

# Growth and the Real Exchange Rate – Evidence from Eleven countries

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## Summary

The conventional view about exchange rate depreciations is that the resulting rise in import and export prices induces a switch in expenditures towards home-produced goods, and hence a rise in output. There are, however, a number of plausible alternative views on the effects of exchange rate depreciations. “Contractionary depreciation” models argue that there are a number of channels through which an exchange rate depreciation can reduce output. Early work focused on the impact of a depreciation on the distribution of income and thereby on aggregate expenditure in an economy. One argument was that a depreciation would lead to a transfer of income from workers, who receive a fixed nominal wage, to capitalists. With capitalists assumed to have a higher propensity to save than workers, this transfer will lead to a decline in demand, and hence to a decline in income. Another argument is that a depreciation can increase the cost of imported capital goods. If there are no close substitutes for the imported capital goods, firms will face rising input costs and an increased need for credit. If credit is rationed or only available at very high interest rates firms may choose to restrict output. Hence depreciations can reduce the supply of output, as well as reducing output through the demand side channels emphasised above.

More recent work has incorporated rational expectations into the above models of depreciations, and has found that anticipated depreciations of the real exchange rate lead to a rise in the expected price level and a fall in output (as workers increase their nominal wage demands). An unanticipated depreciation does not affect prices and real wages, but instead leads to an increase in aggregate demand, due to the fall in the relative price of domestic output. The result is a rise in prices and output.

A more recent literature has emphasised the role of unhedged foreign borrowings in leading to contractionary depreciations. These models have been thought to be particularly useful in understanding the Asian financial crisis. *Liquidity* style arguments suggest that economies that become open to foreign borrowing may find themselves facing a maturity mismatch between a demand for long term loans to fund investment projects versus a supply of short term loans from overseas. In this environment a sudden loss of confidence in the ability of firms to repay loans can lead to a rapid reversal of foreign credit, and a decline in investment and in output. The *moral hazard* argument suggests there may be moral hazard among financial intermediaries, due to implicit government guarantees, leading to over-investment and vulnerability to a financial crisis in many developing economies. Moral hazard can

encourage overseas borrowing that is unhedged, leading to contractionary depreciations and financial crises.

In our paper we provide empirical evidence on the impact of real exchange rate changes on output growth, using a sample of eleven countries that have had a range of recent exchange rate experiences. We find that the evidence is quite mixed on any effect of depreciations on output growth, with most countries showing little evidence of any such effect. Prior to the Asian crisis our point estimates suggest that in all but one of our countries (being Malaysia) depreciations were expansionary, consistent with the traditional expenditure switching view about depreciations. This suggests that the real depreciations that occurred in 1997 were unlikely to have been the only cause of subsequent falls in output. The evidence for Hong Kong is consistent with expenditure switching models – output growth rises with real depreciations – a conclusion that is not affected in any way by the inclusion or exclusion of data from the Asian crisis period.

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