# Comments on "Monetary policy regimes and macroeconomic outcomes: Hong Kong and Singapore" by Stefan Gerlach and Petra Gerlach-Kristen

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### Introduction

This is a very interesting paper, comparing macroeconomic outcomes between Hong Kong and Singapore in the past decades and their possible association with the monetary policy regime in the two economies. The paper employs an econometric model comprising a Phillips curve, an IS curve and an equation for the nominal effective exchange rate (NEER) for Hong Kong and Singapore. The NEER equation for Singapore is treated as a monetary policy reaction function for the Monetary Authority of Singapore (MAS). The technical work is carefully done, as is the usual case for the authors.

The main conclusion of the paper is that consumer price inflation was better controlled (in the sense of being lower and less persistent) in Singapore than in Hong Kong, but movements in real activity (as measured by the output gap) were similar. The difference in inflation is attributed mainly to the different monetary policy regimes in the two economies.

## Results that conform to expectations

The empirical estimation and simulation results conform to general expectations about the key macroeconomic variables given the different monetary policy regime. First, shocks to inflation are less persistent in Singapore than in Hong Kong; this reflects partly monetary policy reaction by the MAS to changes in inflation and the effectiveness of such reactions.

Second, the NEER appreciates in response to above target inflation and changes in the output gap in Singapore, reflecting the role of the NEER as the operating target for monetary policy.

Third, changes in the NEER are serially correlated, and do not respond to changes in inflation in Hong Kong. This is not surprising given that under the Linked Exchange Rate system, the Hong Kong dollar NEER is exogenously determined by movements in the US dollar exchange rates against other major currencies.

Fourth, the rise in the output gap raises inflation in both economies and an appreciation of the real effective exchange rate (REER) reduces inflation, consistent with general economic theory.

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# Results that are "more interesting" and might warrant further investigation

First, shocks to output appear to be more persistent in Singapore than in Hong Kong. The authors attribute this to two possible factors. One is that Hong Kong has been more exposed to large but temporary demand shocks. Another is related to the MAS policy of inflation stabilisation, which leads to more protracted movement in output. One more consideration is possible differences in supply shocks to the two economies, although this is difficult to assess in the current empirical setup.

Second, there is a significant correlation between changes in the NEER and the output gap in both economies, suggesting that strength in the economy tends to be associated with an appreciation of the NEER. This is somewhat surprising in the case of Hong Kong, as it clearly cannot be explained by monetary policy reactions of the Monetary Authority. The authors attribute this finding to the positive correlation between changes in US dollar NEER (to which the Hong Kong dollar NEER is positively correlated) and US economic growth, which affects US demand for Hong Kong's goods and services. There are two other possible explanations. One is that a strong US dollar raises US demand for imports, including those from mainland China and Hong Kong. Furthermore, appreciation of the Hong Kong dollar in nominal effective terms tends to be associated with an improvement in the terms of trade, which has a positive income effect on domestic demand given the high degree of openness of the Hong Kong economy.

Third, the estimated impact of changes in REER and the real interest rate on the output gap are quite similar for both economies (in both cases only REER is significant). This is somewhat surprising in the case of Hong Kong, as other studies suggest that the real interest rate is a significant variable affecting output growth (Peng (2000), and Ha et al (2002)). Indeed, real interest rates are likely to be a more important force (relative to REER) in Hong Kong than in Singapore for output growth, as shocks to the Hong Kong dollar exchange rate tend to be reflected in changes in the risk premium of interest rates.

### **Conclusions**

By policy design, inflation in Singapore should be less persistent than that in Hong Kong. The empirical analysis of this paper confirms that the difference in inflation patterns in the two economies reflects in part the choice of monetary policy regime. However, the results indicate similar dynamics in the output gap in the two economies. Indeed, the exchange rate regime does not appear to have produced any significant difference in the long-term economic growth performance, as indicated by the following table.

Sample 1984-2004	Hong Kong		Singapore	
	Mean	Std dev	Mean	Std dev
Per capita GDP growth				
- in USD	7.4	7.9	7.0	10.1
- in PPP	6.4	4.5	6.7	4.7

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### References

Ha, J, C Leung and C Shu (2002): "A small macroeconomic model of Hong Kong", research memorandum, Hong Kong Monetary Authority, June.

Peng, W (2001): "A monetary conditions index for Hong Kong", *Hong Kong Monetary Authority Quarterly Bulletin*, November 2000.

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