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|  | |  | | --- | | **Production in industry**  National Reference Metadata in Euro SDMX Metadata Structure (ESMS)  Compiling agency: National Institute for Statistics | |  |

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| |  | | --- | | **Eurostat metadata** | | **Reference metadata** | | [1. Contact](#contact1633422103386)  [2. Metadata update](#meta_update1633422103386)  [3. Statistical presentation](#stat_pres1633422103386)  [4. Unit of measure](#unit_measure1633422103386)  [5. Reference Period](#ref_period1633422103386)  [6. Institutional Mandate](#inst_mandate1633422103386)  [7. Confidentiality](#conf1633422103386)  [8. Release policy](#rel_policy1633422103386)  [9. Frequency of dissemination](#freq_diss1633422103386)  [10. Accessibility and clarity](#accessibility_clarity1633422103386)  [11. Quality management](#quality_mgmnt1633422103386)  [12. Relevance](#relevance1633422103386)  [13. Accuracy](#accuracy1633422103386)  [14. Timeliness and punctuality](#timeliness_punct1633422103386)  [15. Coherence and comparability](#coher_compar1633422103386)  [16. Cost and Burden](#cost_burden1633422103386)  [17. Data revision](#data_rev1633422103386)  [18. Statistical processing](#stat_process1633422103386)  [19. Comment](#comment_dset1633422103386)  [Related Metadata](#relatedmd1633422103386)  [Annexes](#annex1633422103386) (including footnotes) | |  |

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| For any question on data and metadata, please contact: [EUROPEAN STATISTICAL DATA SUPPORT](http://ec.europa.eu/eurostat/help/support) |  | [Download](http://ec.europa.eu/eurostat/estat-navtree-portlet-prod/BulkDownloadListing?file=metadata/sts_ind_prod_esms_ro.sdmx.zip) |

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| |  |  | | --- | --- | | **1. Contact** | Top | | |
| **1.1. Contact organisation** | National Institute for Statistics |
| **1.2. Contact organisation unit** | Department of Short Term Business Statistics |
| **1.5. Contact mail address** | 16, Libertatii Avenue. District 5 Bucharest  RO-050706 Romania |

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| |  |  | | --- | --- | | **2. Metadata update** | Top | | |
| **2.1. Metadata last certified** | 21/04/2021 |
| **2.2. Metadata last posted** | 21/04/2021 |
| **2.3. Metadata last update** | 21/04/2021 |

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| |  |  | | --- | --- | | **3. Statistical presentation** | Top | | |
| **3.1. Data description** |  |
| Industrial production indices (Indicele productiei industriale). The industrial production index is a business cycle indicator showing the output activity of industry. The current concepts and framework are those set forth by the EU Regulation 1165/98, concerning short-term statistics amended by Regulation (EC) 1158/2005 that established data requirements in relation to coverage, periodicity, and timeliness, as well as the 2006 Eurostat manual Methodology of Short-term Business Statistics (interpretations and guidelines). Romania follows the International Recommendations for the Index of Industrial Production 2009 (New York, January 2009: United Nations Statistics Division). |  |
| **3.2. Classification system** |  |
| CANE rev2  which is compatible 1:1 to NACE Rev. 2. |  |
| **3.3. Coverage - sector** |  |
| The indicator covers all CANE Rev. 2 Sections B to D (compatible with NACE Rev. 2 Sections B to D). The coverage degree per total industry is 89.8%. For a better representation of food industry, due to its specific nature, the sample of industrial enterprises also includes commercial enterprises having agriculture as their main activity, but which have subunits specialised in the production of agro-food products.  All size classes are covered, excepting units with less than 4 employees. The Nomenclature of economic operators, which provides monthly data about industrial physical production, includes a representative sample of enterprises having industry as their main activity (CANE Rev. 2 Divisions 05 to 35) and which includes all the enterprises having over 50 employees and a sample of enterprises having 4-49 employees, so that a representativeness of about 90% should be ensured at the level of total industry and a minimum of 80% at the level of CANE Rev. 2 division, this being calculated. |  |
| **3.4. Statistical concepts and definitions** |  |
| The chapter PROD from the questionnaire " Short term indicator in industry" covers production data (stocks, quantity, deliveries, value of sales). |  |
| **3.5. Statistical unit** |  |
| Legal unit  and in some cases local unit. |  |
| **3.6. Statistical population** |  |
| The sampling frame used for the sample selection is drawn from the Romanian Business Register (REGIS), which contained all enterprises, authorities and organisations as well as their local units that carried out any economic activity irrespective of their size or if they belong to the private or public sector. The Business Register is updated, yearly, on the balance sheets and contains the latest information on each enterprise in the statistical population such as the identification items (unique identification code, address etc.), economic activity codes (NACE Rev.2), number of employees (giving the enterprise size class). There are around 10700 units which are surveyed each month.The total population is 50000 units. |  |
| **3.7. Reference area** |  |
| All regions of Romania are covered. |  |
| **3.8. Coverage - Time** |  |
| 2000. |  |
| **3.9. Base period** |  |
| The current base year is 2015. |  |

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| Indices, percentage changes (%). |  |

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| Month. |  |

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| |  |  | | --- | --- | | **6. Institutional Mandate** | Top | | |
| **6.1. Institutional Mandate - legal acts and other agreements** |  |
| Council regulation (EC)  no 1165/1998 concerning short term statistics with subsequent amendments. The Government Ordinance no 9/1992 regarding the organisation of official statistics, republished in Romanian's Official Journal fisrt part, no 763/18.10.2002, modified and updated through the Government Ordinance no 957/2005. Statistical Law no. 226/2009 regarding the organisation of official statistics. According to Law no. 226/2009 all individuals and legal units are required to submit data to the INS on request. Sanctions are possible but the INS prefers to use persuasion to gain the necessary data. All statistical data are collected on the basis of national legal acts approved by Romanian Governmet (i.e the "Programme of Statistical Surveys of National Statistics). |  |
| **6.2. Institutional Mandate - data sharing** |  |
| Data are sent also to UN, IMF or other international organisations. |  |

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| **7.1. Confidentiality - policy** |  |
| All statistics collected and published by INS are governed by the statistical Law no. 226/2009 regarding the organisation of official statistics, published in Romania's Official Journal First part, no. 397/11.06.2009. The Law specifies that: the official statistical services are authorised to ask for and receive free of charge statistical data and information from all natural and legal persons who are located, hold any kind of capital or carry out any type of activity on the Romanian territory. Also under the provision of this law, INS cannot publish, or otherwise make available to one individual or organisation, statistics that could enable the identification of data for any individual person or entity. INS has been repeatedly and publicly recognised by the government as fully intellectually independent: it decides by itself which data to collect, which methodology to use, and which results, methodological notes and commentaries are published. The most important aspects on the organisation of the official statistics in Romanian and English are posted on the National Institute of Statistics Internet website (<http://www.insse.ro>). Copies of the statistical laws are available in Romanian from the library of the National Institute of Statistics, 16, Libertatii Avenue, Bucharest.  Under the provision of the statistical law, INS cannot publish, or otherwise make available to one individual or organisation, statistics that could enable the identification of data for any individual person or entity. No government official outside the National Institute of Statistics has access to the data before release to the public. |  |
| **7.2. Confidentiality - data treatment** |  |
| At the CANE 2-digit level no data are considered to be confidential. |  |

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| **8.1. Release calendar** |  |
| There is an advance release calendar of data dissemination which can be found on the website <http://www.insse.ro/cms/en>. |  |
| **8.2. Release calendar access** |  |
| The release calendar is available on the NIS website (<http://www.insse.ro/cms/en>) |  |
| **8.3. Release policy - user access** |  |
| Monthly data are available to all users simultaneously at the time of release through the press release and via INS Internet website (<http://www.insse.ro>).No organisation or person outside the INS has pre-release access to the published data. |  |

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| |  |  | | --- | --- | | **9. Frequency of dissemination** | Top | | |
| Monthly. |  |

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| **10.1. Dissemination format - News release** |  |
| The results of the monthly survey are disseminated at M+41 days by news release on NIS website (<http://www.insse.ro/cms/en>). No ministerial commentary is included in any of the statistical releases. |  |
| **10.2. Dissemination format - Publications** |  |
| Data for the production index are published in the "Anuarul statistic al Romaniei (Romanian statistical yearbook); in the "Buletin statistic lunar" (Monthly statistical bulletin); "Buletin Statistic de Industrie" (Statistical Bulletin – Industry); in the "Breviar-Romania in cifre" (Romania in figures). A monthly press release is also produced.  Data for the production index are published on the Internet site of INS in the TEMPO data base. All statistical publications are available also in electronic format.  he production indices are published at 2-digit CANE level as well as MIGS, gross, working day adjusted and seasonally adjusted series. IPI is presented as an index with fixed base year (2015=100) as well as a growth rate. IPI at counties level (NUTS3) are available as an index of the same period of previous year on the level of total industry – gross data. |  |
| **10.3. Dissemination format - online database** |  |
| The industrial production index are available also in our on line data base TEMPO - online time series <http://www.insse.ro/cms/en> (first in the left column) which is available both in Romanian and English.  The production indices are published at 2-digit CANE level as well as MIGS, gross, working day adjusted and seasonally adjusted series. IPI is presented as an index with fixed base year (2015=100) as well as a growth rate. |  |
| **10.4. Dissemination format - microdata access** |  |
| No microdata are disseminated. |  |
| **10.5. Dissemination format - other** |  |
| Data on industrial production are sent monthly to Eurostat, as indices by e-DAMIS using SDMX format within 40 days (calendar days) from the end of the month, both to be used in European aggregates as well as to be released as national data. |  |
| **10.6. Documentation on methodology** |  |
| Brief details of the methodology are included with the published data. A detailed description of the indicators are available in the Metadata Database (<http://80.96.186.4:81/metadata/public.htm?locale=en>). |  |
| **10.7. Quality management - documentation** |  |
| PEEI in Focus- Industrial production index,2006.  The statistical process is monitoring regarding relevance, accuracy, timeliness, punctuality, coherence and comparability. Self assesment of the survey manager are carried out from time to time. |  |

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| |  |  | | --- | --- | | **11. Quality management** | Top | | |
| **11.1. Quality assurance** |  |
| Brief details of the methodology are included with the published data. A detailed description of the indicators are available in the Metadata Database ([http://80.96.186.4:81/metadata/public.htm?locale=en)](http://80.96.186.4:81/metadata/public.htm?locale=en)  The system of official statistics follows international and European quality standards. NIS Romania has adopted the UN Fundamental Principles for Official Statistics as well as the European Statistics Code of Practice and subscribed to the IMF Special Data Dissemination Standard (SDDS). |  |
| **11.2. Quality management - assessment** |  |
| Not available. |  |

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| |  |  | | --- | --- | | **12. Relevance** | Top | | |
| **12.1. Relevance - User Needs** |  |
| Data are relevant because are required by European legislation.  The main national users are grouped as following: Presidential administration, Governmental bodies; National Commission for Prognosis; mass-media; other users.  Their main needs: The Monthly Survey on Short-Term Statistics outcomes, in relation with the information provided by other surveys, are used by policy makers in establishing the actions and measures for economic development strategies. |  |
| **12.2. Relevance - User Satisfaction** |  |
| We conduct a user satisfaction survey every three years. The latest one was in 2018.  The publication can be found at the following link: [http://www.insse.ro/cms/sites/default/files/field/publicatii/analiza\_gradului\_de\_satisfactie\_al\_utilizatorilor\_2018.pdf.](http://www.insse.ro/cms/sites/default/files/field/publicatii/analiza_gradului_de_satisfactie_al_utilizatorilor_2018.pdf)  This publication presents the way in which the statistical data produced and the methodological information of the INS meet the information needs of the various user categories. It includes a presentation of the main results of the statistical survey on the "Satisfaction of statistical data users”, respectively the profile of INS statistical data users, the confidence in the INS and the statistical data produced by INS, the assessment of the quality of the data produced by INS |  |
| **12.3. Completeness** |  |
| Data are compliant with european legislation and Eurostat requirments. All breakdowns and variable forms are provided, according to the EU regulations in force |  |

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| **13.1. Accuracy - overall** |  |
| The accuracy is tackled at national levels, by eliminating as much as possible non-sampling errors, by calculating sampling errors and studying and analysing revisions.  The available information is summarized in the reports PEEI in focus ( Industrial production Index, 2006) <http://ec.europa.eu/eurostat/web/short-term-business-statistics/methodology> |  |
| **13.2. Sampling error** |  |
| The available information is summarized in the reports PEEI in focus ( Industrial production Index, 2006). |  |
| **13.3. Non-sampling error** |  |
| The available information is summarized in the reports PEEI in focus ( Industrial production Index, 2006).  The response rate IN 2020 reaches 85%.  Starting with 2010, the on-line data collection was introduced in order to increase the response rate and reduce the burden on statisticians' responsabile with data collection and entry. When necessary, telephone and e-mail contacts are used. |  |

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| **14.1. Timeliness** |  |
| All the activities carried out by INS during a year are scheduled through the Activity Plan with several months earlier. Annually, INS issues for the users a press release calendar and a catalogue of statistical products and services containing the names, periodicity, short descriptions and release dates for all publications.  The press release is issued 41 days after the end of the reference month. The publication is ready within 54 days from the end of the reference month.  The questionnaires are prefilled with identification data about reporting units and sent to them at the beginning of each quarter of the year. The enterprises are requested to answer by the 25th day following the reference month. Data collection is normally closed 2 days before publication |  |
| **14.2. Punctuality** |  |
| All news releases are published according to the announced [release calendar](http://www.insse.ro/cms/en).  The process concerning the **deadlines for the respondents to reply** was performed as follows:  -          the units have to fill in the paper questionnaires and send them to the territorial statistical offices until 15th of the month following the reference month.  -          the units can also fill in the on line questionnaires until around 23rd of the month following the reference month.   The publication dates for the monthly indicators were disseminated in accordance with the legal requirements as follows:   * European level (Eurostat): M+40 of each month; * National level:   + Press releases - M+41 of each month;   + Monthly Statistical Bulletin (MSB) - M+54 and TEMPO data base - M+45 of each month. |  |

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| |  |  | | --- | --- | | **15. Coherence and comparability** | Top | | |
| **15.1. Comparability - geographical** |  |
| **Definition of statistical units - There is no deviation from European concepts:**  The **unit of** **selection** was the **legal unit** defined according to the communitarian rules for enterprises statistics as: ,,the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources. An enterprise carries out one or more activities at one or more locations. An enterprise may be a sole legal unit”.  The **observation unit** of the Monthly survey on short term statistics was close to **local unit**.  **Populations - There is no deviation from European concepts:**  The Romanian Business Register was designed and implemented based on the administrative files (REGIS, which is the Fiscal Register, updated annually) and statistical sources in addition (Trade Register, Balance Sheet files, VAT files, feedback from other surveys, used as consultation data sources for improving the quality of the register data).  According to the Council Regulations, REGIS contained the following types of statistical units: legal unit, enterprise, and local unit. All the enterprises having the main activity in the section A to S - NACE Rev.2, whatever their size (number of employees) were covered.  The Romanian Business Register contained all enterprises, authorities and organisations as well as their local units in Romania that carried out any economic activity irrespective of their size or if they belong to the private or public sector. There were covered the following institutional sectors:   * Non-financial corporate and quasi-corporate enterprises * Central and local administration * Social security institutions and private non-profit institutions serving households   In respect to the budgetary institutions and public administration REGIS was the most complete register inRomania, based on Official Journal and the collaboration with a lot of administration institutions.  **Reference times - There is no deviation from European concepts:**  The statistics on persons employed were produced with monthly periodicity.  **Classifications - There is no deviation from European concepts:**  The national classification of economic activities is covered by CAEN Rev.2 fully harmonized with NACE Rev.2  **Definitions of variables** -**There is no deviations from European concepts:**  The definitions of the variable was developed and adopted in accordance with European standards (Council Regulation no.1165/1998 concerning short-term statistics and Regulation (EC) no 1158/2005 of the European Parliament and of the Council amending Council Regulation (EC) No 1165/98 concerning short-term statistics. |  |
| **15.2. Comparability - over time** |  |
| No major methodological changes over the last 15 years. |  |
| **15.3. Coherence - cross domain** |  |
| The different sources of data allow comparisons to be made and for checks of reasonableness. Users need to be aware of the differences in methodology which are made clear in the publications. Confrontation is made with the turnover survey and the annual PRODROM survey in terms of trend as well as with SBS survey tacking into account the methological differences. |  |
| **15.4. Coherence - internal** |  |
| All data are coherent at different aggregation levels of NACE. |  |

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| For IPI the cost and burden is as follow:  Number of units in 2012=8904;  Cost (NSI) hours per year=80212;  Burden (respondents) hours per year= 92602 |  |

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| |  |  | | --- | --- | | **17. Data revision** | Top | | |
| **17.1. Data revision - policy** |  |
| Data revisions follow the Revision Policy of the NIS Romania, which represent one of the key documents of the office. The same revision policy is applied to STS data released nationally and transmitted to Eurostat. Calendar of standard revisions is being prepared together with the release calendar. (<http://www.insse.ro/cms/en/content/revision-policy>).  1.  Routine revisions: The revised indices are published together with the preliminary indices for the following month. Notice is given at the time the change is introduced.  2.  Major revisions: In the case of regular index rebases (as a rule every five years), the results and changes in the calculation methodology or  major changes as classification  notice are presented in detail in the Monthly Statistical Bulletin and on the NIS website well in advance of the change.  Vintage database currently exists in the central processing database but is not publicly accessible. |  |
| **17.2. Data revision - practice** |  |
| The practice of data revision corresponds to the following policy:  The data are preliminary when first released and are revised three months after the end of the reference month.  The quality indicators used in data revision are: MR (Mean Revision) and MAR (Mean Absolute Revision). MR and MAR values were obtained with the information of its last 36 final months being December 2020 the last one.  The Mean Revision values of the differences between the general index first released and the last version, gross series, in the period January,2018 to December, 2020 (36 months) was MR= 0,1 and for WDA series was MR= 0,1   And the Mean Absolute Revision for this period, for gross series, was MAR=0,229741, and for WDA series was MAR=0,414547   The difference between initial figures and revised figures represents about +/-1**%** of the initial figures for total industrial production index.  Major changes in methodology are announced in all statistical publications at the time of the change.The status of data is clearly indicated in the publications |  |

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| |  |  | | --- | --- | | **18. Statistical processing** | Top | | |
| **18.1. Source data** |  |
| Statistical survey.  The frame used for sampling is business register which contains all enterprises, authorities and organisations as well as their local units in Romania that carry out any economic activity irrespective of their size or if they belong to the private or public sector. The survey is a cut off sample survey, exhaustive above the survey thresholds. The sample is updated annualy.  All units with 50 employees or more are included. For the remainder a sample is drawn. 4 - 49 employees: 4.3% 50 and more employees: 100% Approximately 10700 enterprises in Sections B to D of CANE are surveyed each month for around 3,342 PRODROM products. |  |
| **18.2. Frequency of data collection** |  |
| Data are collected monthly. |  |
| **18.3. Data collection** |  |
| One combined questionnaire regarding turnover, new orders, production, number of employees, wages and salaries, investment and stocks is used (IND TS – Short term indicators in industry in month ……, Chapter PROD Products and services in industry).  Data are collected in principal using a web questionnaire. For the rest of the respondent units paper questionnaire or electronic format by e-mail is used. The paper questionnaires are sent to the reporting units and then collected by county statistical offices. From 2010 data are collected online using the eSOP portal for statistical data  collection.  Data processing steps and the related periods were:  **At local level (regional/county statistical office)** the data processing consisted in:  - data collection – until 15th of the following month of the reference month;  - data entry and validation- from 15th of the following month of the reference month till the 25th day of the month;  **At central level (INS)** the data processing consisted in:  - data validation – errors were detected and sent for correction or explanations to the statistical offices;  - comparative analysis with the previous month, the same month of the previous year and with other data sources (surveys and administrative data);  - the analysis of the non-weighted data;  - the weighting procedures;  - the analysis of the weighted data;  - data tabulation;  - monthly data preparation for dissemination in the press releases, the Monthly Statistical Bulletin, the TEMPO (on-line) database;  - transposing into the STS standard format for data transmission designed by Eurostat;  - transmission of final results to Eurostat. |  |
| **18.4. Data validation** |  |
| The IT solution for Monthly survey on short-term statistics  was developed to find out the measurement and processing errors occurred in different stages of the survey. The application was designed for on line data collection and validation.  ***The IT solution*** allowed to perform on line data entry and validation at unit level. Also, the IT solution allowed to perform data entry and validation for questionnaires received on paper by post/email at county level (42 counties in total – NUTS3 level).  The IT solution contained the following categories of logical tests that check:  -          the primary data from the questionnaires;  -          the logical flows among the questionnaire chapters;  -          the data integrity and correctness;  -          the data comparability with the previous month.  The logical tests have the scope:  -          to follow and check the logical flows of the questionnaire;  -          to correlate data from related chapters of the questionnaire;  -          to define and check certain limits to which the indicators should belong compared to their evolution over time and between them;  -          to find out the outliers or non-logical values.  The tests for data integrity check the identification information from the sample of units with the information from respondent files.  ***At central level*** more accurate and detailed procedures were developed using Visual Fox for checking data integrity and correctness:  -          data comparison with the previous and corresponding months;  -          non-weighted procedures;  -          data tabulation;  -          automatic transformation of final results into the STS standard format designed by Eurostat;  -          data transmission to Eurostat.  Logical tests were performed for data checking and correlation on all the indicators collected through the survey. **Since the same tests were conducted at local level (unit and county) as well as at central level, the largest part of the errors found was solved from the beginning (at local level).** The figures were corrected after re-contacting the corresponding enterprises by the statistical offices.  The questionnaire design, detailed explanatory notes and the IT solution developed had as result a complete and of good quality data set. |  |
| **18.5. Data compilation** |  |
| Non-response is imputed with the data available for the same month of the previous year, taking into account a trend coefficient of the activity (CANE 4 digit). If the non-response is due to the closure or temporary suspension of activity, no imputation is made. The sample results are not grossed.  The production index is expressed as a Laspeyres index and refers to a fixed base year.  Primary indices of industrial production are aggregated by a system of successive weightings. For the aggregation from the level of CPSA elementary subclasses to produce the highest PRODROM level (4-digits) production value (based on the average unit price of the base year (2015)) is used as the weight. For upper aggregation levels (CANE Rev. 2 class, group, division, section or main industrial group), the gross value added at factor cost of the base year (2015) is used as the weighting element. The first aggregation level is the level of CANE Rev. 2 class, the next aggregation levels being determined as a weighted arithmetic mean of the CANE Rev. 2 classes, groups, divisions, sections and, the main industrial groups indices, with the corresponding value added of the base year from national accounts (2015). The indices for the main industrial groups are obtained by the aggregation of the CANE Rev. 2 component groups indices, weighted with the corresponding value added. The industrial production indices for total industry are obtained by the aggregation of indices calculated at the level of the CANE Rev. 2 division level. |  |
| **18.6. Adjustment** |  |
| In order to adjust the series (level, division, section, total industry – CANE Rev. 2, main industrial group) Jdemetra + v2.2 (TRAMO/SEATS method) was used, estimating the effect of the number of working days, different from one month to another and the calendar effect (Orthodox Easter, leap year and other national holidays) as well as for the identification and correction of outliers (occasional, transition or permanent changes) and interpolation of missing values.  Series adjusted for the number of working days was obtained by eliminating from unadjusted series those effects by means of correction coefficients, set up according to the regression model used (additive or multiplicative). The regression models used for each series are set up at the beginning of each year, involving the recalculation of adjusted series calculated in the previous year (recalculation due to the change in the adopted models, number of regressors used and number of available observations). Unobserved components: trend-cycle, seasonality and irregular components are estimated by means of the SEATS program based on ARIMA models.  Regression models used for each series are set up at the beginning of each year, involving the recalculation of adjusted series calculated in the previous year (recalculation due to the change in the adopted models, number of regressors used and number of available observations).  The aggregated levels were adjusted by means of **direct method.**  The industrial production indices are provisional and are revised based on the corrections retroactively done by the enterprises in the sample, concerning the data previously provided.  Annexes:  [IPI- Metadata on calendar and seasonal adjustment](file:///C:\Users\nina.alexevici\Desktop\rapoarte%20de%20calitate\STS\Lucru\sts_ind_prod_esms_ro.sdmx(1)\Annexes\sts_ind_prod_esms_ro_an1.doc) |  |

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| |  |  | | --- | --- | | **19. Comment** | Top | | |
| Not available. |  |

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