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Inflation speed bumps on the road to a net-zero future

Three interlinked sources of inflation likely to be encountered in the decarbonisation pathway – fossilflation, greenflation and climateflation.

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For The Straits Times

The most immediate macroeconomic challenge facing policymakers in a post-Covid-19 world is to quell inflationary pressures and ensure that inflation expectations do not become entrenched.

Data from the International Monetary Fund's July 2022 World Economic Outlook projects global inflation this year to reach 8.3 per cent, averaging 6.6 per cent for advanced economies and 9.5 per cent for their developing counterparts, the highest inflation rate witnessed in decades. This global inflationary surge has impacted everyone, especially those in lower-income countries and lower-income households in developed countries.

Given its acute openness, Singapore too has inevitably not been spared, as headline inflation accelerated to 7 per cent in July 2022, in contrast to an average of 1.5 per cent over the last 20 years.

The former US Treasury secretary Lawrence Summers has attributed the lagged and initially inadequate inflation response by central banks, especially in advanced economies, to them having gone "woke" – as they ventured beyond their primary mandates of price and financial stability into politically charged areas like social justice.

Although central banks have not exactly covered themselves in glory and clearly misdiagnosed the persistence of inflationary pressures, the Summers critique is harsh. A confluence of factors weighed on price pressures as the global economy – which was already reeling from acute pandemic-induced supply disruptions and labour shortages – was hit by unanticipated adverse shocks, including the Ukraine-Russia conflict.

A gradual easing of supply constraints over time will lend to a much-needed moderation in energy and food prices. In addition, aggressive monetary policy tightening by central banks has begun to bite, slowing down overall demand and economic activity. As these factors take hold, global price pressures should begin to ease.

However, even as this happens, societies may have to accept somewhat higher inflation than what was experienced during the Great Moderation of the 1990s and 2000s due to other structural issues, including climate change-driven inflation arising from the net-zero transition.

In a speech delivered at Frankfurt in March this year, Professor Isabel Schnabel, member of the European Central Bank's Executive Board, delineated three interlinked sources of inflation likely to be encountered in the decarbonisation pathway – fossilflation, greenflation and climateflation. This classification is a useful way to think about the possible sources of inflationary pressures arising from a broad-based transformation of economies from carbon-intensive to low-carbon alternatives.

FOSSILFLATION

Current carbon prices globally, which average US$6 (S$8.37) per ton of CO_2, do not fully reflect the social cost of pollution. The IMF estimates that both their value and coverage will need to be raised substantially to around US$75 per ton of CO_2 by 2030 to achieve sizeable and rapid reductions in carbon emissions. A higher carbon price is essential to incentivise a shift in investments, jobs, and technological innovations from high-carbon and highly-polluting to low-carbon sectors.

However, in a world still heavily reliant on fossil fuels for most activities, such steep increases in carbon prices will inevitably push up global energy prices in the short and medium terms. This will subsequently feed into higher prices of consumer goods and services, thus leading to "fossilflation" or inflationary pressures arising from a continued overdependence on fossil fuels.

Even absent raising the price on carbon, the growing regulatory burdens imposed on fossil fuel industries have led to inadequate capital expenditures in oil and gas production over the past few years leading to rising energy prices. Although it would be misguided to place sole responsibility of current elevated inflation levels on the clean energy transition, this is a factor that will continue to create upside risks to inflation as economies undergo much needed but profound structural changes.

GREENFLATION

While the obvious solution to fossilflation is for economies to transition rapidly towards low-carbon sources of energy such as solar, wind, hydrogen and (perhaps) nuclear, such a transformation in production was never going to happen overnight.

Indeed, from a macroeconomic perspective, the sudden re-orientation of demand in recent times towards clean energy has far outpaced the growth of required capital expenditures in zero-carbon replacements, leading to "greenflation". Consequently, from the cost side, a decarbonisation of the energy mix has led to a sharp rise in prices of "green metals" (such as lithium, cobalt, nickel, and rare earth metals) as they take years to extract, process and refine, resulting in an acute mismatch between existing limited supply and burgeoning demand.

Geopolitical tensions could also contribute to supply chain disruptions over time with adverse greenflationary consequences as China and Chinese state-owned firms directly or indirectly control a significant global share of critical minerals needed for the green transformation. (This makes the emphasis by members of the Indo-Pacific Economic Framework (IPEF) on

A solar panel system installed in the village of Toula in northern Lebanon. Although it is not entirely correct to place the sole responsibility of elevated inflation levels on the clean energy transition, it is a factor that could still create upside risks to inflation as economies undergo much needed structural changes.
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