

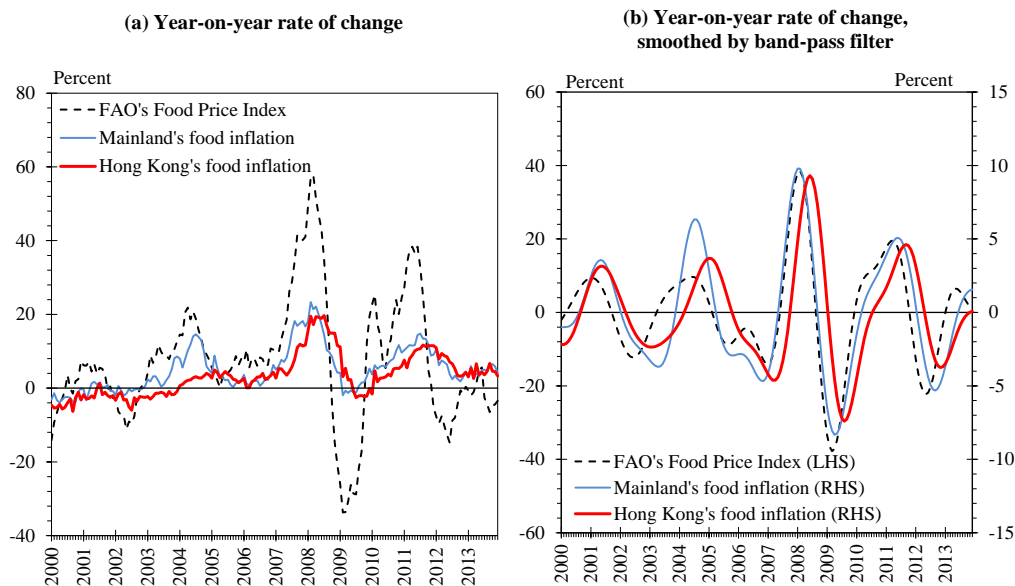
## Box 7.1

## The relations among global, Mainland and local food inflation

Global food prices often have a direct bearing on local food inflation, given that Hong Kong relies almost exclusively on the Mainland and the rest of the world for the supply of basic foodstuffs. Therefore, global and Mainland food prices are likely to be good leading indicators of food inflation in Hong Kong. This note investigates the lead-lag relations among: (1) global food inflation (as measured by the Food Price Index compiled by the Food and Agriculture Organisation (FAO) of the United Nations), (2) the Mainland's food inflation (as measured by the food component of the Mainland's CPI), and (3) Hong Kong's food inflation (as measured by the food (excluding meals bought away from home) component of the Composite CPI). The possible implications on Hong Kong's short-term food inflation outlook will also be briefly discussed.

*Chart 1a* shows the year-on-year rates of change in the FAO's Food Price Index, the Mainland's food inflation and Hong Kong's food inflation since January 2000. While it is obvious that they are highly correlated with each other, it is difficult to discern their lead-lag relations as the presence of significant short-term volatility obscures their cyclicality and turning points. To allow an easier identification of the lead-lag relations among them, a band-pass filter<sup>(1)</sup> is used to extract their lower-frequency components, so as to provide a clearer visualisation of their underlying cyclical trends. The smoothed data series (which have been re-scaled for easier comparison) are shown in *Chart 1b*.

Chart 1 : Movements of global, Mainland and local food inflation since 2000

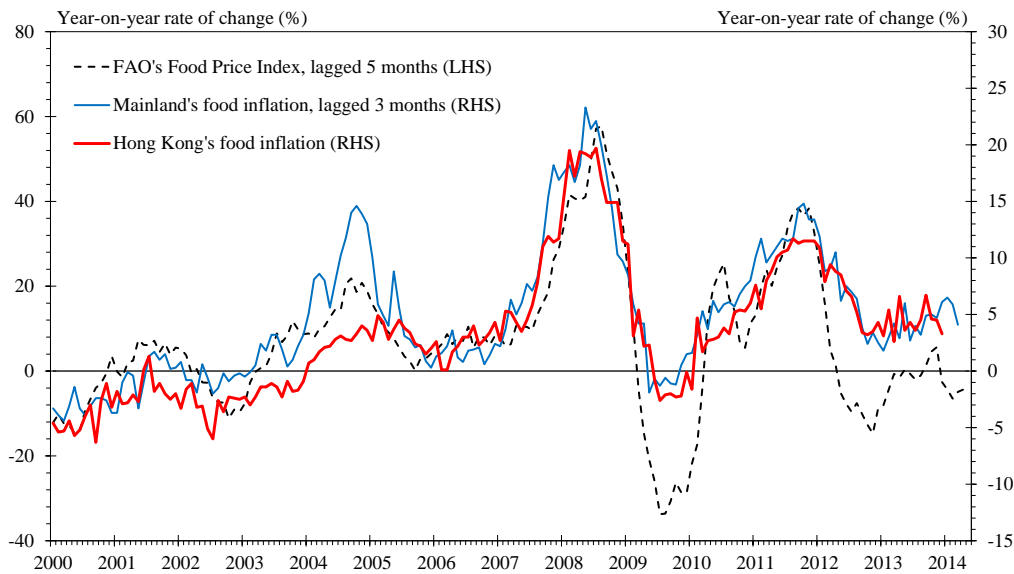


From *Chart 1b*, global food inflation apparently leads the Mainland's food inflation, which in turn leads the food inflation in Hong Kong. More specifically, during the most recent food inflation cycle between 2010 and 2012, the smoothed global and Mainland food inflation series peaked in April 2011 and June 2011 respectively, suggesting that global food inflation tends to lead the Mainland's food inflation, by about 2 months. By similar reasoning, the global and Mainland food inflation apparently lead Hong Kong's food inflation by about 5 months and 3 months respectively (*Chart 2*).

(1) Each of the three data series is smoothed by the full-sample asymmetric Christiano-Fitzgerald band-pass filter, with parameters specified to extract fluctuations in the range of 1.5 to 4 years.

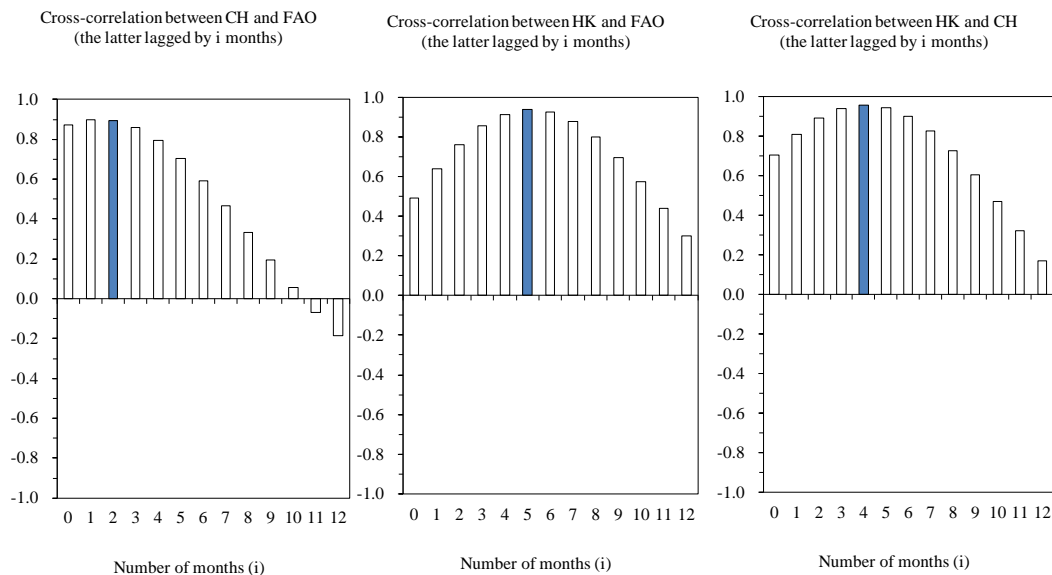
**Box 7.1 (Cont'd)**

**Chart 2 : Global and Mainland food inflation as leading indicators of local food inflation**



To confirm the results, the cross-correlograms among the three data series are also examined (*Chart 3*). The diagrams, indicating that global and Mainland's food inflation lead Hong Kong's food inflation by about 5 months and 4 months respectively, are in broad agreement with the observations in the preceding paragraph.

**Chart 3 : Cross-correlograms of global, Mainland and local food inflation**



Notes : FAO – Global food inflation; CH – Mainland's food inflation; HK – Hong Kong's food inflation. The shaded bars correspond to the number of lag period (in months) such that the pairs of data series under consideration attain maximum cross correlation.

In view of the recent softening in global food prices (the FAO's Food Price Index fell by 4.4% year-on-year in the second half of 2013) and the easing food inflation in the Mainland near the end of 2013, Hong Kong's food inflation should remain contained in the near term, judging from the lead-lag relations in the recent periods. Yet, there might still be occasional food price hikes arising from higher volatility in global food and commodity prices and also from unforeseen adverse supply shocks in major food-exporting economies. The Government will continue to monitor the situation closely.