dominated industry development in South Korea and Taiwan in the 1960s and 1970s). On top of these opportunities, Japanese manufactures—which are important in imports by all the East Asian countries—have become expensive and are likely to become even more expensive as the yen strengthens. This development opens opportunities for exports from Australia of much more steel to China and the ASEAN countries, exports of motor vehicle components, *etc.*

The opportunities will be there. A key problem is that Australia's links with the region are anaemic at present. In my judgement, we have to lift the profile of East Asia and its opportunities amongst Australia's manufacturers quickly. In some areas (*e.g.* steel), the opportunities could well support greenfield investments: forward decisions should be based more on considerations of yen/$A movements in the future rather than on $US/$A movements.

Sectoral Implications of Changes in Exchange Rates and Interest Rates (comment on Hooke, Fraser and Edwards)

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A principal focus of the papers by Hooke, Fraser and Edwards is, "what are the implications of changes in the exchange rate and in interest rates for the traded goods sector (agriculture, mining and manufacturing)?" The short answer is that the sector stands to gain from a lower exchange rate and from lower interest rates. However, there are a number of implications, some positive and some negative, that need to be considered in reaching a net outcome.

It is useful for pedagogic purposes to take the analysis in two steps. Step one focuses on the first round or impact effect in which the *ceteris paribus* assumption is imposed. Fraser's accounting approach is a very clear and useful illustration of this step. The second step of the analysis relaxes the *ceteris paribus* assumption and considers second round effects associated with changes in other variables influenced by exchange and interest rates. To a large extent none of the three papers considered the second round effects.

Consider, first, the case of exchange rate changes, and for convenience a currency depreciation. As Edwards emphasised, it is important to be specific about the particular currency involved. Manufacturing competition and costs of imported equipment may need to focus more on relationships with the Japanese yen, Korean won or Taiwanese dollar than the US dollar; miners seem to be more concerned with the US dollar, but even they may have interests in the currencies of imported input source countries and in the currencies of export-competing countries; and similar observations could be made for agricultural interests. At this point it is useful to add the caveat that the following discussion applies to the trade exposed components of the sector and has little reference to those parts of the manufacturing and agricultural industries protected by quotas and other non-tariff trade barriers.

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In a first round assessment there are both positive and negative effects on the traded sector from a currency depreciation. The positive effects come from the product market side. Higher Australian dollar prices are received for exports and can be charged for import substitutes. The full effect of the depreciation will be partly offset by any terms of trade effect due to Australia exercising market power. In their calculations, Fraser assumes a zero effect for miners and Hooke assumes a 50 per cent effect for agriculture. I find Hooke's estimate extremely high. In any event, the terms of trade effect is an important one warranting further assessment, and one in which explicit consideration is given to the time path of adjustment with changing elasticities of export supply and demand. A useful example is the Martin and Shaw (1986) paper. The negative impact effects of a depreciation come from the higher cost of imported capital inputs and materials—noted to be important for agriculture, mining and manufacturing—and, in the case of overseas borrowings denominated in foreign currencies, the higher interest outlays (in Australian dollar terms) and exchange rate losses—noted to be particularly important to the miners. In aggregate, the impact benefits in the product market side exceed the negative input cost effects so that profitability of the traded sector activities rises.

In general the *ceteris paribus* assumption, including that all other input costs will remain unchanged, is not a sustainable one, and hence second round effects need to be considered. One consequence of a currency depreciation is to raise the domestic inflation rate because prices of tradeables (exports, imports, and import substitute products) rise. In Australia (and no doubt most other countries) some of the general inflation increase attributable to the currency depreciation leaks into higher wage costs (and certainly the recent experience has been one of only partial and then delayed discounting for the depreciation) and into higher prices of government services such as transport and energy. These higher input costs erode some of the initial competitiveness gains of a depreciation. In general, the traded sector gains only to the extent of a sustained real depreciation.

A likely second round effect is a change in fiscal policy. Certainly this seems to be a part of Hooke's preferred policy package. Also, if a depreciation is to raise net exports, this concurrently requires an increase in domestic saving, and here a reduction in public sector deficits would be expected to play a contributory role. Now, smaller public sector deficits mean a combination of higher tax rates and lower government expenditure, possibly including less industry assistance to the traded sector. Both changes will have adverse effects, perhaps minor, on the traded sector.

Whether a depreciation influences the domestic interest rate or not raises interesting questions. As an illustration, suppose we adopt the interest parity model used in earlier papers presented at the Forum where domestic interest rates equal the foreign rate (assumed fixed) and the expected depreciation of the Australian dollar. If, prior to the depreciation, the currency had been considered overvalued then the act of depreciation may reduce expected future depreciations and hence result in a fall in the domestic interest rate. Alternatively, the act of depreciation might enhance expectations of further depreciations and result in higher domestic interest rates. Again, currency changes may indirectly induce changes in monetary policy which itself influences interest rates. While I have no specific answer as to the direction and magnitude of second round effects of currency changes on interest rates, they may be important and hence deserve further thought.

Another assumption of the first round assessment of a currency depreciation is that other currencies will remain unchanged. This seems unlikely for some primary commodity export competing countries. Should Australia's depreciation enable it to increase world market share (in say beef and coal), this would place pressure on the export performance of competing countries (such as New Zealand for beef and South Africa for coal) and in turn place pressures for depreciation of their currencies.

The general tenor of my discussion of second round effects of a currency depreciation is that they work to reduce the magnitude, but not the direction, of positive effects revealed by a first round assessment. In the contemporary Australian economy it is likely that these considerations help explain the reticence of investors to commit long term investments to the traded sector.

Consider next the effects of a fall in interest rates on the traded goods sector. The impact effect was seen to be positive by the three authors. Since at an aggregate industry level agriculture, mining and manufacturing are net borrowers, lower interest rates reduce costs by much more than any revenue reductions. Hooke identified another

effect via lower interest rates reducing the capital inflow to Australia and hence adding pressures for a depreciation of the currency. Further, lower interest rates tend to encourage general economic expansion, including purchases of investment goods with a high import content, and thus adding further pressures for a lower dollar. A third consideration is that lower interest rates, by reducing the cost of capital, would favour the capital intensive sectors of the economy, and these sectors include the mining, manufacturing and agricultural industries, at the expense of the relatively labour intensive non-traded sector, especially services.

A complete assessment should consider also how lower interest rates are to be achieved and what second round effects ensue. One route, for example, involves a reduction of public sector borrowing (Hooke's policy strategy), but this requires higher taxes and/or less government outlays, both of which will have some adverse effects on the traded sector. Another route, and probably only a short term one, is to run the printing press, but this is likely to have adverse effect on expected and actual inflation. Whatever route is followed, it again appears that second round effects will modify the impact effects.

To conclude, the three papers have given useful and interesting insights into the likely implications of exchange rate and interest rate changes on the traded goods industries. In my view it would be desirable to extend their impact effect assessment to include an assessment of second round effects.

Reference

MARTIN, W. AND SHAW, I (1986), "The Effect of Exchange Rate Changes on the Value of Australia's Major Agricultural Exports", *Economic Record, Supplement,* 101–107.