

Annual programme of activities of the Parliamentary Budget Office

Year 2025

(as required by Law No. 243 of 24 December 2012, Article 18, paragraph 4)

The mission of the Parliamentary Budget Office (PBO) is to contribute to the sustainability of public finances by ensuring the transparency of accounts and data and the accuracy of forecasts for the benefit of Parliament and citizens. As specified in its founding legislation (Chapter VII of Law No. 243/2012, known as the reinforced law, implementing the new Article 81 of the Constitution) and in the accounting law (Article 10ter of Law No. 196/2009), the PBO: verifies and assesses the macroeconomic and public finance forecasts contained in economic and financial planning documents; quantifies the macroeconomic and public finance impact of major legislative measures; analyses public finance trends, including by sub-sector, and verifies the long-term sustainability of public accounts; assesses compliance with budgetary rules and monitors the activation and use of certain instruments provided for by the European regulatory framework (in particular, the corrective mechanism and authorisation to deviate from the medium-term objective in the event of exceptional circumstances). Finally, it carries out micro- and macroeconomic analyses on topics relevant to public finance on its own initiative or at the request of parliamentary committees. It should be noted that the Government and Parliament have undertaken to amend Law 243/2012 and Law 196/2009 in 2025 to take account of the new EU economic governance.



1. Analytical activities

This section provides a brief description of the work carried out by the PBO in 2024 and the first few months of 2025, followed by an outline of the activities planned for completion by the end of the year.

Activities carried out in 2024 and early 2025

In 2024, the institutional activity of analysing public finance policy documents (Economic and Financial Document, EFD, and Medium-Term Fiscal Structural Plan 2025-2029, FSP) was carried out. The forecast horizon was extended in line with the provisions of the new EU economic governance. In particular, the results of the endorsement of official macroeconomic forecasts (trend and programme) and the assessment of public finances were made available to the Budget Committees of the Chamber of Deputies and the Senate during the hearings held in the context of the parliamentary examination of the Government's policy documents (April for the EFD and October for the FSP) and, as usual, at the hearing on the draft budget law for 2025 in November. Moreover, the Budgetary Policy Report was presented in June. The Report illustrated the trends of the previous year, the outlook for the Italian economy and public finances, and provided some sectoral insights. Furthermore, given that it was the tenth anniversary of the PBO's activities, the analysis also covered the period 2014-2023, with thematic insights into the retrospective analysis of the Italian economy and public finances, the evolution of taxation on households and businesses, pensions and employment, and recent policies for long-term care in Italy.

In addition to this work, numerous analytical documents were produced on specific topics identified by the PBO as part of the tasks assigned to it by its founding law or prepared in response to requests from parliamentary committees. In particular, in addition to the aforementioned hearings on the Government's policy documents and the budget law, seven hearings were held and one memorandum was transmitted on issues relevant to public finance (on the determination and implementation of Essential Levels of Provision (ELP) concerning civil and social rights; on Decree Law 19/2024, containing further urgent provisions for the implementation of the National Recovery and Resilience Plan (NRRP); on Decree Law 39/2024, concerning tax relief in the construction sector; on the reform of European economic governance; the state of implementation and prospects for fiscal federalism; draft law C. 1298 concerning the financing, organisation and operation of the National Health Service and the delegation of powers to the Government to reorganise tax relief relating to complementary healthcare; the identification of disadvantages arising from insularity and related countermeasures). Five thematic Focus papers were published. The topics covered in the Focus papers were: the periodic comparative analysis between the budgetary strategies indicated in the Stability and Convergence programmes of EU countries; as every year, the budgetary manoeuvre for 2024 approved by



Parliament; the allocation of national healthcare needs between new criteria and unfinished implementations; the analysis of recent regulatory interventions concerning tax deductions and relief; the collection of waste tax and the implications for municipal budgets. In some cases, this work was accompanied by the publication of specific infographics. Finally, two working papers were published in 2024 and early 2025: the first describes in detail the model developed by the PBO for preparing scenarios for the evolution of the debt-to-GDP ratio and the main public finance variables consistent with the new EU governance that came into force at the end of April 2024; the second assesses and quantifies the impact on public procurement and the timing of works of the introduction of the new Public Contracts Code and the restructuring of the National Recovery and Resilience Plan (NRRP) in the second half of 2023. In 2024, four editions of the Report on Recent Economic Developments were published, analysing the evolution of the Italian and international economy on a quarterly basis. Each Note included an in-depth analysis, two of which concerned forecasts for the Italian economy (February and August); in April, an analysis was presented on the phenomenon of so-called labour hoarding that characterised the years of the pandemic and those immediately following; the October Note presented an initial analysis of the new series of annual national accounts, focusing in particular on new evidence regarding the dynamics of value added and total factor productivity.

The update of *the database* with interactive graphical representations of the forecasts for the main macroeconomic and public finance variables published by the governments of the Member States in their Stability and Convergence programmes and Draft budgetary plans, as well as by the European Commission in its spring and autumn forecasts, has been published on the PBO's institutional website.

The quantitative analysis tools used for the PBO's institutional purposes continued to be enhanced and refined.

In the field of macroeconomic analysis, the short-term forecasting models already in use were supplemented by new tools that exploit innovative estimation techniques based on a statistical learning approach. *Machine learning* techniques are used to efficiently analyse large databases and test the usefulness of hundreds of time series, both to refine forecasts of key macroeconomic variables and to anticipate cyclical turning points. These models were assessed in terms of their predictive power, also in relation to their actual availability at the time of the forecast. With regard to the quantitative tools already in use at the PBO for economic analysis, work focused on the search for new timely economic indicators, with particular reference to the services sector. Collaboration with the Ministry of Economy and Finance (MEF) was consolidated for the regular provision of electronic invoicing data on a monthly basis.

The maintenance of the MeMo-It model of the Italian economy was mainly aimed at assessing its properties through various multipliers, in order to modify its structure and achieve elasticities consistent with those of other similar macroeconomic models for Italy.



Functions were also developed to expand the possibility of constructing simulation scenarios within the sample, assuming a different composition of public finance measures. In addition, the possibility of conducting stochastic forecasting scenarios was explored with the aim of producing an entire distribution of projections in addition to the point estimate.

With regard to the medium-term assessment, estimates of the macroeconomic impact of the investment projects set out in the NRRP have been updated. These assessments were carried out using both the MeMo-It model and the QUEST III R&D model provided by the European Commission and modified by the PBO.

With regard to the assessment of economic policy measures, in 2023 a Python application was developed for the evaluation of the effects of sectoral *shocks* through the analysis of sectoral interdependencies with *input/output* tables. The application has a graphical interface that facilitates its use, limiting the possibility of errors typical of spreadsheets.

Microsimulation models for sectoral analysis, particularly those relating to households, underwent significant updates in 2024. New information from tax returns was integrated into the models' databases and procedures were updated in line with current tax, social security and welfare legislation. Work continued on the development of both the microsimulation module, which uses data from the Istat household expenditure survey (HBS) integrated with administrative information on taxation, social security contributions, pensions and ISEE, to assess distributional impacts, and the specific model for assessing the impact of the Energy Performance of Buildings Directive (EPBD), which jointly estimates the energy class, the costs of the measures necessary to achieve the directive's objectives and the effects of possible relief measures, allowing their distributional impact to be assessed.

With regard to the microsimulation model on the taxation of corporations (MEDITA), during 2024, balance sheet data were acquired from Bureau van Dick and income tax return data (Modello Unico, Consolidato and IRAP) from the Revenue Agency for 2022. Tax returns for the period 2008-2014 were also acquired and, at the same time, an initial reading and processing of the data contained therein was carried out. As in previous years, the following updates were also made: a) the Mediocredito Centrale database on public guarantees granted to businesses; b) electronic invoicing data provided by the Revenue Agency. In particular, with regard to the former, the information already available was supplemented and enriched thanks to a new method of provision, which required a complete overhaul of the data acquisition and processing procedures. Finally, work continued on modifying the MEDITA model procedures for the combined use of simulation, financial statement and tax data, with a view to making the tool faster and more flexible. Finally, using information from administrative sources (income tax returns), a module was created for the identification and analysis of multinational companies for the assessment of the new *global minimum tax* (GMT).



As regards the short- to medium-term pension expenditure forecast model, in addition to the usual database update, its structure was revised. The model codes were revised and standardised in a single language (STATA). Subsequently, the model calibration procedures were modified and updated with respect to the retirement choices made by workers in the period between 2021 (year of origin of the INPS data) and 2024. The reference data are those from the monitoring of retirement flows provided by INPS. In the new version of the model, calibration is carried out in a more precise manner on the different forms of retirement. In the projection years (2025-2030), the hierarchical rules for choosing between the different retirement options and the *take-up* rules have been revised, the latter based on empirical evidence from internal and external sources, including econometric data.

With regard to healthcare expenditure forecasting, it was necessary to adapt to the longer forecasting horizon introduced under the new FSP. In particular, a specific forecasting model was developed, fed by historical data on the main components of healthcare expenditure (Social Protection Account, source: Istat). The historical series database was created using *Statistical Data and Metadata eXchange* (SDMX) technology. At the same time, the *database* drawing on quarterly economic accounts (source: BDAP) was updated. The latter are used for short-term analysis to support forecasting models. Finally, information on healthcare personnel numbers, which is useful for quantifying contract renewals, was updated.

With regard to the monitoring of public administration employee numbers, a database has been created with information available since 2010 in the annual accounts (source: State General Accounting Department, RGS). The availability of historical data is intended to meet various analytical needs, including: staff trends, geographical distribution, seniority and remuneration. At the same time, staff trends are compared with those made available by ARAN.

With regard to monitoring the implementation of the NRRP, work continued on building a database, updated several times during the year, based on the results available in ReGiS. The information collected has varying degrees of detail, some of which is more aggregated and concerns general aspects (milestones and targets, actual and budgeted expenditure, instalments), while other information is more granular. In particular, the unit of analysis is the individual project that contributes to the implementation of the interventions envisaged in the plan. The information relating to individual projects (e.g. project phases achieved, location, contribution to the achievement of milestones and targets, etc.) allows for more detailed and accurate analyses that highlight aspects not detectable by the indicators observed in aggregate form.

In this context, in addition to continuing its collaboration with ANAC and IRPET, in October 2024 the Office signed a collaboration agreement with the National Association of Building Contractors (ANCE) in order to obtain data on public works at the construction site-company level.



To ensure continuity in fiscal forecasting, routine maintenance was carried out in 2024 on the tax revenue forecasting tool, the *dataset* containing a summary of all discretionary measures, and the *dashboards* used to monitor the main public finance aggregates during the year. The entire public finance *dataset* was also updated on the basis of *benchmark* revisions carried out by Istat (and published in September 2024) to take account of the availability of new information sources, methodological changes in the processing of basic data, and innovations in the classification and/or definition of national accounting variables. In addition, in the first half of the year, the database used to estimate contract renewals for civil servants was defined and updated.

In the PBO model for analysing and forecasting interest expenditure on public debt, the simulation horizon has been extended from 4 to 5 years, in order to align it with that underlying the Medium-term fiscal structural plan. The information base feeding this model has been updated and published on the website with an interactive display of key information on the evolution of public debt in national government securities (issues, redemptions and net issues) and related interest expenditure, as well as the distribution of certain indicators (including average issue rates, residual debt maturity and other indicators). The publication of the database was accompanied by an infographic "Monetary policy and debt refinancing", which analysed some of the main factors characterising the dynamics of Italian public debt.

As part of the debt sustainability analysis, the model used for projections of the medium-term evolution of the debt-to-GDP ratio was further adapted and reformulated in 2024 in order to assess the consistency of the government's public finance targets with the multi-year adjustments required by the legislative changes reforming the EU budgetary framework that came into force on 30 April 2024. The methodology developed by the PBO allows projections to be prepared that illustrate the evolution of the debt-to-GDP ratio and the main public finance variables, broadly consistent with the approach outlined by the new EU governance.

The methodology developed by the PBO considers all the changes introduced by the new legislation on European *governance*. In particular, it is possible to differentiate the adjustment of the structural primary balance in the event of the opening of an excessive deficit procedure (EDP) and at the same time consider the "common numerical safeguards" introduced in the final version of the new Stability and growth pact rules. Specifically, it is possible to verify the "debt sustainability safeguard", i.e. that the ratio of public debt to GDP is reduced, on average, by one percentage point per year during the four- or seven-year adjustment period or during the years of the adjustment period in which the country is not subject to an excessive deficit procedure. In addition, the methodology allows for verification of the condition required by the 'resilience safeguard relating to the deficit', which requires that the annual adjustment of the structural primary balance be at least 0.4 percentage points of GDP in the case of a four-year plan or at least 0.25 percentage points of GDP. Finally, the PBO framework was completed



with the introduction of a formula that allows the ceiling on the growth rate of net primary expenditure to be derived once the annual adjustment of the structural primary balance consistent with the requirements of the Stability and growth pact has been established. In July 2024, a working paper was published¹ documenting the methodology developed by the PBO to fine-tune the projections of the debt-to-GDP ratio and the main public finance variables consistent with the approach outlined by the new EU governance.

During 2024, work also continued on migrating the PBO *framework* from its current platform (Excel) to specialised statistical *software* (Eviews) compatible with the macroeconomic forecasting model used by the PBO (MeMo-It).

In the first quarter of 2025, the PBO's institutional activity focused on contributing to the Parliamentary working group on the reform of public accounting and finance legislation, and on preparing two Focus papers and the usual February Economic Note, which included the new macroeconomic forecasts for Italy. A new infographic on Italy's GDP forecasts was also presented.

The contribution to the Parliamentary working group aimed to illustrate the principles which, according to the PBO, could guide the revision of national legislation on public accounting and finance as a result of the reform of EU economic governance. In addition, general comments and specific recommendations were provided regarding Law 243/2012 and Law 196/2009.

As usual, a Focus paper was devoted to the latest budget law approved by Parliament, confirming the breakdown – introduced last year – by economic policy area, following the classifications adopted at European level (in particular, it should be noted that for measures affecting revenue, the approach used in the publication *Taxation trends in the European Union* by the European Commission's Directorate-General for Taxation and Customs Union was used, and for measures affecting expenditure, reference was made to *the Classification of the functions of government*, COFOG).

Another Focus paper was dedicated to analysing the implementation status of the NRRP with regard to nurseries. In particular, based on the information available in ReGiS and other government documents, the outcomes of the calls for tenders relating to nurseries were assessed, also in light of recent changes (defunding of the Nursery Plan provided for in the NRRP and funding of a new plan also through Decree Law 123/2023, known as the Caivano Decree). The additional places in nurseries and kindergartens that can be created using the resources made available were also estimated in order to verify the achievement by the end of 2026 of the target number of places indicated in the NRRP and the ELP indicated in the 2022 budget law.



¹ See Cacciotti, M., Cole, A.L., Gabriellini, C., Giachin Ricca, E. and Padrini, F. (2024), <u>'The new EU Stability and Growth Pact and its implications for Italy'</u>, Working Paper No. 1, 4 July.

In February, an infographic on forecasts for Italy was launched, accessible from the PBO's institutional website. The infographic presents graphs and tables on GDP forecasts, produced by various institutional organisations, starting from 2018 in comparison with historical data. The infographic will be regularly updated as new forecasts or new data are published.

Finally, it is worth mentioning the OECD workshop 'Integrating climate into long-term fiscal sustainability analysis', hosted by the Office on 21 and 22 January 2025 in the Refectory Hall of the Chamber of Deputies, Palazzo San Macuto, which was attended, among others, by the State Accountant General Daria Perrotta, the Director of the Office for the Evaluation of Public Policies of the Senate Chiara Goretti, and the Head of the Public Finance and Budget Policy Observatory of the Chamber of Deputies Paola Bonacci. In this context, the Office intends to continue its cooperation with the relevant offices of Parliament within the scope of its institutional tasks as provided for by law.

The work programme for the rest of 2025

This year, in addition to presenting the 2025 Budgetary Policy Report, activities will continue to strengthen the tools necessary for the Office to carry out its institutional tasks: the assessment of the Government's public finance documents, the forecasting and monitoring of trends in the Italian economy and public finance, as well as the analysis of the financial and distributional impact of the most significant legislative measures and their effects on the economic and social conditions of households and businesses. In light of the entry into force of legislation reforming the EU budgetary framework, new tools will also be developed that are necessary for the performance of the tasks assigned to the EU's independent budgetary institutions.

Particular attention will be paid to <u>activities relating to the monitoring of net expenditure growth</u>. It should be noted that the new EU regulation on the preventive arm of the Stability and Ggowth pact stipulates that: "Member States may request the relevant independent fiscal institution referred to in Article 8a of Directive 2011/85/EU to provide an assessment of the compliance of the final budgetary data reported in the annual progress report with the net expenditure path established by the Council." Furthermore, "where applicable, Member States may request the relevant independent fiscal institution to analyse the factors underlying a deviation from the net expenditure path established by the Council. This analysis is not binding and is additional to that of the Commission." As described in more detail below, the objective of monitoring will be to assess *ex ante*, in-year and *ex post* estimates of net expenditure growth consistent with the definition of the aggregate used for the new framework of rules of the Stability and growth pact using the 'bottom-up' calculation method (i.e. based on the individual components of the relevant aggregate, see *below*).



Recurring institutional activities: Budgetary Policy Report, development of analytical tools and permanent research lines

The 2025 Budgetary Policy Report

The 2025 Report will consist of two parts: the first will illustrate the macroeconomic and public finance results of the previous year, the most recent forecasts and the usual *ex post* assessment of the Government's macroeconomic forecasts; the second part will be devoted to thematic insights.

The sectoral insights in the Report will be dedicated to various topics.

Firstly, it will analyse the possible effects of employment trends in recent years on productivity in the main economic sectors, using information on the specific characteristics of workers, such as professional qualifications, educational attainment, seniority and gender.

The in-depth analysis focuses on the Italian labour market in the period following the pandemic crisis, when employment improved significantly (an increase of around 2.0 per cent in 2023 compared with 2019) and the participation and employment rates reached their highest levels since records began. During the same period, labour productivity (measured in terms of value added per hour worked) essentially stagnated, despite the sharp increase during the year of the health crisis. Overall, the slowdown in productivity was associated with a marked increase in employment and an imbalance between labour supply and demand. The study aims to provide evidence on the evolution of the labour market in the years following the pandemic with reference to certain relevant sociodemographic characteristics of workers, such as levels of education and skills, and type of employment. It also aims to investigate the relationship between new entrants to the labour market and productivity dynamics, assessing in particular whether the individual characteristics of workers entering the market, compared to those of people already in employment, have contributed to sustaining productivity dynamics. Finally, the effects attributable to the sectoral reallocation of factors on aggregate productivity will be analysed, assessing the contribution of the reallocation of resources both within individual sectors, in particular between companies of different sizes, and between sectors.

Secondly, using the PBO's microsimulation model of corporate income taxes (MEDITA), a descriptive and quantitative analysis of the incentives for Industry 4.0 will be provided. In particular, a detailed description of the measures will be provided, distinguishing between the different instruments adopted in recent years (increased depreciation and tax credits). The beneficiary companies and the amount of the benefit enjoyed will be identified in relation to the main economic characteristics (sector, size, location, profitability, etc.). On this basis, using a two-stage technique – matching for the construction of the control group and difference in difference for the identification of the



effect – the impact of the incentive on a series of target variables (investment, employment, wages and business productivity) will be assessed.

A new assessment of the macroeconomic effects of residential building incentives ('Superbonus'), introduced in the year of the pandemic crisis and remaining in force at a rate of 110 per cent until the end of 2023, will also be presented. The impact assessment has already been carried out by the PBO in previous Reports and Hearings using the MeMo-It macroeconomic model. The 2025 Report aims to update the estimate of the macroeconomic effect of the measure, taking into account new national accounting information in light of the revisions that have taken place. The objective is to arrive at an estimate of the impact of the incentives on the economy using a statistical methodology that allows for a more robust identification of the counterfactual scenario, including on the basis of recently published analyses.

The development of econometric models and other quantitative tools for institutional activities

In the field of macroeconomic analysis, work will be carried out on the structure and simulation procedures of econometric models, in light of new historical information from national accounts and the changing institutional requirements associated with the new governance of public accounts, which requires long-term projections.

In particular, the medium- to long-term properties of the MeMo-It model will be tested for the creation of long-term macroeconomic scenarios under different fiscal policy regimes. Using the most recent time series from national accounts, an in-depth assessment of the model's properties will be carried out, starting with a verification of the specification of individual equations through tests of correct specification, structural stability and predictive capacity on different samples, any changes to the structure of individual blocks of equations in the model, and the calibration of multipliers around values consistent with those prevailing in the literature and similar to those of other similar macroeconomic models for Italy.

The sectoral analysis model with input/output tables will be refined and developed. In particular, the user interface will be improved to make it more intuitive to use. The possibility of continuing development to incorporate sectoral dynamics or granularity will be assessed.

With regard to short-term models, the indicators with informative content will be further expanded to track the evolution of the economy, especially at the sectoral level, also in relation to the changes made by Istat in the information sources of the quarterly national accounts published last October. In particular, the study on how electronic invoicing data can be used to estimate the value added of services will be further explored. The process of developing new operating procedures based on *machine learning* models will be



completed, to be used alongside and combined with the short-term forecasting models for GDP and its main components already in use at the PBO. Finally, analyses will be conducted on some significant aspects that have marked the most recent cyclical phases, using microdata from monthly surveys on household and business confidence, available thanks to a collaboration with Istat. Individual household data allow for the development of alternative measures of price dynamics and expectations as perceived directly by consumers. The use of qualitative information at the firm level helps to refine indicators already developed by the PBO, first and foremost that on credit access conditions.

In the area of public finance, the monitoring of revenue and expenditure aggregates, which is necessary for the preparation of short- and medium-term forecasts, will be stepped up. In particular, work will continue on updating the database (from SIOPE and RGS-OpenBDAP sources) dedicated to monitoring and forecasting public finances developed by the PBO. This tool provides useful information for monitoring the evolution of the general government account in the current year and, on this basis, for formulating forecasts for future years. With regard to public wages, given the new methodology for recording public sector contract renewals introduced in *the* benchmark,² consideration will also be given to how to use cash data on expenditure for personnel for the purpose of monitoring expenditure on public wages on an accrual basis.

Following the changes introduced to European governance, and in line with the methodologies and assumptions that the MEF will use, it will be necessary to examine in greater depth the aspects relating to the estimation and monitoring of net expenditure.

To this end, it will be appropriate to update the "Memorandum of Understanding between the Parliamentary Budget Office and the Ministry of Economy and Finance on the transmission of information necessary for the certification of macroeconomic forecasts and the assessment of public finances" in order to acquire, in a timely manner, the information relevant for the endorsement of the official macroeconomic forecasts and the assessment of public finances. It will also be necessary to update the agreement with Istat (the Italian National Institute of Statistics) on the provision of public finance data.

The *ex-post* analysis of official public finance forecasts contained in policy documents will continue, comparing them with the final results (with an assessment of the main factors determining the differences). Particular attention will be paid to the *ex-post* analysis of net expenditure trends (see *below*). Also for the purpose of publishing the *ex-post*

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² Previously, contract renewals were accounted for in the year the contract was signed, with all arrears also being charged to that year. This was essentially a cash-based accounting criterion, except in cases where the contract was signed around the end of the year, in which case the effects on net borrowing were reflected in the year the contract was signed, while those on borrowing requirements and debt were reflected in the following year. The new methodology, on the other hand, allocates the amounts earmarked for bargaining under current legislation to each year, regardless of the year in which the contract is signed, thus effectively following the budget allocation profile. Compared to the previous accounting method, the new methodology does not result in the peaks in expenditure due to arrears that were seen in the years of contract renewal – typically with significant delays – as the amounts are spread more evenly over the years of the contract period.

analyses, the information provided by the Ministry of Economy and Finance will be used to comply with the provisions of the "Memorandum of Understanding". Within the limits of the data and information available, the analysis of net expenditure will also be conducted at the sub-sector level (central government, local government and social security institutions).

With regard to the model for forecasting expenditure on interest on national government securities, work will continue on researching alternative strategies for simulating future issuance policy, taking into account both cost-risk objectives on the residual life of the public debt *stock* and interest expenditure. The publication of the updated government securities database on the website will be accompanied by an infographic analysing trends in Italian public debt. Finally, the integration of the model's forecasts for government securities with estimates of other components contributing to the interest expenditure of the entire public administration (PA) will continue.

With specific reference to public debt, the analysis of the components underlying the stock-flow adjustment, given by the difference between the change in public debt and the net borrowing of the public administration, will continue. The disaggregation of this item allows for the analysis of the components that contribute to the change in debt other than the revenue and expenditure considered in the net borrowing of the public administration.

As part of the debt sustainability analysis, in order to assess the sensitivity of the Government's planned primary balances to different assumptions about the dynamics of the GDP deflator and the consumption deflator, a methodology was developed in 2022, which is still in use, that allows the elasticities of the primary budget balance to be derived for each individual year of the forecast horizon of the planning documents the elasticity of the primary budget balance to different price changes. These elasticities are obtained by assuming a differentiated reaction of public revenue and expenditure to price changes. Starting from the evidence that revenue from self-assessment reacts to price changes (GDP deflator growth rate) with a one-year lag, the analysis of the impact of price *shocks* on revenue will be further refined. On the expenditure side, the analysis aimed at assessing how expenditure on public wages reacts to inflationary *shocks* will continue.

The deterministic DSA framework will also be extended to take into account, in order of priority: 1) the need for a more direct link between the model used for the DSA and the model for estimating interest expenditure; 2) the impact of revenue from the taxation of Italian government bonds on the primary balance; 3) the impact of government securities held by the Bank of Italy as a result of purchase policies, also considering the impact of the gradual reduction of the portfolio, on the income it distributes to the State deriving from its holdings in government securities (so-called "retrocessioni", which impact the revenue of the general government account under the item "Interest income", i.e. part of "Other current revenue"); 4) monetary policy multipliers (estimated using the



econometric model provided by the PBO), i.e. the impact of interest rate changes on real GDP growth.

Given the increasing complexity of the deterministic framework and the need for a more immediate link with the related stochastic framework, as highlighted above, work will continue on transitioning the model to stochastic-econometric calculation *software* that is more suited to managing relatively complex models, while at the same time seeking to reduce the increase in volatility of the variables caused by the growing complexity of the underlying debt-to-GDP ratio projection model.

Finally, as in previous years, Italy's public finance results and strategies will be compared with those of other EU countries, as set out in the Annual Progress Reports required under *the* new EU governance framework, in the Budget Policy Documents and in the relevant opinions of the European Commission.

To support **sectoral analysis**, microsimulation models for households and corporations, already used in previous years for the *ex ante* and *ex post* evaluation of certain legislative measures, will be further enhanced. This will ensure continuity in the analysis of issues such as the direction of tax policy and the evolution of taxation for specific sectors, as well as the reliability of *ex ante* and *ex post* impact assessments of legislative measures. In light of the new budgetary rules and in a phase of prolonged budgetary consolidation, as described in the FSP, these assessments are particularly important for verifying the effectiveness and quality of expenditure and the composition of the budget.

In particular, with regard to household models, the main methodological development will concern the updating of the information bases for microsimulation models, which have almost all been acquired, albeit with some delay. The procedures for reconstructing tax, social security and welfare regulations will be updated. As regards the model for measuring the impact of indirect taxes and price dynamics, input data on consumer inflation, the tariffs of the main utilities and fuels, consumption taxes and excise duties, as well as tariff bonuses paid on the basis of the beneficiaries' Equivalent Economic Situation Indicator (ISEE) will be updated at least quarterly. Particular attention will be paid to taxation directly and indirectly linked to real estate, based on new administrative information concerning cadastral data. In particular, new estimation modules will be developed for IMU (property tax) and TARI (waste tax), analysing the relationship between theoretical and actual revenue on a local basis.

Work will continue on the development of a specific model for assessing the impact of the recent EPBD and a microdata-based analysis model will be developed to estimate the effects of recent employment trends on productivity.

With regard to the model on corporations, during 2025, balance sheet data will be acquired from Bureau van Dick and tax return data (Modello Unico, Consolidato and IRAP) from the Revenue Agency for 2023. Information on multinational companies and global



minimum taxation will also be integrated. Finally, more systematic use of electronic invoicing data is planned in order to improve the model's predictive capabilities (the timeliness of the information provided by these data is particularly useful for improving estimates, considering that companies are currently facing the structural changes that inevitably follow the health and energy crises of recent years).

In 2025, the monthly updating of Mediocredito Centrale data on public guarantees granted to companies will continue in accordance with the new supply method. This will require the development of procedures for acquiring and reading the new information provided by the Fund. Finally, microdata relating to the financial statements of banks operating in Italy made available by the Bank of Italy (IBBaSS) will be acquired and subsequently integrated into the model.

As regards the short- to medium-term forecast of pension expenditure, the updating process begun in 2024 will continue. In particular, the review of the model's structure will initially focus on exploring the possibility of introducing elements of discontinuity in the remuneration profiles used in the model for calculating pensions. To this end, information currently available in the INPS database that feeds the model (composition of contribution seniority in periods before and after the introduction of the contribution rule) will be used. Further studies will then be carried out to make the life cycle profiles of employment income more realistic, also using information from sources outside the database and derived from the LOSAI sample and INPS contribution extracts. In terms of the model's architecture, the new structure will allow simulations with different scenarios to be managed in an organic manner. There is also the objective of introducing procedures for calculating adequacy indicators (replacement rate between first pension instalment and last salary) and financial convenience (internal rate of return).

In order to further develop the analysis of local finance, which requires the use of heterogeneous data from different sources, the database will be enhanced. It currently combines data from the provisional and final budgets of local authorities and regions (BDAP), data on receipts and payments (SIOPE), the land registry and property valuations (Revenue Agency), state transfers (Ministry of the Interior) and those to municipalities, which will allow mergers and incorporations of local authorities in the period from 2010 to 2023 to be taken into account in the analysis. The intention is to continue to enrich the database with information on the personnel of local authorities (ARAN), environmental data on urban waste management (ISPRA), IMU rates (municipal resolutions) and TARI tariffs (municipal economic and financial plans). In addition, the local authority registry will be enriched with information on forms of association (unions of municipalities and mountain communities, social territorial areas, etc.) and descriptive data (demographic, economic and social data relating to human capital from Istat, etc.).

With regard to monitoring the implementation of the NRRP, the existing database, based essentially on the results available in ReGiS and information from ANAC, will continue to be developed. Its enrichment with microdata from ANCE will be evaluated.



The development of tools for monitoring the net expenditure indicator within the new EU economic governance

The Office will have to continue to equip itself to cope with the tasks arising from *the* new EU *governance* based on the legislative changes that came into force on 30 April 2024.

The legislative texts reforming the economic *governance* of the EU recognise a stronger role for independent fiscal institutions (IFIs), such as the PBO, compared with previous legislation. In particular, Article 8a of Directive 2011/85/EU on requirements for budgetary frameworks of Member States recognises certain minimum principles to ensure their functional autonomy and independence and establishes certain tasks for IFIs:

- 1) preparing or validating annual and multi-annual macroeconomic forecasts;
- 2) monitoring compliance with the numerical fiscal rules in force at national level;
- 3) formulating an opinion on the macroeconomic forecasts and macroeconomic assumptions underlying the net expenditure path contained in the Structural Budget Plan; until 30 April 2032, the opinion is formulated at the request of the Member State, while from 1 May 2032 it becomes mandatory;
- 4) at the request of the Member State, provide an assessment of the conformity of the final budgetary data reported in the Annual Progress Report with the net expenditure path established by the Council;
- 5) at the invitation of the Member State, in the event of the opening of an excessive deficit procedure, produce a separate, non-binding report on the adequacy of the measures taken in relation to the objectives;
- 6) assess the consistency, coherence and effectiveness of *the* national budgetary framework;
- 7) upon invitation, participate in regular hearings and discussions at the national Parliament.

In view of the annual progress report made in relation to the net expenditure path established by the Council, which the Government must send to the European Commission by 30 April each year, particular attention will be paid to activities relating to the monitoring of net expenditure growth and the assessment of its components.

The objective of the monitoring is to analyse *ex-ante*, in-year and *ex-post* estimates of net expenditure growth consistent with the definition of the aggregate used for the new framework of rules of the Stability and growth pact.

The definition of the net expenditure aggregate based on the "bottom-up" method is based on the following formula:



net expenditure = primary expenditure – impact of EU-funded interventions ('EU flows') – national co-financing of EU-funded programmes – impact of one-off and one-off- s – cyclical expenditure on unemployment – impact of discretionary revenue measures ('DRM')

Where possible, the methodologies used by the European Commission will be used to estimate the individual components of the net expenditure indicator, even if the MEF deviates from them.

More specifically, the forecasts prepared during the endorsement of the macroeconomic forecasts in the planning documents will be used for *ex-ante* and in-year estimates of primary expenditure. With regard to in-year estimates, monitoring and use of available databases, i.e. Istat, BDAP and Siope infra-annual data, will continue. As regards the *expost* result, Istat's final figures will be used. The Memorandum of Understanding with the MEF and the Agreement with Istat will need to be amended to specify the new data/information requirements.

For the *ex-ante* estimate of the DRM, assessments of the financial impact of the main measures on the revenue side will be carried out through the analysis of the relevant technical reports. The Memorandum of Understanding with the MEF will need to be amended to specify the need to provide data/information as part of the monitoring of this component of net expenditure, including in cases where the *ex-ante* estimate needs to be modified during the year or *ex post*.

With regard to EU flows and national co-financing of EU-funded programmes, given that the only channel for data provision at present is the RGS, the Memorandum with the MEF and the Agreement with Istat will need to provide for the regular provision of the necessary data (economic accrual basis) both *ex ante*, during the year and *ex post*.

With regard to the estimation of *one-off* measures, it will be necessary to examine in detail the criteria used by the Commission to classify measures as *one-off*. For each measure, an assessment will then be made as to whether or not it meets the Commission's criteria. In case of doubt, a discussion with the Commission itself and with the MEF should be arranged. The *ex-ante*, in-year and *ex-post* financial impact of these measures will therefore be assessed, also in collaboration with the MEF. Therefore, the provision of data/estimates at all stages of monitoring should be defined in the Protocol with the MEF.

Finally, with regard to cyclical unemployment expenditure, it will be necessary to establish how to derive unemployment expenditure (including temporary lay-offs) and to have an estimate of the unemployment gap. For both aggregates, the definition and methodology used by the Commission will be used. However, sensitivity analyses will be conducted using the unemployment expenditure forecasts and the estimate of the unemployment gap prepared during the endorsement of the official macroeconomic forecasts. With



particular reference to the *ex-post* result of unemployment expenditure, the final data from Istat will be used as soon as it becomes available. However, given the delay in its release (the data for year t is normally published at the end of year t+1), it will be necessary to check with Istat whether it is willing to provide information in advance of publication. Alternatively, other data could be requested to construct a *proxy*. To this end, it will be necessary to update the Agreement with Istat. With regard to *the unemployment gap*, an estimate will be made using the common EU production function methodology. However, in order to conduct sensitivity analyses, other methodologies for estimating the NAWRU unemployment rate could also be used.

Furthermore, given recent developments in security and defence at European level, the implications of related initiatives for budgetary rules and public finances will be monitored.

In order to monitor compliance with the commitments made by the Government in the Plan, it will also be important to track the trend in public investment financed with national resources, especially after 2026, when the impact of the NRRP is expected to end. In fact, the extension of the budget adjustment period is conditional on a commitment to maintain the average level of public investment financed with national resources for the years 2027-29 at a value equal to or higher than the average during the implementation period of the NRRP.

To support the monitoring and transparency of the new budgetary rules, a working note will be prepared comparing the two methods, "top down" and "bottom up", for deriving the ceiling on the net expenditure growth rate. The first method derives the ceiling on the net expenditure growth rate from the structural primary balance adjustment targets that meet the requirements of the new European rules. The second method derives the ceiling from the targets for the individual components of the net expenditure aggregate described above.

Finally, as required by the new regulation on the preventive arm, the European commission has invited Member States to estimate public investment needs, including those related to common EU priorities. At the European level, the methodology for estimating public investment needs should be developed by the Commission and discussed with Member States. The PBO intends to explore this issue further in order to acquire the necessary tools to estimate these needs. Looking ahead, being able to make a preliminary estimate of investment needs would enable the PBO to assess *ex ante* the adequacy of the resources allocated to a given policy. A first application could concern the estimation of the costs of the measures necessary to achieve the objectives set out in the EU directive on the energy efficiency of public buildings.

With a view to enhancing the existing tools, various options for producing medium- to long-term macroeconomic forecasts will be assessed. Specifically, models that allow the



macroeconomic impacts of the budgetary adjustments necessary to achieve the public finance objective to be represented will be considered.

The impact of the investments and structural reforms included in the National Structural and Budgetary Plans, as well as in the NRRP, will be assessed using the macroeconomic models already in use at the PBO, such as MeMo-It and the QUEST III R&D general equilibrium model, provided by the European Commission and modified by the PBO.

National plans must take into account the costs associated with population ageing, primarily pension and healthcare expenditure. With regard to the development of the long-term projection model for pension expenditure, the work will be organised into two parallel blocks. The first part of the work will be devoted to reviewing the advantages and disadvantages of the different types of models used for this purpose in Italy and in the main developed economies. In particular, the aim is to examine, from a methodological and operational point of view, the opportunities and limitations of an approach based on microeconomic data analysis. The second part of the work will mainly concern updating the base year population. This aspect is of crucial importance for the construction of a model in which the consistency of the initial population with respect to the reference universe (the Italian population) is fundamental for controlling the nature of the heterogeneity generated during the simulation phase and, therefore, for the accuracy of the estimates relating to sustainability and distribution indicators. The base year population data, which will be derived from the integration of the most recent IT-SILC survey with retrospective information from INPS sources on earnings careers, will be subjected to extensive validation and, if necessary, correction procedures. Choices relating to the calibration of sample weights will also be examined. Finally, the longitudinal component of the database will be used, as far as possible, to define, through econometric analysis, the parameters that will then be used in the dynamic simulation phase for socio-demographic transitions (educational choices, marriages and divorces, labour market, etc.).

Specific lines of analysis

As provided for in the founding law, the PBO's tasks include the preparation of analyses on 'additional economic and public finance issues relevant for the purposes of analysis, verification and assessment' chosen independently by the Office itself.

The following describes the topics of specific analyses which, compatibly with other institutional priorities, are expected to be completed by the end of the year and those which will be launched in 2025 but are expected to be completed in the first part of the following year. In some cases, they resume lines of research initiated in previous years that were not completed due to delays in acquiring the necessary information sources or because the time available for research was limited by institutional activities.



Analyses concerning the NRRP

The 2023 Budgetary Policy Report published an updated assessment of the impact of the PNNR on economic growth to take account of the restructuring of the annual distribution of expenditure for the Plan's projects. The exercise was carried out using both the MeMo-It econometric model, used by the PBO for medium-term forecasts, and the QUEST III R&D model, also used by the MEF to assess the macroeconomic effects of the NRRP.

The assessments will be updated to take account of developments in the implementation status.

Various activities will continue to be dedicated to the implementation of the NRRP in the coming months.

The ReGiS platform will be used to monitor the implementation status of the NRRP in all its aspects. In order to overcome issues related to the timeliness and completeness of the information contained in this platform, it will continue to be supplemented with other sources (ANAC, Opencup, BDAP, ANCE, etc.) and administrative information in order to meet institutional analysis needs. To this end, collaboration with IRPET will also continue for the analysis of the evolution of investments undertaken.

In addition, monitoring of NRRP interventions implemented by local administrations will continue. Particular attention will be paid to the progress of measures in the social and health sectors. With regard to the latter, the aim is to assess the status of the implementation of the interventions provided for in the NRRP in Mission 6, Health (to which 15.62 billion has been allocated). While most of the milestones, consisting of the approval of reforms, guidelines and institutional development contracts, have been achieved within the planned timeframe — albeit at the cost of postponing many substantial aspects to subsequent measures — the implementation of the targets is perhaps the most difficult challenge for our country, involving, among other things, the completion of a series of investments within the planned deadlines. However, the restructuring of the NRRP has shifted part of the resources from investments to current expenditure (integrated home care), making it easier to achieve the objectives. An assessment of the overall state of implementation can also make it possible to evaluate the extent to which the NRRP is contributing to a rebalancing of healthcare infrastructure and service provision capacity between the different macro-areas of the country.

The impact of climate change and the energy transition on public finances

Taking as a reference the Report on Budgetary Risks and Sustainability by the UK Office for Budget Responsibility (OBR),³ the Report on Budgetary Risks and Sustainability by the

³ OBR (2024), <u>'Fiscal risks and sustainability – September</u> 2024', 12 September.





Portuguese Conselho das Finanças Públicas (CFP)⁴ and a paper by the Irish Fiscal Advisory Council (IFAC),⁵ we will analyse the various sources of macroeconomic and budgetary risks for Italy arising from climate change, such as: acute physical risks, i.e. damage from extreme weather events; chronic physical risks, i.e. damage to productivity due to rising temperatures; adaptation costs, i.e. the costs of reducing both acute and chronic physical risks; mitigation or emission reduction costs, in particular the costs associated with the energy transition.

First, a descriptive analysis of the phenomenon will be conducted for Italy. Data related to climate change and the energy transition for Italy will then be collected and analysed, also in comparison with other countries, such as: increase and greater volatility of average temperatures; total and disaggregated emissions by sector; energy mix used and its variation following the energy transition; number of combustion engine and electric vehicles; increase in the frequency and intensity of extreme weather events and their impact on the economy and public finances; adaptation costs; energy and carbon taxation; expenditure on the energy transition; funds for the energy transition and for damage caused by natural disasters; issuance of green BTPs and use of the related financing.

Based on these data, the possibility of preparing initial estimates of the impact of climate change on the Italian economy and public finances up to 2050 will be explored through the use of various tools and methodologies. One of these is the Edison tool developed by the OECD for IFIs. To this end, the use of this tool has been explored on several occasions, most recently in a *workshop* hosted by the PBO last January. The Edison tool uses as *input* for the macroeconomic impact of climate change the estimates per country reported in a paper published in the journal *Energy economics*⁶ in 2021 or those published by *the Network for greening the financial system* (NGFS)⁷ in 2024, and as input for the impact of extreme weather events the annual average per country of events reported in the international database on natural disasters EM-DAT.⁸ Other inputs concern certain data, to be obtained for Italy, related to emissions, energy source use, taxation and public expenditure relating to the energy mix, emissions and climate measures.

A further analysis, to be integrated into the overall assessment at a later stage, will be dedicated to estimating the costs of non-compliance with certain EU regulations and directives on the environment, namely: the regulation on the sharing of emission reduction efforts 2021-2030,⁹ the Regulation on greenhouse gas emissions and removals

⁹ See <u>Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement.</u>



⁴ CFP (2023), <u>'Fiscal Risks and Public Finance Sustainability</u> 2023', 12 December.

⁵ IFAC (2023), <u>"What climate change means for Ireland's public</u> finances", October.

⁶ Kahn, M., Mohaddes, K., Ng, R., Hashem Pesaran, M., Raissi, M. and Yang, J. (2021), <u>"Long-Term Macroeconomic Effects of Climate Change: A Cross-Country</u> Analysis", 21 August.

⁷ See NGFS Phase 5 Scenario Explorer.

⁸ See The Emergency Events Database EM-DAT.

resulting from land use, land use change and forestry, ¹⁰ the Directive on the promotion of energy from renewable sources¹¹ and the Energy efficiency Directive. ¹²

Another tool that will be used for initial estimates of the impact of climate change on public finances, particularly the impact of extreme weather events, will be the EU's *Debt Sustainability Analysis* (DSA) conceptual framework, following the methodology set out in a European Commission article for Italy.¹³ It uses data from the EM-DAT database and projections from *the Joint Research Centre's* PESETA project¹⁴ as *input*, which analyses the risks and impact of extreme weather events on welfare and public debt sustainability, based on different global warming scenarios.

In addition, estimates of the environmental impacts of the NRRP will be prepared using the climate version of *the Global Economic Model* provided by Oxford Economics. A significant portion of the funds is earmarked for energy efficiency, but at the same time, the expansionary macroeconomic impact increases energy consumption and therefore increases greenhouse gas emissions. An initial assessment of the effects of the NRRP on overall pollutant gas emissions will therefore be carried out, seeking to identify at what stage the net increase in emissions prevails and when the benefits to the environment begin to prevail.

Finally, possible public policies to be adopted for the energy transition and to manage the damage caused by climate change will be analysed, also taking as a reference a study by the European Commission¹⁵ which describes the impact of alternative policies on public expenditure and revenue, and a series of studies, also by the European Commission,¹⁶ which assess the possibility of managing the impact of natural disasters through the establishment of budgetary funds for disaster-related risks.

In the field of energy renovation, work will also continue on assessing the impact of the recent EPBD (*Energy Performance of Buildings Directive*) through a joint estimate of the energy class, the costs of the measures necessary to achieve the objectives set out in the

¹⁵ Aphecetche, T. (2024), <u>'Fiscal Challenges in the Green Transition: A Global</u> Perspective', European Economy Economic Brief 081, 5 September.

¹⁶ Radu, D. (2021), <u>'Disaster Risk Financing: Main Concepts & Evidence from EU Member</u> States', European Economy Discussion Paper 150, 28 October; Radu, D. (2022), <u>'Disaster Risk Financing: Limiting the Fiscal Cost of Climate-Related</u> Disasters', European Economy Discussion Paper 174, 30 November; Radu, D. (2024), <u>'Approaching Disaster Risk Financing in a Structured</u> Way', European Economy Discussion Paper 174, 7 May.



¹⁰ See <u>Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry into the 2030 climate and energy framework.</u>

¹¹ See <u>'Directive (EU) 2023/2413 of the European Parliament and of the Council of 18 October 2023 amending Directive (EU) 2018/2001, Regulation (EU) 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources'.</u>

¹² See <u>Directive (EU) 2023/1791 of the European Parliament and of the Council of 13 September 2023 on energy efficiency</u>.

Gagliardi, N., Arevalo, P. and Pamies, S. (2022), <u>'The Fiscal Impact of Extreme Weather and Climate Events:</u> Evidence for EU Countries', European Economy Discussion Paper 168, 19 July.

¹⁴ See JRC PESETA programme.

directive and possible support measures, the distributional impact of which can be assessed.

Indicators of wealth and sustainability of public debt

The reform of the EU fiscal framework considers the medium-term dynamics of the public debt-to-GDP ratio as the key element for assessing the sustainability of a country's public finances. However, the debt-to-GDP ratio (i.e. the ratio between a *stock* variable and a flow variable) may not be the most appropriate indicator for measuring a country's financial stability.¹⁷ In this regard, some growth models consider the ratio between public debt and wealth as a relevant variable for measuring a country's financial sustainability.¹⁸ In light of this approach and also of the indications from intertemporal consumption models that identify a link between ageing and individuals' propensity to save/wealth, the PBO, starting from the projections on household wealth made by the Memo-it model, will examine the possibility of constructing a medium-term projection model of the ratio between public debt and wealth. To this end, a number of structural and demographic variables (such as the demographic projections of the number of households produced by Istat) that may influence the dynamics of wealth in the medium and long term will be taken into consideration.

The implications for public finances of an inflationary shock

The QUEST III R&D model will be used to simulate the impact on public finances of supply-side inflationary *shocks*, such as an increase in energy prices, or demand-side shocks. The methodology followed will be similar to that proposed in a recent European Commission analysis.¹⁹ In addition, the results generated by the model in terms of real output, prices and interest rates will be used as *inputs* for the debt sustainability analysis (DSA) *framework*, as a further sensitivity analysis.

¹⁸ Bruce, N. and Turnovsky, S. J. (1999), "Budget balance, welfare, and the growth rate: 'Dynamic Scoring' of the long-run government budget", in Journal of Money, Credit and Banking, Vol. 31, No. 2, pp. 162-186 ¹⁹ Motyovszki, G. (2023), "The fiscal effects of terms-of-trade-driven inflation", in European Economy Discussion Paper, 190, July.



¹⁷ See: Balassone, F., Franco, D. and Zotteri, S. (2007), 'The reliability of EMU fiscal indicators: Risks and safeguards', in Larch, M. – Nogueira Martins J. (eds.), Fiscal indicators, European Economy Economic Papers, No 297; Casarosa, C. (1986), "The economic significance of the ratio between public debt and GDP: a critical analysis", in Economic Policy, vol. 2, no. 2; Furman J. – Summers L. (2020), "A reconsideration of fiscal policy in the era of low interest rates, Discussion Draft", 30 November, available at hks.harvard.edu; Blanchard, O., Leandro, A., Zettelmayer, J. (2021), "Redesigning EU fiscal rules: from rules to standards", in Economic Policy, April; Wyplosz, C. (2011), "Debt sustainability assessment: Mission Impossible", in Review of Economics and Institutions, vol. 2, no. 3.

Assessment of policy measures

Some analyses will be devoted to the assessment of specific public policies implemented in recent years or currently under discussion.

On the corporate side, several lines of analysis can be identified. First, recent regulatory innovations in international taxation and the debate on possible corrective mechanisms suggest several points of interest. The first concerns a general overview and description of the multinational companies that would fall within the scope of the global minimum tax (GMT). The second concerns an assessment of the potential revenue from the GMT for Italy in relation to both the methods of calculating the effective rate and the components of the tax base. The third concerns the analysis of the implications in terms of calculating effective rates from the use of financial statement data compared with the changes imposed at national level by tax legislation for non-multinational companies. The fourth concerns an analysis of any systematic differences in the characteristics of companies falling within the scope of the GMT compared to the rest of the business community. A fifth element concerns the analysis of the interaction of the various types of incentives granted to companies with the calculation of the tax bases and the effective rate of the GMT and the implications in terms of the sustainability of tax policy on business incentives. A more in-depth analysis could focus on the likelihood that multinational companies will be able to take full advantage of the various incentives in place and whether and to what extent these could affect the calculation of the effective tax rate and tax bases.

Finally, the new data from Mediocredito Centrale on public guarantees granted to businesses, integrated with other available information on corporations, could be used to assess the behaviour of businesses that have had access to guarantees, especially during the health emergency (i.e. between 2020 and 2022, years of extraordinary activity by the SME Fund).

Still with regard to taxation, subject to the availability of a specific panel of administrative microdata, we intend to develop an analysis of the effects of the numerous regulatory measures that have affected the taxation of income from self-employment and sole proprietorships over the last decade. Changes to the flat-rate scheme, the introduction of mandatory electronic invoicing and the introduction of the two-year preventive agreement in implementation of the enabling law on tax reform are just some of the measures that have affected the taxation of income from self-employment. The assessment of the effect of these changes will have to take into account the revisions made to the general taxation framework and the impact these have had on the overall design of personal income tax. There are several aspects that need to be explored in greater depth. The first concerns the evolution, over the last decade, of the number of taxpayers with self-employment income and how this has depended on a natural demographic effect of economic activities or regulatory changes such as, for example, the gradual expansion of the flat-rate scheme. The second aspect concerns the progressive



erosion of the personal income tax base as a result of the shift of part of it to flat-rate taxation and the assessment of taxpayers' choices to join the regime depending on the change in the access threshold. The third aspect concerns the distributional impact of joining the flat-rate regime compared to the rest of the self-employed population who choose to remain in the ordinary regime. Finally, the introduction of the preventive agreement would also require an analysis in terms of incentives for taxpayers to join and the related impact on revenue and possible effects in terms of evasive behaviour.

In the area of pensions, an in-depth analysis will be carried out on the automatic adjustment mechanisms of the parameters governing the functioning of pay-as-you-go pension systems, which have proved to be an essential tool in controlling pension expenditure dynamics. Financial and economic literature has for some time developed theoretical and quantitative analyses aimed at studying the effects of these mechanisms on the stability of pension systems and on the intergenerational distribution of resources resulting from their application.²⁰ The objective is to analyse in detail the results of this literature and to develop, using the databases available in the Office, procedures for constructing indicators relating to the actuarial balance of the Italian pension system.

With regard to healthcare, in addition to the analysis of the state of implementation of the NRRP already mentioned above, it seems important to verify the evolution of the private market in relation to public supply, through a detailed analysis of the available information. To this end, both the production and financing sides will be analysed, taking into account the spread of corporate welfare, incentivised by tax breaks. This issue is closely linked to that of staff shortages in the National Health Service, which imply a reduction in production capacity and often lead to an increase in public funding for services provided by private operators.

With regard to local finance, the focus will be on the implications of the new European *governance* framework. The 2025 budget law did not provide for mechanisms for direct control of local government spending, and therefore the obligation to achieve a nonnegative balance between total revenue and expenditure continues to exist. This decision stems from the fact that mechanisms for indirect control of local government spending, especially current spending, are already in place. These include, among others, the obligation to make provisions for doubtful debts in order to prevent expenditure commitments against revenues considered difficult to collect. The analysis will aim to assess the consistency of existing mechanisms with the constraints arising from the new European rules.

²⁰ See: Vidal Melia, C., Boado-Pena, M. and Settergren, O. (2010), "Improving the Equity, Transparency, and Solvency of Pay-as-You-Go Pension Systems: NDCs, the AB, and ABMs", in Micocci, M., Masala, G. and Gregoriou, G. (eds.), *Pension Fund Risk Management - Financial and Actuarial Modelling,* Chapman and Hall, pp. 419-474; Alonso-Garcia, J., Boado-Pena, M. and Devolder, P. (2018), "Automatic balancing mechanisms for notional defined contribution accounts in the presence of Uncertainty", in Scandinavian Actuarial Journal, Issue 2, pp. 85-108; Settergreen, O. (2001), "The Automatic Balance Mechanism of the Swedish Pension System", Working Paper in Social Insurance.



The issue of local authority investments and their role in the implementation of the NRRP and other programmes financed by state transfers (school construction, hydrogeological risk prevention, overcoming territorial disparities in the provision of urban waste disposal and treatment facilities, etc.) will also be examined in depth. The aim is to reconstruct the dynamics of investment in the period 2016-2023 in order to identify the factors that have had the greatest impact on investment decisions at local level.

In addition, the issue of declining birth rates, which has been affecting all major advanced economies for years, and Italy in particular, will be addressed. To tackle this phenomenon, various measures have been adopted over the years, not always in a coordinated manner, using different instruments (transfers, services, work-life balance policies, etc.). Starting from a systematic review of the measures adopted, including in comparison with other European countries, analyses will be carried out to highlight both the type of intervention used and, where appropriate, its effects.



2. Transparency of public accounts and communication

During 2024, the PBO worked to consolidate its presence in the media, with the aim of promoting ever greater transparency in fiscal policy for the benefit of citizens. Over the course of the year, the total number of articles and references to the Office in the print media was around 1,030, 543 on the web and 136 on social media, in addition to 37 radio and television reports, particularly in connection with the most significant hearings at the end of 2023.

In order to enhance its communication skills and the information tools available to the public, the PBO has strengthened its presence on social media channel 'X', in particular to communicate the content produced by the Office, and has launched an account on the LinkedIn platform, which allows more versatile access to the texts produced by the Office and is aimed at a more professional audience, with particular reference to financial institutions and the academic world. The institutional website is currently being redesigned with the aim of improving accessibility and clarity of navigation.

The section of the PBO website dedicated to the dissemination of data and analysis through interactive infographics has been developed and updated with the aim of allowing the public to easily consult the information base used for the analyses. This refers, in particular, to infographics concerning: the comparison between stability programmes; budgetary planning documents and European Commission forecasts; the government bond database (which provides a detailed analysis of the composition of debt); the distributional effects of inflation on household budgets; calls for investment projects under the National Recovery and Resilience Plan (NRRP) implemented by local authorities, in which they participate on a competitive basis. Wider use of infographics, which have received positive *feedback* from users and the specialised media, could be a key factor in disseminating the content produced by the Office on various communication platforms.

As part of its links with international institutional bodies in the OECD circuit and the Network of EU IFIs, in 2025 the PBO will take part in working groups dedicated to communication and its development through coordinated actions.



3. Organisational structure

The Office currently has a staff of thirty-one (twenty-six economists and five administrative staff), compared with a statutory staffing level of forty. The difference between the statutory and actual staffing levels is mainly due to the lack, to date, of premises suitable for the Office's needs. Article 17, paragraph 6, of Law No. 243 of 24 December 2012, establishing the Parliamentary Budget Office, stipulates that 'the Presidents of the Senate of the Republic and the Chamber of Deputies, in agreement with each other, shall make premises available to the Office to be used as its headquarters and shall provide the necessary resources'. The Office is currently housed partly in the Chamber of Deputies (at Palazzo San Macuto) and partly in the Senate of the Republic (at the Istituto S. Maria in Aquiro). The lack of a single location suitable for housing the forty staff members provided for by the founding law reduces the Office's functionality and makes it more difficult to fulfil its institutional mandate efficiently, while also limiting the possibility of analysing factors that are playing a central role in the evolution of public finance. To name but a few, these include the energy transition, global economic challenges, climate change, demographic dynamics and economic and social sustainability. The current inadequacy of the premises leads to organisational difficulties related to the location of staff in two separate buildings and the lack of common areas for meetings and external activities.



4. International activities

In 2025, the PBO's international activities will continue to play a central role in its institutional work. In particular, in addition to bilateral meetings with public and private organisations operating at supranational level (European Commission, IMF, European Central Bank, OECD, economic advisers to embassies in Italy, rating agencies), it should be noted that the PBO is a member of the OECD's *Working Party of Parliamentary Budget Officials and Independent Fiscal Institutions*, the European Commission's EUNIFI working group and *the Network* of EU IFIs, i.e. the network established between the EU's national fiscal councils, of which Prof. Lilia Cavallari is chair.

In the latter context, the PBO co-chairs the working group on EU economic governance reform (see *below*) and participates in the working group on media communication for greater effectiveness of IFIs and in the working group on the endorsement and assessment of macroeconomic forecasts and public finance forecasts.

In particular, during 2024, the PBO coordinated, together with Airef, the Spanish independent body, the working group on the reform of EU economic *governance*, drawing up a questionnaire on the first Medium-term fiscal structural plans that Member States submitted to the European institutions in the autumn. The questionnaire focused on national procedures relating to the Plans (e.g. the involvement of national parliaments), the role of independent budgetary institutions and the content of the Plans. Based on the responses to the questionnaire, a position paper was published by the Network in March 2025 with recommendations for strengthening national ownership of *the* new EU economic governance.

The PBO continues to participate in the working groups on macroeconomic forecasts of the OECD (STEP) and the European Commission (*Expert meeting on economic forecasts*).

