Box 1.3:

Drivers of Core Inflation in ASEAN+3

Headline and core inflation in the ASEAN+3 region have experienced multi-year highs since 2021. Inflation escalated due to pandemic-induced shifts in demand, global supply chain disruptions, labor shortages, and commodity price spikes due in part to the Russia-Ukraine conflict which escalated into a crisis. Headline and core inflation moderated in 2023, but remained elevated, surpassing long-term averages in most economies.

Nevertheless, headline inflation in ASEAN+3 rose at a slower pace and reached a lower peak compared to major economies outside the region, likely reflecting the lower pass-through of global commodity prices due in part to administrative price controls and subsidies (Figure 1.3.1). Similar to the United States, the euro area and other OECD economies, core inflation in ASEAN+3 has also moderated at a slower pace than headline inflation. In China, Japan¹, and the Philippines, the slower pace of disinflation in core inflation relative to headline inflation is more pronounced, with core inflation outpacing headline inflation for 7 to 9 months out of the first 10 months in 2023. At the same time, core inflation in ASEAN+3 now fluctuates in a range three times wider than before the pandemic. For some economies, the increase in core inflation range has even exceeded that of headline inflation.

To identify the drivers of core inflation, demand and supply factors are decomposed using the framework in Shapiro (2022).² Domestic demand was the main driver of core inflation for the region both before and after the pandemic for most economies.³ From 2010 to 2019, demand factors underpinned the core inflation dynamics in China, Hong Kong, Korea, and Singapore (Figure 1.3.2). In Japan, Malaysia, and the Philippines, core inflation was driven by both demand and supply factors, with demand factors being slightly more prevalent. On the other hand, supply factors dominated the core inflation dynamics in Thailand, mainly reflecting the fluctuation in international commodity prices.

In 2021 to 2022, the role of supply factors in driving core inflation in the ASEAN+3 region increased in line with the prevalence of supply shocks. Supply factors became the main driver of core inflation in China, Malaysia, and the Philippines, and a more significant driver in other regional economies. This shift was mainly due to a broad-based increase in input prices after supply shocks. Concurrently, domestic supply constraints and currency depreciation against the US dollar in the latter half of 2022 put more upward pressures on core inflation, on top of the recovery in demand with the reopening of economies.

Overall, in 2023, while supply pressures subsided as global commodity prices declined and stabilized, demand-side factors regained prominence as robust post-pandemic recovery supported inflation. Nevertheless, supply factors continued to contribute more than before the pandemic while core inflation remained sticky at high levels despite tighter monetary policy in most regional economies. Across ASEAN+3 economies, supply factors continued to dominate in Thailand and China. Conversely, demand became the primary driver for other regional economies, fueled by stronger economic growth, higher exports (Indonesia, Korea), robust domestic consumption recovery (Hong Kong, Japan, Malaysia, the Philippines, Singapore), and a rebound in tourism (Hong Kong, Indonesia, Japan) following the complete reopening of economies.

All in all, supply factors have become more important drivers of inflation in ASEAN+3, raising concerns about the limitations of conventional demand-focused interventions. Looking ahead, supply factors are expected to become more frequent and persistent due to global shifts, such as global value chain reconfiguration, diminishing demographic returns, and the transition toward a greener economy. Supply-side policy responses could thus see an increased role in inflation management.

This box was written by Megan Wen Xi Chong, Catharine Tjing Yiing Kho and Heung Chun (Andrew) Tsang.

^{1/} Core inflation for Japan refers to "core-core" inflation, which excludes fresh food and energy.

^{2/} See Kho, Chong and Tsang (2024) for details on the decomposition method.

^{3/} Given data limitations, inflation drivers for Indonesia before 2021 could not be assessed.

Despite the increasing complexity in distinguishing between supply and demand-driven shocks, monetary policy remains crucial for maintaining price stability by adjusting aggregate demand and anchoring inflation expectations. However, targeted supply-side policy responses, such as relaxing import restrictions or introducing temporary price subsidies, may be more effective in specific circumstances. Overall, a nuanced and coordinated approach to identify and manage the shifting demand and supply drivers across ASEAN+3 is essential for calibrated policy responses to achieve price stability.

Figure 1.3.1. US, euro area, OECD, and ASEAN+3: Headline and Core Inflation (Percent, year-on-year)



Source: National authorities via Haver Analytics; AMRO staff calculations.

Note: ASEAN+3 includes China, Hong Kong, Japan, Korea, Indonesia, Malaysia, the Philippines, Singapore, and Thailand. OECD here refers to OECD economies excluding the United States and economies in the euro area and ASEAN+3 to avoid double counting. Türkiye is also excluded to avoid skewing the regional data due to the idiosyncratic sharp depreciation of the lira.





Source: National authorities via Haver Analytics; AMRO staff calculations. Note: CN = China; HK = Hong Kong; ID = Indonesia; JP = Japan; KR = Korea; MY = Malaysia; PH = the Philippines; SG = Singapore; TH = Thailand.