

The importance of intermediate costs in inflation dynamics in Spain

The phases of the recent inflationary cycle

The inflationary cycle that the Spanish economy has been going through since the beginning of 2022 can be characterised in three phases: the direct impact, the contagion effect and the second-round effects. The direct impact was triggered by a supply shock that originated from supply problems following the pandemic in early 2021 and was exacerbated in 2022 with the energy crisis stemming from the war in Ukraine.

The indirect or contagion effect occurred with the transfer of the initial shock to other components of the consumer price index. Energy is a key input for other products, so an increase in energy prices can end up having an impact on other components if it is transferred to the product's final price. As we can see from the first chart, although energy has made a negative contribution to headline inflation in the last year, the impact of its increase still persists through the indirect effect on the rest of the components.

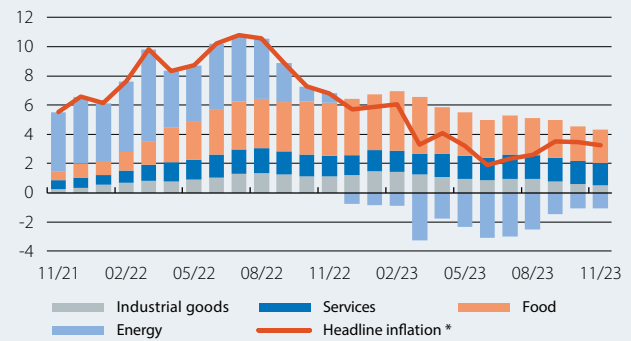
Finally, second-round effects are usually triggered in an attempt to compensate for the loss of purchasing power. If agents anticipate a sustained increase in inflation over time, pressures to raise wages increase in order to protect workers' purchasing power and companies raise their margins in order to protect their profits. These dynamics can, in turn, generate a new source of upward pressure on prices, fuelling an inflationary spiral. At the current juncture, we do not see any signs of significant second-round effects for the time being: according to internal CaixaBank data, wage growth peaked in Q2 and Q3 2023 with growth rates above 4% year-on-year, and since November the first signs of moderation have been observed (3.5% year-on-year). On the other hand, after falling sharply during the pandemic, business margins have barely recovered their pre-pandemic level.¹

The role of intermediate costs

Containing the triggering of second-round effects is key to ensuring price stability. In this regard, the evolution of intermediate costs is decisive. Specifically, the final price of the goods and services we consume is the result of the sum of the following components: the price of the intermediate consumptions necessary for their production, the remuneration of labour, taxes and business profits (also known as gross operating surplus, GOS). The relative weight of intermediate consumption in final prices was 49% on average in the period 2014-2019.

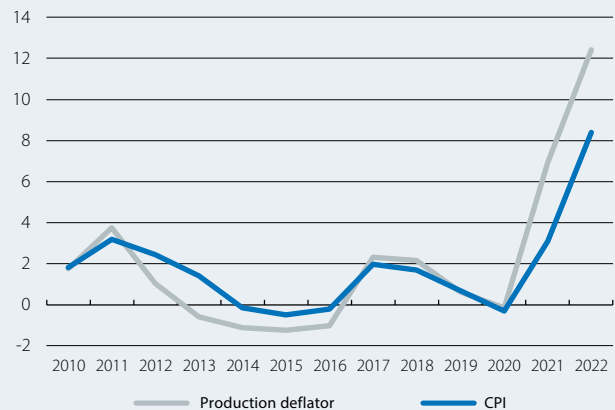
1. See the quarterly report of the [Observatory of Business Margins \(Observatorio de Márgenes Empresariales, OME\)](#).

Spain: contribution to inflation by component (pps)



Note: * Year-on-year change.
Source: CaixaBank Research, based on data from the National Statistics Institute.

Spain: national production deflator vs. CPI Year-on-year change (%)



Source: CaixaBank Research, based on data from the National Statistics Institute and the Spanish Tax Agency.

The sum of intermediate costs, labour remuneration, taxes and GOS is what we call domestic production.² By deflating this series, we obtain a measure of the general evolution of prices, which as we see in the second chart follows a similar pattern to that of the CPI. This allows us to obtain an approximation of the role of each of the components in the evolution of the CPI.³

As we can see in the third chart, much of the price increase in 2021 and 2022 came from a substantial increase in the contribution of intermediate costs, closely linked to the sharp rise in energy prices. However, the

2. Domestic production can also be defined as GDP plus intermediate costs minus net taxes on products.

3. The evolution is not the same because, among other reasons, the basket of products and services which comprise the CPI does not match that of domestic production.

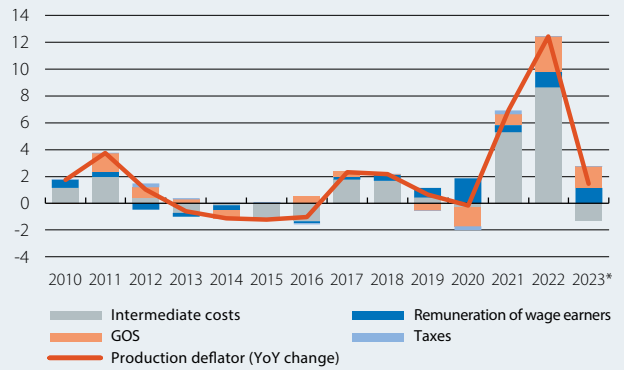
significant moderation in the price of intermediate consumption in 2023 has made it possible to reconcile lower price growth with higher growth in wages and business profits.

For 2024, we foresee modest growth in intermediate costs. In the first three quarters of 2023, the prices of intermediate costs grew by 1.1% compared to the first three quarters of 2022, well below the 20.3% annual growth rate of 2022, and the recent moderation in energy prices suggests that this trend is unlikely to change anytime soon. Thus, in 2024 intermediate costs are likely to continue to grow below 2%, and this should make a gradual recovery in the purchasing power of wages compatible with the convergence of inflation towards the 2% target.

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Spain: contribution to the national production deflator

(pps)



Note: * 2023 corresponds to the first three quarters of the year, for which data is already available.
Source: CaixaBank Research, based on data from the National Statistics Institute and the Spanish Tax Agency.