

# I Overview

The enormous economic and social costs of the financial crises that struck various emerging market countries at the turn of the last century underscore the importance of crisis prevention. The first line of defense is the country's own policies, regulatory and supervisory framework, and institutions. The IMF can assist these efforts through its surveillance activities, provision of technical assistance, and promotion of standards and codes. But the IMF may also contribute to crisis prevention more directly by providing financial support—either disbursed or made available contingently. While IMF-supported programs are generally associated with crisis resolution, recent analytical work suggests that such programs may also be useful for crisis prevention. Drawing on this work, this occasional paper examines possible roles of IMF-supported programs in crisis prevention.

A first step in preventing crises is understanding their root causes. Although the symptoms to capital account crises are depressingly similar—a sudden withdrawal of private financing, sharp depreciation of the exchange rate, and a collapse of economic growth—the causes of recent crises appear bewilderingly different. The crises in Turkey in 1993, Mexico in 1994, and Russia in 1998 were public sector funding crises. By contrast, the 1997 East Asia crises were primarily private sector phenomena.

These diverse experiences suggest that a general analytical framework is required for understanding capital account crises. To this end, Section II of this paper proposes such a framework, arguing that a capital account crisis requires—and is caused by—a combination of balance sheet weaknesses in the economy and a specific crisis trigger. The diversity of crises is therefore not surprising because balance sheet weaknesses can take many different forms, as can the specific factors that trigger the crisis. An economy can live with currency and maturity mismatches in private or public sector balance sheets for years if, serendipitously, nothing triggers a crisis. But given this vulnerability, there are many possible crisis triggers, both external—contagion, a terms of trade shock, a deterioration in market conditions—and domestic, such as an inconsistent macroeconomic policy stance, political uncertainty, or other turmoil.

Viewing capital account crises in this way suggests that crises do not result purely from the vagaries of international capital markets: there must be some underlying vulnerability. To the extent that many emerging market countries still lack the ability to borrow in their own currencies (especially at long maturities), some currency and maturity mismatches may be unavoidable. Crisis prevention efforts should therefore minimize balance sheet vulnerabilities and seek to avoid crisis triggers—for instance, by pursuing strong policies and by differentiating performance.

How can IMF financing support such efforts? In principle, there are at least four channels: by improving policies; by providing a means (namely, conditionality) of solving time-inconsistency problems; by signaling to markets these better policies and the authorities' continued ownership of them; and by augmenting foreign exchange reserves, which reduce the country's maturity and foreign currency mismatches.

Since authorities typically seek the IMF's support in the aftermath of a crisis, empirical evidence of the preventive effects of IMF-supported programs is necessarily elusive. In some cases, however, the member country seeks an IMF-supported program even though it does not face a pressing balance of payments need, treating the financial arrangement as "precautionary"—which provides the right, conditional on implementation of specific policies, to make drawings should the need arise. While these do not necessarily correspond to "capital account crisis prevention" programs—for instance, countries with precautionary arrangements are more likely to experience a current account rather than a capital account crisis—they are similar in that the IMF provides support contingently, in anticipation of possible balance of payments need. Examining the performance of such precautionary arrangements may therefore help shed light on how an explicit crisis prevention instrument might work.

Three main findings from this analysis (in Section III) are relevant to a crisis prevention instrument. First, out of some 50 precautionary arrangements over the period 1992–2005, in only 6 cases did the authorities eventually draw, and 4 out of these 6 cases were associated with crises. While not all countries that requested precautionary arrangements were necessarily vulnerable, this track record of avoiding crises is impres-

sive. Second, precautionary arrangements are typically requested by members whose overall macroeconomic situation is sound but with perceived underlying political and economic uncertainties. Such countries are normally the recipients of relatively large capital flows, but—at the times of the program request—are experiencing a slowdown in capital inflows. Third, precautionary arrangements seem to send a positive market signal. On the one hand, the announcement of an IMF-supported program could signal that the country is facing economic difficulties of which, or to whose extent, the markets were previously unaware—leading to a widening of sovereign bond spreads. On the other hand, IMF support also signals that the authorities are committed to pursuing strong policies and are dealing with their economic problems. On balance, precautionary programs appear to send a positive signal, with spreads no higher than during nonprogram periods (and, given the emerging uncertainties for such countries, probably lower than in the counterfactual of no precautionary program). Taken as a whole, these findings suggest that national authorities may indeed find IMF-supported programs useful to tide the country over periods of uncertainty and heightened vulnerability, including by providing positive market signals.

Is there more direct evidence that IMF support can help avert capital account crises? As noted above, in many cases, national authorities turned to the IMF only when the capital account crisis had erupted so the IMF-supported programs could not have had a preventive effect. Nevertheless, there are instances where the country faces a period of heightened vulnerability—high exchange market pressures—and has an IMF-supported program in place. There are also instances where the country faces high market pressures but does not have a preexisting IMF-supported program—which makes it possible to determine whether an IMF-supported program can help prevent a high vulnerability episode from erupting into a full-blown crisis. Specifically—as discussed in Section IV—in a panel of 27 emerging market economies over the period 1994–2004, 32 episodes of heightened vulnerability (high exchange market pressures as measured by real exchange rate depreciation, loss of foreign exchange reserves, or widening of sovereign bond spreads) can be identified. Of these 32 episodes, 11 turned into full-blown capital account crises, while

in the other 21 cases, the country managed to avoid such a crisis. This naturally raises the question of what determines whether the country is able to avoid a crisis—and, in particular, is an IMF-supported program useful for crisis prevention.

The econometric analysis suggests—perhaps not surprisingly—that stronger policies and smaller balance sheet mismatches lower the likelihood that a high market pressure event turns into a crisis. Disbursements of IMF resources (or their immediate availability) are also a significant factor in lowering the crisis probability. This incorporates an important liquidity effect as it is the disbursement (or availability for drawing under a precautionary arrangement) that matters, rather than just an on-track program or possible future drawings under the arrangement—thus, “money matters.” But the benefits of IMF support go beyond the pure liquidity effects, since the IMF financing variable is significant even controlling for the country’s (gross) foreign exchange reserves. In part, this reflects stronger policies that programs are likely to engender, bolstered by conditionality and with the “seal of approval” implicit in IMF disbursements—strengthened by the IMF’s having its own resources on the line. Finally, while money matters, it is not only money that matters: the *marginal* benefit of IMF resources on the crisis probability depends on the quality of a country’s policies. If policies are weak, IMF financing has very limited effects on the crisis probability, so the country remains highly vulnerable. By contrast, strong policies both have a direct effect on lowering the likelihood of a crisis and increase the effectiveness of IMF resources in reducing the crisis probability. IMF support and the country’s own efforts are thus strong complements in crisis prevention.

This research was undertaken to provide analytical backdrop to the design of a possible new liquidity instrument for countries that have access to markets. Until such an instrument has been put into operation, it is of course impossible to determine whether such an insurance is useful to the subscribing countries. But the analysis here at least suggests that such an instrument may be useful for countries that continue to face balance sheet vulnerabilities but are pursuing strong policies, would send positive market signals, and could complement the country’s own efforts at avoiding costly financial crises.