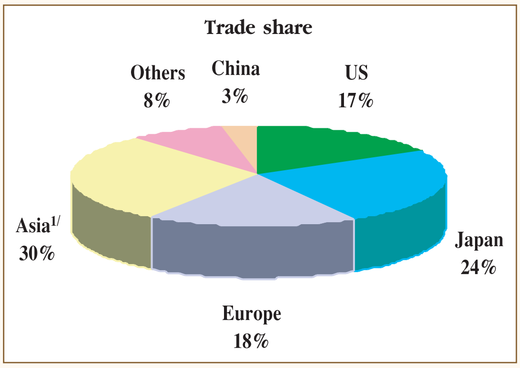
Real Effective Exchange Rate

The exchange rate is one of the major economic variables with important implications on prices, domestic resource allocation, output growth and, in particular, international competitiveness since its change affects both export and import prices. In general, the public pays more attention to the exchange rate in *nominal* terms, i.e., the price of foreign currency in terms of baht (e.g. number of US dollars per one baht).[1/] However, the nominal exchange rate may not be appropriate for assessing overall competitiveness since the baht may be appreciating against one currency but depreciating against another currency. From a policy perspective, it is thus more appropriate to assess the baht value against those of all major trading partners, i.e. in terms of *nominal effective exchange rate* (NEER). NEER is calculated as a weighted average of the bilateral exchange rates, where the weights are determined by the proportions of trade between Thailand and those respective countries to total trade. In other words the NEER is a measure of domestic prices of goods in terms of foreign prices.

In assessing the real competitiveness, production costs should be taken into account. Competitiveness, is thus often measured in terms of *real effective exchange rate* (REER), or a weighted average of the real exchange rate (RER)[2/]. REER is the NEER adjusted by the relative prices between Thai and trading partner countries. Movements in REER are predominantly determined by price and nominal exchange rate developments.



[1/]Excluding Japan and China
Source: Direction of Trade Statistics 2000, IMF

In constructing the REER, the key issue is the choice of weights and price indices. The appropriate weighting scheme depends on the purpose for which the REER is being constructed. For assessing changes in competitiveness, the relative importance of a nation's trading partner is an obvious choice and explains the Bank of Thailand's use of trade weights in constructing the REER. As reflected in Figure 1, much of Thailand's trade is taken up by Japan, the US, the European Union, and Asian countries.

With respect to the choice of price indices, the consumer price index (CPI) is generally used since it is timely, similarly constructed across countries, and available for a wide range of countries over a long time span. However, the fact that a CPI basket often contains a significant non-traded component makes CPI-based REER less than ideal for assessing competitiveness. A measure based on the price of traded

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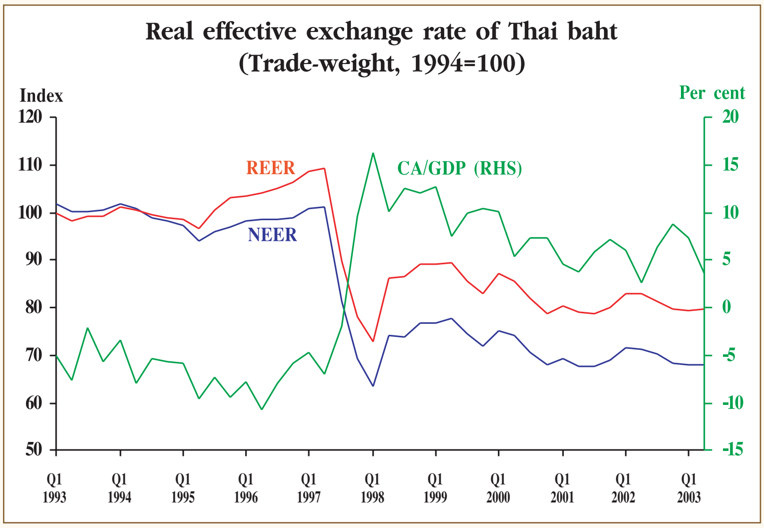
[1/] A rise in *e* therefore constitutes a nominal appreciation of the home currency.

[2/] A general expression for the real exchange rate can be written as $RER = (eP)/P^*$, where P and P^* are some measure of domestic and foreign prices, respectively.

goods would be more appropriate in this respect. Thus the REER is often constructed using the export deflator or the producer price index. Alternatively, unit labour costs (total wage costs divided by total output) are sometimes used. This would give an indication of *cost competitiveness* of the country relative to others. Nevertheless, these alternative price indices are often difficult to obtain, the CPI thus is employed by the Bank of Thailand for constructing the REER.



Source: Bank of Thailand

Between 1995-1997, although the exchange rate of baht against US dollar was relatively stable, Thailand's REER appreciated steadily due to relatively high inflation in Thailand compared to that in trading partners. This resulted in the deterioration in competitiveness of Thai products. After the adoption of the managed-float exchange rate regime, the dramatic decline in nominal exchange rate following the 1997 crisis brought about a sharp depreciation of the REER, reflecting improved competitiveness which has been one of the factors behind the recovery in Thai exports and the return to current account surplus. At present, the REER index in August appreciated by 2.2 per cent over that in January 2003.

Although the REER index measures only price competitiveness, it is a useful indicator of overall Thai competitiveness to some degree. A more comprehensive approach requires monitoring competitiveness industry by industry as well as considering qualitative aspects of competitiveness.

The MPC has been closely monitoring movements in REER as well as nominal exchange rates of Thai baht against other currencies. The Bank of Thailand publishes monthly data of NEER and REER with a 2-month lag on the BOT website (www.bot.or.th). Efforts to improve the REER construction to better reflect Thailand's competitiveness are on going at the Bank of Thailand.