

Discussion of 'The financial crisis and sizable  
international reserves depletion'  
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New chapter in ongoing research project by Joshua and coauthors on determinants of international reserves accumulation in EMEs.

Important area of research. Rapidity, entity and diffusion of IR accumulation by EMEs represent relatively new phenomena. Determinants and implications very much open to debate.

This paper focuses on use of reserves (or lack thereof) during the 2008-9 crisis.

Specifically, looks at adjustment of 21 EMEs.

One group (9 countries) experienced reserve losses of at least 10 percent between July 2008 and February 2009. Brazil, India, Indonesia, Malaysia, South Korea, Peru, Poland, Russia, and Turkey.

IR losses were initially rapid, but within 7 months decelerated markedly. Eventually IR depletion was limited to not more than one-third of pre-crisis levels.

The other countries did not lose IR in a significant way. Achieved external adjustment mainly through large currency depreciations.

## Key message

Confirms benefits of hoarding reserves as a war chest to obtain self insurance against sudden stops and deleveraging crises: half of the countries considered relied heavily on depleting reserves during most acute stages of the 2008-9 crisis.

But also suggests important limitations of efficacy of hoarding reserves in deep crises; reserves may not suffice to quell market sentiments and provide self insurance unless a country owns levels of IR comparable to its external financial gross exposure.

Patterns of using IR by first group of countries, and refraining from using IR by second group, suggest that adjustment during crisis has been constrained by fear of losing IR.

## Other results

For the group of countries that lost IR, pre-crisis demand for IR (normalized to GDP) was mainly affected by trade-related factors (trade openness, primary goods exports, especially oil).

Suggests that countries that internalized large exposure to trade shocks before the crisis used their IR as a buffer stock.

In contrast, for countries that did not lose IR during the first crisis phase, financial factors were more important than trade factors in explaining initial level of IR/GDP.

EMEs that experienced sizable IR losses during worst part of the crisis were exposed to a much larger deleveraging of short term external debt than other EMEs.

## This discussion

Only one concern worth emphasizing right away: concept of "fear of losing international reserves" (FOLIR) in the paper is underdeveloped.

Need for clarification, depth, nuances.

According to the paper, FOLIR may

- reflect a country's concern that dwindling IR may signal greater vulnerability to run on its currency, thereby triggering such a run on its remaining reserves (*what is optimal stopping time for reserves depletion?*)

- be related to a country's apprehension that, as the duration of the crisis is unknown, depleting IR quickly may be suboptimal (*what is the optimal benchmark?*).



- be related to apprehension of a country that a reduction of its IR/GDP level below the average of its reference group might increase its vulnerability to deleveraging and sudden stops (“keeping up with the Joneses’ IRs” motive) (*what is appropriate reference group? if vulnerability is triggered by a fall of IR below group average, shouldn't we expect multiple equilibrium outcomes?*)

Paper suggests these possible interpretations without digging much below the surface. In fact, it concludes "A better understanding of these issues is left for future research."

In what follows: Revisit results of paper in the context of review of stylized facts of IR accumulation and depletion in recent years (building on work by EMIA staff at FRBNY). Attempt to synthesize possible reasons underlying FOLIR.

Before the flood: IR accumulation in the context of capital flows to EMEs

During the 2000s: Broad-based surge in capital flows to EMEs, including cross-border lending by international banks.

Relatively high share of inflows through FDI and portfolio equity rather than debt.

If anything, progress in reducing external debt burdens, particularly notable in Latin America

EMEs as a group were running current account surpluses. Few of the larger countries were running significant current account deficits.

Exceptions: external liabilities had been building for some of the countries in Emerging Europe, particularly in the Baltic and Balkan regions.

Many countries focused on bolstering reserves, saving windfall revenues, resisting currency appreciation.

Increase in IR holdings particularly dramatic in Asia, including Russia.

As a result, substantial funds channeled into official reserves and sovereign wealth funds.

Aggregate reserves holdings in the EMEs grew more than 5 times from the start of the decade to reach \$5.5 trillion at mid 2008.

Almost every major borrowing country held reserves sufficient to cover one year's worth of maturing debt. Some countries' reserves exceeded gross external debt.

## Reserves boosted credit profiles

On balance, reserve accumulation had positive impact on countries' credit profiles (*FOLIR 1: high level of reserves, improved funding conditions*).

For example, Russia and Korea's strong reserve holdings were important mitigants for concerns related to lingering balance sheet weakness.

However, IR accumulation entailed costs and risks. Countries had to issue domestic debt to sterilize reserve purchases, earning a significantly negative carry and generally exposing central banks to valuation losses in the event of currency appreciation.

Countries varied in their success in containing the potential inflationary impact of large-scale reserve purchases.

By September 2009

Current account balances deteriorated for commodity and oil exporters.

Collapse in commodity prices produced large falls in export earnings.

One side of the trade-off: avoid exchange rate volatility

As paper highlights, reserves provided ample cushions for many countries for dealing with difficulties in rolling over maturing obligations and covering current account funding needs.

Avoiding overshooting exchange rates + acute lack of foreign exchange liquidity  
= avoiding worsening debt burdens, limit avoidable bankruptcies, reduce inflationary pressures.

Notable exception was European time zone (but not Russia, with the second largest reserve cushion in the emerging world).

Those countries generally had less ample reserves. Concerns about current account deficits did exacerbate difficulties in rolling over debt. Housing prices adjusted sharply after a period of significant appreciation, posing further risks to bank balance sheets.

Several countries in the region were forced by deteriorating market conditions to seek IMF-led support packages (Iceland, Latvia, Hungary, Romania and the Ukraine).

Because of common characteristics and overlaps in creditor bases, there was substantial scope for intra-regional contagion.



## The other side of the trade-off: FOLIR

Even where reserve cushions appeared adequate, authorities faced important strategic challenges in deciding when and how to deploy their reserves to support local markets and borrowers.

Open ended intervention risked depleting reserves by funding capital flight by local residents or by foreign investors who often had large exposures to local equity and debt markets (FOLIR 2).

If reserve cushion appeared to be shrinking in relation to remaining short-term obligations, intervention could end up being ultimately counterproductive, leading to more acute rollover difficulties and a run on the currency (FOLIR 3).

E.g., Russia's persistent intervention early in the crisis came to be seen by creditors more as a source of risk than comfort.

Also, lending foreign currency could raise moral hazard issues vis-a-vis local borrowers and their creditors (FOLIR 4).

Could expose authorities to credit risk that might more appropriately be left with the original creditors (FOLIR 5)

## A way out of the trade-off?

Appeal of new lending mechanisms involving less conditionality to aid countries with stronger fundamentals.

Korea, Brazil, and Mexico increasingly relied on bilateral swap lines as more targeted means to support borrowers encountering dollar funding difficulties. These programs have been wound down in line with improvement in funding conditions.

IMF introduced a new facility—the Flexible Credit Line (FCL)—to better support countries with strong credit profiles but potential liquidity needs. FCL does not involve policy conditionality, reflects confidence in strong policy profiles of eligible countries. Colombia, Poland, and Mexico arranged lines under the new IMF facility as precautionary and confidence-boosting measure.

## Conclusion

Paper identifies important issues for EMEs. In general, countries with higher reserve cushions and smaller reliance on portfolio flows or short-term external funding faced more manageable financing situations during the height of crisis.

As a result, usefulness of self-insuring by building large stocks of precautionary reserves as a cushion against shocks is likely to be seen by many EMEs as key lesson of the recent crisis.

Official reserves in the EMEs now exceed pre-crisis levels in most countries. In aggregate total \$6.55 trillion by end-2009.

Reserve levels expected to continue to trend upward, especially in Asia and to a lesser extent in Latin America, reflecting healthy external balances and FX purchases to contain currency appreciation.

However, recent experience has shown that even with sizeable reserves, authorities face important strategic challenges in deciding when and how to deploy reserves (FOLIR).

Next step on research agenda: cast optimal reserves accumulation/ depletion in context of trade-off between exchange rate/financial stability and FOLIR

Assess (theoretically and empirically) effectiveness of lending to EMEs amounts (moderate? large?) of reserves through lending facilities.

Need to institutionalize permanent swap lines, or better keep them discretionary?  
Small club of eligible countries, or largest possible inclusiveness?