

Hong Kong Inflation Dynamics: Trend and Cycle Relationships with the U.S. and China

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Summary

In recent years, modeling inflation using two components, trend and cycle, has become an appealing way to study the inflation process. The trend rate of inflation corresponds to the permanent or long-run component of inflation, that is primarily driven by changes in domestic monetary policy. On the other hand, the cycle component is transitory, and is influenced by short-run fluctuations in aggregate demand. In the literature, trend-cycle decompositions of inflation are typically based on estimating unobserved components (UC) models for inflation. These decompositions either rely on the statistical properties of the inflation process or utilize closed economy relationships between inflation and other domestic variables.

For the case of an open economy such as Hong Kong, external factors are important and should be incorporated into such trend-cycle decompositions. This paper proposes a UC model for Hong Kong inflation based on a New Keynesian Phillips curve (NKPC) that allows U.S. trend inflation, and output gaps from the U.S. and China, to influence Hong Kong price dynamics at long and short time horizons. The output gaps are treated as latent variables and are extracted from unobserved components models for output, thus a byproduct of estimating the empirical model for inflation are output gap estimates that are consistent with the NKPC for Hong Kong.

The main findings of this paper can be summarized as follows: (i) there is minor evidence that Hong Kong and U.S. inflation rates are related in the long-run, as permanent price shocks from the U.S. have minimal effects on Hong Kong trend inflation movements; (ii) the estimated Phillips curve slope for Hong Kong is relatively steep implying that the domestic output gap is an important driving variable for inflation in the short run; (iii) U.S. and China output gaps have opposing effects on the cycle component of Hong Kong inflation, with the coefficients on the China output gap twice as large as those of the U.S., and (iv) output gap estimates for Hong Kong, the U.S. and China provide evidence that there has been increased business cycle synchronization among the three countries since the early-2000s.