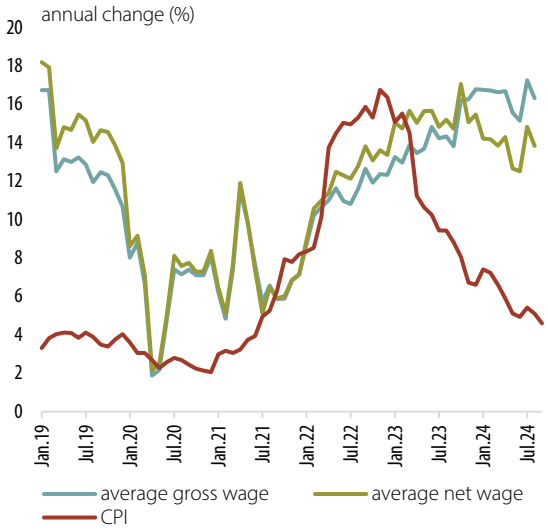
Box 2. The impact of profits on wage growth

Over the past year and a half, the annual inflation rate in Romania has followed a downward path (Chart A), driven by a combination of factors, including the gradual dissipation of the energy shock (intensified by the outbreak of the war in Ukraine) and the post-pandemic easing of bottlenecks in global supply chains, along with the fading-out of the base effects associated with certain administrative measures adopted by the authorities. By contrast, the dynamics of wage earnings gained momentum as early as 2023, exhibiting inertia relative to inflation. The partial misalignment between the two variables can be explained by employees' gradual recovery of purchasing power eroded due to supply-side shocks in recent years. The growth rate of wages remained elevated in 2024 as well, even accelerating for public sector earnings, while experiencing a slight moderation in the private sector, as a natural response to the slowdown in economic activity in the first part of the year.

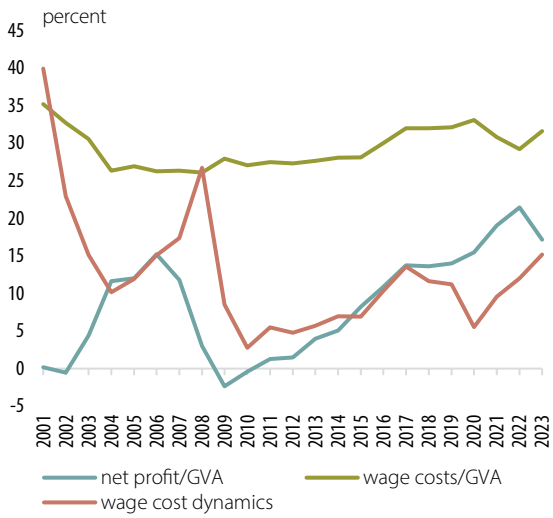
Chart A. Nominal wage growth and inflation rate



Source: NIS, NBR calculations

Apart from this lagged response of wage growth to shocks that occurred in previous periods, a possible explanation for the downward trend in inflation in parallel with the faster and thereafter only moderately lower wage growth across the economy lies in companies' use of profits as a buffer to mitigate the pass-through of their higher wage costs into a proportional increase in sales prices (Hansen, Toscani, Zhou, 2023; Healy *et al.*, 2024). In the literature, the role played by profits in relation to labour market variables has recently been studied through the lens of the labour hoarding indicator. Specifically, it has been estimated that an increase in profit margin (gross profit to turnover ratio) intensifies labour hoarding, with a one-year lag (Botelho, 2024). Thus, more profitable firms can cover the costs of a temporarily oversized workforce, a behaviour driven by labour shortages and, by extension, recruitment difficulties.

Chart B. Profit shares and wage cost dynamics for non-financial corporations

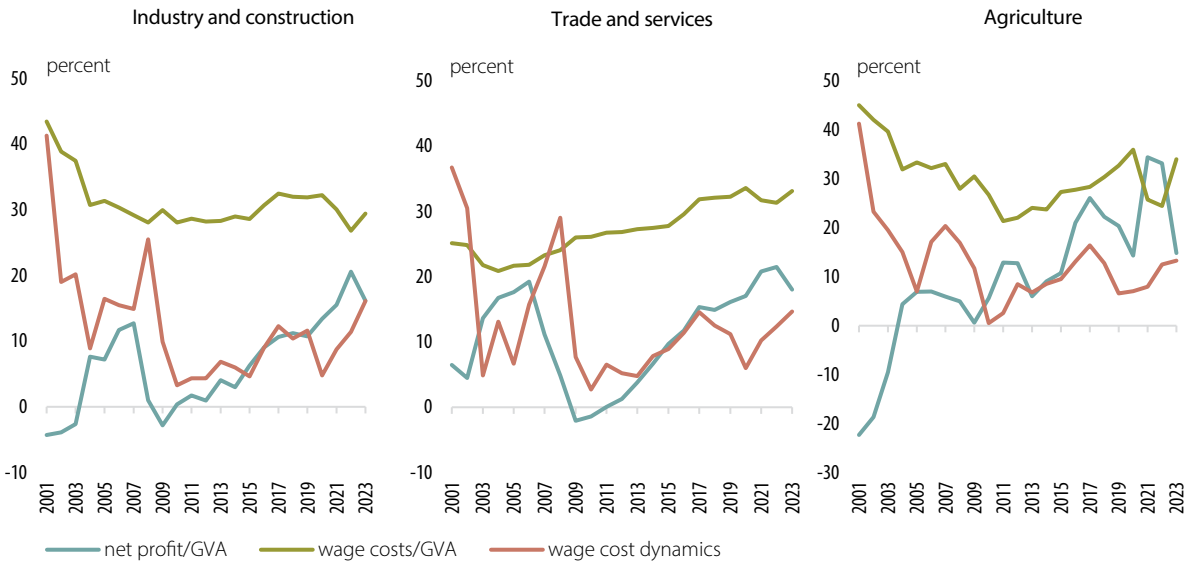


Source: balance sheet data of non-financial corporations, MF, NBR calculations

In Romania, the share of net profits in gross value added (profit share or profit rate), calculated using balance sheet data of non-financial corporations reported to the Ministry of Finance, widened steadily from 2013 to 2022, accompanied by a faster pace of increase in wage costs, particularly up to 2017 (Chart B). The pandemic marked a slowdown in wage growth, yet the profit rate continued its upward trend. The 2023 deceleration in economic activity was correlated with a drop in the profit

rate[1], accounting for the first such occurrence since the 2008-2009 global financial crisis[2]. These dynamics were also visible at sectoral level (Chart C), with 2023 showing less pronounced declines in profit rate in trade and services compared to industry, construction, or agriculture. Under the circumstances, companies' profit shares, which followed an upward trend after the global financial crisis until 2022, is likely to have enabled the accommodation of more robust wage growth rates.

Chart C. Profit shares and wage cost dynamics for non-financial corporations across various sectors



Source: balance sheet data of non-financial corporations, MF, NBR calculations

To illustrate this assumption in the context of Romania's economy[3], annual balance sheet data from non-financial corporations with private capital, reported to the Ministry of Finance for the period from 2008 to 2023, were used. From the collected data series, outliers were removed, leaving only firms with more than 10 employees in the sample. Subsequently, observations in the first and last decile of the distribution of the variable "share of net profits in gross value added (profit rate)" were also excluded. The resulting sample, used in the econometric estimations, covers nearly 60 percent of the private sector workforce (as of 2023). To quantify the impact of the profit rate on wage cost dynamics, a binary variable was constructed and assigned a value of 1 if the respective firm recorded a profit rate above the median, and 0 if the profit rate was below or equal to the median. The level of wages and the number of employees in the previous year, productivity dynamics, firm size and age, as well as sector, year, and firm fixed effects were used as control variables.

1 These dynamics could also be influenced by the capping of mark-ups on certain basic food products, a measure introduced in August 2023 for an initial period of three months. However, this measure has direct effects only in the retail trade sector, and its repeated extension may lead to the transfer of losses to the margins of goods not subject to the cap (the so-called "waterbed effect").

2 There was a decline in the share of profits in gross value added in 2018 as well, but it was marginal (-0.1 percentage points), amounting more to a stagnation.

3 These estimates aim to quantify the effect of the previous year's profit rate on wage growth, without providing evidence of the latter's pass-through into inflation.

The results show a significant link between the profit rate in the previous year and current wage growth. Specifically, companies reporting a profit rate above the median in the previous year exhibit wage growth nearly 6 percentage points higher than those with a profit rate below the median (Table A). Therefore, the increase in companies' profit rate in the period prior to 2022 could be a factor that enabled strong wage growth. Considering the drop in profit rates in 2023, amid, *inter alia*, the modest developments in economic activity, estimates also suggest that wage cost dynamics could have decelerated in 2024 in the absence of other pressures, such as the Government's decision to raise the minimum wage by approximately 12 percent in July 2024[4].

It should be noted, however, that this analysis only quantifies the impact of profits on wage growth, without directly assessing the role of profit adjustments in cushioning the inflationary impact of wage growth (a hypothesis suggested by some studies in the literature), given that, theoretically, the existence of this latter mechanism is not unequivocal.

Table A. Results of estimations

	D.log.wage
Profit > median (t-1)	0.0575*** (0.000864)
D.log.productivity	0.183*** (0.00239)
log.wage (t-1)	-0.588*** (0.00366)
log.employees (t-1)	0.0938*** (0.00251)
Size&age	YES
Sector x year	YES
Sector x	YES
Year	YES
Firm	YES
R^2	55.2%

( ) standard deviations

*,**,*** indicate that the coefficient is statistically significant for a confidence level of 90%, 95%, and 99%, respectively

Source: balance sheet data of non-financial corporations, MF, NBR calculations and estimates

References

Botelho, V. – "Higher profit margins have helped firms hoard labour", *ECB Economic Bulletin 4/2024*

Hansen, N. J. H., Toscani, F., G., and Zhou, J. – "Euro area inflation after the pandemic and energy shock: Import prices, profits and wages", *International Monetary Fund Working Papers* WP/23/131, 2023

Healy, P., Kuik, F., Morris, R., and Slavik, M. – "Main findings from the ECB's recent contacts with non-financial companies", *ECB Economic Bulletin 3/2024*

4 This is also confirmed by Chart 2.11 of the August 2024 *Inflation Report*, which shows the decomposition of annual wage growth by fundamental factors, attributing a significant and increasing role to exogenous factors (including income policy) starting from late 2023. In the absence of the latter, wage growth would have followed a decelerating path.