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DEVELOPMENTS AND DYNAMICS IN GOODS AND SERVICES INFLATION

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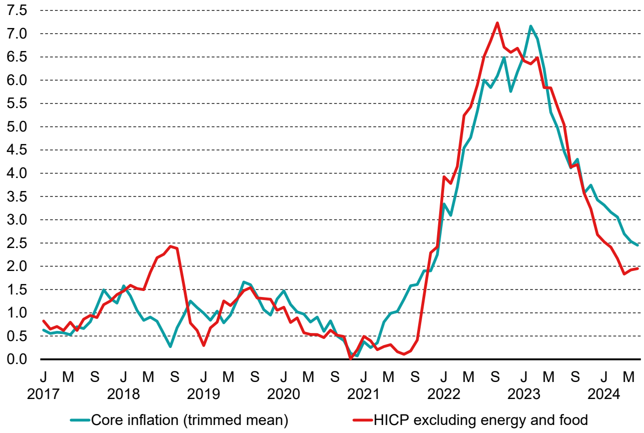
BOX 2: DEVELOPMENTS AND DYNAMICS IN GOODS AND SERVICES INFLATION[1]

Introduction

Chart 1
CORE INFLATION
(annual percentage change)



Sources: Eurostat; own calculations.

In the earlier stages of the surge in inflation, occurring towards the end of 2021, core inflation proved to be the main contributor to headline inflation. Indeed, services inflation moved from a period of negative contribution to being the largest contributor to overall HICP inflation. This was followed by NEIG inflation, whose contribution picked up strongly up until March 2023 and started to decline thereafter. Core inflation has been on a disinflationary path since the second quarter of 2023 (see Chart 1). However, while NEIG inflation has declined at a faster pace, services inflation has been somewhat sticky, and its contribution has remained elevated compared to its historical average.

This box focuses on the developments in NEIG and services inflation with the aim of a better understanding of the impact that goods and services inflation have on the disinflationary process and provide insights into the medium-term outlook for core inflation.

Recent developments in NEIG and services inflation

Charts 2a and 2b outline a time series as well as an estimated trend for services and NEIG inflation from 2011 up to 2026, covering the projection horizon. The trend was estimated using an exponentially weighted moving average (EWMA) of past inflation rates.[2]

The estimated trend for both services and NEIG inflation increased significantly since 2022. The estimated trend for NEIG inflation is estimated to remain elevated compared to the pre-COVID average of 0.7%, declining to 1.5% by 2026. NEIG inflation has experienced a fast decline throughout 2023, partly reflecting the easing of global supply chain pressures. This slowdown was evident across all major components with durable goods experiencing the strongest decline. In June, NEIG inflation stood at 1.1%, and this is projected to decline further to 1.0% by 2026, just above its pre-COVID average (see Chart 2a).

[1] Prepared by Maria Christine Saliba, Senior Economist within the Economic Projections and Conjunctural Analysis Office.
[2] See Banbura, M. and Bobeica, E. (2020). “Does the Phillips curve help to forecast euro area inflation?” In ECB *Working Paper* No. 2471. This approach assumes a “statistical” trend based on a weighted average of past inflation rates. A fixed smoothing parameter of 0.05 was used.

Chart 2a
NEIG
(annual percentage change)

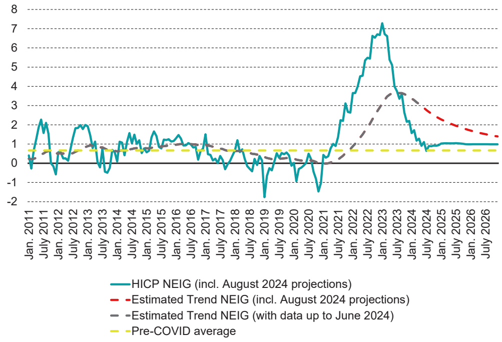
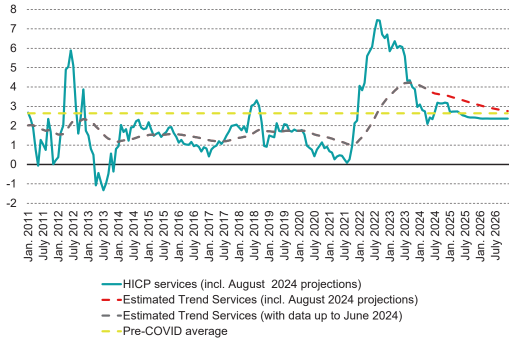


Chart 2b
SERVICES
(annual percentage change)



Sources: Eurostat; Central Bank of Malta; own calculations.

In the case of services, when considering the projections, the trend is estimated to gradually decline to 2.9% by 2026, which is marginally above the historical average observed pre- COVID. The decline in services inflation has been more gradual throughout 2023 when compared with that of NEIG, in part because housing and recreation prices experienced a much more sluggish decline than other items. Nonetheless, stickiness seems to have diminished during 2024. Indeed, in June, overall services inflation stood at 2.3%, 0.3 percentage point below its historical average experienced pre-COVID, driven by negative inflation in communication prices. While the flash estimate for July, standing at 2.7%, indicates a slight acceleration in services inflation, this is projected to gradually decrease to 2.4% by 2026 (see Chart 2b).

The relative price of services vis-à-vis NEIG

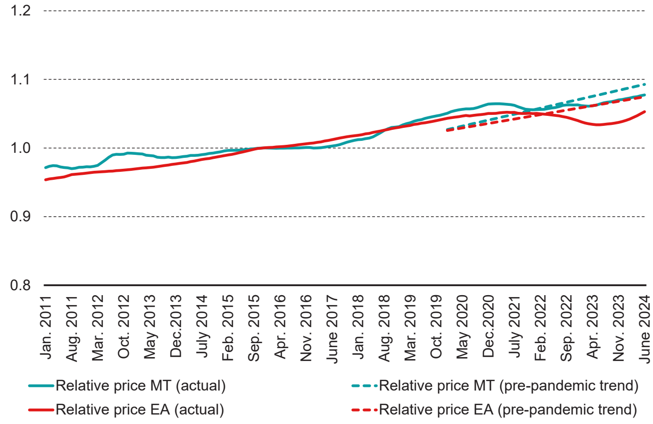
Prior to the COVID-19 pandemic, historical data indicated that the year-on-year growth rate of service prices was, on average, 1 percentage point higher than that of goods prices. This pattern highlighted an upward trend in the price of services relative to core goods, a trend observed in both Malta and the euro area.

As outlined in Amatyakul, Igan and Lombardi (2024),[3] this trend may reflect two main factors, the first being the higher income elasticity of demand for services. As income per capita rises, consumers tend to spend a larger portion of their income on services compared to goods, increasing the relative demand for services. This means that as people become wealthier, their spending patterns shift more towards services, leading to faster price increases in services components. In addition, this trend may also be explained by the Baumol cost disease effect. The latter principle suggests that wages in labour-intensive sectors like services tend to rise in line with those in more productive sectors, even if productivity in services does not increase at the same rate. This results in higher costs and prices for services compared to goods. However, the COVID-19 pandemic disrupted this long-standing trend. During the pandemic, goods prices began to rise more rapidly, driven by factors such as supply chain disruptions, and a shift away from the consumption of high contact services towards durable and semi-durable goods.

[3] See Amatyakul, P., Igan, D., and Lombardi, M. (2024), "Sectoral price dynamics in the last mile of post-Covid-19 disinflation" in BIS *Quarterly Review*, March 2024.

As illustrated in Chart 3, the relative price of services compared to goods in both Malta and the euro area remains marginally above 1, indicating that services still remain relatively more expensive than goods. However, both series stand below the pre-pandemic trend calculated, which is based on data between 2015-2019. This might suggest some structural changes in consumer preferences especially related to goods inflation.

Chart 3
THE RELATIVE PRICE OF SERVICES VS. NEIG
(Index 2015=1)



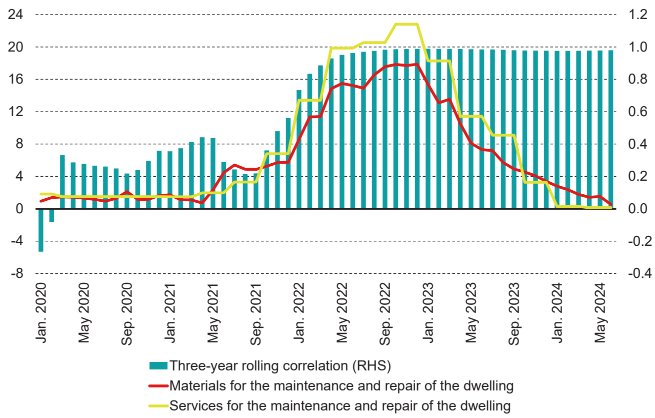
Sources: Eurostat; own calculations.

Correlation between NEIG and services inflation

The correlation between NEIG and services inflation has increased sharply throughout this period of high inflation. This reflects the indirect effects of NEIG inflation on services inflation, particularly housing maintenance services. This relationship underscores the interconnected nature of some goods and services in the economy, where inflation in one sector can spill over and drive-up prices in another. In particular, inflation for housing maintenance services soared to double digits throughout 2022, reaching a peak of 22.8% in the last quarter of 2022 before starting to decline. This surge was significantly influenced by an increase in prices of certain items forming part of NEIG.

Indeed, Chart 4 illustrates a strong correlation between prices for materials used for housing maintenance and housing maintenance services prices beginning in January 2022. Before this period, the correlation between NEIG inflation and housing maintenance services prices was weaker. However, from January 2022 to June 2024, the correlation averaged 0.96, indicating a very strong

Chart 4
INFLATION IN MATERIALS AND SERVICES FOR HOUSING MAINTENANCE
(annual percentage change)



Sources: Eurostat; own calculations.

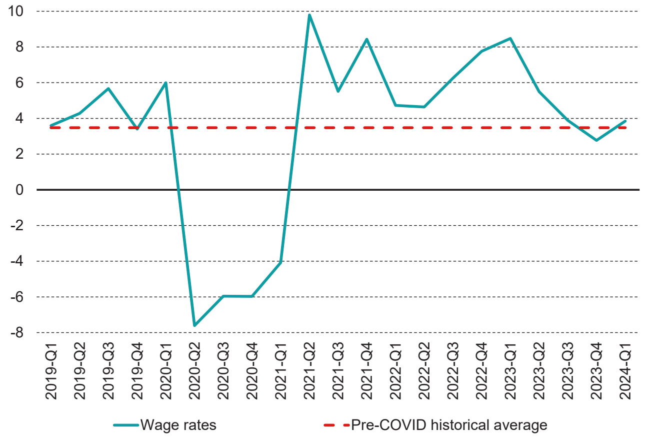
relationship between the two. This high correlation confirms the indirect effect NEIG inflation has had on services inflation, highlighting the reliance of these services on industrial goods. As the prices of materials started to rise in the second half of 2021, the costs for maintenance services also increased, suggesting that service providers passed on the higher costs onto consumers in the form of higher service prices thereby maintaining or increasing their profit margin.

Developments in wages and profits

Both wages and profits play an important role in understanding domestic inflation dynamics. Chart 5 shows the year-on-year wage growth (LFS annual basic salaries) since 2019, and the historical average evident prior to the pandemic. Following a period of negative growth rates during the COVID-19 pandemic, wages reached an all-time growth rate of 9.8% in the second quarter of 2021. Since then, wage growth has remained elevated compared to the historical average, however it has started to moderate since the second half of 2023. In the first quarter of 2024, wage growth stood at 3.8%, marginally above the historical average of 3.5%. Additionally, information gathered from the CBM Business Dialogue, suggests that firms are expecting significant wage increases for 2024, whereby the majority of firms interviewed outlined that they are expecting wage increases of more than 5%. If such wage increases materialise, this could put upward pressure on services inflation going forward.

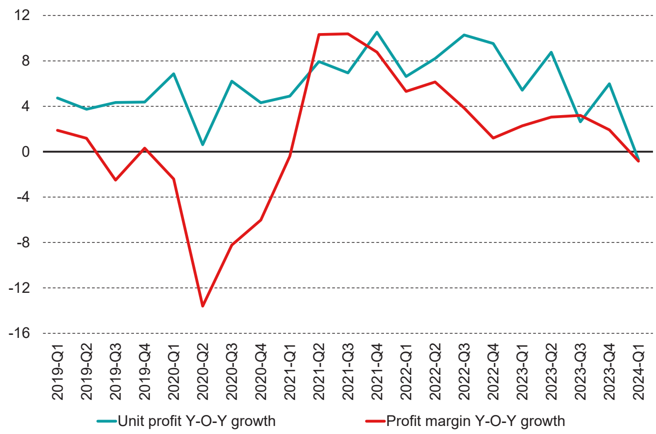
At the same time, profits, also might have contributed to core inflation dynamics. Chart 6 shows the growth rates of the two main indicators of profits being profit

Chart 5
WAGE RATES – LFS ANNUAL BASIC SALARIES
(annual percentage change)



Source: NSO.

Chart 6
GROWTH IN THE PROFIT MARGIN AND UNIT PROFITS
(annual percentage change)



Sources: NSO; own calculations.

margins and unit profits. The latter measure the average profit per unit of output while profit margins is defined as the ratio of the GDP deflator to unit labour costs. In 2021 and 2022, both unit profits and profit margins increased significantly, with the year-on-year growth averaging at 8.1% and 5.7% respectively during these two years. This surge was enabled by the reopening of the economy following the COVID-19 pandemic, leading to pent-up demand and high household savings (see Chart 6). This is corroborated by Borg (2023),[4] who highlighted strong increases in both unit profits and profit margins in 2021 and 2022. Additionally, in the latter analysis, Borg outlined that profitability is expected to moderate significantly, suggesting that costs increases will be shared between labour and businesses.

Indeed, as shown in Chart 6 both profit indicators have been moderating from the high levels seen in 2021 and 2022. Profit margins declined throughout 2023 and stood at -0.8% in the first quarter of 2024. While the decline in unit profit growth rates was more moderate throughout 2023 and remained rather elevated compared to the historical average, in the first quarter of 2024, unit profit growth declined to -0.7%. This moderation suggests that profits have been acting as a buffer to further price increases. If this pattern continues, this will help to prevent second round effects on inflation from the response of wages, and enable a further slowdown in core inflation, particularly in services inflation.

[4] See Borg, I. (2023), "Box 2: Recent developments in profits and forecast implications" in CBM Outlook for the Maltese Economy 2023:3.