

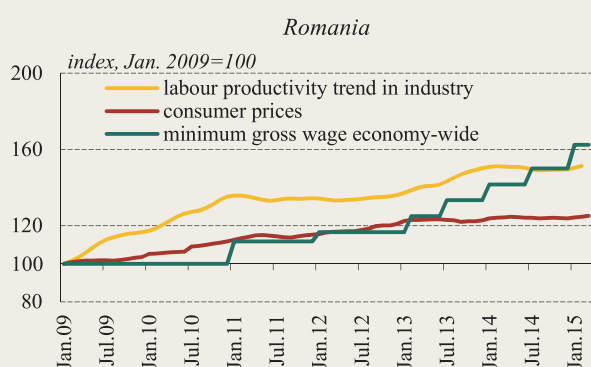
The increase in the minimum gross wage – effects on the labour market

1. Economic context

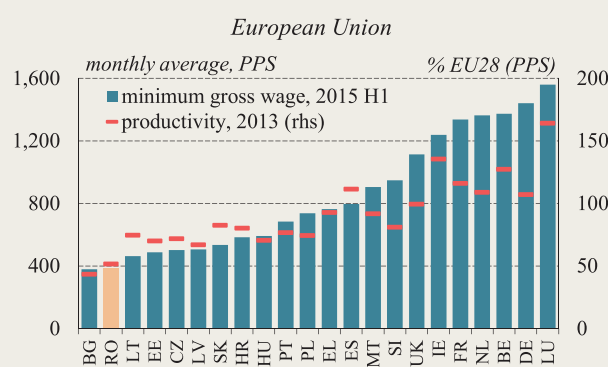
January 2009 through December 2013, the minimum gross wage economy-wide was raised by a cumulative 33 percent, closely tracking the path of consumer prices while also benefiting from the steady improvement in the labour productivity trend in industry (+50 percent). Nevertheless, starting 2014, the developments in the minimum wage departed from price dynamics, i.e. the minimum wage posted a 22 percent growth, much faster than the 2 percent increase in prices, amid insufficient productivity support.

Looking at the EU Member States, in the past six years Romania has witnessed the strongest hike in the minimum wage, which, however, is still the second lowest across the EU. The ranking is similar in terms of labour productivity, with only one country recording a lower level.

Minimum Gross Wage



Source: NIS, Eurostat



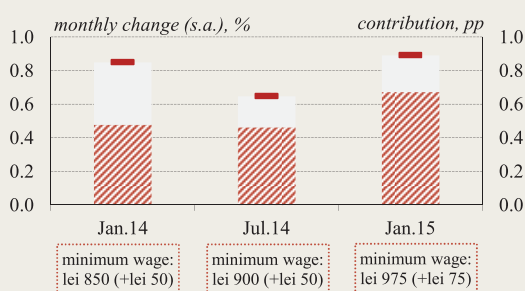
Source: Eurostat

2. Effects of the increase in the minimum gross wage

Wage earnings

The NBR conducted in 2014 a survey on firms' behaviour on the labour market, where the sample is representative of around two thirds of private sector employees¹, i.e. of companies with at least 20 employees which were set up before 2010. On the extreme assumption that wages of the other third exceed the minimum level, survey evidence shows that a raise in the minimum gross wage directly affects at least 22 percent of private sector employees. In particular, the last three increases directly contributed to the month-on-month growth of the average gross wage in the private sector by around 0.5 percentage points. If indirect effects are also taken into consideration, the overall impact is likely to have been larger – part of respondent firms stated that they also granted increases to above-minimum wage earners; in this case, an additional of at least 9 percent of employees are affected.

Impact of the Increase in the Minimum Gross Wage on Average Wage



▨ direct effect* of Δ of minimum wage (rhs) – average wage

*) Minimum impact, estimated based on a statistical survey conducted by the NBR. The survey covered approximately 64% of private sector employees, the remaining 36% being assumed to earn wages that exceed the minimum gross wage.

Source: NIS, NBR, NBR estimates

¹ The number of private sector employees is approximated as the difference between the number of employees economy-wide and that of employees in public administration, healthcare, education, and arts, entertainment and recreation.

Labour costs account for a third of total costs of firms, more than 70 percent of which faced an increase in such expenses during 2010-2013 (the period covered by the survey), with the last three hikes in the minimum wage fuelling the upward trend.

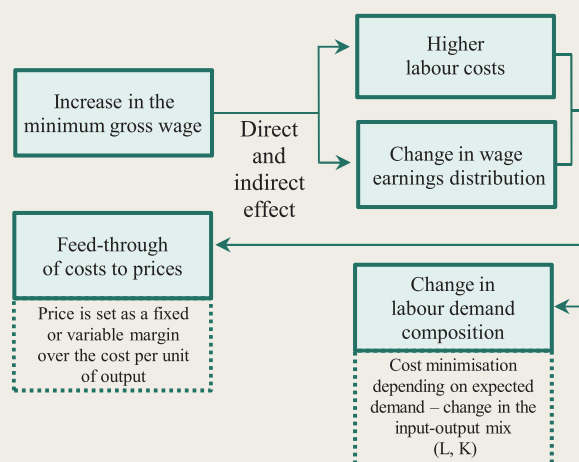
Moreover, the wage earnings distribution squeezed around the minimum threshold, and the higher ratio of minimum wage to average wage (which is assessed to stand close to 50 percent at end-2016 following the implementation of all the minimum wage increases previously announced) points to the risk of a barrier to entry on the labour market for low-skilled and unskilled workers (the young), in whose case the mismatches between labour demand and supply are already the largest.

At the microeconomic level, the raise in the minimum wage has had an uneven impact, more pronounced in the case of small and medium-sized enterprises. Profit margins have been under stronger pressure in light industry, food industry, manufacture of wood products, manufacture of non-metallic mineral products, transport and storage, accommodation and food services, and construction, as in these sub-sectors more than 40 percent of employees are paid the minimum wage. Nevertheless, the influence of the minimum wage increases in 2014 and 2015 (the one forthcoming in July 2015 included) is offset by the 5 percentage point reduction in the social security contribution rate for employers as of October 2014. Mention should be made, however, that, although the net effect of the two measures on the net profit margin is slightly positive for the population of firms of which the sample is representative, there are industries where this effect is virtually nil (food industry, trade) or even marginally negative (light industry). Additionally, the minimum wage increases scheduled for 2016 are expected to exhaust the buffer created by the October cut in the social security contribution rate in several sub-sectors.

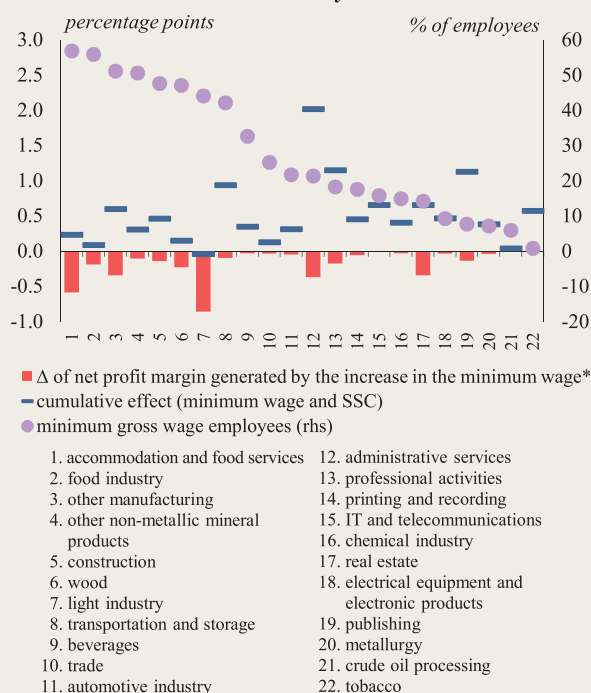
Pass-through to prices and the impact on labour demand

Theoretically, an increase in wages that is not covered by productivity gains may generate inflationary pressures² economy-wide and at the same time may contain firms' ability to create new jobs. This theory is empirically

Feed-through to the Economy of the Increase in the Minimum Gross Wage on the Supply-side



Effect of the Change in the Minimum Gross Wage and the Social Security Contribution Rate on Firms' Profitability in 2014-2015



*) The impact of the increases in the minimum wage and of the cut in the social security contribution rate for employers was calculated, ceteris paribus, based on an average net profit margin (net profit/turnover) in 2013.

Source: MPF, NBR, NBR estimates

² According to the survey on the price-setting mechanism carried out by the NBR in 2013, most companies in Romania set the prices of their goods or services as a fixed and/or variable margin over the cost per unit of output. Moreover, higher labour costs are the second most important factor when firms decide to increase their prices (see NBR Occasional Papers No. 10/2015).

confirmed by the results of the survey on the labour market: 58 percent of companies stated that they would pass through a raise in the minimum wage into prices and about 47 percent said that they would cut down on hiring.

With a view to identifying the relevant factors conducive to one or both responses, two probit models, which also quantify the individual contribution of factors to the increase/decrease in the probability of the two events at firm level, were estimated:

$$Prob(\uparrow P/\uparrow MW) = f(w_{MW}, w_{LC}, c, size, agr, \downarrow Q_{2010-13}, \downarrow P_{2010-13}, \uparrow Csup_{2010-13}, \uparrow Cfin_{2010-13})$$

$$Prob(\downarrow NewHires/\uparrow MW) = f(w_{MW}, w_{LC}, w_{TEN5}, size, tax, uncert, \downarrow empl_{2010-13}, \downarrow benef_{2010-13}, \uparrow Csup_{2010-13})$$

The influencing factors can be grouped as follows: (i) firm-specific factors – the share of employees directly and indirectly affected by the hike in the minimum wage (w_{MW}), the share of labour costs in total costs (w_{LC}), perceived competition (c), the share of workers with over 5 years of tenure (w_{TEN5}) and the size of the firm ($size$); (ii) labour market institutional features – the existence of a collective pay agreement (agr) and the perception on how high the payroll taxes are (tax), as well as (iii) factors associated with the economic context during 2010-2013 – the fall in demand ($\downarrow Q_{2010-13}$), price cuts ($\downarrow P_{2010-13}$), business environment uncertainty ($uncert$), the increase in costs of supply ($\uparrow Csup_{2010-13}$) and in financing costs ($\uparrow Cfin_{2010-13}$), the adjustment in the number of employees via dismissals or temporary layoffs ($\downarrow empl_{2010-13}$) and in non-pay benefits ($\downarrow benef_{2010-13}$)³.

Firm-specific factors. As expected, both the probability of a price increase and that of a containment of hiring are directly correlated with the impact exerted on the firm by a minimum wage hike. Specifically, chances that a firm raises prices and/or lowers labour demand grow by around 23 percent when the share of minimum wage earners goes up and by 7 percent in the case of an increase in the share of labour costs. Moreover, if the share of workers with over 5 years of tenure grows larger, the probability of a halt in future hiring rises by 7 percent.

Looking at firms' size, the survey showed that large companies (with more than 200 employees) were less likely to cut down on hiring (-6 percentage points) and especially pass through the minimum wage increases into prices (-12 percentage points). When the company perceives strong competition, chances to increase prices drop by about 4 percentage points.

Labour market institutional features. The survey points to the high relevance of collective pay agreements in firms' decision to raise prices (+8 percentage points) and of the perception on high payroll taxes in containing future hiring (+10 percentage points).

Economic context during 2010-2013. The probability of a feed-through to prices is around 5 percentage points higher where the firm faced either a fall in demand or an increase in costs (be they costs of supply or financing costs) in the past; the probability of a lower ability to create jobs goes up if the business environment is marked by uncertainty (+9 percentage points) and the firm resorted to an adjustment in the number of employees via dismissals or temporary layoffs (more than 5 percentage points).

³ The marginal effect of factors (calculated as an average effect per sample, ceteris paribus) should be interpreted depending on the type of the explanatory variable: a change in continuous variables (w_{MW} , w_{LC} and w_{TEN5}) determines an increase by x percent in the probability of a feed-through to prices/reduction in hiring, to which the transition of discrete variables (the remaining variables) from 0 (the factor does not occur) to 1 (when it occurs) adds y percentage points.