



From the Desk
of the
Chief Economist

BANK ISLAM

SUPPLY CHAIN SHORTAGES ARE HERE TO STAY

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ECONOMIC RESEARCH

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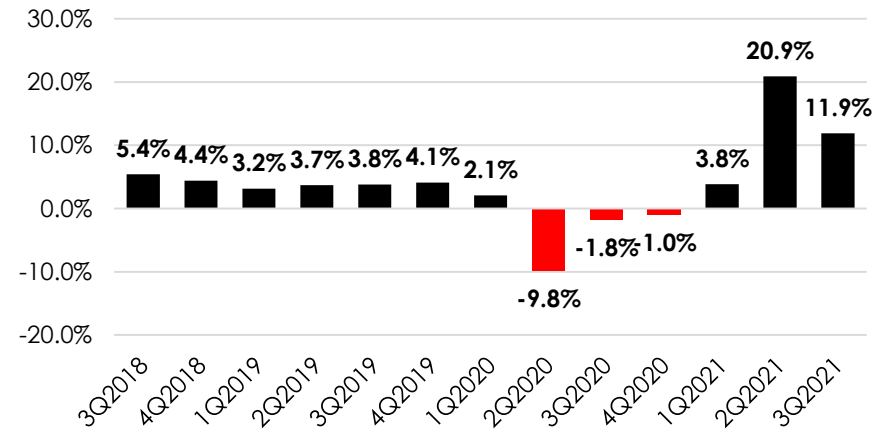
NOR JANNAH ABDULLAH

RAJA ADIBAH RAJA HASNAN

Post-pandemic boom

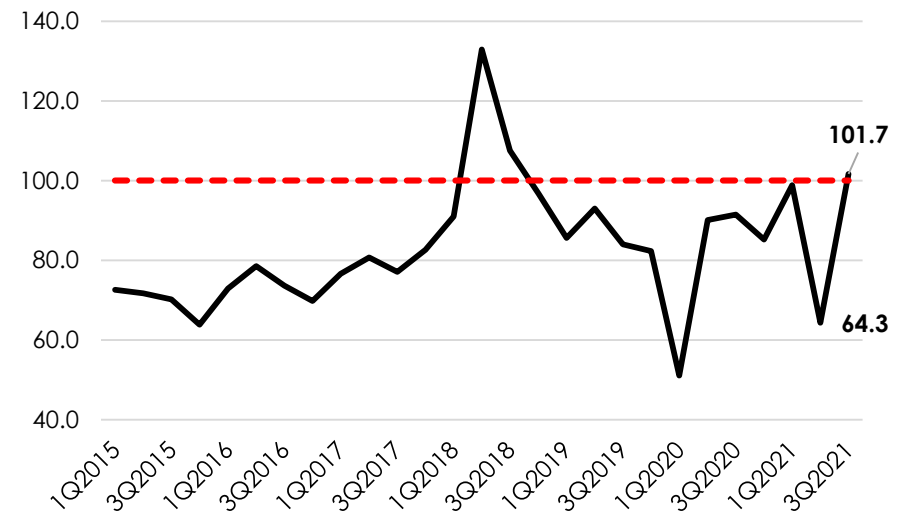
- ✓ Successful progress of vaccination efforts have been aiding the recovery of the global economy.
- ✓ In addition, the system is awash with cash while savings were higher during the Covid-19 pandemic as human mobility was restricted.
- ✓ Therefore, the reopening of the economy has led to pent-up demand being unleashed.
- ✓ According to the Bureau of Economic Analysis (BEA), the U.S. PCE has been growing at a double-digit growth for two consecutive quarters (3Q2021: 11.9% vs. 2Q2021: 20.9%), supported by relaxed restriction measures, as well as record savings that allow consumers to spend.
- ✓ On the domestic front, the Consumer Sentiment Index (CSI) also surged to 101.7 points in 3Q2021 (2Q2021: 64.3 points) as the restriction measures were gradually lifted.
- ✓ In addition, the interstate travel ban in Malaysia was lifted on 11 October which continued to bolster consumption activities.
- ✓ Nevertheless, the surge in demand has caused supply shortages across various market segments as the suppliers are not able to catch up with the orders.

The U.S. Personal Consumption Expenditure (PCE), y-o-y%



Sources: BEA, CEIC

Malaysia's CSI, points



Sources: MIER, CEIC

Labour shortages

- ✓ Shifts that have taken place in the labour market are becoming more pronounced.
- ✓ Based on the U.S Labour Department, there were 10.4 million job openings in September while the number of individuals leaving their jobs was significantly high at 6.2 million (August: 6.0 million).
- ✓ Apart from that, ageing population, retiring workers, border controls and immigration limits, as well as demands for better pay were also the factors behind the shortages.
- ✓ This has exacerbated supply chain disruptions around the globe, with key industries struggling to regain momentum due to a lack of workers.

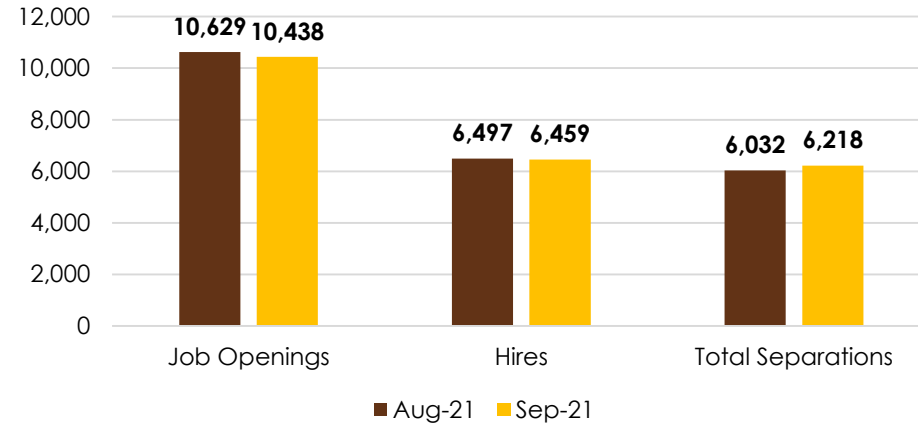
Logistics remain stretched

- ✓ Compounding those difficulties are elevated levels of congestion as containers pile up at seaports.
- ✓ Additionally, the entire supply line is broken due to shortages of workers, availability of container ships, as well as imbalance in trade flows. This has caused shipping activities has become a expensive challenge.

Global warming

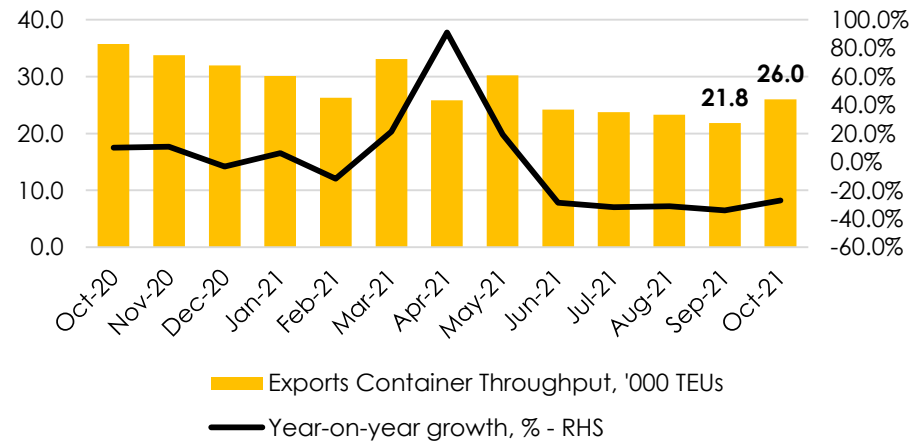
- ✓ Climate change will make those threats even worse, as floods, drought, storms and other types of extreme weather can disrupt the global food supply.
- ✓ Furthermore, the frequency of severe droughts and floods are rising every year, making harvesting activities harder for farmers.

The U.S Job Openings & Labour Turnover, thousand



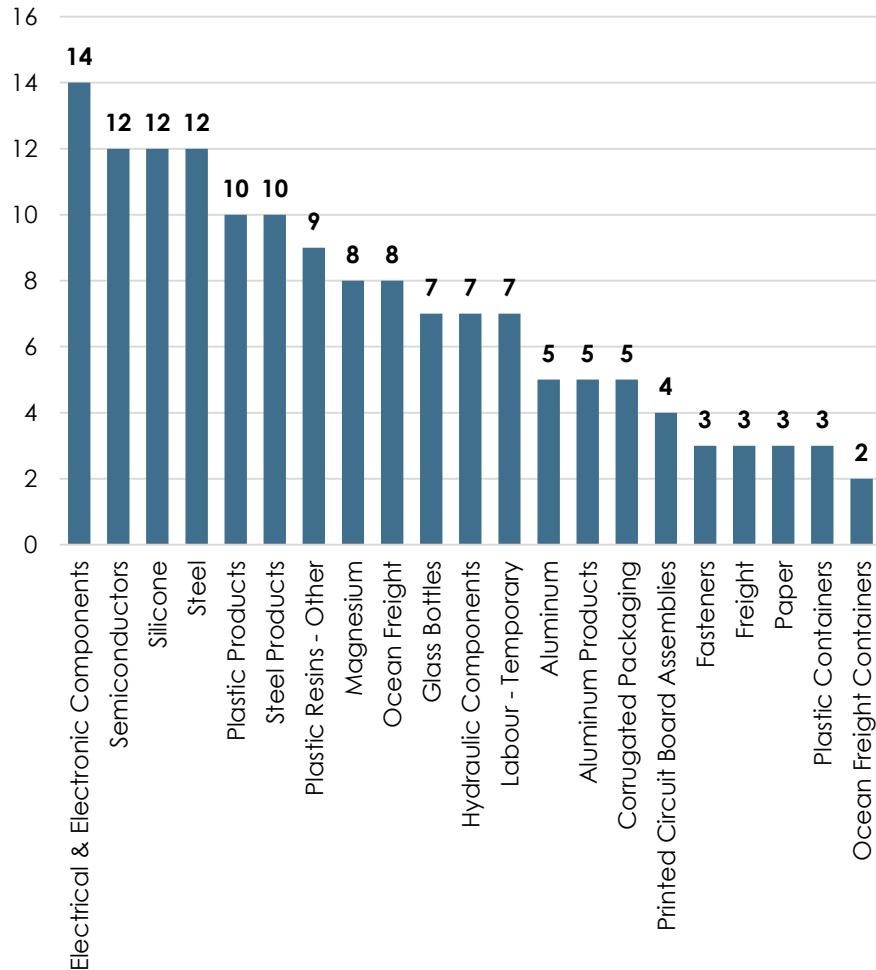
Source: U.S. Labour Department

Monthly Export Container Throughput at Port of Tanjung Pelepas



Source: Johor Port Authority

Number of consecutive months in short supply



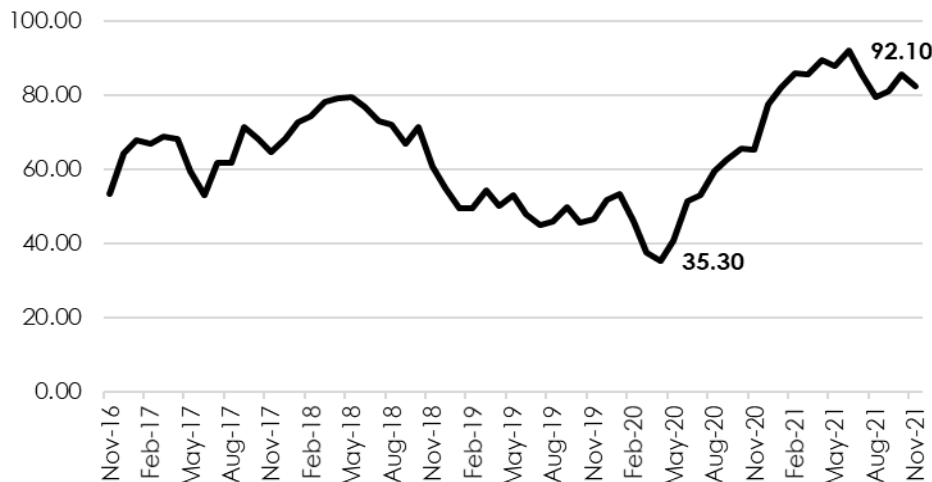
Source: U.S. ISM
As at November 2021
ECONOMIC RESEARCH

Global Inflation

- ✓ Businesses around the world and across key sectors are feeling the impact from ongoing supply chain disruptions and it seems more persistent than many expected.
- ✓ According to the U.S. Institute of Supply Management (ISM) Manufacturing Purchasing Managers' Index (PMI) Survey, items such as electrical & electronic components and semiconductors have been in short supply for 12-14 consecutive months.
- ✓ This was followed by the shortage of silicone and steel products which have been prolonging for 12 straight months.
- ✓ Furthermore, congestion in key ports around the world have amplified the ongoing supply shortages, leading to backlogs and long lead times for certain goods.
- ✓ The issue of supply shortages remains top of the minds for companies around the world and featured prominently in earning calls for businesses in the industrials, tech and consumer goods sectors.

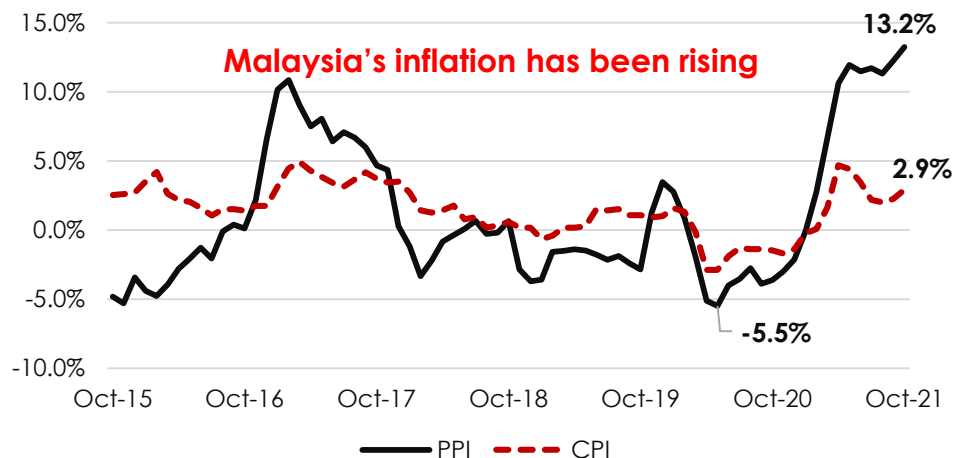
HOW THIS WILL IMPACT US? (CONT'D)

The U.S. ISM Manufacturing PMI-Prices, %



Sources: U.S. ISM, CEIC

PPI vs. CPI, y-o-y%



Sources: CEIC, DOSM
ECONOMIC RESEARCH

- ✓ The latest data by the U.S. ISM shows that the prices paid by the manufacturers were significantly higher by more than 80.0% since January this year amid lack of raw materials for production.
- ✓ Hence, supply shortages are eating into the margins of businesses due to an uptick in costs for companies in industries from furniture to food.
- ✓ Malaysian inflationary pressures have also been rising as of late despite the low base effect has diminished.
- ✓ The Producer Price Index (PPI) has been increasing by a double-digit growth since April this year (October: 13.2% vs. September: 12.3%). This would translate into higher consumer product prices.
- ✓ We have carried out the Granger Causality test which confirms this relationship. Further details can be found on page 6 and 7.
- ✓ As such, we can see that the Consumer Price Index (CPI) went up by 2.9% y-o-y in October from 2.2% previously.
- ✓ As the emergence of new variant could lead to another round of lockdown measures, we anticipate business would be forced to halt their operations.
- ✓ This could stretch global supply chain further and spike in products prices.

The relationship between PPI and CPI

Results Output from VAR Granger Causality Test from Eviews:

VAR Granger Causality/Block Exogeneity Wald Tests
 Date: 11/16/21 Time: 14:45
 Sample: 2015M01 2021M09
 Included observations: 79

Dependent variable: PPI			
Excluded	Chi-sq	df	Prob.
CPI	1.353129	2	0.5084
All	1.353129	2	0.5084

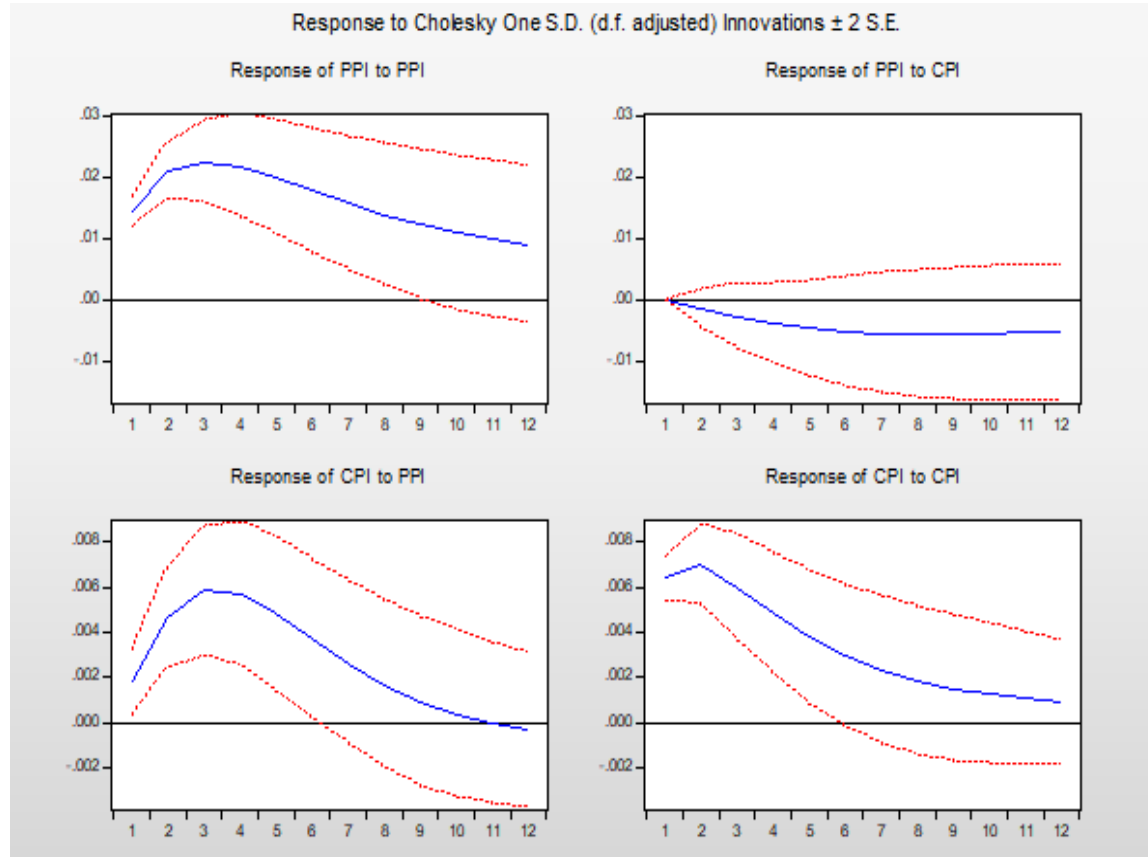
Dependent variable: CPI			
Excluded	Chi-sq	df	Prob.
PPI	12.78880	2	0.0017
All	12.78880	2	0.0017

Null Hypothesis	p-value	Decision	Outcome
PPI does not Granger Cause CPI	0.0%	Reject the null hypothesis	PPI does cause CPI
CPI does not Granger Cause PPI	50.8%	Do not reject the null hypothesis	CPI does not cause PPI

Sources: Eviews, Bank Islam

- ✓ The price movement in goods and services is mainly measured by the price index, namely the CPI and PPI.
- ✓ As we want to know the relationship between both indicators, it is important to examine the causality between CPI and PPI via the Vector Auto Regressive (VAR) Granger Causality test.
- ✓ Findings from the VAR Granger Causality test indicate that PPI does have a causality towards CPI but not vice versa. This means that PPI is one-way causality of CPI.
- ✓ This is somewhat logical as PPI are prices from factories which are sometimes passed down to consumers which is later reflected in the CPI.

Synthesis of Impulse Response Function:

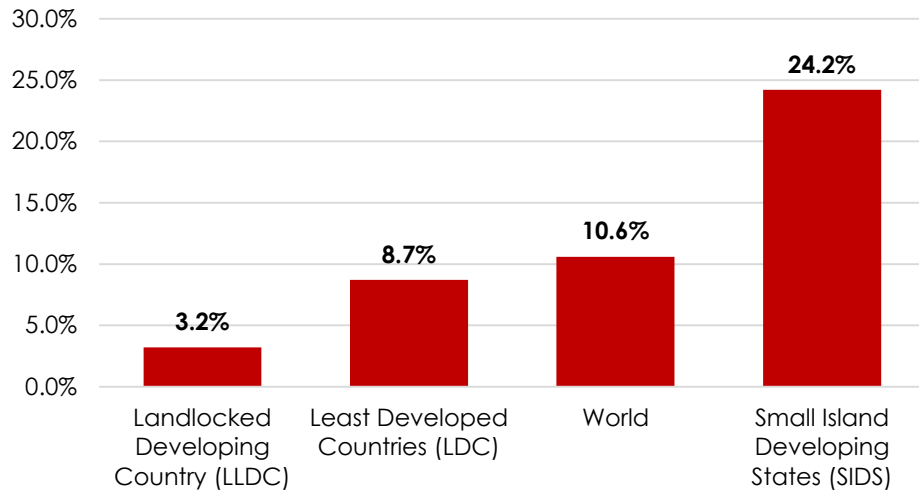


Sources: Eviews, Bank Islam

- ✓ In order to understand the impact of movement in the PPI on the current and future values of the CPI, impulse response function (IRF) is being used to analyse the response of CPI to PPI.
- ✓ Based on our findings, the PPI has a certain impact on CPI.
- ✓ Referring to the chart on the bottom left, a one standard deviation shock on the PPI would increase the CPI within three months and then begin to slowly decline in the remaining months.
- ✓ This suggests that the CPI would respond immediately during the first three-month period, indicating that the PPI has a short-term impact on CPI.

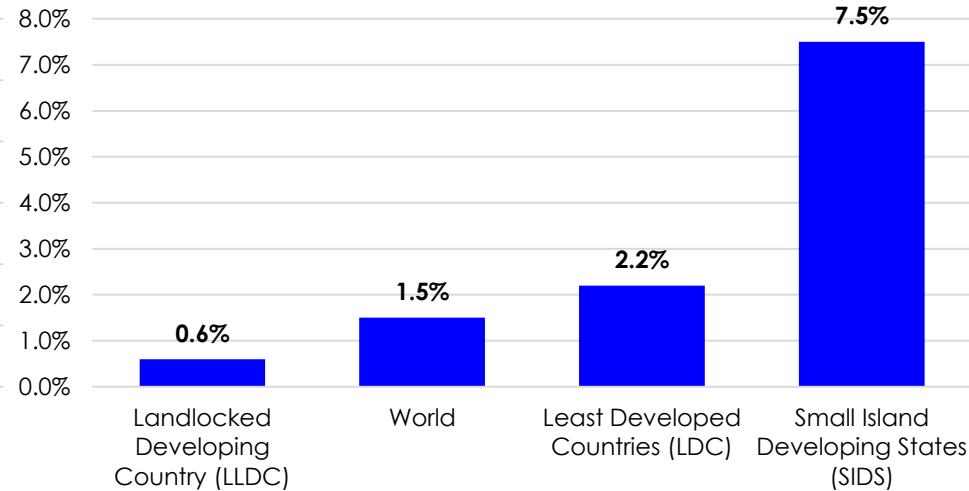
HOW THIS WILL IMPACT US? (CONT'D)

Simulated impact of container freight rate surge on import price increases, %



Source: UNCTAD Review of Maritime Transport 2021

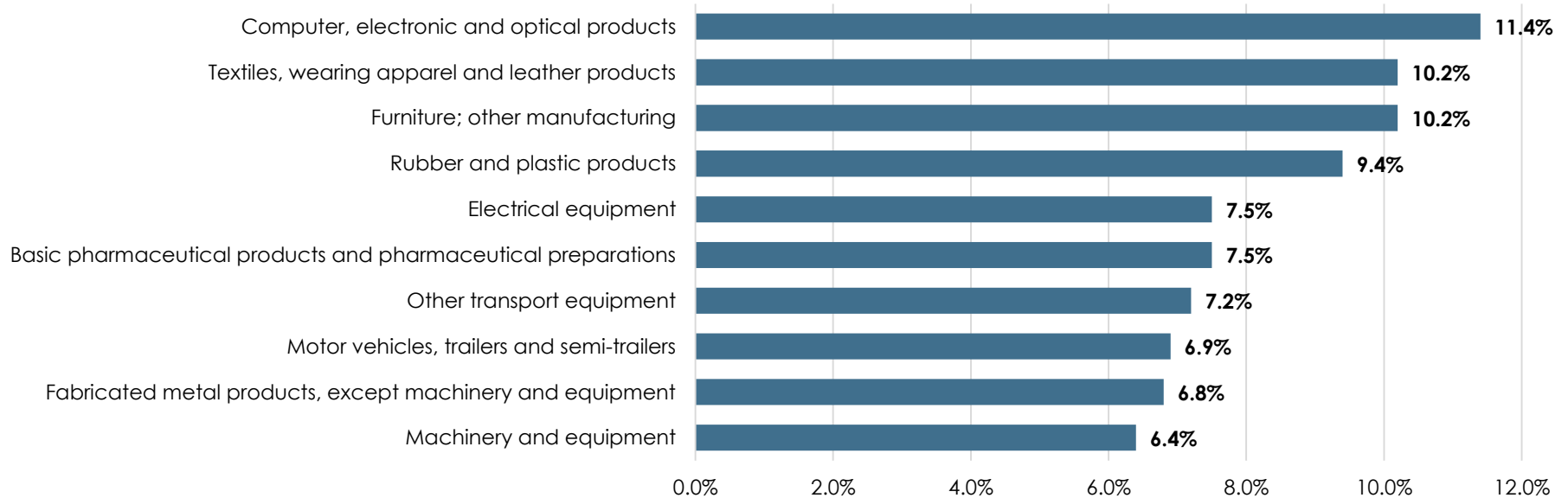
Simulated impact of container freight rate surge on consumer price increases, %



Source: UNCTAD Review of Maritime Transport 2021

- ✓ If the surge in container freight rates is sustained, both import and consumer prices could face a significant increase.
- ✓ According to a study by the United Nations Conference on Trade and Development (UNCTAD), world import price levels are expected to increase on average by 10.6% until end of 2023 as a result of the freight rate increases.
- ✓ Hardest hit will be the small island developing states (SIDS) who depend on their merchandise imports primarily via maritime transport and who are simulated to face a cumulative increase of 24.2% with a time lag of about a year.
- ✓ World consumer prices are projected to be 1.5% higher in 2023 than they would have been without the freight rate surge if the freight rates are sustained at elevated levels. Meanwhile, the impact is expected to be more significant for smaller economies particularly SIDS that depend heavily on imported goods for much of their consumption needs.

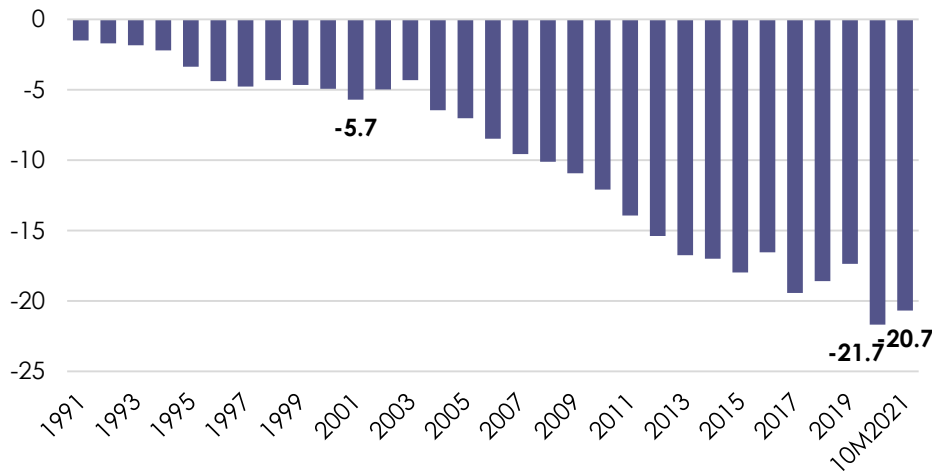
Simulated impacts of the container freight rate surge on consumer price levels by top 10 products, %



Source: UNCTAD Review of Maritime Transport 2021

- ✓ Higher freight rates have a greater impact on the consumer prices of some goods than others, notably those which are more highly integrated into global supply chains such as computers electronic and optical products.
- ✓ These often have to be shipped from East Asia towards consumption markets in the West with correspondingly higher shipping costs.
- ✓ Other goods for which surging freight rates are likely to increase consumer prices include low-value-added items such as furniture and textiles, wearing apparel and leather products.
- ✓ Production of such goods is often fragmented across low-wage economies remote from major consumer markets.

Trade Deficits of Foodstuff, RM Billion



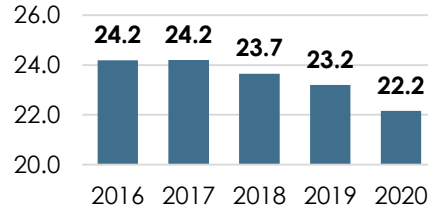
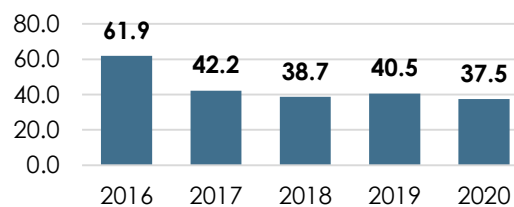
A Threat To Food Security

- ✓ Animal feed, fertilisers and pesticides also reported in shortages which have resulted in higher cost of farming and harvesting activities in future.
- ✓ Moreover, Malaysia' deficit in international food trade has been widening at a 7.7% 20-Year Compound Annual Growth Rate (CAGR) with a record-setting RM21.7 billion in 2020 in order to meet the country's consumers' needs and demands.
- ✓ Additionally, the SSR for certain food products are declining, affected by the Covid-19 health crisis.
- ✓ This shows that Malaysia is an import-dependent country that is easily exposed to risks posed by the prolong supply shortages that can exacerbate the threat on the nation's food security.
- ✓ Therefore, ongoing pandemic has amplified the food price shocks by severely hampering food production and distribution. This may increase the risk to the nation's food security.

Self-Sufficiency Ratio (SSR)

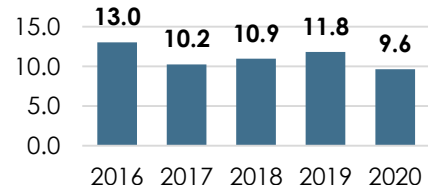
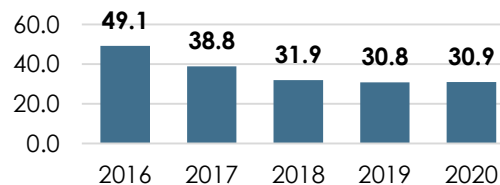
Round Cabbage

Beef



Chilli

Mutton



HOW CAN COMPANIES COPE WITH INFLATIONARY PRESSURES?

- ✓ To address the immediate challenges, companies can benefit **from launching procurement nerve centers** that illuminate supply-chain risks, control spending and accelerate collaboration.
- ✓ The nerve-center team may prioritise categories based on an exposure matrix considering inflation (or deflation) and the degree of exposure to the market forces as shown below.
- ✓ This approach yields a clearer view of which categories teams need to defend against inflation and which offer opportunities.

Procurement nerve centre's inflation exposure matrix

<p>High: spot buys or indexed contracts</p> <p>Degree of exposure towards inflation</p> <p>Low: non-indexed contracts</p>	<p>Play offense</p> <ul style="list-style-type: none"> - Be prepared to lock in prices at the bottom of the cycle - Build strategic inventory. - Improve index formula, i.e. discount to index. 	<p>Defend</p> <ul style="list-style-type: none"> - Negotiate using long-term spending forecasts. - Broaden supply base, leveraging aggregated spending. 	
	<p>Capture incrementally</p> <ul style="list-style-type: none"> - Negotiate price reduction using cleansheets*. - Maximise spending on such non-indexed contracts. 	<p>Harvest</p> <ul style="list-style-type: none"> - Defend terms of contracts. - Max out any low priced contracts. 	
	Deflationary	Inflation	Inflationary

Source: McKinsey & Company article titled 'Responding to inflation and volatility: Time for procurement to lead'
 Note: Indexed contracts – contracts that include a periodic adjustment to the prices paid for the contract provisions based on the level of a nominated price index.

HOW CAN COMPANIES COPE WITH INFLATIONARY PRESSURES? (CONT'D)

- ✓ Another approach for companies to handle inflation is via a detailed embedded cost analysis about what is driving prices, what is happening with those cost drivers, and how to use these insights in negotiations. Below are the types of questions that can be used in embedded cost analysis.

Discount below raw-material spot and index prices.

Can suppliers provide discounts relative to the market through improved supply and demand planning?

Embedded raw-material-price reduction.

Do product-volume increases create opportunities for suppliers to get raw-material discounts from sub-suppliers?

Markup harmonization.

Does the markup vary across products?

Weight and content validation.

Does the price increase align with the amount of inflationary material?

Scrap rate and material utilization.

Is material usage fully optimized?

Source: McKinsey & Company article titled 'Responding to inflation and volatility: Time for procurement to lead'

- ✓ A detailed analysis of the supplier's embedded costs could help reveal if the supplier had significantly overstated raw materials' share of overall price economics. Applying this insight in negotiations, the company may be able to mitigate the proposed price increases in the future.

New variant of Covid-19

- ✓ The Omicron variant which was first detected in South Africa has wreaked havoc across the world. The World Health Organization (WHO) has already categorised it as a variant of concern (VOC) that has been found in at least 48 countries including Malaysia that recorded its first case on 3 December.
- ✓ The emergence of the new variant could hurt global growth prospects, especially as it comes during a period of already stretched supply chains, elevated inflation and labour market shortages.

Necessary policy intervention

- ✓ In light of stronger global commodity prices, government plays a vital role to combat rising inflation by addressing necessary policy to correct any inefficiencies in the market.
- ✓ As such, Malaysian government has decided to spend up to RM8.0 billion in subsidies for cooking oil and fuel to reduce such impact on the people's cost of living.
- ✓ The subsidies allocation will then be used to maintain ceiling prices which have been set for RON95 petrol, diesel, as well as liquefied petroleum gas (LPG).
- ✓ In addition, the government also has put aside over RM31.0 billion specifically for agricultural subsidies and incentives as announced under Budget 2022 recently.
- ✓ With this in mind, such policy intervention can prevent abrupt price hikes the wake of supply shortages of goods and services.

OUR VIEW (CONT'D)

Monetary policy tightening

- ✓ The Federal Reserve (Fed) Chairman, Jerome Powell has opined that inflation is no longer transitory while signaling support for a quicker tapering schedule thus, open the door to hike interest rates.
- ✓ Such monetary policy is used as a benchmark for other countries to formulate theirs including Bank Negara Malaysia (BNM) which may tighten it next year.
- ✓ Nevertheless, should the Omicron variant is proven to be more highly transmissible and cause severe symptoms, the pathway to monetary normalisation could face some setbacks.

Global supply chain is not going away just yet

- ✓ The industry's supply chain disruptions do not seem to show signs of abating. According to the Oxford Economics survey of 148 businesses from 18 October to 29 October, nearly 80.0% of respondents said they expect the supply crisis still has scope to worsen.
- ✓ Moreover, China remains committed with its zero-Covid policy (ZCP) and it will not relax regulations due to the policy which includes the seven-week quarantine for cargo ships crew, as well as the ban on crew changes for foreign seafarers.
- ✓ With that, supply chains constraints will continue to weigh on the manufacturers' ability to deliver within the usual timeline. For instance, waiting times for chip deliveries have continued to climb above the healthy threshold of 9 to 12 weeks.
- ✓ The Wall Street Journal cited an observation by the Pennsylvania-based trading and technology firm, Susquehanna Financial Group that over summer, the waiting time for chip deliveries stretched to 19 weeks on average. However, as of October, it has escalated to 22 weeks.
- ✓ As such, the ship shortage will likely last until 2023, according to Wells Fargo Investment.
- ✓ In short, issues surrounding the supply bottleneck will take a while to be resolved. Given that prices are sticky downward, it remain to be seen whether prices of goods and services can be corrected once the issue has been fully addressed. As such, expect inflation and cost of living to stay elevated in the foreseeable future.

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