

Methodological note:

1. Data source: The calculation of the quarterly labour cost index is done based on the information from two **sources of statistical data**:

- The monthly statistical survey on earnings (according to the European Parliament and Council Regulation no. 1165/1998 and no. 1158/2005 on short-term statistics)
- The annual statistical survey on labour costs (according to the European Parliament and Council Regulation no. 530/1999 on structural statistics regarding earnings and labour costs).

Data for the period 2000 – 2008 have been estimated in accordance with the new Classification of the Activities in the National Economy (CANE Rev. 2), harmonized with the European classification in the field (NACE Rev. 2). The applied estimation method is based on the conversion matrix of the economic activities defined according to CANE Rev. 1, in the economic activities defined according to CANE Rev. 2. The base of the construction of the conversion matrix was the data collected according to both versions of CANE, by monthly statistical survey on earnings during 2008 and by annual statistical survey on labour costs for 2007, respectively.

2. Information regarding „**budgetary sector**” should be used carefully, because data refer to statistics from economic activities (aggregated by homogenous activity) **according to CANE Rev.2.** of public administration, education and health and social assistance (including private sector for education – about 3.5%, respectively health and social assistance - about 11.2%), excluding armed forces and similar (The Ministry of National Defence, The Ministry of Internal Affairs, The Romanian Intelligence Service etc.).

These statistics do not take into account the financing type, their purpose being to provide information by economic activity according to CANE Rev.2.

Information corresponding to the financing type is administered by the Ministry of Public Finance, according to the stipulations of Urgency Government Ordinance no. 48/2005, with later completions and modifications.

3. Concepts and definitions

The quarterly labour cost hourly index is a short-term indicator that allows the evaluation of the tendencies of the **hourly costs** incurred by employers with labour force. The methodology used and the data series are constructed in accordance with the provisions of the European Parliament and Council Regulation no. 450/2003 concerning the labour cost index.

The quarterly labour cost index is calculated as Laspeyres type index for the total labour cost and **its two components: direct costs (wages and salaries) and other costs (non-wages costs), with 2020 as reference year.** In the first quarter of 2023 the whole series of data (2000-2022) were recalculated by changing the base year from 2016 to 2020.

The quarterly labour cost index is calculated as **provisional index for the year 2023**, following to be recalculated (as final for 2023 and provisional for 2024) at the end of 2024, when data from the annual statistical labour cost survey for 2023 become available.

In the third quarter of 2023 the data related to 2022 and the first two quarters of 2023 were recalculated due to the fact that the results of Labour Cost Survey for year 2022 became available.

Total labour cost – represents all the expenditure – direct and indirect (other) – incurred by employers with labour force. According to the European methodology, the expenditures of the employer with the vocational training of employees, with staff recruitment and with the protection equipment are excluded.

Total labour cost excluding bonuses - represents total expenditure incurred by the employer with labour force, as described above, excluding the occasional bonuses, not paid regularly at each (monthly) pay period (i.e. bonuses and allowances paid at fixed periods, or paid quarterly, bi-annually or annually, bonuses linked to individual or collective performance, bonuses for holidays or the 13th salary).

Direct costs (wages and salaries) – include gross payments as direct remuneration for hours worked (including bonuses), payment for days not worked, payment in kind (according to collective agreements), gross payment from net profit of the unit, gross payments from other funds (including in kind) according to

national legislation in force. In the direct costs is also included the social security contribution and the social health insurance contribution borne by the employee.

Other costs (non-wages costs) – include the employers’ social contributions, gross payment for employees leaving the unit (retirement, transfer, detachment etc.), gross payments for work breaks not-imputed to the employees, other labour costs.

According to the national legislation provisions in force (GEO No. 79/2017, as subsequently amended and supplemented), the social security contribution and the social health insurance contribution paid by the employer were transferred to the employee; thus, starting with January 2018, these contributions **are borne entirely by the employee**, and reflected in the gross amount of the nominal earnings (**direct labour cost**).

These legal provisions **do not affect** the data series comparability for the "**Total labour cost index**".

Instead, the data series for the two components of the quarterly labour cost index, "**direct costs (wages and salaries)**" and "**other costs (non-wages costs)**", are no longer comparable starting with the 1st quarter 2018 to the data series prior to 2018, as a result of transferring the contributions from employers towards employees.

Average hourly labour cost represents the ratio between the employers’ costs as result of engaging the labour work force and the number of hours actually worked.

Number of hours actually worked includes the total number of hours worked during the usual working time and the overtime (additional to the normal working hours, during the weekends, holidays etc.)

Besides the series of the non-adjusted quarterly labour cost index, the following series are also calculated:

- a) the working days adjusted and
- b) the working days and seasonally adjusted,

thus, eliminating the effect of the variation of the number of working days from one quarter to another, as well as the effect of the seasonal variation. The adjustment was done by the regression method, in accordance with the provisions of the European Parliament and Council Regulation no. 450/2003 concerning the labour cost index. Starting with the third quarter of 2016, for the adjustment, the JDEMETRA+ v2.1 software package (the TRAMO/SEATS method) was used, which estimates the effect of the working days differently from one quarter to another and the calendar effect (leap year and other national holidays) and identifies and corrects the outliers (occasional, transitory or permanent changes in level).

The working days adjusted series were obtained by removing such effects from the non-adjusted series by using certain coefficients of correction, set-up according to the regression model used (additive or multiplicative). The adjustment was done by the indirect method, that is by applying the adjustment method at lower levels (over the components of index), the adjusted index being calculated from adjusted components. The estimation of the non-observed components: the trend-cycle, the seasonality and the irregular component is done by the SEATS programme on the basis of ARIMA models. The seasonally adjusted series were obtained by removing the seasonal component from the working days adjusted series.

The hourly labour cost increase rate represents the percentage change in the quarterly labour cost index of the current period as against to the compared period.

$$R_{t/t-1} = \frac{LCI_t}{LCI_{t-1}} * 100 - 100 \qquad R_{t/t-4} = \frac{LCI_t}{LCI_{t-4}} * 100 - 100$$

where $R_{t/t-1}$ = the hourly labour cost increase rate of the current quarter "t" compared to the previous quarter "t-1"

$R_{t/t-4}$ = the hourly labour cost increase rate of the current quarter "t" compared to the same quarter of the previous year "t-4"

LCI_t = labour cost index for quarter "t"

LCI_{t-1} = labour cost index for the previous quarter "t-1"

LCI_{t-4} = labour cost index for the same quarter of the previous year "t-4"

NOTE: In the hourly labour cost are also included the amounts paid to the employees for technical unemployment, borne by the employer from its own funds.

Subsidies granted to employers (according to legal provisions) from the state budget for the payment of the benefits received by the employees during the temporary suspension of their labour contract, at the employer initiative (technical unemployment), parents during the days off for childcare, in situations of temporary closure of educational institutions and employees whose working hours has been temporarily reduced (the difference between the gross basic salary stipulated in the individual labour contract and the gross basic salary related to the hours actually worked as a result of the hours reduction) were estimated based on administrative data and deducted from the hourly labour cost¹.

Furthermore, the indicators are affected by the evolution of the hours actually worked.

Coverage: The quarterly labour cost index is calculated for the following economic activities defined according to the *Classification of Activities in the National Economy* (CANE Rev. 2), harmonized with the European classification in the field (NACE Rev. 2):

CANE Rev. 2 Code	Name of activities
Section level	
B	Mining and quarrying
C	Manufacturing
D	Electricity, gas, steam and air conditioning supply
E	Water supply; sewerage, waste management and remediation activities
F	Construction
G	Wholesale and retail trade; repair of motor vehicles and motorcycles
H	Transportation and storage
I	Accommodation and food service activities
J	Information and communication
K	Financial and insurance activities
L	Real estate activities
M	Professional, scientific and technical activities
N	Administrative and support service activities
O	Public administration and defence; compulsory social ^{*)}
P	Education
Q	Human health and social work activities
R	Arts, entertainment and recreation
S	Other service activities

^{*)}armed forces and assimilated excluded

4. Additional information on data series related to quarterly labour cost hourly indices:

- Total labour cost,
- Total labour cost excluding occasional bonuses,
- Direct labour costs (wages and salaries),
- Indirect labour costs (non-wages costs),

in unadjusted form, adjusted by working days effect and adjusted by seasonal and working days effect can be obtained by accessing the TEMPO database of the National Institute of Statistics (<http://statistici.insse.ro:8077/tempo-online/#/pages/tables/insse-table>).

¹ according to the provisions of the European Parliament and Council Regulation no. 450/2003 concerning the labour cost index