

Unobservable-Component Estimates of Output Gaps in Five Asian Economies

February 2002

Stefan Gerlach

Hong Kong Monetary Authority
Hong Kong Institute for Monetary Research
University of Basel and CEPR

and

Matthew S. Yiu

Hong Kong Institute for Monetary Research

Summary

The output gap – the difference between actual and potential output – plays a central role in macroeconomic theory and, in many economies, in the practical conduct of monetary policy, given its importance as a determinant of inflation. This paper estimates output gaps for Hong Kong, Korea, the Philippines, Singapore and Taiwan, employing the Hodrick-Prescott (HP) filter and unobservable-component (UC) techniques.

Under the UC approach, the actual output is assumed to be the sum of potential output, which follows a random walk with a time-varying drift, and a stationary output gap. Then the Kalman smoother is used to estimate these two unobservable components and their confidence bands.

Estimating the output gap or, equivalently, potential output using the UC approach appears to work well in practice. However, simple Phillips curves suggest that the information contents of the two measures of the gap from the UC approach and HP filter are essentially identical. The main advantage of the UC approach is that it allows the construction of confidence bands for the gap.