

Box 2.1**Exchange rate movement as a prominent factor affecting Hong Kong's export performance**

Among the bundle of factors affecting two economies' bilateral trade, exchange rate is one prominent factor underlying the price competitiveness of an economy's exports. In gauging the broad movement of the Hong Kong dollar, the Census & Statistics Department compiles the Nominal Effective Exchange Rate Index (NEERI) to measure movements in the weighted average of the nominal exchange rate of the Hong Kong dollar against the currencies of Hong Kong's principal trading partners. Apart from the nominal exchange rate between two economies, the relative change in price level of goods and services in the two economies also affects the price competitiveness of the exporting economy. In this regard, the Hong Kong Monetary Authority also compiles a series on the Real Effective Exchange Rate Index (REERI) by adjusting the NEERI for relative movements in consumer price indices against selected trading partners of Hong Kong.

Intuitive reasoning suggests that both the NEERI and REERI should bear a relationship with Hong Kong's exports. Moreover, due to the lead time from changing consumer demand in response to a change in exchange rate to placing purchase orders by the importers and final shipment of goods by the exporters, the exchange rate movement can be expected to carry lagged effect on exports for a few quarters. The following empirical outcomes help to discern the above theoretical relationship in the case of Hong Kong.

Using data for the past ten-year period Q1 1997 – Q4 2006, the correlation coefficients of the year-on-year rate of change of the quantum index of total exports with the year-on-year rates of change of the NEERI and REERI for various lag periods are shown below:

	<u>NEERI</u>	<u>REERI</u>
Lag 1	-0.6196	-0.6404
Lag 2	-0.7702	-0.7481
Lag 3	-0.7794	-0.7180
Lag 4	-0.7030	-0.6046

The results show that the year-on-year rate of change in total exports has negative correlations with both the rates of change in NEERI and REERI, affirming the proposition that a weak Hong Kong dollar would bolster exports. The higher correlation coefficients for lag periods of two quarters suggest that the exchange rate impacts would more fully filter through after around two quarters.

While the above lead-lag correlations should also throw light on the causal relationship between exchange rate movement and export performance, further attempts are made to conduct Granger Causality Test on the variables for various lag structure. The results again confirm that movements in exchange rates are a prominent factor affecting export growth.

Significance of Granger Causality of REERI and NEERI on total exports

	<u>REERI</u>	<u>NEERI</u>
Lag 1	***	***
Lag 2	***	***
Lag 3	***	***
Lag 4	**	***

Notes : (***) Significant at 1% level.
 (**) Significant at 5% level.