

Work Plan of the Parliamentary Budget Office

Year 2018

(as required by Law 243 of 24 December 2012, Article 18, paragraph 4)

The objective of the Parliamentary Budget Office (PBO) is to contribute to the sustainability of Italy's public finances, ensuring that the public accounts are transparent at the service of Parliament and the general public. As specified in the law establishing the PBO (Law 243/2012, pursuant to the new Article 81 of the Constitution), the PBO assesses macroeconomic and public finance forecasts; quantifies the macroeconomic effects and the impact on the public finances of the most important legislative measures; analyses public finance trends, including by sub-sector, and verifies the long-term sustainability of the public finances; assesses compliance with fiscal rules and monitors the activation and use of a number of mechanisms envisaged in the new framework of European rules (specifically, the corrective mechanism and authorisation in the case of exceptional events). Finally, the PBO prepares analyses and reports, also at the request of the parliamentary committees responsible for public finance matters.

1. Analysis

1.1 Activities performed in 2017

In 2017, as in previous years, the PBO performed its institutional duties of analysing the public finance planning documents (the EFD and the Update of the EFD). In particular, the results of the endorsement exercise for the official macroeconomic forecasts (trend and policy) and the assessments of the public finances were provided to the Budget Committees of the Senate and the Chamber of Deputies on the occasion of the hearings during the parliamentary consideration of the Government's planning documents and were then incorporated in two reports, in May the *2017 Budgetary Planning Report* and in December the *2018 Budgetary Policy Report*.

In addition to the Reports, the PBO published studies offering an in-depth examination of specific issues, chosen independently by the PBO as part of the duties assigned to it under the law establishing it or prepared in response to requests from parliamentary committees. More specifically, four hearings were held on issues relevant to the public finances (in particular, taxation of digital transactions, fair and sustainable welfare indicators, the calculation of the fiscal capacity of municipalities and the distribution of public resources among regions) and numerous studies were published in the document series established by the PBO (three Working Papers, six Focus Papers and nine Flash analyses). The issues addressed included: the problems of estimated potential output and the output gap, the determination of standard funding requirements and fiscal capacities of municipalities, the governance of pharmaceutical spending, remuneration of casual supplementary employment, general government intermediate consumption, the integration of the Fiscal Compact into EU law, financial relationships between the INPS budget and the State budget, and experimentation with gender budgeting. In 2017, four *Reports on Recent Economic Developments* were also published, providing a quarterly analysis of developments in the Italian and international economies.

The effort to strengthen and refine quantitative analytical tools continued. Among other results, these initiatives included the development of a forecasting and simulation model for interest expenditure based on individual issues of domestic government securities and, as part of the macroeconomic assessment, of an uncertainty indicator for economic agents based on information drawn from the Istat monthly surveys of firms and households. In addition, the MEF and INPS provided administrative microdata that will make it possible to base the tax and social security microsimulation models currently being developed by the PBO on a richer and more detailed foundation of information.

1.2 *The 2018 work plan*

The primary objective for 2018 continues to be the strengthening of the tools used in performing the PBO's ongoing institutional duties: first, the assessment, in the spring and autumn, of the budget policy documents and the effects of major legislation; second, monitoring and forecasting developments in the economy and the public finances, including with a view to assessing compliance with the fiscal rules.

Consistent with this priority, specific lines of research into issues of special importance in the economic policy debate will also be pursued.

1.2.1 Ongoing institutional activities: development of analytical tools and the permanent research programme

The Macroeconomic Analysis Department will continue with the maintenance and further adaptation of the MeMo-it macroeconomic forecasting model to the specific analytical needs of the PBO. This will include verification of the stability of the behavioural equations and development of additional parts of the model.

In particular, the institutional sector blocks will be improved with: 1) the use of information drawn from the financial accounts; and 2) the modelling of the capital market. The structure of financial assets and liabilities is the best channel for analysing how shocks originating in the capital market (for example, following a financial crisis) are transmitted to the real economy. The accounts of the institutional sectors are national accounts statistics that provide the structure of assets and liabilities for all sectors of the economy (households, firms, the public sector, financial companies and world) in terms of stocks and flows. They show both the institutional sectors that hold net wealth and those with net debt. Their integration in the model (point 1) will enable us to analyse the transfer of funds from sectors with a surplus to those with a deficit (flow of funds). The transfer of these funds takes place largely through financial intermediaries. Therefore, to describe the behaviour of financial intermediaries it will also be necessary to develop the capital market block in MeMo-it (point 2), integrating information on interest rates on government securities, credit rating indicators and interest rates on loans granted by the financial sector to households and firms.

In addition to efforts to improve the MeMo-it model, work will continue on refining the tools for the diagnosis of economic conditions and short-term forecasting, which are used to guide the estimates of the macroeconomic model and for the analyses disseminated with the *Report on Recent Economic Developments*. The effort to strengthen the economic analysis tools will concern in particular the index of uncertainty and the forecasting of industrial production.

Finally, the issues associated with estimating potential output and the output gap of the Italian economy will be examined further. In particular, autonomous methods of estimating these variables will be developed using an integrated approach based on the simultaneous estimation of a multivariate model. Within this methodology, the variability of the estimates of the output gap connected with the choice of variables will also be analysed, especially those used to identify the cyclical component of total factor productivity and the estimation of the Phillips curve.

In the more specific context of the public finances, the process of integrating and systematising the statistical databases used will continue in order to both enhance

forecasting capacity and strengthen monitoring capacity at the sector and segment level.

The tools currently used to estimate short-term pension expenditure and other social benefits, health expenditure, compensation of employees and the individual revenue items will be further developed. In particular, in view of the resumption of contract renewals in government entities, the method for estimating compensation of employees will be refined by analysing both incoming and outgoing personnel flows and labour cost items. An especially important initiative will be the construction of a database of renewals in the various contracting segments, which will accompany the systematisation of information on rules governing turnover in public employment.

Agreements are being reached with the *Associazione per lo sviluppo dell'industria nel Mezzogiorno* [Association for industrial development in Southern Italy] (SVIMEZ) and the *Agenzia per la coesione territoriale* [Agency for territorial cohesion] in order to develop a territorial macroeconomic model to analyse the impact of public finance measures in the different areas of the country.

An analysis of agreements for monitoring the expenditure of ministries will also be conducted. These agreements - recently published on the MEF website - are part of a new procedure that introduces a spending review mechanism within the budget cycle and which was applied, for the first time, with the 2017 Economic and Financial Document (EFD). The objective of this activity is to offer an overview of the interventions proposed by the individual ministries, assessing their compliance with the aims of the associated legislation and analysing the approach used in identifying the areas of intervention, first of all distinguishing between the three methods of cost containment envisaged by the procedure: (i) revision of administrative or organizational procedures to improve efficiency; (ii) defunding of measures provided for by specific legislative provisions, taking account of the priorities of the Government and the effectiveness of the measures themselves; and (iii) revision of the mechanisms or parameters that govern developments in expenditure, specified by both laws and other regulations, or elimination of legislative expenditure provisions in force in relation to their effectiveness or priority.

Other work will include maintenance of the forecasting model for interest expenditure on domestic government securities, with quarterly updating of the model database and the corresponding database published on the PBO website for public consultation. From a methodological point of view, the model will be developed, considering alternative strategies for the simulation of future issuance policies that jointly take account of cost-risk objectives for the residual life of the stock and for interest expenditure. Finally, the model will be supplemented with the estimation of the other components that

contribute to general government interest expenditure in addition to domestic government securities.

To support analytical work, the fiscal microsimulation models used in the past for the *ex-ante* assessment of certain legislative initiatives will be completed and strengthened for households and corporations. This will ensure continuity in the PBO's analytical capabilities for issues such as the direction of tax policy and developments in taxation for specific sectors, as well as the reliability of the *ex-ante* and *ex-post* impact assessments of specific legislative measures.

In particular, the household tax-benefit model will be developed by integration of the sample database used so far with recently acquired administrative data (taxpayer register and INPS). This will improve the reliability of estimates of the quantitative impact of the reforms on the public finances and to identify the associated distributional effects, taking account of tax evasion/avoidance. The model will be used to develop research on impact of fiscal and welfare policies on household consumption decisions and on the labour market. As part of the analysis of the impact of taxation on labour supply, a collaborative initiative will be undertaken with the Joint Research Center (JRC) under the aegis of the Structural Reform Support Programme (SRSP) of the European Commission.

The model for corporate taxation will be strengthened and developed in two directions. On the one hand, the model will be updated on the basis of financial statement data available to 2016, validated using aggregate tax data drawn from tax returns through 2015, and supplemented with tax microdata on corporations now being acquired from the Revenue Agency. On the other hand, the model - which is currently static, reflecting the accounts of companies in a specific year - will be extended in terms of its time horizon (at least three years) to reflect the typically long-term nature of certain key variables (e.g. depreciation)..

Analysing the long-term sustainability of the public finances depends essentially on quantifying the impact of population aging on public spending. In order to obtain a dynamic model for the long-term forecasting of this component, a module for forecasting pension expenditure is under development. The model currently operates in a simplified form and uses a limited dataset. In order to generate accurate forecasts, the model will be upgraded in three phases: 1) the construction of the initial population from the most recent Istat sample surveys supplemented with INPS administrative data; 2) the estimation of the probabilities of transition between the different states attributable to the individuals who make up the model population; and 3) the updating and refinement of the mechanisms that determine retirement, beginning with the modelling of the most recent legislation. The model will support the comparative

analysis of the official medium/long-term forecasts of pension expenditure, i.e. those produced by the Office of the State Accountant General on the basis of both national scenarios and scenarios agreed at European level under the aegis of the Aging Working Group (AWG).

Another area of maintenance and development for analytical tools is debt sustainability (debt sustainability analysis – DSA). Following the migration of the model to more appropriate software from a computational point of view, the possibility of conducting DSA analysis using stochastic vector autoregressive models (VAR) more in line with the methods used by the International Monetary Fund will be explored.

Moreover, as in previous years, specific analysis will regard a comparison of the budget strategies of the leading EU Member States, as set out in their stability programmes and draft budgetary plans, and the related opinions of the European Commission.

Finally, the Office will continue to monitor proposals for the reform of European economic governance. In particular, last December the Commission presented proposals for strengthening EMU that include the establishment of a European Monetary Fund, the introduction of new budgetary instruments to strengthen the stability of the euro area (including completion of the Banking Union), the integration of the Treaty on Stability, Coordination and Governance into the legal order of the European Union, and the establishment of the position of European finance minister.

1.2.2 Specific lines of research

As provided for by the law establishing the PBO, the Office's duties include the preparation of analyses of "other economic and public finance issues relevant to analysis, monitoring and assessment" selected independently by the PBO.

The issues identified for 2018 are described below. In some cases they continue lines of research begun in 2017.

Fiscal multipliers. –The research centred on using the MeMo-it macroeconomic model for the purpose of determining the size of fiscal multipliers in Italy will be completed, with specific regard to the period of the financial crisis. This tool can be used to analyse the variability of the multipliers in the recent crisis, verifying the stability characteristics of the model, estimating the multipliers for sub-periods once any structural instabilities in the equations have been corrected and using that information, adopting weights based on the variances and covariances of the multipliers, to estimate the impact of budget measures adopted during the crisis on GDP.

Variability of the elasticity of taxes and social contributions with respect to the economic cycle. –The elasticity of taxes and social contributions with respect to income are the main tool for forecasting developments in government revenue over the horizon of multiannual programming, for evaluating *ex post* the effectiveness of specific tax policies and for calculating the cyclical component of the budget, which is necessary for estimating the structural balance. In current practice, the official estimates are produced by using constant values for the semi-elasticity of individual revenue items compared with their tax bases and the individual tax bases with respect to GDP. Conversely, the work uses an econometric approach to assess the variability of the elasticities of the main taxes and social contributions in the various phases of the economic cycle. More specifically, within the model the short-term semi-elasticities are left free to move in the different states of the economy and, according to the initial findings, their differences between states appear statistically significant, being relatively large during the negative phases of the economic cycle. This is particularly important in a context in which an inaccurate estimate of elasticity could lead to an incorrect assessment of developments in the public finances and be used to justify the adoption of unnecessary measures.

Ex post assessment of the economic and distributive effects of the application of the ACE and corporate investment incentives. - The introduction of the allowance for corporate equity (ACE) had two objectives: a) to reduce the tax distortions created by the financial structure of firms and prompt the latter to rebalance its composition between debt and equity capital; b) to support economic growth by reducing the tax burden on firms. Using the microsimulation model of corporate taxation developed by the PBO for 2011-2016, the expected (and unexpected) effects of the measure in the first six years of implementation will be verified. The impact assessments, which have already been published in the PBO reports, took account of the most recent legislative developments, which have produced a substantial weakening of this instrument. The *ex-post* analysis will be completed and supplemented to take account of the interactions of the ACE with the super-depreciation mechanism introduced to incentivise investment in 2016.

Social safety net. - The work, launched in 2017, seeks to analytically reconstruct the evolution of the social safety net for the unemployed, before and after the Jobs Act. It regards programmes for both the unemployed and workers affected by temporary reductions of working hours while remaining employed. The characteristics of the new safety net mechanisms (after the “Fornero” reform) will also be described against the background of the changes occurring in the labour market, in particular the introduction of open-ended contracts with increasing protections. Eurostat data will be used to compare Italian expenditure on the labour market safety net and that of the other main European countries.

Analysis of the impact of measures to contain spending on public employment. - The objective is to analyse developments in public-sector employment and wages to assess the impact of measures that have impacted this sector in recent years. In particular, the study will examine the effects of measures freezing turnover and negotiations over the size, spending on and composition of public employment, distinguishing between the different sub-sectors of government entities and between the different segments into which public employment is divided. To this end, the PBO is preparing a database that systematizes and integrates the main sources of data and regulations concerning public employment.

Tax expenditures. - For some years now, the revision of tax expenditures has been the focus of debate with the aim of creating room to reduce the overall tax burden. The reorganisation and/or reduction of tax expenditures cannot proceed without an *ex-post* analysis of their impact to verify if the original objectives of the relief measures have actually been achieved. The study will select one or more relevant types of tax expenditure (for example, tax credit for spending on building renovations and the reduction in revenues connected with the introduction of a flat-rate tax on rental income) and proceed in two directions. On the one hand, using the of fiscal micro-simulation model for households, the distributional effects produced by the measures considered will be estimated. On the other, using a counterfactual analysis we will analyse the *ex-post* impact in terms of incentive to the relevant economic sector and to related sectors, of the expansion of the tax base and efficiency (the scale of the so-called dead weight, i.e. the loss of revenue connected with conduct that would have occurred even in the absence of the lower tax).

Analysis of investment spending. - The critical role played by public investment in supporting economic growth is the motivation for specific study of this sector of expenditure. The analysis will consider developments in investment spending in the 1995-2017 period, broken down by sub-sector, function and segment of government. Particular attention will be devoted to investment by local authorities and the related problems (dual system of budget and accounting rules, provision for doubtful accounts, the restricted long-term fund, operating surpluses). In addition, a number of institutional issues will be explored, such as the governance of implementation of infrastructure policy in Italy (the need for an *ex-ante* economic assessment of investment projects, the lack of well-structured projects, the widespread lack of professional skills) and the operation of the new Public Contracts Code.

Analysis of the efficiency of mechanisms for awarding public works contracts. – A project closely connected with the previous study will examine the efficiency of the public works market will be launched together with the regional economic planning institute of

Tuscany (IRPET), drawing on the database of the tender monitoring information system (SIMOG) of the National Anti-Corruption Authority (ANAC). In particular, an initial stage of the analysis will focus on public investment, which will be examined in two dimensions, temporal and financial. In the first case, the study will investigate the duration of the various phases of awarding and carrying out the tendered projects, identifying delays and the causes behind those delays. In the second case, both the *ex-ante* savings with respect to the auction base price obtained by the contracting entities at the award stage (discounts) and the *ex-post* divergences in costs from the award amount at the completion of the works will be examined. Starting from the analysis at the national level, the study will then seek to identify any differences in the results at regional level and between different types of contracting entities. In a second stage, the behaviour of Italian municipal contracting entities will be examined in the light of the reform of the Public Contracts Code (and the changes that have affected provincial and regional governments in the past few years), seeking to provide an empirical assessment of the relationship between the centralisation/aggregation process, the volume of the tendering procedures initiated and their efficiency in terms of lower costs.

Analysis of financial recovery plans for hospitals on the financial and performance level.

- Law 208/2015 introduced an obligation to adopt a recovery plan for healthcare authorities, initially hospitals (including university hospitals and institutes for science-based care and research IRCCS) that do not comply with: 1) certain financial ratios in the budget (which were tightened further with Law 232/2016); 2) a series of parameters relating to the volume, quality and outcomes of care. With Ministerial Decree of June 21, 2016, a methodology was specified for the calculation - for the purposes of assessing hospitals' compliance with these conditions - of the difference between costs and revenues, and of output and outcome indicators. The objective of the study is to analyse the process that led to the identification of the healthcare authorities that would have to comply with a recovery plan and, looking forward, to track the definition and implementation of these plans, which will characterise the evolution of the National Health Service in 2018 and subsequently. First, the study will trace the procedure that led to the identification of the hospitals that would be subject to a repayment plan for failure to comply with the financial conditions, examine the accounts of these entities over time, comparing them with other hospitals, and analyse in particular developments in personnel expenditure. The study will then seek to assess the operation of the second set of conditions, assessing the available information on the qualitative/quantitative aspects of the services provided. The idea is to track the longer-term developments in the policy adopted, examining the content of the recovery plans as they are prepared and studying their implementation.

Accounting rules and budget constraints for local authorities. – Beginning towards the close of the 1990s, local governments were subject to a dual set of rules: the accounting rules governing the administrative budget and those aimed at limiting the impact of developments in local government budgets on the public finance balances calculated for the purposes of the fiscal rules. Following the reform of accounting rules, the dual track was intended to converge into a unitary system. However, the two different regimes continue to be alternatively one more stringent than the other, each strengthening the other depending on the specific situations of the various governments. After having analysed the implications of the operation of the dual constraint on several occasions, the study is intended to provide a comparative examination of the monitoring data for the budget-balance rule and those in the financial statements for 2016, investigating the effects of the contemporaneous operation of the two sets of rules on a quantitative level.

2. Transparency of the public accounts and communication

In 2017, the PBO significantly increased its capacity to communicate with the media. One indicator of the upgrading of the PBO's external communication activity is the number of citations of the PBO in the print media and on the web, which – summing those for last year with those for the early months of this year - numbered about 600 (of which 400 citations in the print media and 200 on the web). The objective of strengthening our capacity to inform the public and to foster greater transparency in the public accounts remains unchanged. In this context, in 2017, the PBO's official website was visited about 60,000 times (about 300 per working day).

The some sections of the PBO website page containing data and analysis with interactive graphics have already been updated, such as that analysing the composition of government expenditures (by function) and revenues in Italy and Europe (*Government expenditures and revenues in Italy and Europe*) and that regarding the macroeconomic trends in European public finances (*Europe in figures 2000-2016*). New sections regard those on some of the issues addressed in recent PBO publications in order to facilitate public consultation of the information base used for the analyses. More specifically, graphical presentations have been published for: an international comparison of the breakdown of debt developments (connected with Flash 2/2017); a comparison of Stability Programmes, Draft Budgetary Plans and the forecasts of the European Commission (connected with Focus 6/2017); the government securities database and a detailed analysis of the composition of government securities (connected with Working Paper 3/2017).

An update of the comparison of Stability Programmes, Draft Budgetary Plans and the forecasts of the European Commission (connected with Focus 1/2018) was published in the Data section of the website. As noted earlier, the database of government securities will be updated quarterly, as will the existing graphical presentations with more recent definitive data. As in 2017, new graphical presentation will be prepared in conjunction with the publication of studies and analyses.

The results of the 2017 Open Budget Survey (<https://www.internationalbudget.org/open-budget-survey/>) confirm the high level of transparency and control in Italy in the procedures for the formation, management and reporting of the State budget. However, the index of public participation in the budget process remains very low. For 2018, the PBO, as part of its functions, intends to begin a specific effort to provide additional tools to enhance transparency and participation, with the aim of bringing citizens closer to public finance issues. This will be pursued first and foremost by promoting communication initiatives on this topic addressed to various non-specialist audiences (the general public, students of various types and levels, non-sector professionals) and possibly experimenting with communication approaches, such as the Internet, which are currently little used in this field.

3. The organisational structure

For 2018 the UPB intends to start the recruitment procedures to complete its staffing, with the aim of increasing the number of staff from its current level, which remains at twenty-four (due in part the failure to find appropriate premises for the Office). The logistical challenges faced by the PBO, which among other things include organisational difficulties related to its location in two separate buildings, has also prevented the creation of post-graduate internships through specific agreements with the academic world, as it was provided for in the 2017 work plan with a view to drawing on these resources for specific research projects.

In 2017 the activities of the PBO's Scientific Advisory Committee began. One of its first initiatives was to conduct a methodological assessment of the validation process for official macroeconomic forecasts. This year, the Committee began a methodological evaluation of the advantage and disadvantages of the use of dynamic rather than static analysis in quantifying the financial effects of budget measures.

4. International activities

In 2018, the international activities of the PBO will continue to play a central role in its official duties. In addition to bilateral meetings with various public and private actors operating at the supranational level (the European Commission, the International Monetary Fund, the European Central Bank, the OECD, economic advisors at embassies in Italy and the rating agencies), note that the Chairman of the PBO took the position of Deputy Chairman of the network of the national fiscal councils of the European Union (EU IFIs). In May, the PBO hosted the meeting of the network of EU fiscal councils in Rome, addressing issues such as the European budget governance and estimating the output gap.

As part of the network's activities, 2017 saw the beginning of the activity of the Working Group chaired by the PBO on medium-term budgetary frameworks. At the Rome meeting of the network, the PBO presented a document identifying good practice in this area. The final version of the document will be published by mid-year, contributing to the discussion within the EU on the reform of national medium-term budgetary procedures.