

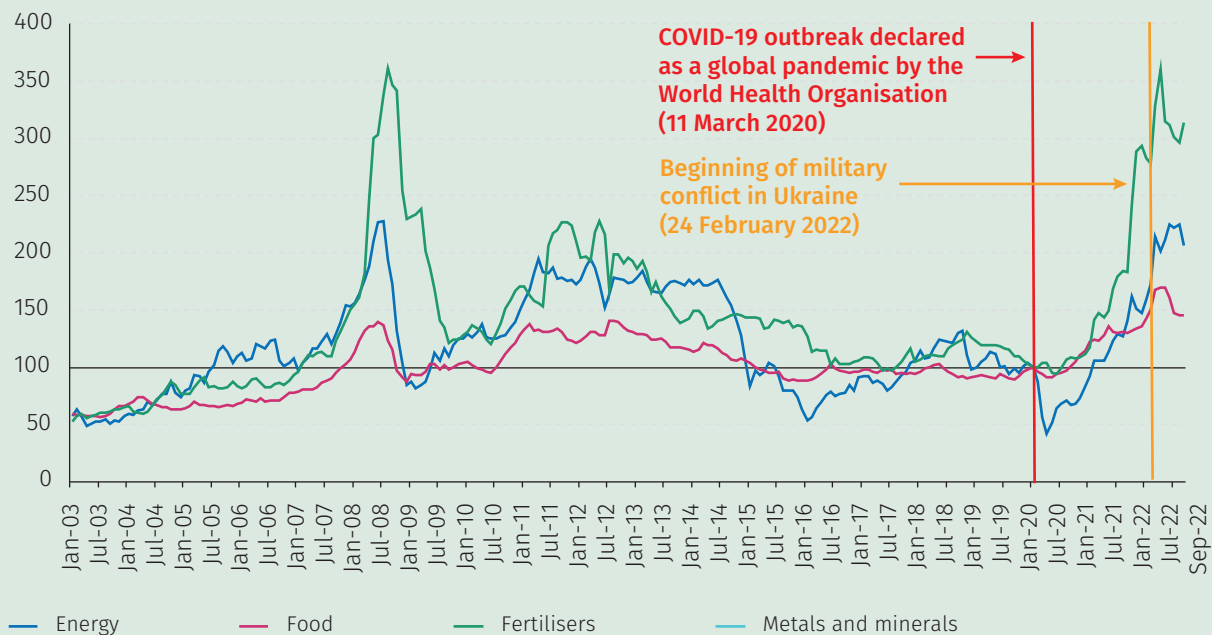
Global Commodity Price Trends, Inflation Dynamics, and Policy Responses: The Case of Malaysia

Introduction

Global energy and non-energy commodity prices surged to historical highs early this year with the unfolding of the military conflict in Ukraine (Chart 1). This came on the heels of a broad-based uptrend, apparent since the middle of 2020, which reflected the confluence of a rebound in global demand, production shortfalls, and supply-chain disruptions.

C1 Key Global Commodity Prices

Index based on nominal US dollars (January 2020=100)



Note: Energy comprises coal, crude oil, and natural gas. Food comprises cereals, vegetable oils and meals, and other foods (sugar, bananas, oranges, beef and chicken meat).

Source: World Bank Commodity Price Data (The Pink Sheet). Updated on 4 October 2022.

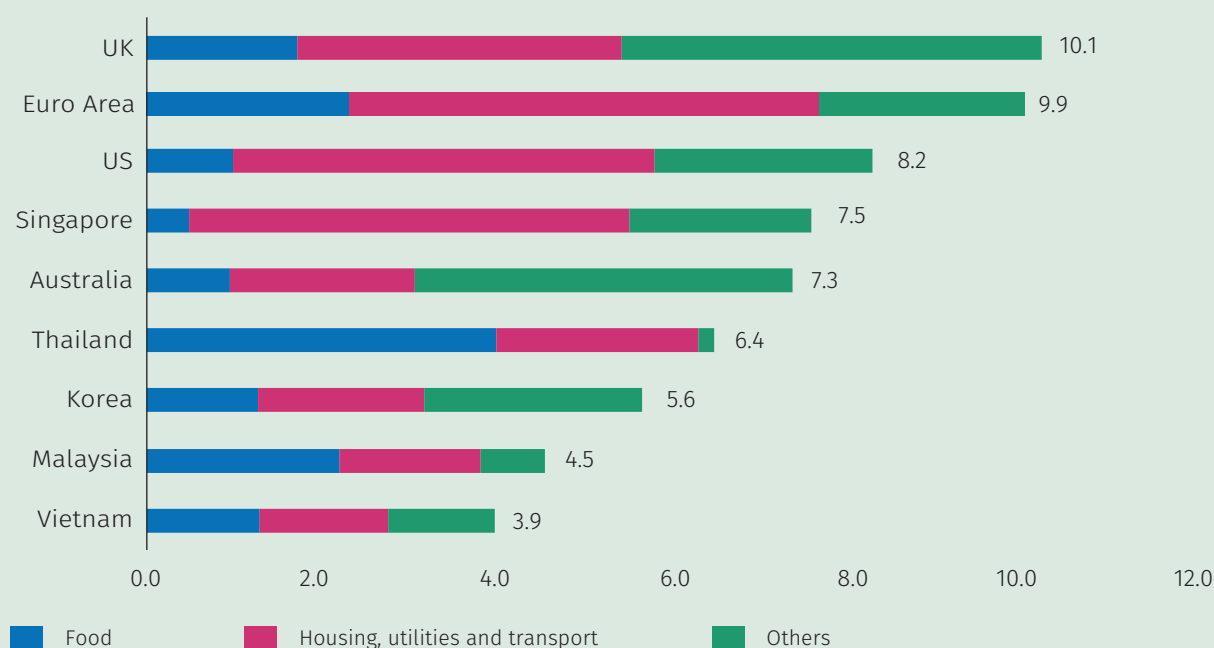
Most countries have experienced higher headline inflation this year, driven mainly by increases in energy and food inflation (Chart 2), with pass-through to core inflation. However, the exposure to and impact from elevated global commodity prices vary across countries. Supply-demand imbalances were also a key factor at play in the evolution of overall domestic inflationary pressures, and thus core inflation. Given this, policy responses to manage inflationary pressures have somewhat differed across countries as they transitioned to normalcy in the aftermath of COVID-19 and dealt with novel reopening effects.

This article presents the channels through which global commodity prices affect inflation in Malaysia. It then discusses current domestic inflation dynamics, and the factors that continue to set our country apart from others. This article also examines the risk of runaway inflation in Malaysia.¹ Finally, it provides an insight into the monetary policy recalibration by the Bank's Monetary Policy Committee (MPC) in 2022, and its interaction with other macroeconomic policies.

C2

Drivers of Headline Inflation in Selected Countries

Percentage points



Note: Inflation rates are for September 2022, except 3Q 2022 for Australia.

Source: IMF Consumer Price Index Database, Eurostat Harmonised Index of Consumer Prices Database and Bank Negara Malaysia estimates.

Propagation channels of global commodity prices to domestic inflation²

The transmission of global commodity prices to Consumer Price Index (CPI) inflation can be explained in terms of stages and channels – direct and indirect (Chart 3). **Stage 1** relates to the proportion of import content in the CPI basket, and therefore the global to domestic pass-through of commodity prices. If the import content exposure is high, consumer prices would more likely be impacted by a more significant increase in commodity prices. Both direct and indirect channels are at work here -- how global commodity input prices propagate directly through imported finished goods and indirectly through imported raw and intermediate inputs that affect production cost of domestically produced items in the CPI basket.

Prices of consumption goods that are largely commodity-based or heavily reliant on imported commodities would naturally track the trends in global commodity prices quite closely. Examples of such goods are energy and non-cooked food items.³ However, some of these commodity-based essential consumer goods are also subject to price controls and subsidies in the domestic market, which dampen the pass-through of commodity price increases. Goods which are subject to price controls and subsidies currently include RON95 petrol, diesel, electricity, gas, and selected categories of chicken, eggs, sugar, palm-oil based cooking oil, and wheat flour (estimated to affect slightly less than 13% of the CPI basket).

¹ Runaway inflation is defined here as persistently high inflation. For example, 1970s style inflation (Poole, 2005).

² Higher commodity prices may affect the macroeconomy through three channels – inflation, changed production patterns, and terms of trade effects (Igan et al., 2022). This article focuses on the first of these though the latter two may indirectly affect inflation through growth and income effects. For example, as a net commodity exporter, Malaysia's terms of trade has experienced a positive shock amid elevated commodity prices.

³ Examples of non-cooked food items include (but not limited to) fresh and frozen meat, grains, and fruits.

Aside from global prices, the impact of commodity prices, either through the direct or indirect channels, may be dampened or amplified by exchange rate movements and international freight costs.

Generally, the relatively limited dependency on imports partly mitigates the impact of global commodity prices on firms' costs and domestic prices. Imported finished goods make up about 16% of the CPI basket of the average household.⁴ Half of this is fuel, which is subject to price administration. From the supply side, based on the Input-Output Tables 2020 for Malaysia, intermediate imported inputs account for about 12% of total gross output. Meanwhile, the Import Producer Price Index (PPI) accounts for 29% of the total PPI basket.⁵

Stage 2 relates to the perpetuation of the indirect channel, that is the domestic pass-through of the higher production costs induced by increases in commodity prices. The more commodity price changes pass through downstream to a broad range of goods and services used in production and operations (for instance, across various intermediate and finished materials, transportation, logistics, and utilities) the more likely will spillovers be observed in consumer goods and services. Subsequently, a more broad-based increase in prices may become evident.

Besides the cost structure factor from Stage 1 (import content exposure and magnitude of commodity price increase), other factors that influence this pass-through to producer and consumer prices⁶ include firms' profit margins and the overall cost environment, market structure, and underlying demand conditions – all of which could be inter-related. The extent of pass-through may be partly mitigated when firms absorb the higher costs to retain market share; to follow international business strategies (pricing to market); or while weighing demand conditions. Firms may also seek to improve their margins (see Bank Negara Malaysia (2011, 2015) for further details).

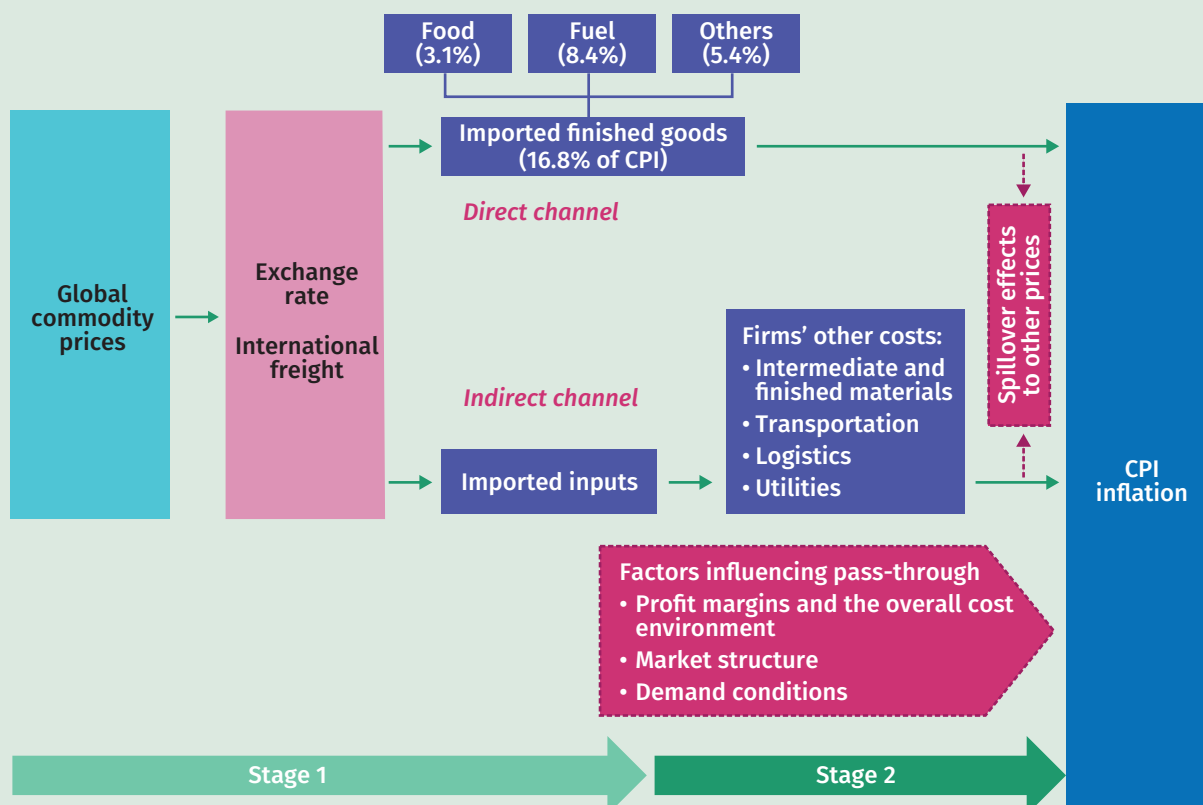
Taken together, these factors have affected Malaysia's inflation dynamics over the past two years. Price increases were generally subdued in 2021, despite rising costs (that is, Stage 1 saw price increases, but the transmission to Stage 2 was relatively muted).⁷ The pass-through of prolonged elevated costs (in Stage 2), however, became more apparent in 2022, amid recovering demand conditions and competition influencing pricing decisions. The nuances to this are explored further in the box below, "From broiler farm to "nasi campur"".

⁴ While imported content in the CPI basket is what matters most for gauging the impact of commodity prices on inflation, it is also useful to note that other indicators also point to a relatively low share of imports in consumption namely: imported finished consumption goods constitute around 8% of total imports, and 10% of private consumption respectively (Source: Department of Statistics, Malaysia (2022a, 2022b) and Bank Negara Malaysia estimates).

⁵ The Producer Price Index (PPI) for the *domestic economy* encompasses 70.89% of local production and 29.11% of imports based on 2015 Economic Census and import value data (Department of Statistics, Malaysia, 2021). Given the larger share of local production, the overall exposure to global commodity price and exchange rate shocks is relatively manageable.

⁶ Other than administered prices.

⁷ During the imposition of full lockdown in 3Q 2021, the share of CPI items recording unchanged prices averaged at 62.9% compared to the 2011-2019 average of 33.2%.



Note: Adapted from Bank Negara Malaysia (2011, 2015).

Source: Department of Statistics, Malaysia and Bank Negara Malaysia estimates.

From broiler farm to “nasi campur”

To better illustrate the channels and interlinkages associated with the transmission of global commodity prices to domestic consumer prices, this section focuses on domestic chicken meat production. It highlights that the higher inflation in “nasi campur” cannot be traced directly or solely to imported commodity costs. Instead, this higher inflation rate broadly reflects the aggregated effects of the cost environment (including the pass-through of commodity prices along the supply chain) and demand conditions.

The cost of poultry feed, mostly made from imported grains and soybean meal, constitutes the largest proportion of the total variable cost of broiler production (see Chart 4).⁸ These costs have risen steadily, reflecting global grains inflation which averaged 21.9% from January to September 2022 (2011-19 average: 0.5%),⁹ exchange rate movements and international freight costs. The increase in feed prices reflects the **Stage 1** pass-through described earlier. To a lesser extent, the impact of commodity prices on the total variable cost of broiler production is also transmitted through utility cost. Electricity cost rose following the imposition of a surcharge on electricity consumption by commercial and industrial sectors this year.¹⁰ The surcharge reflected the increase in global coal prices that has increased the cost of electricity production (Tenaga Nasional Berhad, 2022).

⁸ Based on Abdurafi et al. (2017). The data referenced is the feed cost share of total variable cost for centre, Peninsular Malaysia.

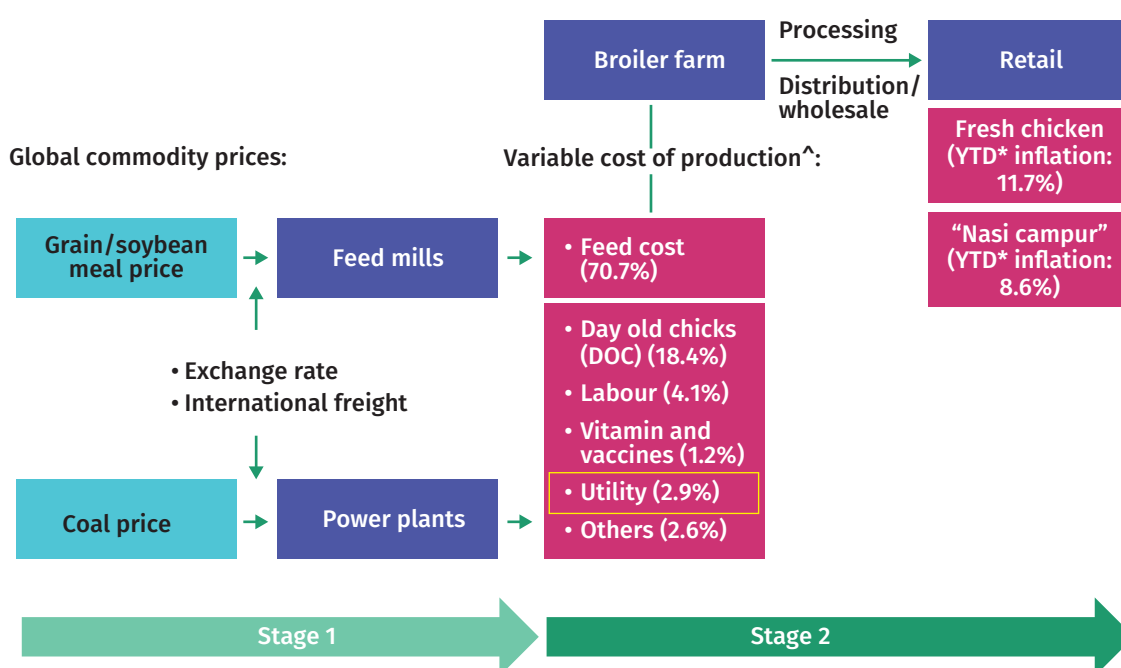
⁹ Source: World Bank Commodity Price Data (The Pink Sheet).

¹⁰ 3.70 sen per kWh under the Imbalance Cost Pass-Through (ICPT) mechanism beginning 1 February 2022 till 31 December 2022.

Considering all these cost factors, fresh chicken prices have increased. To contain chicken prices from escalating beyond control, the Government imposed price ceilings on standard chicken and rolled out producer subsidies since February 2022. Export restrictions were put into effect since June 2022.¹¹

Despite the Government's efforts, fresh chicken inflation averaged 11.7% from January to September 2022 (2011-19 average: 2.1%). The rise in fresh chicken inflation has caused higher food away from home inflation, for example, for chicken rice, cooked chicken, and "nasi campur" (mixed rice) dishes.¹² This illustrates the **Stage 2** pass-through (see also Chart 3) with the spillover of the price of a finished good (fresh chicken), which has an essential input that is commodity-based, to non-commodity related consumer services (food away from home).

C4 Global Commodity Prices to Local Chicken and "Nasi Campur" Prices



[^]Source: Abdurrofi et al. (2017).

^{*}Source: Department of Statistics, Malaysia. YTD refers to average inflation from January to September 2022.

¹¹ Export restrictions have been gradually lifted since October.

¹² Average inflation rates from January to September 2022 for chicken/duck rice, cooked chicken, and mixed rice were 5.8%, 5.8% and 8.6%, while their 2011-19 averages were 3.3%, 3.6% and 4.1% respectively. See also monthly publications by the Department of Statistics, Malaysia on the CPI (Department of Statistics, Malaysia, 2022c).

Current inflation dynamics: Cost and demand drive higher inflation in some segments; upside partly contained by country-specific factors

"Overshooting" in some CPI categories reflects sensitivity to a high-cost environment and the release of pent-up demand

Recent inflation dynamics largely reflect the pass-through of relative price changes¹³ to aggregate inflation (first-round effects). These relative price changes are associated with spillovers from salient¹⁴ price increases (in particular, higher prices associated with energy and food-related inputs).

¹³ Relative price changes reflect adjustments in prices that arise from fluctuations in the supply and demand of specific goods and services. These adjustments can be fairly broad-based when related to products like oil and food that enter the production chain for a wide range of other goods and services (Humpage, 2008).

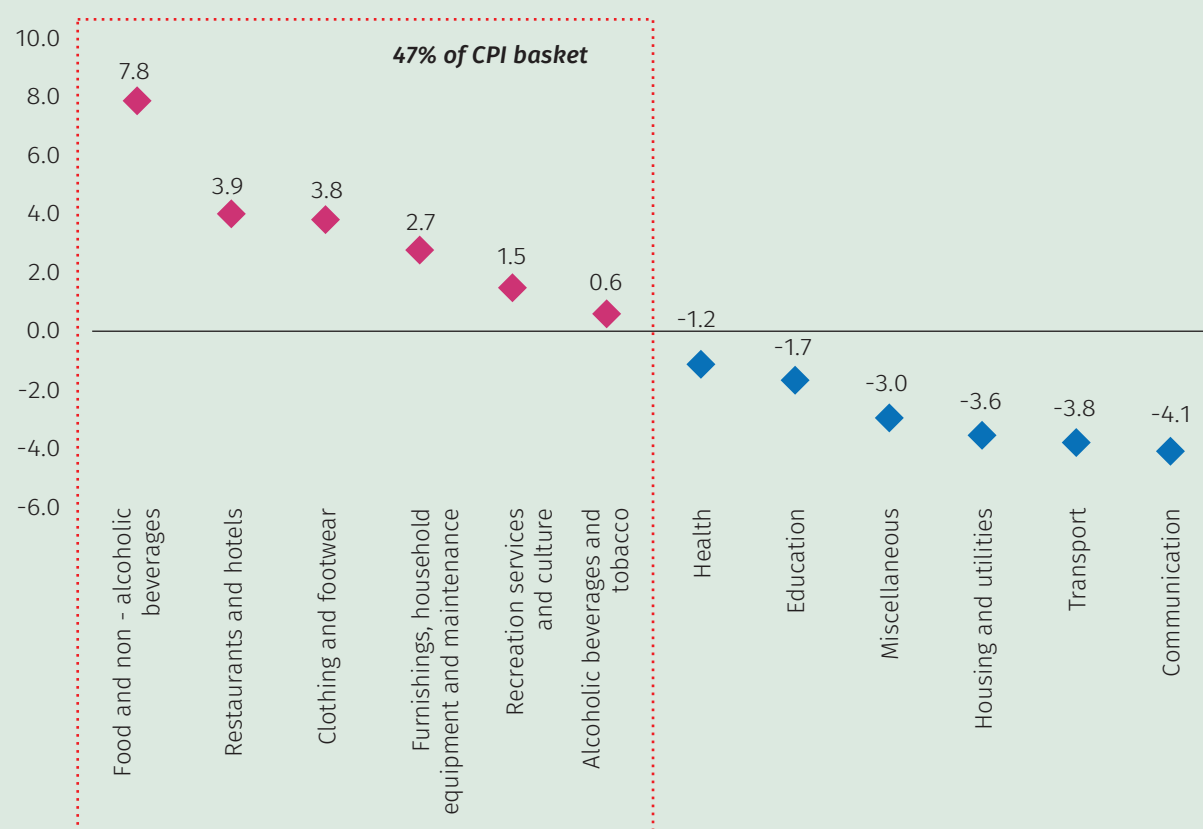
¹⁴ Price changes which are more important for consumers, and could potentially have a larger bearing on the overall price trend (Bank for International Settlements, 2022). This could be due to their pervasive role in production chains (for example, energy prices) or their weight in consumption baskets (for example, food).

About half (47%) of the CPI basket currently have experienced overshooting inflation rates (Chart 5). *Food and non-alcoholic beverages*, with a weight of 29.5%, contributed around 50% on average to higher inflation this year, and reflects both higher *food at home* and *food away from home* inflation. In the context of propagation channels, the higher *food at home* inflation mainly reflects the Stage 1 transmission amid elevated global commodity prices. Meanwhile, cost pressures reflected in the *food at home* inflation had seeped into the *food away from home* inflation, in turn more reflective of Stage 2 transmission, where input costs in food services are indirectly affected by higher commodity prices. Essentially, the propagation via Stage 2 is more likely to dominate when inflation becomes more broad-based in the economy, given the factors affecting pass-through. Of great significance here, the most important factor here is the strength in underlying demand conditions, namely, the reopening of the economy, better employment and income conditions, and improvements in tourism activities. The recovery in demand allows producers and firms to pass on the higher costs.¹⁵ Our earlier box article has shown that, *food away from home; restaurants and hotels; and recreation services and culture* were “sensitive and negative” during the pandemic (Bank Negara Malaysia, 2021). This implies that prices were generally subdued during the lockdown but would subsequently rebound when economic activity resumed post lockdown and were found to be, therefore, relatively more susceptible to pent-up demand.

C5

Difference Between Actual and Trend Inflation Rates for Broad CPI Categories

Percentage points¹



¹ Based on the difference between actual inflation rates in September 2022 versus the implied growth from linear extrapolation of the pre-pandemic (2019) trend of CPI categories at the two-digit level.

Source: Department of Statistics, Malaysia and Bank Negara Malaysia estimates.

¹⁵ When demand is relatively inelastic (insensitive to price changes), firms may choose to pass on higher costs to consumers, for example, for food at home, which comprises necessity items.

Going forward, the risk of lingering cost shocks has risen in light of the stronger US dollar environment.¹⁶ This would impact the cost of imported goods, particularly internationally traded commodities, though this may be partially offset by the possible moderation in global commodity prices.^{17, 18}

All in all, the high-cost environment and recovering demand suggest that inflationary pressures could continue—where relative price changes associated with intermittent cost shocks continue to have an impact on aggregate inflation. There are, however, offsetting factors. These are discussed further in the next section.

Administered prices, manageable supply-demand imbalances, and a limited impetus for wage-price spiral dynamics will continue to restrain runaway inflation

A key factor that has kept inflation relatively manageable is that despite the sharp increase in global energy commodity prices, inflation in domestic energy prices (retail fuel, electricity, and gas) has been relatively subdued due to subsidies. The food-related price controls which target key necessities, and a reasonable level of self-sufficiency across food items, have also helped to partly shield Malaysia from elevated imported input prices amid the environment of a stronger US dollar. This has, however, impacted the Government's budget. In 2022, cost of subsidies and social assistance is estimated to be RM 58.9 billion, compared to RM 23.0 billion in 2021 (Ministry of Finance Malaysia, 2022).

Second, the extent of supply-demand imbalances is relatively manageable. Differences with other economies include the timing, pace, and magnitude of the recovery due in part to the degree of policy support during the height of the COVID-19 pandemic, and labour market tightness (Bank Negara Malaysia, 2021). While conditions have been improving post economic reopening, there remains some slack in the overall labour market. The unemployment rate stood at 3.7% in August 2022, still higher than the rate of 3.3% in February 2020, just before the imposition of the nationwide lockdown. This is largely due to the continued expansion of the labour force, in contrast to labour supply constraints observed in advanced economies. Nonetheless, latest indicators show that economic activity strengthened further in the third quarter, suggesting the presence of demand pressures that warrant a close monitoring.

Third, there is limited impetus for second round effects (that is, feedback between price and wage increases) to cause persistently higher inflation. Key triggers of this are inflation expectations and wage-setting behaviour. This is reflected in long-run inflation expectations not deviating much from its historical average (in the absence of an inflation target) (Bonatti et al., 2022). If inflation expectations are well-anchored, households would “look through” temporary jumps in inflation as they trust that the central bank can rein in high inflation (Goel and Tsatsaronis, 2022). As of 3Q 2022, Malaysian households' long-run inflation expectations were edging lower towards the 2017-2019 average (Chart 6).¹⁹

¹⁶ Another factor potentially affecting inflation are changes to domestic policy measures, for example, in relation to subsidies.

¹⁷ World Bank Group (2022).

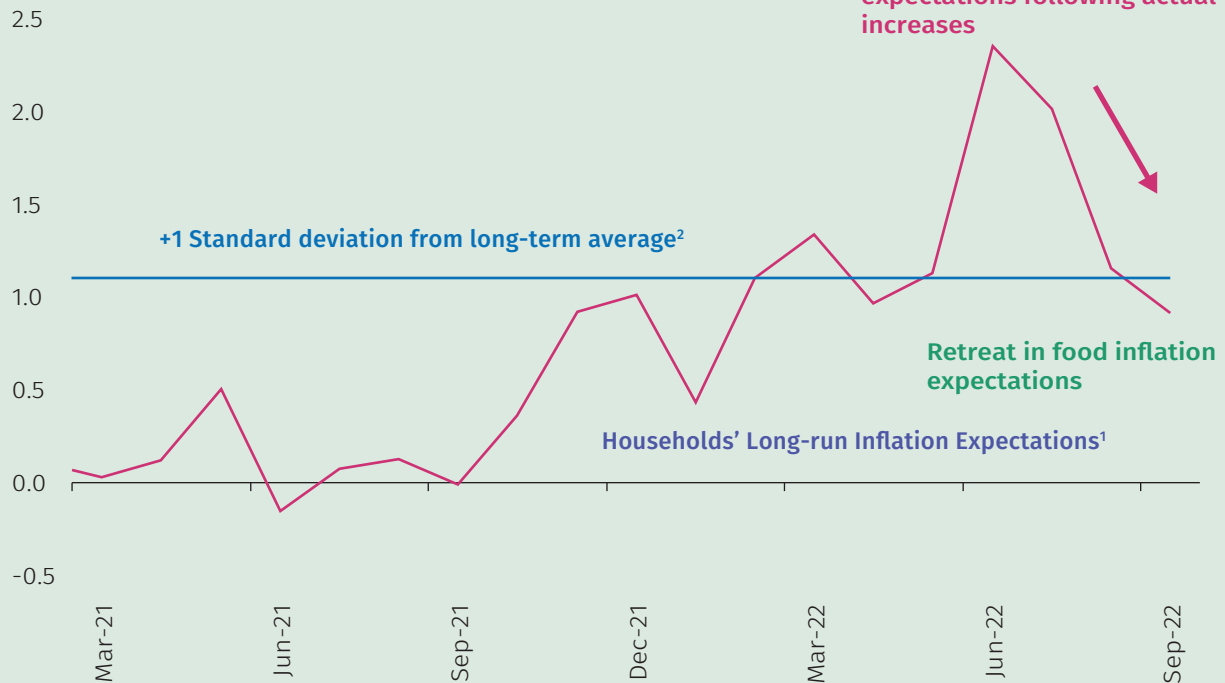
¹⁸ For example, global maize price declined by 10.1% to USD342.9 per metric ton on average in 3Q 2022 (USD 308.4 per metric ton in 2Q 2022) (World Bank Commodity Price Data (The Pink Sheet)) However, the equivalent Ringgit value declined by only 5.4% (from RM1511.6 to RM1430.3 per metric ton), given the MYR/USD depreciation of 4.9%.

¹⁹ Source: Bank Negara Malaysia Consumer Sentiment Survey.

C6

Deviation of Households' Long-run Inflation Expectations from Long-term Average

Percentage points



¹ Households' inflation expectations for 2-3 years ahead.

² Long-term average refers to the average of 2017-2019 households' long-run inflation expectations.

Source: Bank Negara Malaysia Consumer Sentiment Survey.

At this juncture, risks from wage-push inflation remain broadly contained for two key reasons. First, real wage per worker growth²⁰ is improving (2022 YTD.: -0.3%; 2021: -1.9%) and has not outpaced productivity growth²¹ (2022 YTD: 6.1%; 2021: 2.3%).²² This, together with continued slack in the labour market have set us apart in terms of labour market-driven inflationary pressures experienced in some other countries, where there is relatively more negative real wage growth and a tight labour market.

Second, structurally, the Malaysian labour market has been characterised by limited wage bargaining power on the part of workers. Wage-price feedback via wage indexation and strong labour unions is largely absent. Thus, the risk of excessive catch-up wage demands remains limited, notwithstanding the implementation of minimum wage hike in May 2022.

²⁰ Real wage per worker growth is calculated as growth in nominal wages per worker less inflation. The year-to-date growth for 2022 is the average for the first three quarters. Wage refers to private sector wages which comprise workers in the manufacturing and services sectors. Similarly for employment.

²¹ Productivity growth is calculated as GDP growth less employment growth. The year-to-date growth in 2022 is the average for the first three quarters.

²² While wage growth has not been excessive, a reversal in globalisation post pandemic could make inflation more responsive to labour market structure (Boissay et al., 2021).

Policy responses

Monetary policy is key but not the only policy lever to tackle the current inflation challenges; coordination with fiscal measures is vital

Monetary policy influences the whole economy with a lag;²³ while fiscal measures can be more targeted and used to address immediate challenges. With intermittent cost and supply shocks potentially on the horizon, coordination between monetary and fiscal policy is critical in tackling inflation – recognising the strength of each; and also so that neither is over-burdened or worse, cancels out the other.

With the recovery in domestic demand, signs of demand-driven inflation are closely monitored. The recent OPR adjustments help to pre-emptively manage the risk of excessive demand on price pressures. Further, the gradual adjustments in the OPR are necessary to avoid the need for stronger measures in the future, such as faster and steeper increases.

Similar to some other countries,²⁴ domestic price controls and subsidies have helped in alleviating cost-of-living pressures. These fiscal measures have afforded the Bank to be more measured in recalibrating monetary policy. These measures have alleviated some of the price pressures in necessity items, especially important for the vulnerable groups. In the absence or the reduction of these subsidies, there might have been more notable negative growth effects alongside higher inflation, posing a greater challenge for monetary policy.

The Bank recognises that prolonged reliance on untargeted fiscal support and subsidies would not be sustainable. These policies need to be managed judiciously so that: (i) supply shortages are mitigated, (ii) it does not fuel excess demand, (iii) fiscal space is preserved for future shocks, and (iv) rationalisation is designed in a manner that minimises disruptions to the economy. Over the long-term, structural reforms are needed to, among others, improve food security. This includes diversifying food import sources and improving agricultural productivity through greater use of technology.

Conclusion

Propagation of global commodity prices to inflation occurs through multiple stages and channels. It depends on the strength of the direct and indirect channels to domestic costs as well as other factors affecting price-setting behaviour such as demand conditions in the economy. In Malaysia, while administered price measures and signs of moderating global commodity prices help mitigate inflationary pressures, upside risks to inflation remain. Risk of higher inflation could materialise should demand continue to strengthen, and external shocks persist, such as the strong US dollar environment.

Monetary policy has been pre-emptively adjusted in part to avoid the need to be more aggressive down the road, in the case where upside risks to inflation materialise. Effective coordination between monetary policy and other policies is critical to continue to support sustainable growth in an environment of price stability.

Going forward, as part of the comprehensive analysis of inflation dynamics, areas that warrant ongoing and deeper research and surveillance include the role of business balance sheets and profit margins in determining cost pass through; adjustments to production and supply, including alternative sources of inputs and new investments by businesses to expand capacity; and pricing power amid changing demand conditions. These elements are crucial to enable a deeper understanding of price-setting behaviour and the mapping of the inflation trajectory.

²³ According to some estimates, it usually takes about one year for monetary policy to have the most effect on the economy. This is because it takes time for households and businesses to change their behaviours. Source: Bank Negara Malaysia (2022).

²⁴ Several countries in East Asia and the Pacific have some form of price controls or subsidies relating to energy and food items including Japan (which introduced fuel subsidies for the first time this year), the Philippines, Thailand, and Vietnam. See for instance, Batmunkh and Pfutze (2022), and Gencer and Akcura (2022).

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