

Persistence of Output Fluctuations under Alternative Exchange Rate Regimes

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Summary

Suppose an economy experiences a negative shock which causes real output to fall below its long-term rate of growth. What factors determine the length of time that it takes for output to return to its previous growth path? In a recent paper two World Bank economists (Giugale and Korobow, 2000) have argued that a country's choice of exchange rate regime is a key influence on the degree of persistence in output following a financial shock. In particular they present evidence that is consistent with output being less persistent under a floating as opposed to a fixed exchange rate. The authors estimate the degree of output persistence for Mexico post-1995 when the country adopted a floating exchange rate. They compare this estimate of output persistence with that obtained for Mexico under a "crawling peg" (1987-1994) and also to estimates of persistence for a number of other countries that have adopted fixed exchange rates during certain periods viz, Brazil, Thailand, Latvia, Estonia, Hong Kong and Argentina. The estimated recovery times for an economy with fixed exchange rates is typically three to four times as long as for Mexico under floating rates.

In our paper we re-examine the findings by Giugale and Korobow using data (post-1980) for a number of countries in the Asian region; Hong Kong, Singapore, Korea, the Philippines, Taiwan, Australia, Japan, Malaysia and Thailand. These countries display a range of exchange rate regimes, from fixed (Hong Kong) through managed floating (Singapore) to relatively free floating (Australia). For this group of countries the Asian Crisis can be viewed as a large financial shock and one which affected their real outputs with varying degrees of severity. Output persistence is measured using a vector autoregression (VAR) model comprised of a short-term interest rate, money, inflation and real output. The estimated VAR for each country is used to compute the dynamic multiplier for output to an interest rate shock. Plotting this multiplier against time gives an impulse response function for real output. Persistence is measured by the length of time the impulse response function takes to return to the zero axis following a negative interest rate shock, ie. a rise in interest rates.

The results from our empirical models do not support the view that output persistence is systematically lower under a floating exchange rate regime. Across a number of specifications we find that real output for Hong Kong and Australia has the least persistence following a negative interest rate shock. These countries represent the two ends of the spectrum in our sample of countries, the former has an exchange rate that is pegged to the U.S. dollar via a currency board and the latter has one of the more

flexible exchange rates in the region. Of the other countries considered, Korea, Thailand and Taiwan generally display the most persistent output responses. One implication of our findings is that factors other than exchange rate regime are important in determining the degree of output persistence in an economy. The degree of wage and price flexibility in an economy is likely to be one important factor. In addition our findings provide some limited support for the view that it is preferable for countries to chose an exchange rate regime near the ends of the spectrum, either a “hard” fix or a free float.