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*Research Summaries*

# The Impact of the Great Recession on Emerging Markets

Ricardo Llaudes, Ferhan Salman, and Mali Chivakul

*This article examines the impact of the 2008–09 global crisis on emerging market economies. The impact of the crisis was more pronounced in those emerging markets that had initial weaker fundamentals and greater financial and trade linkages. This effect is observed along a number of dimensions, such as growth, stock market performance, sovereign spreads, and credit growth. Moreover, pre-crisis reserve holdings helped to mitigate the initial collapse in growth. This finding contrasts with other studies that fail to find a significant relationship between reserves and the decline in growth.*

The global economy is by now emerging from the largest shock in the post-war era. Following years of strong global growth and increasing trade and financial

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# The Missing Link between Dutch Disease, Appreciation, and Growth

Nicolás E. Magud and Sebastián Sosa

*Reviewing the literature on "Dutch disease," this article documents that shocks that trigger foreign exchange inflows appreciate the real exchange rate, generate factor reallocation, and reduce manufacturing output and net exports. It also finds that real exchange rate misalignment due to overvaluation and higher real exchange rate volatility reduces growth. The evidence is mixed and inconclusive on the effect of undervaluation on growth, but there is no evidence that Dutch disease reduces growth. Policy responses should aim at adequately managing the boom and the risks associated with it.*

Concerns about adverse growth effects of real appreciation have been explored for many years, going back at least to the "Dutch disease" literature of the early 1980s. Dutch disease refers to the effects of discoveries or price increases of natural resources that result in real exchange rate appreciation, factor realloca-tion, and de-industrialization (Magud and Sosa, 2010). Similar effects may stem

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## The Impact of the Great Recession on Emerging Markets *(continued from page 1)*

linkages, the implosion in advanced economy financial centers, especially after the collapse of Lehman brothers in September 2008, quickly spilled over to emerging market economies. As a result, growth of the global economy fell by 6 percentage points from its pre-crisis peak to its trough in 2009, the largest straight fall in global growth in the post-war era. The median emerging market economy suffered a somewhat larger decline in output (4.9 percent) than the median advanced economy (4.5 percent), measured from the pre-crisis peak to the trough during the crisis. Moreover, the impact was more varied in emerging market economies: several of them were affected more than the worst-hit advanced economies, while others continued to grow through the crisis period. High-frequency financial variables exhibit similar behavior.

Llaudes, Salman, and Chivakul (2010) explores the channels and factors that shaped the initial impact of the crisis on emerging market economies using a sample of around 50 emerging market economies. To account for initial conditions and pre-crisis fundamentals, they use a unique measure of vulnerabilities developed by IMF staff that, by virtue of its construction, allows for a consistent comparison of vulnerabilities across emerging market economies. Given that for most emerging markets this was an externally driven crisis, the paper focuses on external sector vulnerabilities prior to the crisis, including current account deficits, reserve holdings, and external debt levels, among others.

The impact of the crisis can be measured along two dimensions:

- ***Impact on the real economy***. The preferred measure of real impact in this summary is the percent change in seasonally-adjusted quarterly GDP from each country's peak to its respective trough during the crisis.
- ***Impact on financial markets and the banking sector***. This is measured, for each country, by the (1) change in the average monthly stock market index during the crisis; (2) the collapse in real private sector credit growth from its peak to trough and the difference between pre- and post-crisis average monthly credit flows in percent of GDP; and (3) the rise in the average monthly Emerging Markets Bond Index sovereign spread from its trough to peak (in basis points). Similar to the output loss analysis, country variation in peaks and troughs is taken into account.



The fall in real output is measured as a function of pre-crisis vulnerabilities, trade connectedness with the rest of the world, and international financial integration. The least vulnerable emerging market economies, on average, contracted 6½ percentage points less than the most vulnerable ones. Emerging market economies experienced an additional 1½ percentage point reduction in real output during the crisis for every percentage point fall in domestic demand in their advanced economy trading partners. Large emerging market economies, for which exports formed a smaller component of their aggregate demand, consequently experienced smaller real shocks. Trade fell more during this crisis than in past global recessions, in part a reflection of increasing interconnectedness and the

*"Up to a limit, reserves helped dampen the impact of the crisis on emerging market economies."*

responsiveness of global supply chains (Freund, 2009). Nevertheless, contrary to early concerns, problems with trade finance were not a principal cause of the sharp collapse in trade. Also, even though trade dispute filings intensified during the crisis, a wholesale rise in protectionism did not materialize.

An interesting and perhaps surprising result emerging from the analysis above is that even the most vulnerable emerging market economies experienced a smaller initial fall in output during this crisis than they did in past capital account crises. The global coordinated response to this crisis, with the provision of quick and large amounts of financing from international institutions including the IMF, allowed countries to smooth adjustment. In addition, past emerging market crises often involved banking crises, which was not the case this time around. This was partly due to the crisis having emerged in advanced economy financial centers, but also probably due to the general absence of currency crises that could have severely impaired banks and corporate balance sheets.

A higher ratio of reserves to external financing requirements—defined as the sum of short-term debt (at residual maturity) and the current account deficit—helped to reduce external vulnerabilities. This result is different from what has been suggested by Blanchard, Faruqee, and Das (2010), but in line with IMF (2010). Higher reserves had a significant payoff in terms of output loss at low levels of reserve coverage, but much less so at high levels of coverage. Indeed,

at very high levels of reserves the marginal gain from holding additional reserves is largely negligible.

An important empirical finding about this crisis is that countries that had more reserves going into it made greater use of them during the crisis period in order to avoid sharp depreciations that could have had pronounced implications on corporate, household, and bank balance sheets, potentially creating a systemic event. On average, countries used around 7 percent of their GDP equivalent of international reserves either to protect the currency or the balance sheets.

Pre-crisis external vulnerabilities also help to explain the rise in sovereign spreads during the crisis. Controlling for other factors, the country considered most externally vulnerable in the spring of 2007 experienced about a 200 basis point greater widening in spreads than the country considered the least vulnerable. In addition, the ratio of reserves to short-term external financing needs influenced market perceptions of a country's sovereign risk during the crisis, and countries with greater reserves coverage experienced a smaller increase in spreads. Two other factors also affected sovereign spreads: cumulative inflation in the years preceding the crisis, and having an inflation-targeting regime. Both likely affected market perceptions of policy credibility and whether macroeconomic stability would be maintained.

Pre-crisis credit booms—in many cases funded from abroad—generally ended in credit and output busts. A country that had double the average level of cross-border claims (of about 7 percent of GDP) according to Bank for International Settlements (BIS) reporting experienced an additional 1¼ percentage points in output reduction. Credit busts were also associated with sharp increases in money market rates, which are a symptom of a credit crunch. The impact of global deleveraging on credit growth in emerging market economies was particularly pronounced in emerging Europe, where cross-border lending had been growing sharply before the crisis. Emerging market economies whose banking systems were primarily funded by domestic deposits were better able to sustain credit growth and support activity through the crisis.

Notwithstanding global deleveraging, credit busts in emerging market economies have been less damaging than during past crises. The change in the growth rate of private credit was more pronounced for countries with high pre-crisis vulnerabilities. Nevertheless, through the fourth quarter of 2009, these countries had not experienced sharply negative credit growth as in past crises. This was despite the fact that pre-crisis credit booms had been more pronounced this time around than in past crises. The seemingly benign outcome may reflect the lack of currency and banking crises and the support provided by the international community. In fact, this is also reflected in bank lending behavior in this crisis. The exposure of BIS banks in emerging Europe remained flat, a stark difference from the steep fall during the past crises.

Emerging market economies' heterogeneous experience during the crisis underscores the importance of economic fundamentals and global linkages. Controlling for factors beyond their control, emerging market economies with smaller initial vulnerabilities went into recession later, exited earlier, and suffered considerably smaller declines in output during the first stage of the crisis. Emerging market economies with stronger external linkages—higher dependence on demand from advanced economies or larger exposure to foreign bank claims—experienced sharper falls in output during the crisis. The analysis also indicates that countries that experienced pre-crisis credit booms had sharper output declines during the crisis, although to a lesser extent than during previous crisis episodes. Such credit booms were typically foreign-financed and more pronounced for countries with fixed exchange rate regimes.

Up to a limit, reserves helped dampen the impact of the crisis on emerging market economies. Higher levels of pre-crisis reserve cover were associated with less deterioration in both sovereign spreads and output during the crisis. However, this effect was subject to diminishing returns: emerging market economies enjoyed little additional benefit for having reserves in excess of the sum of short-term debt and the current account deficit.



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