Inflation in Mainland China - Modelling a Roller Coaster Ride

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Summary

As a result of increased integration into the global economy and continuing domestic price liberalisation, prices in China are increasingly market determined. Therefore understanding the dynamics of inflation and its cyclical interaction with real aggregates is an important question in theory and in practice, especially for central banks vis-à-vis the conduct of monetary policy. The recent experience of high GDP growth rates coupled with low inflation observed in several countries casts doubt on the traditional Phillips curve as a model of inflation dynamics. This has been a major motivation for the development of a family of new forward-looking Phillips curves. The reason mainland China makes for an interesting case study is that it is a developing country and has experienced mild deflation periods in the recent past.

Economic reform in China since the late 1970s can be roughly divided into five phases. In the first phase (1978-1984), farming was decentralised and agricultural prices were raised. The success of the reforms encouraged the authorities to introduce further measures in the second phase (1984-1988), including some liberalisation of enterprise pricing and wage setting. Fourteen coastal cities were also opened up to foreign trade and investment. During the third (1988-1991) and fourth (1992-1998) phases, the Chinese reform process was characterised by a lack of effective macroeconomic policy instruments. As a result, inflation increased substantially after price liberalisation until finally the authorities introduced price controls and administered sharp contractionary policies to control double-digit inflation. This was effective in stabilising prices, but it also produced a downturn in the economy and a mild deflation. When it became apparent in 1998 that the economy was slowing down markedly, the government spurred the economy with successive interest rate cuts to boost demand in the fourth phase. Finally, the fifth phase (1998 to present) can be characterised by broad-based enterprise, financial and social reforms. With the onset of SARS in early 2003, the government provided additional fiscal and monetary stimulus to offset the deleterious effects of SARS, which led to lower growth cum disinflation.

In connection with this, this paper provides an empirical analysis of inflation dynamics in mainland China, with the aim of identifying and assessing the relative importance of factors underlying price movements. Given the conflicting evidence on the determinants of inflation in mainland China, we apply the reduced-form forward-looking New Keynesian Phillips Curve (NKPC) framework to characterise inflation dynamics in China. Building on yearly observations from 1978 to 2003, we find support for the conclusion that the hybrid NKPC model performs quite well and delivers a reasonable approximation of the evolution of inflation in mainland China. While not intended as an inflation-forecasting model, we take this ability to characterise historical inflation behaviour as evidence that the NKPC model of price setting with nominal rigidities does indeed provide a fairly good approximation to the actual dynamics of inflation.