



**Assessment of sources and methods used in
the provision of basic information for
Purchasing Power Parities (PPPs)**

COUNTRY: Bulgaria

2024



CONTEXT

1. This report is written in the context of the implementation of article 7 (on quality criteria and control) of Regulation (EC) No 1445/2007 of the European Parliament and of the Council of 11 December 2007 establishing common rules for the provision of basic information on Purchasing Power Parities and for their calculation and dissemination (the "PPP Regulation").
2. The PPP Regulation requires all Member States to maintain documentation which gives a full description of the manner in which the Regulation has been implemented (the "PPP Inventory"). It requires Eurostat to assess each Member States' compliance with the PPP Regulation at least once every six years and to publish a report, based on the assessment, on its website.
3. The current assessment report is based on the information provided by the National Statistical Institute (NSI) of Bulgaria in the "PPP Inventory of sources and methods", version January 2024, as well as on other data and reports prepared in the context of the PPP programme. In addition, information provided during a videoconference on 16 April 2024 is taken into account.

ORGANISATIONAL ISSUES

4. The department "Consumer Prices, Housing Prices and PPP" belongs to the Macroeconomic Statistics Directorate. The PPP team consists of four staff members who are also partly involved in CPI/HICP work. The expenditure weights and the data on housing, non-deductible VAT and tips are provided by the department "Non-Financial National and Regional Accounts", while the survey on the compensation of government employees is carried out within the PPP team based on data from the department "Labour Force Statistics". External experts are hired on a temporary basis for the two capital goods surveys and the survey on hospital services. Price collectors are partly provided by the Sofia Regional Office, partly recruited externally.

A dedicated section on the NSI website contains selected PPP data from Eurostat, the OECD and the ICP. The website is updated with Eurostat's releases in March, June and December each year.

FINDINGS BY PPP SURVEY

Consumer goods and services

5. The preview and pre-survey phases are carried out by the PPP team, using a combination of company websites, printed material, outlet visits and experience from previous surveys in order to gain up-to-date information about market conditions. Price collection is mostly done in the traditional way, by visiting outlets. This involves four staff of the Sofia Regional Office and three additional price collectors recruited on an ad hoc basis. Prices are collected in the capital city region and subsequently adjusted with spatial



adjustment factors based on similar items in the CPI item sample. Validation is taken care of by the PPP team, with some basic editing taking place before the data is entered into the Validation Tool. There is currently no use of transaction data, but efforts are underway in the context of the CPI to acquire such data and to implement it in statistical production.

Housing services

6. Bulgaria uses the stratification approach in national accounts and the price approach for the PPP calculation, but data is also provided under the quantity approach. The data is compiled by the department “Non-Financial National and Regional Accounts”. The source of the price data is the databases maintained by the four largest rental agencies in the country. Offered rents are adjusted by a fixed factor in order to estimate actual rents paid. Imputed rents as reported in the PPP questionnaire are substantially lower than the actual rents on which they are based, and this issue should be investigated further. Data on the dwelling stock is based on the latest census, extrapolated by construction statistics.

Compensation of government employees

7. The main data source is the Structure of Earnings Survey (SES), which is carried out by the department “Labour Force Statistics” every four years. For the intermediate years, the SES data is extrapolated by the development of salaries by economic activity, based on data from the same department. The rates of social contributions are established by law and, for the purpose of the PPP salary questionnaire, not extracted from national accounts (D121 and D122). All data is processed and validated by the PPP team.

Hospitals

8. The survey is coordinated by the PPP team and based on data provided by the National Health Insurance Fund. Experts from that institution, from the Ministry of Health and from the Ministry of Finance are involved in compiling the data, which is checked by experts from the department “Health and Justice Statistics” within the NSI before submitted to Eurostat. Since a DRG system has yet to be implemented in Bulgaria, negotiated prices based on the national system of “clinical case pathways” are used to estimate the quasi-prices which enter the PPP calculation. It has so far not been possible to exclude research and development costs, and training and education costs, from the quasi prices.

Education

9. Data from the UNESCO-OECD-Eurostat education database is provided to the countries by Eurostat for checking. Checking is especially important if there are gaps in the database and Eurostat’s PPP team has made imputations. The Bulgarian data is generally complete. The Bulgarian PPP team consults the department “Education and Culture Statistics” before approving the results.



Equipment goods

10. Two engineers hired on a temporary basis are involved in all phases of the survey (preview, pre-survey, data collection, validation). They both have many years' experience with this survey. Price data is collected from dealers and domestic producers by email and phone, to some extent also directly from company websites. Transport, delivery and installation costs are usually included in the prices reported by respondents. No attempt is made to collect data on discounts, since reliable data is difficult to estimate for purely hypothetical transactions.

Construction

11. Two experienced experts – one engineer and one architect – are hired on temporary basis for this survey. They are involved in all phases of the survey and share the work among themselves based on their specific expertise. Prices are obtained from active companies in the construction industry including contractors, subcontractors and producers of building materials, and from databases maintained by the experts. Published list prices are also used.

VAT on capital goods

12. Rates of non-deductible VAT are calculated directly from national accounts data. The reported rates are lower than in many other countries. This is at least partly explained by the fact that very few companies in Bulgaria are not registered for VAT.

Expenditure weights

13. The expenditure weights are prepared by the department “Non-Financial National and Regional Accounts”. For household final consumption expenditure, a combination of Retail Trade Statistics (RTS) adjusted for the expenditure of foreign residents is used at three-digit level. At the level of the basic headings, data mostly comes from the HBS. For non-profit institutions serving household and for general government, expenditure weights are only requested at a higher aggregation level and can thus be extracted directly from national accounts data. The data underlying the breakdown of gross fixed capital formation come mostly from Structural Business Statistics (SBS).



CONCLUSIONS AND SUMMARY OF ACTION POINTS FOR THE NSI

Bulgaria complies well with the PPP Regulation. The data is generally of good quality and the resulting PPPs are plausible. Some potential improvement points raised during the discussions are summarised in the table below.

Topic	Action points
1 Organisation	Update and streamline the PPP inventory in line with the inventory guidelines. Look into ways to further increase the visibility of PPP statistics at national level.
2.1 Consumer goods and services	Continue efforts to implement transaction data in the PPP exercise.
2.2 Housing	Investigate the reasons behind the big discrepancy between actual and imputed rents as reported in the PPP questionnaire.
3.1 Compensation of government employees	Ensure that actual and imputed social contributions are consistent with national accounts (D.121 and D.122).
3.2 Hospitals	Ensure that research and development, and training and education, are excluded from the quasi prices.
3.3 Education	None.
4.1 Equipment goods	None.
4.2 Construction	None.
4.3 VAT on capital goods	None.
5. Expenditure weights	None.