Ask: NUS Economists

From sashimi to Toyota: How currency changes affect S'poreans

A weaker Singapore dollar has small effects on imported food prices, but larger effects on food and machinery exports

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For The Straits Times

Q *How does a weaker Singapore dollar affect households and companies?*

A In its latest monetary policy statement, Singapore's central bank eased its policy stance by allowing for a weaker exchange rate. This is in the light of the strong economic headwinds triggered by the Covid-19 pandemic.

It is indeed an important question to examine how a weakening of Singapore's exchange rate would affect households and companies.

Singapore is highly trade dependent. In 2018, the Republic's exports to gross domestic product (GDP) ratio and imports to GDP ratio were approximately 180 per cent and 150 per cent respectively.

Theoretically, a weaker currency would make Singapore's imports more expensive while exports to foreigners become cheaper. Nonetheless, not all goods would be affected similarly.

Households may be wondering how a weaker Singdollar affects their favourite sashimi or latest Toyota car from Japan, while companies may ask how it will affect their cost of production and price competitiveness.

Our recent study shows that import and export prices move in the direction as suggested by theory.

Using data on trade prices and nominal effective exchange rates available from the Department of Statistics (SingStat) and the International Monetary Fund respectively, we estimated the pass-through effects of different trade industries in Singapore from 2010 to last year.

Pass-through effects refer to the extent of the change in import and export prices, given a change in exchange rate.

Nonetheless, we find that the pass-through effects are incomplete. This suggests that the impact of exchange rate fluctuations is not fully translated into trade prices.

Moreover, there are vast heterogeneous effects across industries in which import and export prices respond differently to exchange rate changes.

To see how households and companies are affected differently across industries, we focus on two industries: food and live animals, as well as machinery and transport equipment.

FOOD AND LIVE ANIMALS

Singaporeans love to eat. As most of our edible food products are imported, there are concerns that households will pay a higher price for food as the Singdollar weakens.

However, the extent of such an increase is dependent on the magnitude of the pass-through effect. We estimate this by studying the relationship between the movement of trade prices and Singapore's nominal effective exchange rate.

We find a weak import pass-through effect of 0.27 in the food and live animals market. This implies that weakening the Singapore dollar by 1 per cent will increase the price of imported food by 0.27 per cent.

Consequently, we would expect our sashimi from Japan to see a slight increase in price.

For Singapore's food exports, we find a stronger pass-through effect of 0.71. This suggests that for every 1 per cent the Singapore dollar weakens by, foreign countries will pay a price lower by 0.71 per cent.

Singapore's exporting companies will experience a gain in price competitiveness as foreign trading partners pay a lower price for Singapore's food exports, such as coffee, tea and spices.

Overall, exporters seem to benefit more than consumers in this industry.

However, food and live animals form only 3 per cent of Singapore's overall non-oil domestic exports. Therefore, it is unlikely that this industry will be able to boost Singapore's overall export value significantly from the latest policy stance.

MACHINERY AND TRANSPORT EQUIPMENT

Next, we turn to the machinery and transport equipment industry, Singapore's largest trade industry, which formed more than 50 per cent of its total trade last year.

In this industry, the exchange rate pass-through to its import prices is 0.58. This suggests the weakening of the Singapore dollar by 1 per cent will increase the price of imported machinery and transport equipment by 0.58 per cent.

This is more than twice that of the food and live animals industry. Consequently, Toyota car buyers will feel the impact more than sashimi lovers.

According to SingStat, machinery and transport equipment constituted 61 per cent of last year's non-oil imports. This is due to how Singapore heavily imports electrical machinery and electrical parts such as transmitters, diodes and semiconductors.

Thus, the increase in import prices of this industry could potentially drive up Singapore's imported inflation.

Nonetheless, we believe that this will be mitigated by a weak global demand for machinery equipment in these uncertain times, keeping prices down, and should not be a cause for concern.

For exports, the pass-through effect is 0.41, which implies that weakening the Singapore dollar by 1 per cent will decrease the price of exported machinery and transport equipment by 0.41 per cent.

Consequently, companies exporting products such as aircraft parts, integrated circuits and turbines will gain some price competitiveness in overseas markets.

As this industry is Singapore's main export driver, the gain in price competitiveness is likely to boost the overall export value. This serves as a support for Singapore's tepid economic growth in view of the global economic downturn.

LOOKING FORWARD

These findings, however, are based on figures from 2010 to last year and do not consider recent events. Moreover, we have focused only on changes in exchange rate.

With the recent pandemic, supply chains and external demand have been affected internationally. This could have different impacts on the industries.

While there are still many uncertainties in future trade prices and economic growth, the Government has adopted different policies to prepare Singapore for the road of economic recovery. It is important to envisage the transmission mechanisms of these policies to know how they would affect us as a nation.

An understanding of the heterogeneous impacts on different industries from the recent change in exchange rate policy – affecting things from sashimi to Toyota cars – could be the first step forward.

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