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REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL

on the implementation of Regulation (EC) No 450/2003 of the European Parliament and

of the Council concerning the labour cost index (LCI)

I. INTRODUCTION

The labour cost index (LCI) measures quarterly changes in total hourly labour costs borne by employers, making it possible to monitor developments in cost pressures arising from the production factor 'labour'. The LCI belongs to the principal European economic indicators/ euro-indicators[1], which provide information on economic developments in the euro area.

The LCI is used by the European System of Central Banks to assess possible inflationary pressures caused by labour market developments. It is also important for social partners involved in wage negotiations and for the European Commission itself to monitor short-term developments in labour costs. Finally, LCI data are used to index prices in some large commercial contracts that span several years.

On its website, Eurostat publishes a quarterly news release on the LCI[2], with a large set of data broken down by economic activity and by the components of labour costs (wage and non-wage costs). The website also includes both quarter-on-quarter and year-on-year growth rates.

Regulation (EC) No 450/2003 of the European Parliament and of the Council of 27 February 2003 concerning the labour cost index[3] (the LCI Regulation) sets a common framework for Member States to produce comparable indices and transmit them to the Commission.

Article 13 of Regulation (EC) No 450/2003 requires the Commission to report to the European Parliament and the Council every 2 years. The purpose of the report is to assess the quality of the statistics provided by Member States and of the EU aggregates, and to identify areas where improvements could be made.

This is the 10th LCI report of the Commission to the European Parliament and the Council[4]. It focuses on the LCI data received since the previous edition, for the reference quarters from the second quarter of 2022 (Q2-2022) to the first quarter of 2024 (Q1-2024). It reflects the observations made by Eurostat when collecting and validating LCI data for these reference quarters and builds on the documentation provided by Member States in their annual quality reports.

In Annex I to Regulation (EC) No 1216/2003[5], the quality of the LCI data is defined using the following criteria: relevance, accuracy, punctuality of the delivery of data, accessibility and clarity, comparability, coherence and completeness.

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1 Communication of the Commission to the European Parliament and the Council on eurozone statistics, *Towards improved methodologies for eurozone statistics and indicators* (COM (2002) 661 final)

2 The quarterly news release is published on the dates set in the release calendar; both can be found on the Eurostat website (http://ec.europa.eu/eurostat/web/main – available in English, French and German).

3 OJ L 69, 13.3.2003, p. 1. ELI: http://data.europa.eu/eli/reg/2003/450/oj

4 See previous report COM (2023) 34 final of 23.1.2023.

5 Commission Regulation (EC) No 1216/2003 of 7 July 2003 implementing Regulation (EC) No 450/2003 of the European Parliament and of the Council concerning the labour cost index.

The accessibility and clarity of LCI data is now well established, through the publication of detailed metadata and national quality reports on Eurostat's website. This LCI report will therefore focus on the other criteria.

II. GENERAL PROGRESS SINCE THE LAST REPORT

No legislative changes have been made since the last report. The next paragraphs set out in detail the improvements made in producing the report.

2.1 Data collection standards

The latest version of the Statistical Data and Metadata eXchange (SDMX)[6] data structures and internationally agreed code lists (available online through a dedicated registry[7]) continues to be used successfully for receiving Member State data and producing the LCI and for transmitting LCI data to the European Central Bank.

2.2 Data validation

The data have been systematically validated using a new tool to check if the codes and data structures used meet the agreed data transmission standards. This simplifies the production process and reduces the risk of errors arising from coding flaws. If the file transmitted does not meet the SDMX standards in force, it is automatically rejected. Member States receive a success/failure notification by email and they may access the validation report using the EDAMIS portal.

Eurostat also carries out plausibility checks on each quarterly transmission by comparing series over time and across economic activities according to the statistical classification of economic activities in the European Community (NACE)[8]. If there are significant quarter-on-quarter changes, Eurostat asks Member States to confirm the data or transmit a corrected data file. If major revisions or sudden changes are detected in any particular NACE section, they are systematically followed up with the countries concerned.

2.3 Hourly labour cost levels

Eurostat has continued publishing the annual estimates of hourly labour costs by NACE section since the first release in April 2016. These estimates are based on the levels obtained from the four-yearly labour cost survey, extrapolated with the LCIs. Produced 3 months after the end of the reference period, they cover all NACE sections excluding sections 'A – Agriculture, forestry and fishing'; 'O – Public administration and defence; compulsory social security'; 'T – Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use' and 'U – Activities of extraterritorial organisations and bodies'.

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6 http://sdmx.org/ (available only in English).

7 https://webgate.ec.europa.eu/sdmxregistry/ (available only in English).

8 OJ L 393, 30.12.2006, p. 1; ELI: http://data.europa.eu/eli/reg/2006/1893/oj.

2.4 Quality reports

The annual quality reports submitted by Member States were processed on time using the latest version of the European Statistical System Metadata Handler and made available to all users[9].

2.5 Seasonal and calendar adjustments

Eurostat analysed the calendar adjusted (CA) and calendar and seasonally adjusted (CSA) series transmitted by the Member States. According to Commission Regulation (EC) No. 1216/2003[10], all EU Member States and other European Economic Area (EEA)[11] countries are expected to transmit CA and CSA series for each individual NACE section.

Eurostat also monitors the seasonal adjustment annex attached to the national quality reports. This annex details in particular the seasonal adjustment models used, the outliers detected, the size of the adjustments, and the volatility of the results.

Eurostat publishes CSA data for EU aggregates in the database and in the 'Statistics Explained'[12] article on LCI, alongside not seasonally adjusted (NSA) data. CSA results for the total LCI are derived from CSA data for the wage and non-wage components, to ensure consistency.

2.6 Rebasing

In 2023, all countries were invited to transmit data expressed in the new base year 2020 = 100, meaning that the index equals 100 for the reference year 2020. Eurostat had launched a test transmission before the actual transmission took place in May 2023 (for flash LCI data) and June 2023 (for final LCI data). There was no difference recorded between the rebased data transmitted and the data Eurostat recalculated, except for three countries which subsequently corrected the data and retransmitted them.

The LCI data expressed in the new base year were subsequently published, for reference quarter Q1-2023 and the full historical time series before that quarter.

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9 https://ec.europa.eu/eurostat/cache/metadata/en/lci_esms.htm (available only in English).

10 Commission Regulation (EC) No 1216/2003 of 7 July 2003 implementing Regulation (EC) No 450/2003 of the European Parliament and of the Council concerning the labour cost index

11 Except Lichtenstein, as Regulation (EC) No 450/2003 of the European Parliament and of the Council of 27 February 2003 does not apply to this country. Throughout the document, Norway and Iceland are referred to as 'other EEA countries'.

12 Labour cost index - recent trends - Statistics Explained

III. DATA QUALITY

3.1 Relevance and completeness

Relevance

User demand continued not only for information on the quarterly variations in hourly labour costs, as measured by the LCI, but also, increasingly, on labour cost levels. Eurostat went on publishing at the end of March/beginning of April each year, annual estimates for the hourly labour costs in euro and in national currencies, broken down by NACE section. The shares of non-wage costs in total labour costs[13] were also disseminated. The feedback received on the publication of these estimates is positive, and Eurostat will continue to produce the annual labour costs by NACE section.

Completeness

This part reviews whether the LCI data and metadata transmitted fulfil the legal requirements for completeness. Comments refer to indices, weights and quality reports.

a) Indices

In general, the availability and completeness of the LCI was satisfactory over the whole reference period. Eurostat received CA data and CSA data for all quarters concerned and from all Member States except Greece (Q1-2023 data). All Member States also delivered NSA data, except for Denmark and Sweden which have been granted derogations[14].

Regarding other EEA countries[15], both Iceland and Norway transmitted LCI data for all quarters of the reference period. Norway provides CA, CSA and NSA series. Iceland provides CA and CSA series only.

All data, including CSA estimates, are available in the relevant table[16] of the Eurostat database. Headline figures are based on CA data, expressed as year-on-year (Q/Q-4) changes that are more stable than quarterly movements. All countries covered all NACE sections, taking the above derogations into account.

b) Weights

According to the LCI Regulation, Member States and other EEA countries are expected to transmit, at least once a year, the annual labour costs for the wage/non-wage components (the weights) of each individual NACE Rev. 2 section. Keeping these data up to date is important as they affect Eurostat's calculation of NACE aggregates and the derivation of totals from the wage and non-wage components.

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13 See the dataset *lc_lci_lev* in the dissemination database of Eurostat (https://ec.europa.eu/eurostat/data/database, available in English, French and German).

14 According to Regulation (EC) No 1216/2003, Denmark, Germany, France and Sweden are not bound to provide NSA data. However, Germany and France provide them anyway.

15 Regulation (EC) No 450/2003 does not apply to Liechtenstein.

16 https://ec.europa.eu/eurostat/data/database

By 30 June 2024, all Member States and other EEA countries had transmitted the weights for the reference year 2023.

c) Quality reports

By the beginning of September 2024, all Member States had drafted their national quality reports for the reference year 2023.

The LCI 2023 quality reports are meant to be published on Eurostat's corresponding webpage[17] together with a report on seasonal adjustment.

3.2 Punctuality

According to the LCI Regulation, Member States and other EEA countries must deliver labour cost indices within 70 days of the reference quarter. The countries that have missed some deadlines since the last report are Sweden (Q4-2023 data received 2 calendar days after the deadline) and Finland (Q4-2023 data received 3 calendar days after the deadline).

Regarding other EEA countries, Norway has always transmitted LCI data on time, as has Iceland.

3.3 Accuracy

The LCI is made up of a number of different variables (e.g. labour costs and hours worked) that may be taken from several sources. This means that revisions may occur at any time, affecting the last quarter, several quarters or whole years. If adjustments relate to the reference year, the whole series has to be revised.

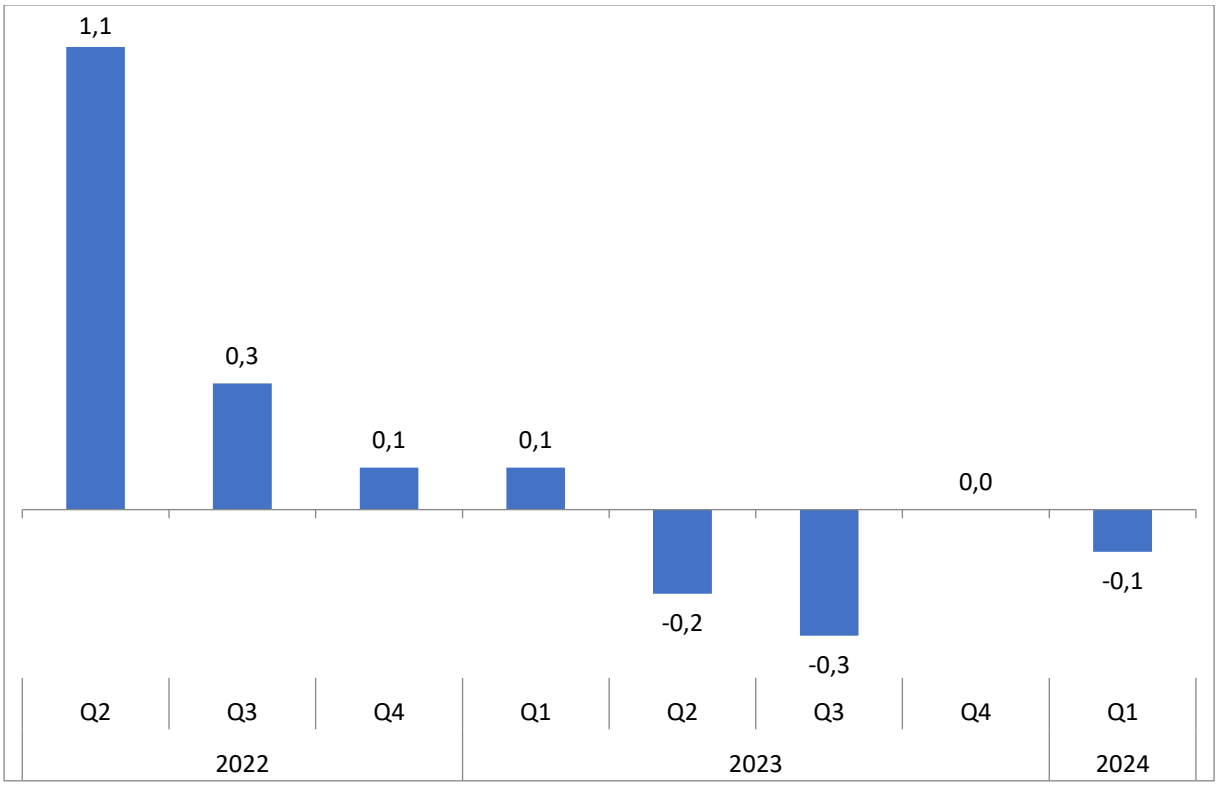
Revisions of the EU headline figure, namely the year-on-year growth rate of the total LCI, have never exceeded 0.3 percentage points (pp) except in one special case (Q2-2022, see Figure 1).

The major revision (+1.1 pp) recorded in that quarter was due to the one-off changes Germany made to their sources and methods. From Q3-2022 onwards, the LCI data of this country have been benchmarked on labour cost survey data for 2020 while the data source for wages was changed.

This revision had a one-off impact on the annual growth of the LCI, with no consequence on the reliability of the LCI estimates.

[17] https://ec.europa.eu/eurostat/cache/metadata/en/lci_esms.htm (available only in English).

Figure 1: Changes in the annual growth rate between the first and final LCI releases
(EU-27, NACE Sections B to S aggregate, total labour costs, in pp, [Q2-2022-Q1-2024])



Sources:
- For final data: Eurostat dataset lc_lci_r2_q [variable: 'Labour cost for LCI (compensation of employees plus taxes minus subsidies)'].
- For first estimates: production database of Eurostat.

Data were extracted on 20 August 2024

3.4 Coherence and comparability

Coherence with national accounts figures

One area that continues to receive attention is the coherence of the LCI with other statistics on labour costs, in particular quarterly national accounts data.

For the annual quality report, Member States are asked to compare the growth rate of the LCI with that of employees' hourly compensation found in the national accounts (ESA 2010 definition[18]). The datasets are not expected to match perfectly - even if the definitions of labour cost are almost the same, statistical sources and treatments may differ. Moreover, collecting data on hours worked is particularly difficult for both the LCI and the national accounts. Despite these differences in methodology, it is informative to analyse the level of discrepancies between both sources. When the levels are above a given relative threshold, this may indicate quality issues in either dataset.

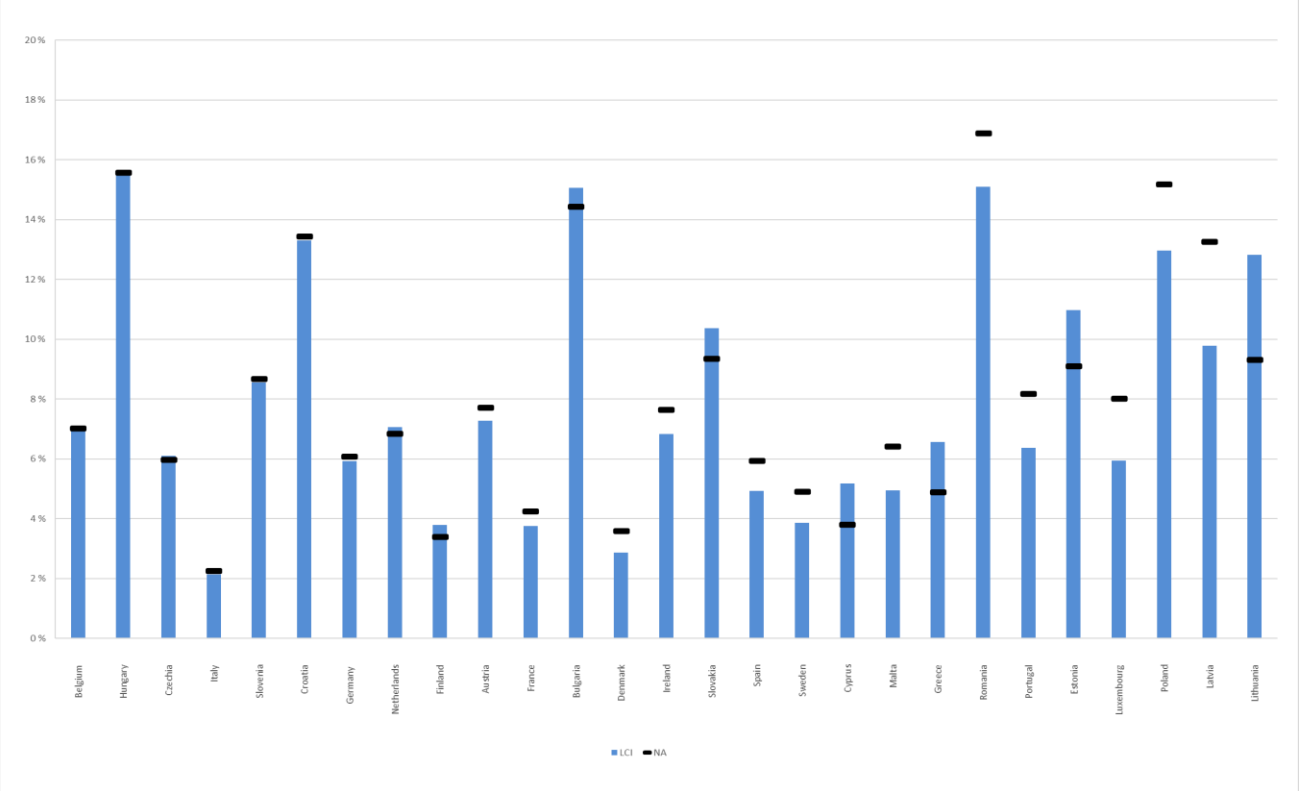
[18] Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013 on the European system of national and regional accounts in the European Union (OJ L 174, 26.6.2013, p. 1).

For quality assessment, Eurostat continued to monitor the NACE Sections B to S aggregates of each Member State. For this comparison, NSA data were used, except in the case of Denmark and Sweden for which only CA data are available. The median annual growth rate of the LCI was compared with that of the hourly compensation of employees based on data from national accounts over 8 quarters. Variations of more than 3 pp were considered to warrant further analysis (see Figure 2, with countries ranked by increasing order of the gap in absolute value). Only Lithuania and Latvia recorded a gap above 3 pp (both 3.5 pp).

The results of the above analysis are followed up with Member States, in particular the data on hours worked.

In addition to the medians, Eurostat compared the standard deviation of the annual growth rates of both the LCI and the national accounts series, as an indicator of volatility. Among all countries, the highest gaps between standard deviations were recorded in Sweden (2.1 pp), followed by Latvia (1.5 pp), the Netherlands and Czechia (1.3 pp for both) then Slovakia (1.2 pp).

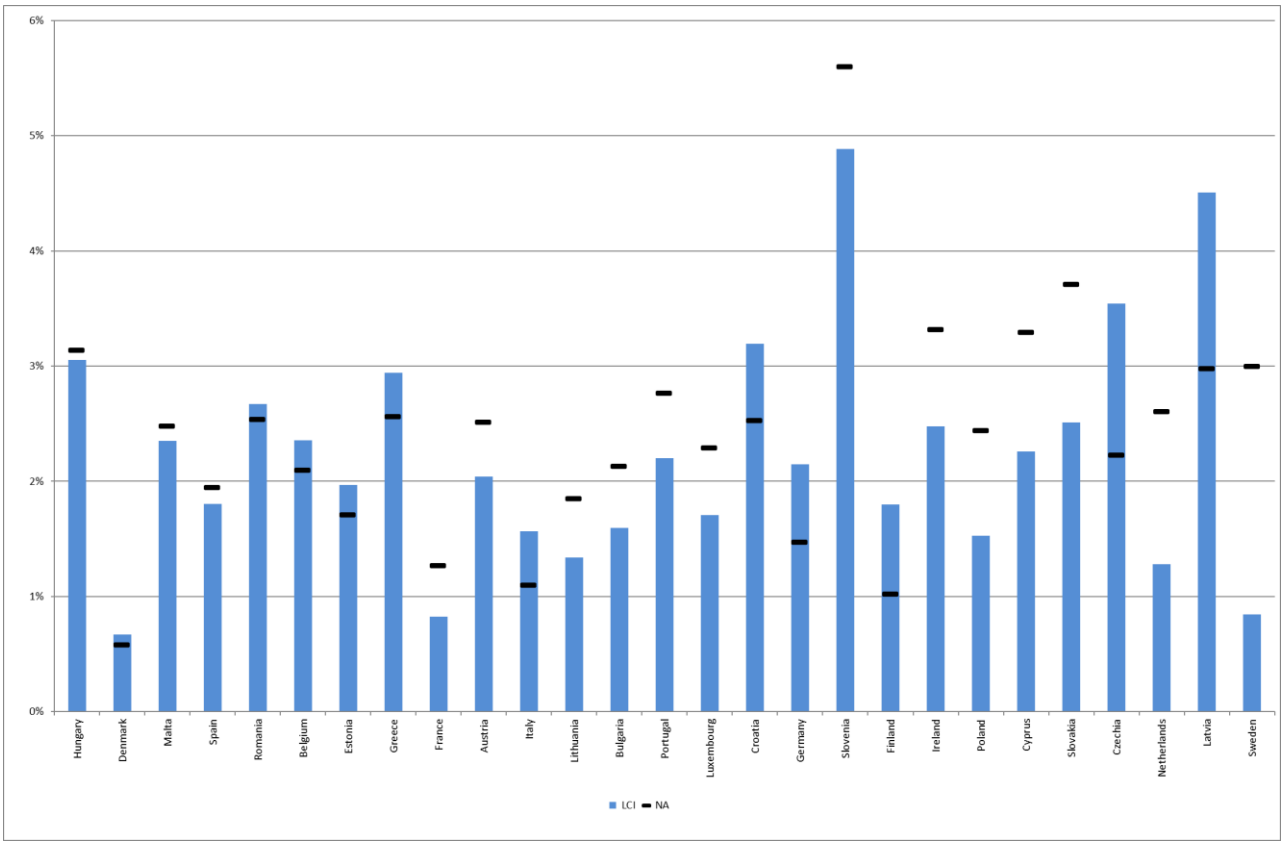
Figure 2: Median annual growth rates of the labour costs index (LCI) versus national accounts (NA) series for the hourly compensation of employees
(NACE Sections B to S aggregate, total labour costs, reference period: Q2-2022-Q1-2024)*



Sources:

- For the national accounts: Eurostat datasets *namq_10_a10* [variable: 'Compensation of employees' in national currency] and *namq_10_a10_e* [variable: 'Employees domestic concept, in thousands of hours worked'].
- For the LCI: Eurostat dataset *lc_lci_r2_q* [variable: 'Labour cost for LCI (compensation of employees plus taxes minus subsidies)'].
- For Denmark and Sweden, the NSA data were not available at the time of drafting; CA data were used instead. Data were extracted on 4 September 2024.

Figure 3: Standard deviation of annual growth rates of the labour costs index (LCI) versus national accounts (NA) series for the hourly compensation of employees
(NACE Sections B to S aggregate, total labour costs, reference period: Q2-2022-Q1-2024)*



Sources:

- For the national accounts: Eurostat datasets *namq_10_a10* [variable: 'Compensation of employees' in national currency] and *namq_10_a10_e* [variable: 'Employees domestic concept, in thousands of hours worked'].
- For the LCI: Eurostat dataset *lc_lci_r2_q* [variable: 'Labour cost for LCI (compensation of employees plus taxes minus subsidies)'].
- For Denmark and Sweden, the NSA data were not available at the time of drafting; CA data were used instead. Data were extracted on 4 September 2024.

Comparability

Comparability between countries is ensured through the detailed definitions and methodology set out in the LCI legislation. Member States fulfil the EU requirements using the data sources available at national level. Most of them use either surveys or a combination of surveys and administrative data, whereas two Member States rely exclusively on administrative sources.

To publish comparable LCI data over time, it is important to correct for calendar and seasonal effects. The headline figures are adjusted for calendar effects while offsetting seasonality by comparing the same quarters over 2 consecutive years.

According to Article 1 of Regulation (EC) No 1216/2003, LCI figures must be provided in NSA, CA, and CSA form.

Regulation (EC) No 450/2003 does not explicitly state whether calendar and seasonal adjustments have to be made using the direct or the indirect approach. An indirect adjustment means that the basic series are adjusted and then used to construct higher-level aggregates, whereas a direct adjustment means that every single series, including higher-level aggregates, is adjusted individually. For the LCI, Eurostat recommends using the indirect approach to avoid inconsistencies between total labour costs and components.

Eurostat systematically checks for consistency between the annual growth rates of the total LCI versus its wage and non-wage components and reports all inconsistencies exceeding 0.1 pp (after rounding) to the countries concerned. The total LCI is then recalculated based on the wage and non-wage components (indirect approach). This harmonised approach also ensures better comparability across countries.

IV. CONCLUSIONS

Overall, the quality of the labour cost indices of the Member States and of the EU aggregates has remained good. Except for a substantial revision in one quarter (Q2-2022), explained by methodological changes in one country, EU aggregates underwent small revisions only, as was the case before the COVID-19 crisis.

The quality reports submitted by Member States were processed using the latest version of the European Statistical System Metadata Handler. They were made available to all users, including the annex on seasonal adjustment practices and results across Member States[19].

Since 2017, Eurostat has been publishing annual estimates of the hourly labour cost levels by NACE section, based on both labour cost survey data and LCI trends[20]. The related 'Statistics Explained'[21] article had a significant number of views, confirming users' interest in this subject matter. The Commission will continue to regularly monitor compliance and data quality, based on the data delivered and other national documentation, including quality reports.

Since May 2024, Eurostat has been releasing early estimates for the labour cost index (LCI) for both the EU as a whole and the euro area. These estimates are released around 1 month before the final release (50 days instead of 77 days after the reference period). These early estimates are released in the same dataset as the final data[22].

Finally, Eurostat has carried out a general review of EU legislation on labour market statistics on businesses, which has led to a legislative proposal that was adopted by the Commission on 28 July 2023[23]. This review aims to evaluate and modernise all EU legislation in the field of labour market statistics on businesses, including the LCI.

[19] https://ec.europa.eu/eurostat/cache/metadata/en/lci_esms.htm (available only in English).
[20] https://ec.europa.eu/eurostat/databrowser/view/lc_lci_lev/default/table?lang=en&category=labour.lc.lcan
[21] Hourly labour costs - Statistics Explained
[22] https://ec.europa.eu/eurostat/databrowser/view/lc_lci_r2_q/default/table?lang=en&category=labour.lc.lci
[23] EUR-Lex - 52023PC0459 - EN - EUR-Lex (europa.eu)