

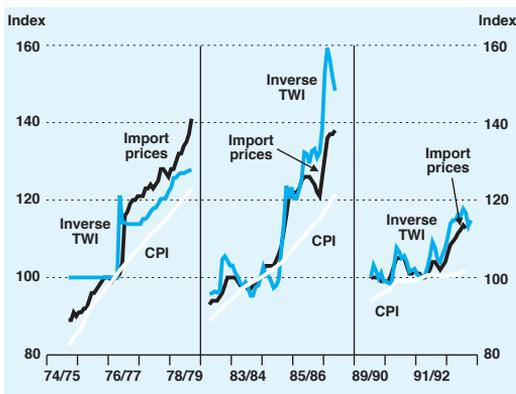
# DEVALUATION AND INFLATION<sup>1</sup>

Since September 1991, the value of the Australian dollar has depreciated by about 13 per cent in Trade-Weighted Index (TWI) terms. Depreciation increases the domestic price of internationally-traded goods and tends to put upward pressure on the general price level. Historically, currency depreciations in Australia have been accompanied by increases in inflation, although this has not been the experience in the current episode. As Graph 1 shows, the increase in import prices following the recent exchange rate depreciation has not been reflected (at least to this point) in a pick up in the CPI.

This article reviews the process by which changes in the exchange rate ‘pass-through’ to domestic prices.

The process of exchange rate pass-through occurs in two stages. The first stage concerns the response of foreign suppliers. They might reduce their foreign currency prices in response to a devaluation, with a view to maintaining their share of the Australian market, or they might choose to hold their foreign currency prices unchanged. In the second stage, local distributors may reduce or maintain their margins when setting the price they charge local customers. The final impact of an exchange rate change on consumer prices will be determined by the responses made at both stages of this process. The focus here is mainly on the first stage (based on import prices ‘over the docks’), but some remarks are also offered on the second stage.

**EXCHANGE RATE AND PRICES**  
Sep 76, Jun 84 and Sep 91 = 100



**Graph 1**

## FIRST STAGE IMPORT PRICE PASS-THROUGH

Graph 2 compares actual import prices with a hypothetical measure that shows what would have happened if foreign suppliers made no

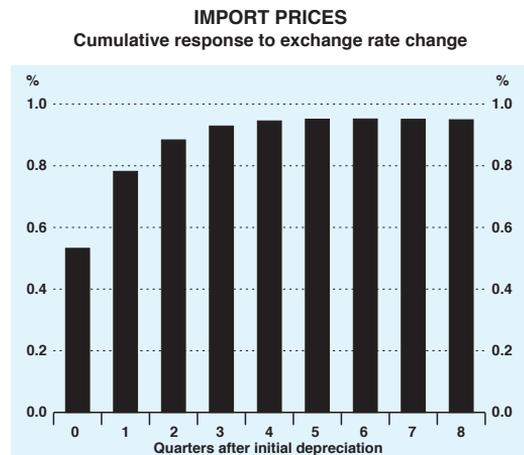
1. This article is based on work by J. Dwyer, C. Kent and A. Pease, which appeared in ‘Exchange Rate Pass-Through: The Different Responses of Importers and Exporters’, Reserve Bank of Australia Research Discussion Paper No. 9304, May 1993.



**Graph 2**

modification to the foreign prices at which they supplied the Australian market, and the full effect of the exchange rate change was instantaneously passed on. This hypothetical measure is based on general export price deflators of Australia’s foreign suppliers, i.e. the price at which they supply the world market. If foreign suppliers respond to movements in the exchange rate for the \$A by changing the price at which they supply the Australian market, this would show up as a divergence from the hypothetical series. There could also be short-term divergences if, for example, import contracts were denominated in Australian dollars. Broad trends in the hypothetical and actual import prices are relatively close, with short-run divergences lasting up to about one year. This suggests that while there may be some evidence that foreign suppliers temporarily absorb fluctuations in prices caused by exchange rate movements, in practice the pass-through to prices ‘over-the-docks’ tends to be relatively rapid.

It is possible to estimate the speed of this pass-through more precisely with quantitative techniques. This was done for the period from the mid 1970s to December 1992. Graph 3 summarises the typical effect on domestic import prices of a 1 per cent depreciation. Import prices are estimated to rise by about 0.5 per cent during the quarter in which the



**Graph 3**

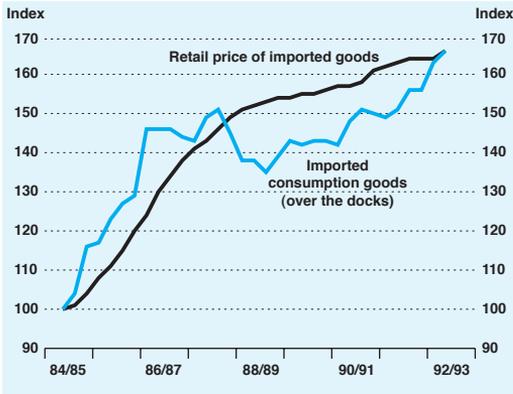
depreciation occurs. One quarter later, import prices have risen by almost 0.8 per cent. It takes four quarters before the depreciation effect passes through completely. These results are typical of each depreciation of the Australian dollar since December 1983, including the depreciation since late 1991.

## SECOND STAGE IMPORT PRICE PASS-THROUGH

The near-full pass-through of the first-round effects is consistent with Australia, as a small trading nation, being a price-taker in world markets. To assess how this impinges on inflation, however, it is necessary to know how the prices ‘over the docks’ pass through to final consumer prices. This process cannot be considered independently of the particular circumstances of the time, including: the state of demand in the economy; the factors causing the exchange rate to depreciate; and the general inflationary environment. Nevertheless, with these caveats in mind, a few observations can be made in respect of recent developments.

Graph 4 compares prices of imported consumption goods ‘over the docks’ with the import component of the retail price index. These series have been adjusted to ensure that

**IMPORT PRICES AT THE SECOND STAGE**  
Dec 1984 = 100



**Graph 4**

their components are as comparable as possible, within the limits of data availability. It seems that when the exchange rate is under downward pressure (as in 1985, 1986 and

1992), prices at the retail level rise less quickly than would be suggested by ‘over the docks’ prices, indicating that importers and distributors cut their margins. When the exchange rate is rising, this process seems to be reversed.

This evidence suggests that the inflationary consequences of exchange rate depreciations can be reduced considerably – at least for a time – by the pricing policies of domestic importers and distributors. The ability of distributors to ‘catch up’ margins lost in the most recent episode will be constrained by the current low-inflation environment. If the general level of prices is rising only slowly, then large relative price movements are more conspicuous. If the domestic prices of substitute products have not changed, the scope for altering the retail price of imported products will be reduced.