## Emerging Markets: Have Policy Rates Deviated From Simple Taylor Rule-like Prescription?

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As average emerging market economies' (EM) headline inflation rates look to be leveling off, some major EM central banks (Brazil, Chile, Poland, and Hungary) have recently signaled that a peak may have been reached in their current rate hike cycle. China (low growth and low inflation) and Turkey (despite 80%+ inflation) were already easing. In others, where rate hikes continue apace, chorus for a pause is growing louder. The argument for a pause is that monetary policy works with a lag-- the net impact of quickly accumulated rate hikes in 2022 is likely to show up in the next 6-12 months. Having raised rates aggressively to address inflation, wariness on sacrificing growth too much is setting in.

## Simple Growth-Inflation Policy Rule

To evaluate and describe central bank monetary policy rate moves, monetary policy rules are now frequently used and referred to by financial market participants, economists, and by central bankers themselves. Such rules are advocated for EMs even more so as the need for greater monetary discipline in EM economies has been generally stressed against the backdrop of their relatively high inflation and low policy credibility. That said, no one policy rule with particular parameters emerges as optimal for any single country, let alone all countries. But over the years, simple policy rules designed with inflation-growth tradeoff functional form have presented as clear favorites.

Consider, for example, the frequently used Taylor rule. While the rule is a compromise between academic complexity and policy-influencing simplicity, it still is handy in providing a rough sense of whether policy rate is at a reasonable level or where the direction of travel may be in the near term-- not just for advanced economies but also increasingly for inflation targeting EMs (that do not have fixed exchange rate).

In this blog, we use a forward looking variant of original Taylor rule with the following specification:

Int (t) =  $r^* + \inf_{t \to t} p[\inf_{t \to t} p(t) - \inf_{t \to t} p(t)]$  [output gap (t)]

In the above equation, int(t) is the nominal policy rate at time t which responds to deviation of one-year ahead Inflation expectation (inf exp) from central bank's inflation target (inf\_targ), the output gap which is the difference between the actual output of an economy and its potential output as percentage of potential output, the long-run neutral real rate of interest (r\*), and the central bank's inflation target.

While individual central banks' behavior may be better defined by a non-linear rule or one that includes other variables, the Taylor Rule as specified above should indirectly capture other variables including the exchange rate through its impacts on inflation and output.

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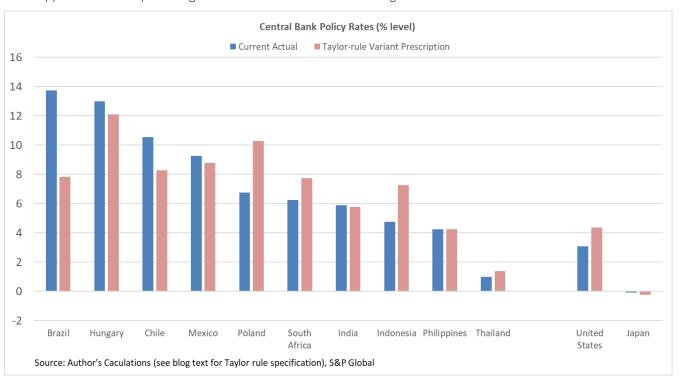
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The neutral rate is assumed to be invariant to both the cycle and factors that do not alter long-term saving/investment patterns, thus together with Inflation target acting as an anchor for monetary policy through the cycle. Given the "whatever it takes" spirit to bring down current inflation, the coefficient p on inflation gap is set at 0.75 for this exercise (versus equally weighted Inflation gap and output gap in the original Taylor rule, which was for the US) and inflation expectations takes our 2023 inflation <u>forecasts published</u> last month. We take output gap (4-quarter average in 2022) and back out r\* for each country from S&P Market Intelligence EconoSim Global Link model.

So, based on our variant of Taylor rule specification, which EM central bank policy rates have deviated from simple policy prescription? Given the output gap and inflation forecast, what likely is the direction of travel for policy rates from here onwards?

Chart 1
Most Open-Economy EMs Have Stayed Close To Taylor Rule-like Policy Rule

Brazil Appears Over-Compensating While Poland and Indonesia Running Behind



Seven out of ten countries in our sample of EMs were less deviated from prescription in absolute percentage terms when compared with US deviation as the benchmark (chart 1). Brazil appears to have over-done its hiking by a large margin while Poland and Indonesia look to be running behind. Of the central banks that have signaled pause or peak in current hiking episode, the risk for policy rate direction appears tilted downwards for both Brazil and Chile, according to this policy rule while opposite is true for Poland.

An important caveat to this kind of Taylor rule-like assessment framework is that policy guidance can be very different given unobservable variables (real neutral rate, potential output) and unusually more uncertain inflation forecasts. While recognizing they are good overall framework for communicating with general public, a "many model", "horse race among different policy simulation frameworks" approach is likely more confidence-building guide for a policymaker.

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