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Inflation Dynamics in Asia

2011 is likely to be a good year for economies in Asia, with growth expected to settle at more sustainable but still high levels. Although there remain important risks to the outlook from the external environment, the strong economic expansion that is under way is leading to inflationary pressures in some economies and Asia has reached the threshold to normalize policy stances.

While global financial conditions have improved since June 2010, underlying sovereign and banking vulnerabilities in advanced economies remain a significant challenge, and concerns linger over the strength of the global recovery. Despite Asia's strong economic and policy fundamentals, important trade and financial linkages with advanced economies suggest that a further deterioration in global financial conditions and a slowing of the global recovery would have important repercussions for the region.

Notwithstanding the need to guard against these external risks to the recovery and although inflation in Asia is still relatively moderate, it has picked up in some countries and is becoming an important consideration as policymakers seek to manage their exits from stimulus. A key input for managing this exit is an assessment of the forces that drive inflation, or so-called inflation dynamics, which are discussed at length in the IMF's recent Regional Economic Outlook for Asia and the Pacific (available at: http://www.imf.org/external/pubs/ft/reo/2010/apd/eng/areo1010.htm).

Against this background, in order to assess inflation prospects, and determine the appropriate monetary policy response, it is important to determine the extent to which inflation in Asia is driven by supply and demand pressures as well as the extent to which these pressures are caused by foreign versus domestic sources. Supply factors comprise commodity prices and producer prices, while demand factors comprise monetary shocks (to money supply, interest rates, and exchange rates) and output gaps (where GDP is relative to potential).

Generally speaking, monetary policy should not respond to supply-driven increases in prices unless second-round effects emerge that dislodge inflation expectations. In contrast, if higher inflation stems from strong domestic demand or too accommodative monetary conditions, policy tightening should be pursued. The amount of tightening then depends on how much changes in policy settings slow down aggregate demand while the timing depends critically on the lags with which monetary policy affects private sector behavior.

Food and energy prices are a particular focus of attention in Asia, as they constitute a larger share of CPI baskets compared with other regions. The shares of food and energy in the average emerging Asian CPI basket are nearly 40 percent and 10 percent, respectively, both of which are higher than the average for emerging economies worldwide. Moreover, changes in food and energy prices tend to have significant second-round effects on inflation in Asia. Importantly, tight capacity constraints could exacerbate the effect of supply shocks on inflation.

The empirical evidence suggests that, over the past two decades, the main driving forces of inflation in Asia have been supply shocks and monetary shocks, while output gaps have played a relatively smaller role. Supply shocks explain about 45 percent of the inflation fluctuations in Asia, of which about three-quarters reflect commodity price shocks. The contribution of commodity prices is particularly significant among ASEAN economies (except Indonesia), Japan, and Korea, which are among the largest oil importers in Asia. By contrast, in some of the higher-income economies (Australia, Hong Kong SAR, Japan, and New Zealand), output gaps tend to be more important. Demand shocks explain 55 percent of fluctuations of inflation in Asia, of which nearly three-quarters reflects the impact of monetary shocks and one-quarter reflects the effect of output gaps.

A separate point worth noting at this stage is that Asia accounts for a substantial share of the global demand for commodities. Asian demand may therefore have an important influence on world commodity prices. Emerging Asia accounted for 25 percent of global oil demand as of 2008, a threefold increase from its share during the 1980s. Asian demand accounts for more than 50 percent of world demand for aluminum and copper, and for 35 percent of world soy demand. The high share of Asia in world demand for commodities suggests that developments in the region may have an increasing influence on world commodity prices.

The relative roles of key inflation drivers appear, however, to be changing over time. The role of supply shocks in driving inflation appears to have fallen slightly in recent years, while the role of output gaps has increased. The impact of monetary shocks on inflation in Asia has diminished, particularly in economies that have relatively clear monetary objectives and flexible exchange rate regimes (such as Indonesia, Korea, the Philippines, and Thailand).

In sum, with output gaps closing rapidly, and now more important, and monetary and financial conditions still highly accommodative, inflationary pressures have continued to build in some economies in the region. This is reinforced by the fact that strong demand in Asia is contributing to higher global food and commodity prices, which in turn have meaningful second-round effects on inflation in the region particularly when economies are operating near full capacity. As a result, normalizing policy stances will be a key task for central bankers around the region during 2011.

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