-impacted countries have for this reason experienced sharp increases in their trade balances beginning as soon as two or three months after the crisis.⁶ But this is clearly a response to the unavailability of finance and collapse of income and spending, not to relative prices. In other words, it is expenditure-reduction, not expenditure switching.

If devaluation is contractionary, then the internal balance line slopes down, not up (as illustrated in the second figure). Moreover the slope is disturbingly similar to the slope of the external balance line. It is hard to see where the two intersect, if they intersect at all. This means that it is hard to see what combination of policy instruments, if any, can simultaneously satisfy both internal and external balance, after an adverse shock has shifted the latter outward. The depressing conclusion is that there is no escape from recession. All policy instruments work via reduction in income in the short run -- devaluation, fiscal contraction, and monetary contraction. Even structural policy reform, such as insisting that bad banks go under, is likely to have a negative effect on economic activity in the short run (notwithstanding that I support the IMF's new emphasis on the latter sort conditionality in the East Asia

⁴ Ronald Caves, Jeffrey Frankel, and Ronald Jones, World Trade and Payments, 8th edition, 1999, pp. 398-404. For an exposition, see W. Max Corden, "Absorption, the Budget, and Debt: The Wonderland of Possibilities," chapter 22 in Trade, Welfare, and Economic Policies: Essays in Honor of Murray C. Kemp, edited by Horst Herberg and Ngo Van Long, University of Michigan Press: Ann Arbor, 1993.

⁵ Sebastian Edwards, "Are Devaluations Contractionary?" Review of Economics and Statistics 68, 3, August 1986, 501-508; and Steven Kamin, "Devaluation, External Balance, and Macroeconomic Performance: A Look at the Numbers," Studies in International Finance, No. 62 (Princeton University, August 1988).

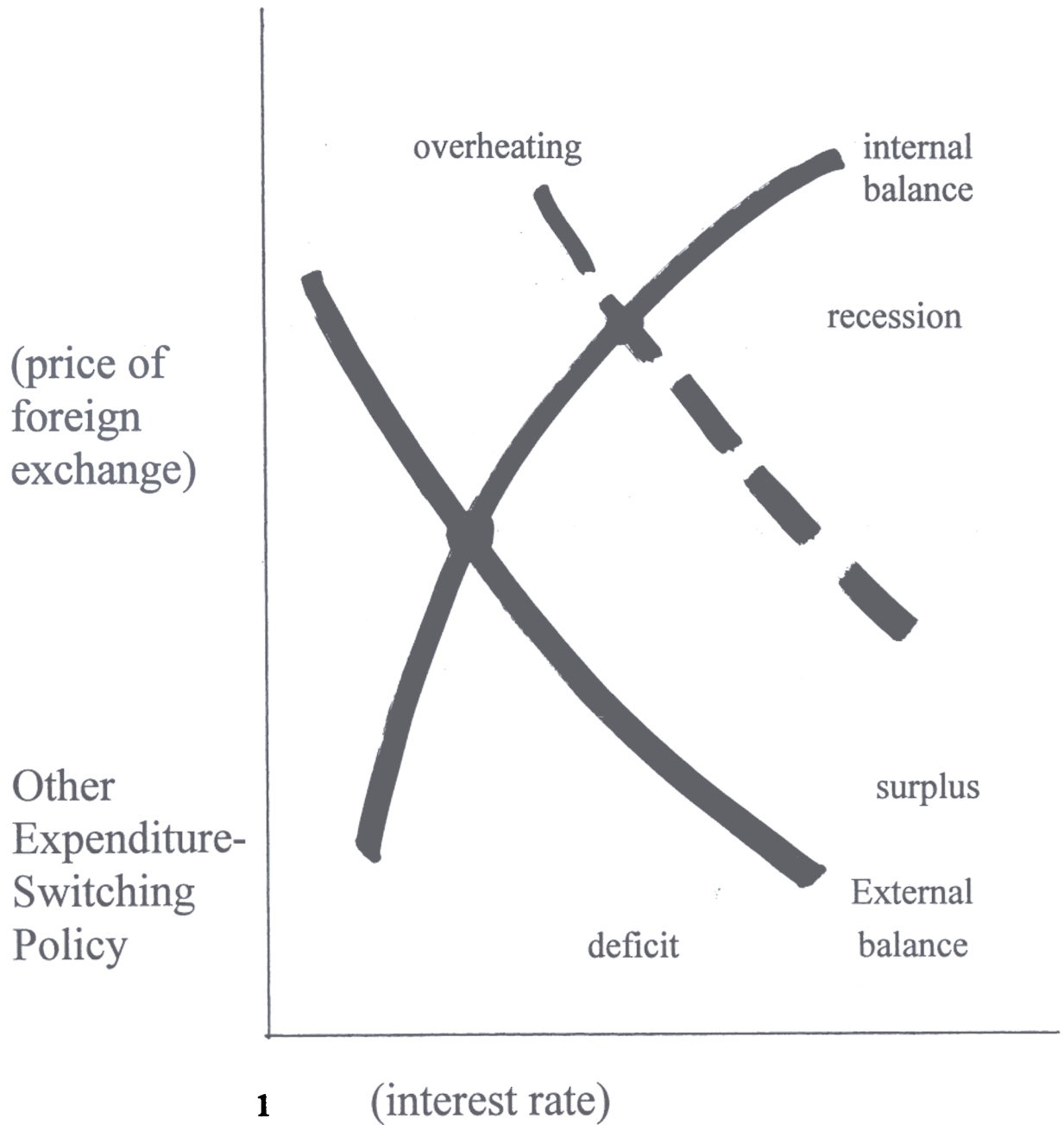
⁶ The pattern of adjustment in Thailand and Korea in 1998 looks very similar to Mexico in 1995.

packages).

Is the financing-vs.-adjustment framework then no longer useful? I think that the framework may still be relevant during the (relatively brief) period after a terms-of-trade or other real shock arises, but before the financial or currency crisis hits. It is hard to identify and date the former, even with the benefit of hindsight. But I have in mind the interval of one to one and ½ years preceding December 2001 in Argentina, July 1997 in East Asia, December 1994 in Mexico (where the shock was political instability earlier in the year and increases in US interest rates), and July 1982 in Latin America. In each case, policy-makers responded to deterioration in their trade or capital accounts by running down foreign exchange reserves or shifting to short-term borrowing.⁷ They succeeded in this way in postponing macroeconomic adjustment and in postponing crisis. But when the crisis came it was that much worse, requiring at that point the unfortunate pattern we have discussed -- turning all dials to contractionary settings -- as the only way of satisfying the constraints imposed by finicky international investors. It would have been better in these cases if the countries had spent these short intervals adjusting rather than financing, at a time when there was still a meaningful trade-off between the two and the choice set had not yet been narrowed in such an unattractively constrained manner. These considerations suggest that the G-7 and IMF have been on the right track recently in emphasizing surveillance and in conditioning supra-normal post-crisis finance on countries having followed appropriate policies immediately pre-crisis -- whether it is adjusting interest rates or exchange rates. The trick is thus having the economic acumen and political will to recognize that an adverse shock has occurred and to enact prompt adjustment. This element is even more crucial than calculating the right amount of adjustment or choosing among the available instruments to carry it out.

⁷ Or shifting to floating rate borrowing. Studies of leading indicators of currency crises, even before the East Asia episodes, showed that the magnitude of current account deficits was less important than the composition of the financing, with heavy reliance on short-term (and floating-rate) bank flows or the running down of foreign exchange reserves strongly raising the probability of crisis. Frankel and Andrew Rose, 1996, "Currency Crashes in Emerging Markets: An Empirical Treatment," *Journal of International Economics* 41, no. 3/4, 351-366, 1996; and Graciela Kaminski, Saul Lizondo and Carmen Reinhart, 1998, "Leading Indicators of Currency Crises," *IMF Staff Papers* 45, March.

*Attaining internal and external balance:
Traditional version*



or other expenditure-reducing policy

*Attaining internal and external balance:
When devaluation is contractionary*

