Understanding commodity price cycles in emerging Asia and their implications for monetary policy

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Many of the old-guard inflation targeting (IT) central banks benefitted from being able to build credibility in the relatively tranquil environment of the Great Moderation. That is not to say it was easy. But, all else equal, the relative stability of the global economy and commodity prices in the 1990s was advantageous. Newer members of the IT club – many of them emerging market economies (EMEs) in Asia and the Pacific region – do not have that luxury.

In recent years, commodity prices have increased rapidly and persistently. Since 2002, prices for metals and grains have more than doubled, while crude oil prices have almost quadrupled. Volatility has also been elevated, reaching IT-era, though not historic, highs (Group of Twenty, 2011). This has provoked a debate about the design of monetary policy frameworks: should central banks target core or headline CPI inflation rates?

Some have argued that central banks should target what they can hit. That is, central banks should target measures of core inflation. For example, the IMF (2011) has suggested that focusing on core inflation may ease the process of building monetary policy credibility in economies with high food shares in their consumption baskets and low initial credibility. Others have argued that persistent shifts in commodity prices have undermined the usefulness of core measures as indicators of underlying inflation (McCauley, 2007).

The papers in this session make both theoretical and empirical contributions to this debate. Both papers conclude that headline inflation targeting is more likely to be optimal in emerging market economies than in advanced economies.

Changyong Rhee and Hangyong Lee argue that inflation expectations are likely to be more sensitive to headline inflation in economies with high food shares and low monetary policy credibility. Their paper attempts to draw lessons from the behaviour of inflation. Among other things, they examine pass-through from commodity prices to core inflation and the extent to which headline inflation reverts to core. Rhee and Lee conclude that their results favour headline inflation targeting in Asian EMEs. Their conclusion, however, is based on reduced-form evidence on inflation dynamics. While this is a useful starting point, it can be a misleading guide to policy design. In particular, the conduct of monetary policy can have a profound impact on inflation dynamics.

For example, measured exchange rate pass-through has declined in many countries. These changes coincided with changes to the conduct of monetary policy which led to both lower inflation rates and more aggressive policy responses to deviations of inflation from target. As Devereux and Yetman (2010) have pointed out, lower inflation rates naturally lead to longer price contracts and thus slower pass-through. In a similar vein, Murchison (2009) notes that more aggressive policy reduces the persistence of the impact of shocks on marginal cost, thus reducing pass-through to prices. Similar considerations may also affect pass-through from commodity prices to core inflation.

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Evidence also suggests that the policy regime can influence measured inflation persistence. In Canada, quarter-over-quarter inflation went from being highly persistent in the 1980s to exhibiting virtually no persistence at all in the IT era (Mendes and Murchison, 2010). Other countries have also experienced significant declines in inflation persistence. One reason for the apparent declines is that inflation persistence is not always measured under a stable regime with a clearly defined nominal anchor – when it is, it appears to be lower (Benati, 2008). Another reason is that as IT regimes acquire credibility, price-setters' forecasts of inflation rely less on lagged inflation and more on the target itself. Amano, Mendes and Murchison (2009) show that this type of behaviour can be optimal and it can have a significant impact on inflation dynamics. Such considerations complicate the headline versus core debate by diluting the information value of reduced-form empirical results.

This suggests that the burden of proof must be borne, to a greater extent, by theory and structural models. Paolo Pesenti's paper shows that the theoretical case for core targeting is weaker for EMEs than it is for advanced economies. In particular, headline targeting may be superior in economies with sufficiently high exchange rate pass-through to import prices – a condition more likely to be met in EMEs.

However, even in cases in which headline targeting is optimal in principle, it is difficult to completely abandon core in practice. Inflation targeting is inherently forward-looking. Most central banks have a target horizon of about two years. There are two main reasons for this: (i) monetary policy impacts the real economy and inflation with a lag, and (ii) looking through high-frequency variations in inflation reduces the volatility of the policy instrument and the real economy.

Thus, in order to target headline inflation, it is necessary to forecast headline inflation – both the core and non-core components. But it is notoriously difficult to forecast the commodity prices that dominate the non-core component. For example, futures markets have been forecasting fairly stable oil prices for 10 years – and they have been wrong for 10 years. This poor forecasting record does not reflect any shortcomings on the part of market participants; rather, it is merely a symptom of how difficult it is to beat a random walk forecast of oil prices at horizons of more than a few quarters (Alquist, Kilian and Vigfusson, forthcoming).

Given the inherent difficulty of forecasting the non-core component of inflation, even a committed headline targeter must concede some role for core inflation. Specifically, a measure of core inflation that captures underlying inflation pressures is likely to be useful as an operational guide to help a central bank achieve its headline target.

As a practical matter, this type of approach to targeting headline inflation is often not all that different from targeting core. A difference emerges only in the event that a divergence between core and headline is *expected* to persist beyond the normal monetary policy horizon. That is, that the central bank believes *ex ante* that headline will not converge to core over the normal horizon. But, given the difficulty of beating random walk forecasts for commodity prices, such situations are very rare. Indeed, even at the height of the pre-crisis commodity boom, headline inflation expectations in IT countries remained largely in check (Lavigne, Mendes and Sarker, 2012). So, while the debate rages on, best practice inflation targeting will likely continue to involve the co-existence of headline and core measures of inflation.

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