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2022 Budgetary Planning Report

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SUMMARY

The 2022 Budgetary Planning Report is devoted to an analysis of the 2022 Economic and Financial Document (EFD), supplementing and developing the assessments offered in the parliamentary hearing of the Chair of the Parliamentary Budget Office (PBO), Lilia Cavallari, on April 14, 2022 as part of the preliminary examination of the EFD by the Budget Committees of the Chamber of Deputies and the Senate.

The Report is divided into two chapters, the first of which is dedicated to analysing international and national **macroeconomic conditions** and the forecasts underlying the EFD for 2022-2025, which have been endorsed by the PBO in accordance with the procedure provided for in the framework agreement with the Ministry for the Economy and Finance (MEF) and with the support of the panel of independent forecasters consisting of CER, Oxford Economics, Prometeia and REF.ricerche.

The trend scenario in the EFD was endorsed after the PBO had raised a number of issues with an initial provisional version of the forecast formulated by the MEF, which followed up with the preparation of a new trend macroeconomic scenario, as it has done in the past. The forecasts were endorsed on the basis of information available in mid-March, both with regard to international economic and geopolitical developments and conditions in the Italian economy. The PBO then conducted the same exercise for the policy macroeconomic scenario, which also ended with endorsement.

Since the completion of endorsement exercise, the range of expectations for developments in the Italian economy has broadened, due both to the intensification of inflation and the uncertainties concerning the duration and repercussions of the conflict in Ukraine. Analysts' most recent forecasts have been characterised by **considerable diversity in expectations for growth and an increase in expected consumer price inflation**. The most important hard data, for GDP and industrial production, which were released after the end of the validation exercise, were in any case better than the expectations of the main forecasters, including those of the MEF.

In endorsing the trend and policy macroeconomic scenarios in the EFD, the PBO found that the forecasts incorporate significant **downside risk factors**, primarily the **war between Ukraine and Russia**. According to analyses performed by the PBO, which were published in the April Report on Recent Economic Developments, the conflict has already had a non-negligible effect, mainly attributable to the increase in commodity prices. It is estimated that the war has already had a negative impact on GDP growth in 2022 (0.3, 0.6 and 0.9 percentage points for the world, the euro area and Italy, respectively) and has raised inflation by about 1 percentage point. The repercussions if fighting should continue to the end of spring were also assessed, with normalisation extending into the rest of the year. According to the analysis, a longer war would lead to a further loss of GDP, especially in the euro area in 2022 (-1.0 per cent). The Italian economy would suffer an additional negative impact of about 1 percentage point of GDP in 2022 and almost half a point in

2023. Inflation would increase moderately at the global level, rising by more than half a percentage point in the euro area and by over a point in Italy, both this year and next. The simulations conducted assume that the continuation of military operations would exacerbate the adverse shocks already observed. Accordingly, if a more drawn out conflict did not lead to further increases in prices or shortages of materials and did not cause any additional deterioration in the climate of confidence, the impact for the Italian economy could be smaller than expected.

The threat represented by the war is accompanied by other sources of risk, such as developments in the COVID-19 pandemic, the effects of increases in the prices of commodities and intermediate goods on the NRRP and the new post-pandemic stance of economic policy. **Inflation risk** is mainly expected to heighten in the 2022-2023 period and is strongly influenced by the uncertainty surrounding the evolution of commodity prices and the possible effects of supply-side bottlenecks.

The Directive 2011/85/EU (part of the "six-pack") requires that regular **ex-post evaluation of official forecasts**. With this in mind, the Report specifically examines last January's update of the analysis of the accuracy of the Government's macroeconomic forecasts since 2014 (i.e., since the PBO has conducted endorsement exercises), focusing on the most recent period.

Considering the last four years, i.e. 2018-2021, the MEF forecasts for the current year have been slightly pessimistic for real GDP growth, although less so than those of the PBO and the European Commission, and substantially balanced for nominal GDP growth. The accuracy of the forecasts is inevitably influenced by the economic crisis sparked by the pandemic, which could not be foreseen prior to 2020, producing very large errors, especially for the following year (T+1). However, excluding 2020, the average error for T+1 tends to cancel out for real GDP and is almost in line with the five-year pre-COVID period for nominal GDP.

Overall, taking account of the fact that 2020 and 2021 were two anomalous years for the economic cycle, the ex-post evaluation of the Government's recent macroeconomic forecasts prompts us to conclude that the growth projections have been balanced overall and are nota affectede by systematic optimism.

After analysing the public finance outturn for 2021 and comparing performance with the official forecasts for that year, the second chapter of the Report examines the developments in the public finances outlined in the trend and policy scenarios of the EFD, extending the hearing's examination of the distribution of the resources made available through the Next Generation EU (NGEU) programme and the policy evolution of the public debt and its sustainability in the short and medium term under different scenarios.

In addition to the final figures for last year published by Istat, the EFD's public finance forecasts on a current legislation basis reflect the updating of the macroeconomic scenario, the financial impact of the measures contained in the 2022 Budget Act and those in the decree laws enacted subsequently up until last March, as well as the new scheduling of interventions financed with the resources provided under the NRRP, which reflects the postponement to 2022-2026 of unimplemented projects in the 2020-2021 plan.

A **comparison of the use of NGEU resources in the 2022 EFD with that for 2021** highlights two elements. First, total resources reported in the 2022 EFD are somewhat greater (€205.9 billion, compared with €205 billion) due to a slight increase in the resources available through the ReactEU programme. In addition, the time schedule of the use of the resources differs, largely connected with the realignment of spending in the light of the expenditure already undertaken in 2020-2021, which was lower than initially planned: planned expenditure in the 2021 EFD for this period was €22.5 billion, while only €4.3 billion in spending was actually carried out. The new plans distribute the unspent €18.2 billion from 2020-2021 and bring forward some of the expenditure initially scheduled for 2026 to 2022-2025: this year, €0.6 billion more than originally planned in the 2021 EFD should be used, while expenditure should increase by €9.6 billion in 2023, €6.3 billion in 2024 and €7.4 billion in 2025. For 2026, however, the 2022 EFD reduces planned spending by €5 billion compared with that envisaged in the 2021 EFD.

Given the new profile of the use of NGEU resources, the Report focuses on the **macroeconomic impact of the National Recovery and Resilience Plan (NRRP)**, updating the assessment already provided last year at a parliamentary hearing on the issue. The simulation conducted using the MeMo-It macroeconomic model, which had already been used for the 2021 parliamentary hearing, only considers the resources for additional measures over and above those envisaged in current legislation and the measures to support capital accumulation in the Plan’s programming period, i.e. until 2026. Overall, the stimulus provided to the economy is equal to €185 billion, spread over the period between 2021 and 2030.

According to simulations conducted with the MeMo-It model, the expansionary effect of the planned measures on GDP would be more than 1.5 percentage points at the end of the 2021-2023 period and an additional point in the following three years. Overall, at the end of the programming period in 2026, the use of resources envisaged in the NRRP would raise Italy’s GDP by just under 3 percentage points. The findings of the simulation appear to be in line with the official estimates presented in the 2022 National Reform Programme (NRP) in the first three years of the simulation horizon, while in the subsequent three years the expansionary effects are more moderate.

Another exercise to assess the impact of the NRRP measures was conducted using a tool similar to that used by the MEF for impact estimates in the NRP and the same assumptions about the distribution of funds between different years and different measures that underlie the simulations conducted with Memo-It. With these assumptions, GDP would increasingly outpace the baseline scenario starting from 2022. In the last simulation year (2026), GDP would be 3.2 percentage points higher than in the baseline scenario. This is the result of an impact of 1 percentage point on private consumption and 9.3 percentage points on gross fixed investment.

Note that the Government's estimates were obtained assuming that public investment is highly efficient, i.e. greater elasticity of output to public capital spending. Assuming average and lower efficiency for public investment compared with the assumptions in the NRP, the difference in impact in the various scenarios is modest in the initial years of the simulation but increases in subsequent years: in 2026 the assumption of high-efficiency public investment has a 0.9 point greater impact on GDP than the average-efficiency assumption and 1.8 points greater than the low-efficiency scenario.

The policy public finance scenario confirms the deficit/GDP targets in the 2021 Update until 2024, while for 2025 the deficit is slightly larger than the trend deficit. The deficit is therefore projected at 5.6 per cent of GDP in 2022, 3.9 per cent in 2023, 3.3 per cent in 2024 and 2.8 per cent in 2025. The ratio of public debt to GDP in 2021 was 150.8 per cent, down from 155.3 per cent the previous year. In the Government's plans, the ratio should continue to decline in subsequent years, from 147 per cent in 2022 to 141.4 per cent in 2025.

The PBO has assessed **the sensitivity of the policy path of the debt/GDP ratio** presented in the EFD with respect to alternative assumptions for the rate of inflation and real growth. Compared with the scenario envisaged in the EFD, the PBO's macroeconomic scenario projects slightly lower real growth rates (with differences of between two- and three-tenths of a point in the 2022-2024 period, before disappearing in 2025), while the GDP deflator would be larger over the entire forecast horizon, especially in 2023 (the year in which the inflation rate would be six-tenths of a point higher than that forecast by the Government). Overall, developments in nominal GDP would be similar in the two scenarios.

According to these simulations, the trajectory of the debt/GDP ratio would be substantially comparable to that forecast by the Government, with differences of greater than half a point of GDP only in 2024-2025: the debt/GDP ratio in the alternative scenario exceeds that in the EFD by 0.6 percentage points in 2024 and 1 percentage point in 2025, reaching 142.4 per cent in the last year of the planning horizon. This is the outcome of the accumulation of the (negative) effect of slower real GDP growth on the primary balance and, to a lesser extent, the greater interest expenditure associated with the faster inflation.

To assess developments in the debt/GDP ratio in the medium term, the PBO scenario was extended until 2031 using specific assumptions to project the most relevant macroeconomic variables, adopting the PBO's framework for analysing the sustainability of the public debt. Since the estimate of potential output is subject to considerable uncertainty, which increases significantly during reversals of the cycle or in the presence of "anomalous" developments in actual GDP, alternative assumptions have been constructed for the medium-term scenarios on the basis of a simpler metric, a trend GDP growth rate for which different profiles have been hypothesised.

The resulting simulations underscore the importance of faster medium-term GDP growth than that currently expected in consensus forecasts if public finance aggregates are to improve. Even assuming unchanged policies from 2026, the debt/GDP ratio would continue to decline assuming that GDP growth returns to the pre-pandemic trend level (when growth was equal to 1.1 per cent). Conversely, if we assume a lower trend level for GDP growth due to the pandemic crisis, the debt/GDP ratio would stabilise at the still high level of 2025. It would even start rising again if the trend GDP growth rate gradually converges on the medium-term pace expected by the consensus forecast (0.6 per cent) instead of returning to pre-pandemic values.

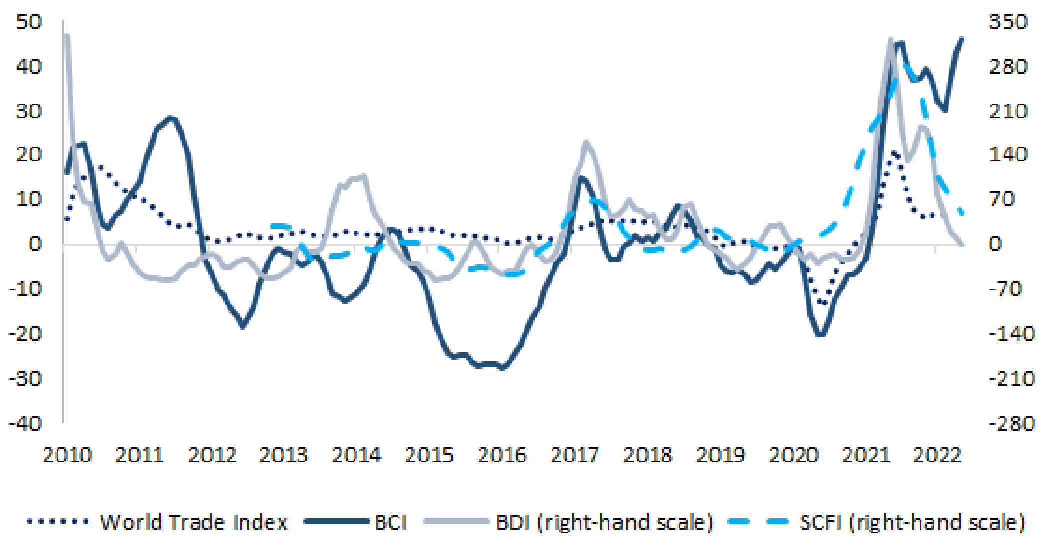
1. THE MACROECONOMIC ENVIRONMENT

1.1 The world economy and the Economic and Financial Document's assumptions for international variables

This year opened with dramatic developments at the international level. In January, the pandemic dominated the scene as the Omicron variant of COVID-19 proved highly contagious, but in February the number of daily new cases turned sharply downwards, and consumer and business confidence surged. On February 24, the Russian invasion of Ukraine abruptly changed the picture, undermining the global economic outlook, especially in Europe. The adverse economic consequences of the conflict, such as shortages and high prices of commodities, mainly energy, agricultural goods and metals originating from these countries were compounded by the effects of the "zero-COVID" policy adopted by Chinese authorities, which is causing supply-chain bottlenecks (Figure 1.1), the effects of which will continue for many months even after the restrictions have been lifted.

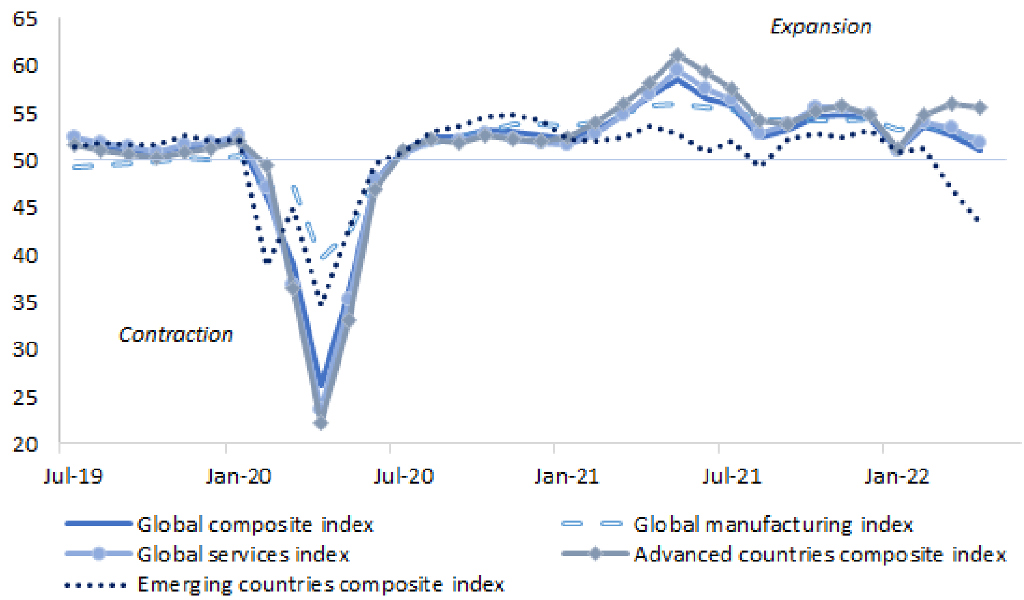
The global composite purchasing manager confidence index (Markit PMI) declined in both March and April, recording its lowest value since June 2020 in the latter month although continuing to signal expansion (Figure 1.2). The slide was especially sharp in the emerging countries, mainly driven by China. In the first three months of the year, the GDP of the United States contracted compared with the fourth quarter (-1.4 per cent in annualised terms), while that of the euro area increased only marginally (0.3 per cent on the previous quarter). In the same period in China, year-on-year GDP growth (4.8 per cent) slowed compared with recent performance, but was nevertheless faster than expected.

Figure 1.1 – World trade, commodity prices and freight costs (1)
(annual percentage change in three-month moving average)



Source: based on data from CPB, Baltic Exchange, Shanghai Shipping Exchange and Bloomberg.
(1) BCI – Bloomberg Commodities Index; BDI – Baltic Dry Index; SCFI – Shanghai Containerized Freight Composite Index.

Figure 1.2 – JP Morgan Global PMI (1)



Source: S&P Global, JP Morgan.
(1) Confidence indicators based on the assessments of corporate purchasing managers. A value of more than 50 indicates an expansion.

The International Monetary Fund (IMF) recently published its new medium-term forecasts. Compared with last January's update, the projections have been revised downwards for growth and upwards for inflation (Table 1.1). The revisions are attributable to both the Russia-Ukraine conflict and the drastic lockdown measures imposed in China in application of its "zero-COVID" policy, which has further impacted supply chains. The IMF expects world output to grow by 3.6 per cent this year and the next, representing downward revisions of 0.8 and 0.3 percentage points respectively. Regarding prices , consumer price inflation in the advanced countries is projected at 5.7 per cent and 2.5 per cent this year and next, while that in the emerging economies would be 8.7 per cent and 6.5 per cent.

Table 1.1 – Forecasts for growth in world GDP and trade
(percentages)

	2021	2022	2023	2024	2025
World GDP					
EFD(1)	5.1	3.3	2.9	2.8	2.8
IMF	6.1	3.6	3.6	3.4	3.4
World trade					
EFD	9.8	5.8	4.8	3.8	3.2
IMF	10.1	5.0	4.4	3.9	3.7

Source: 2022 EFD and International Monetary Fund (2022), *World Economic Outlook,* April.
(1) For the EFD, world GDP growth excludes EU.

The world trade forecasts in the Economic and Financial Document (EFD) are more positive than those produced by the IMF, as they expect the Russia-Ukraine conflict to end more quickly. Compared with the Update to the EFD (the Update), the EFD revised its projection for this year slightly downward (-0.6 percentage points), raised it for 2023 (2.8 points) and trimmed it marginally for 2024 (-0.3 points). However, the forecasts in the EFD for foreign demand have a more significant impact for the Italian economy, which in the econometric models used by the MEF stimulates exports, expecting foreign sales to grow more than 1 percentage point slower than the expansion in world trade in 2022-2023 and just under half a point on average in the following two years.

Since December last year, oil prices have been rising steadily, mainly due to supply limitations. The outbreak of hostilities in Ukraine has driven a surge in volatility, with prices spiking to over $130 a barrel for Brent. More recently, prices appear to have stabilised somewhat at around $110 a barrel.

The oil price assumptions incorporated in the EFD, which uses the average for the last 10 business days ending 10 March over the entire forecast horizon, put the price at $100 a barrel this year, before dropping significantly in 2023 (to $87.6 a barrel) and more gradually in the following two years (to $81.2 and $77.2, respectively). Compared with the Update, the upward revision was substantial, at almost $34 this year, $25 next year and more than $20 in 2024. Reformulating the projections on the basis of the most recent data would produce even higher prices, although the increase would be limited (Table 1.2).

The exchange rate of the euro had weakened steadily against the dollar since the end of 2020. Differences in the economic outlook and expectations for a change of course in US monetary policy ahead of that in the euro area contributed to this trend. Between December 2020 and February 2022, the exchange rate declined from over 1.21 dollars per euro to 1.09. Since the outbreak of the Russia-Ukraine conflict, the US currency has strengthened further, also reflecting the two increases in official interest rates decided in March and May by the Federal Reserve.

Table 1.2 – Oil price (Brent) in dollars, forward quotes
(level and percentage change)

	2021	2022	2023	2024	2025
EFD					
Level, dollars per barrel	70.8	99.8	87.6	81.2	77.2
% change		41.0	-12.2	-7.4	-4.9
Forward prices observed in last 10 business days ending 6 May					
Level, dollars per barrel	70.8	103.7	92.5	83.3	79.4
% change		46.5	-10.8	-9.9	-4.7

Source: 2022 EFD and Refinitiv.

In the EFD, exchange rates are projected using a technical assumption of invariance from the average of the last 10 working days (ending 10 March) for the entire forecast horizon. This assumption produces a constant exchange rate of $1.11 per euro over the entire forecast period. Reformulating the assumptions using the updated exchange rates, we would obtain slightly stronger quotes for the US currency in all the years considered in the EFD (Table 1.3). In the Update, the exchange rate was expected to be slightly higher, at 1.12 dollars per euro in the 2022-2024 period.

The EFD's interest rate projections are consistent with a gradual normalisation of monetary policy over the forecast period. The MEF's projections for yields are based on internal forecasts for the placement rates of government securities, so they are not directly comparable with market measures. However, in terms of trends we can observe that: i) the evolution of both short and long-term interest rates over time is consistent with market expectations; and ii) the values indicated for 2022 are also close to market yields.

Overall, considering the high volatility buffeting the global economy, the assumptions adopted in drafting the EFD appeared to be consistent with market expectations and with the central scenario for the possible evolution of international conditions. Updating the projections with the most recent data, the average deviations of the individual variables are fairly limited, pointing to the risk of a decrease in growth and an increase in inflation.

Table 1.3 – Dollar/euro exchange rate

	2021	2022	2023	2024	2025
EFD (updated to 10 March)	1.18	1.11	1.11	1.11	1.11
Constant exchange rate at average level of 10 business days ending 6 May	1.18	1.07	1.06	1.06	1.06
Forward quotes observed in last 10 business days ending 6 May	1.18	1.08	1.09	1.11	1.13

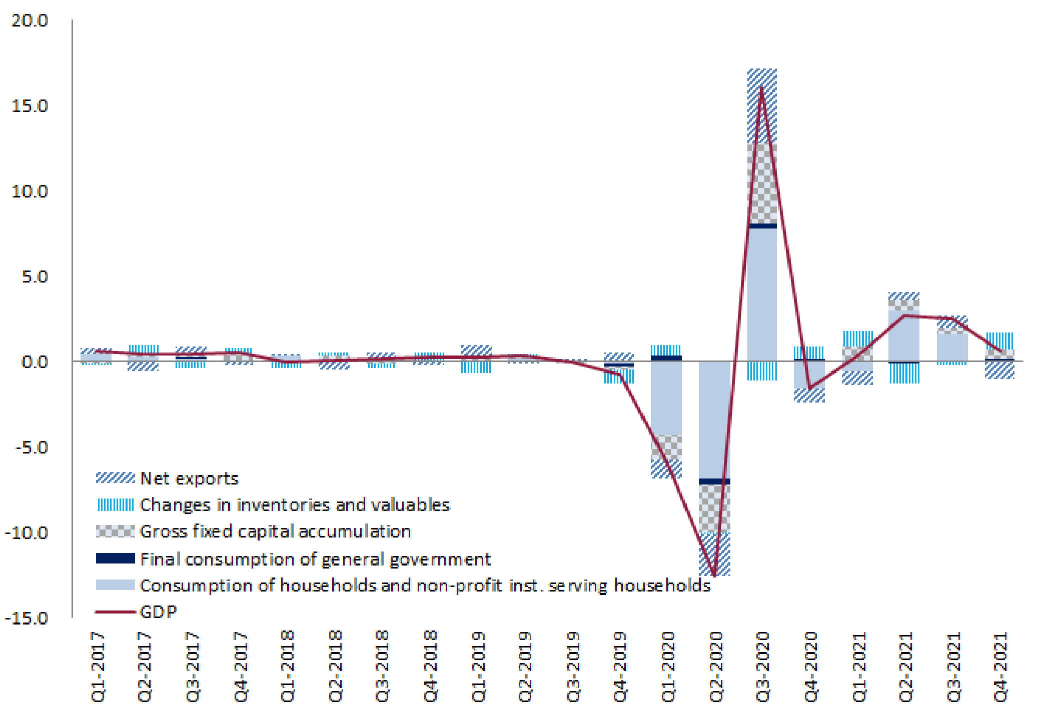
Source: 2022 EFD, BCE and Refinitiv.

1.2 *The Italian economy*

Last year, GDP recouped much of the unprecedented peacetime contraction registered during the pandemic in 2020. According to the annual accounts, economic activity in 2021 expanded by 6.6 per cent, mainly driven by domestic demand, which contributed 6.2 percentage points. The contribution of net exports, like inventories, was only slightly positive (0.2 percentage points; Figure 1.3). On the supply side, value added rose sharply in construction and industry excluding construction (by 21.3 and 11.9 per cent, respectively) and more moderately in services (4.5 per cent). By contrast, agriculture saw value added contract for the third consecutive year (-0.8 per cent, compared with 2020, -7.0 per cent compared with 2018).

According to preliminary estimates, Italian GDP contracted by 0.2 per cent in the first quarter compared with the previous quarter. This reflected combined impact of an increase in value added in agriculture, a decrease in services and no change in industry. On the demand side, the domestic component (gross of inventories) made a positive contribution, more than offset of negative contribution of net foreign demand. GDP grew by 5.8 per cent compared with the same period of the previous year, while the rate of change acquired for this year remains positive at 2.2 per cent.

Figure 1.3 – GDP growth on previous quarter and contributions of the components of demand
(percentage change and contribution in percentage points)



Source: Istat.

Despite the gradual easing of pandemic-related restrictions, the available indicators are pointing to a slowdown.

After the recovery in February of the sharp monthly declines registered in the previous two months, the industrial production index was unchanged in March, at a level of 1.3 per cent below its pre-pandemic value (February 2020). In the first quarter, industry activity contracted by eight-tenths of a percentage point on the previous period. Qualitative indicators deteriorated in the early months of the year: in April, the PMI for the manufacturing sector declined (to 54.5 from 55.8 in March), reflecting increases in commodity prices connected in part with the threats of retaliation made in the wake of recent developments in the war between Ukraine and Russia. The Istat sectoral confidence index was virtually unchanged in the same month after four consecutive declines.

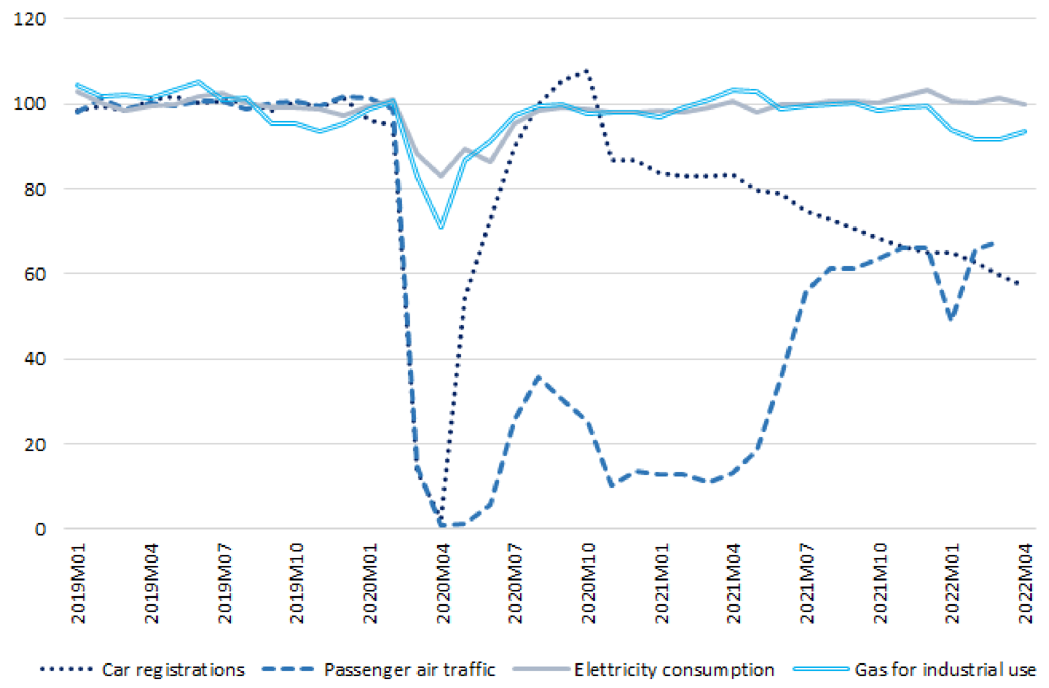
After strengthening robustly last year, output in construction declined in January this year (-0.9 per cent on the previous quarter), partially offsetting the gains recorded in the fourth quarter, before reviving in February with a jump of nearly four percentage points. In the services sector, qualitative indicators point to continuing uncertainty in the short term: in April the PMI increased, while the Istat confidence index declined further after falling in March.

For all sectors, the aggregate index of business confidence, obtained as the weighted average of sectoral indices, declined steeply in the first quarter of the year compared with the October-December average, confirming the weakening that began in the second half of 2021. In the same period, the PBO indicator showed that households and firms' uncertainty increased again after stabilising in the final part of last year.

The timeliest monthly variables delineate a slowdown in economic activity in the first part of this year (Figure 1.4). In the first quarter, the consumption of electricity and gas for industrial use declined moderately in the previous quarter, while new car registrations plunged. In April, indicators for household demand deteriorated, especially for purchases of durable goods, for which a wait-and-see attitude may have prevailed. Nevertheless, gas consumption increased, so the impact of the Russia-Ukraine conflict on all production activities could manifest itself with a lag. The difference in the initial reaction of households and firms to the war is also reflected in the climate of confidence, which in April deteriorated for consumers and improved slightly for businesses (Figure 1.5).

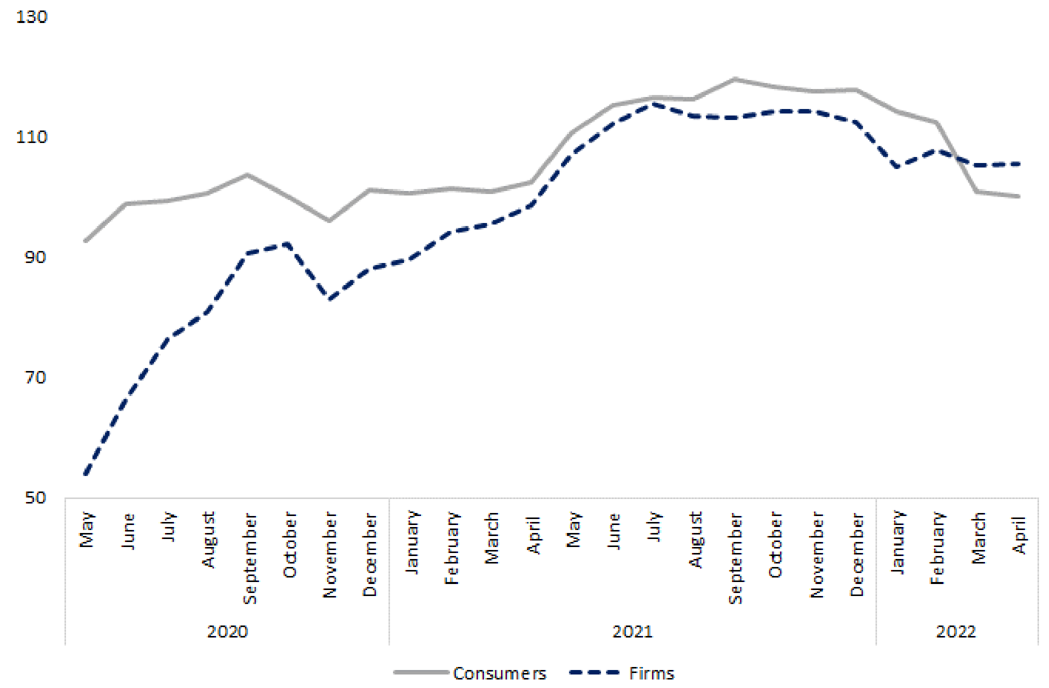
Inflation, which was still contained in 2021 (1.9 per cent), passed the 2 per cent threshold last autumn and then spiked in 2022. Monthly consumer price inflation (NIC) in April was 6.0 per cent year-on-year (from 6.5 per cent in March), but remained close to the maximum registered in the last thirty years. The slight easing of inflation on a year-on-year basis mainly reflected the prices of energy products (inflation for which fell to 39.5 per cent in April from over 50 per cent in the previous month) and is attributable to both the regulated energy prices and, to a lesser extent, unregulated prices.

Figure 1.4 – Real-time indicators of economic activity
(index; 2019=100)



Source: based on ANFIA, Assaeroporti, Terna and SNAM data.

Figure 1.5 – Consumer and business confidence
(index, 2010=100)



Source: Istat.

Core inflation, which excludes the prices of energy and unprocessed food, rose to 2.4 per cent (from 1.9 per cent in March), while inflation net of energy prices alone was 2.9 per cent (from 2.5 per cent). Inflation acquired for 2022 is equal to 5.2 per cent for the headline index and 2.0 per cent for core inflation.

Pressures from abroad (import prices rose by 19.0 per cent in March year-on-year) and upstream in the distribution chain (producer prices were up 36.9 per cent year-on-year in March) remain very strong.

As measured by Bank of Italy and Istat surveys of firms and households, inflation expectations are at an all-time high. The number of firms expecting prices to rise increased further in April, and now exceeds half of the sample interviewed. Even consumers, who initially appeared more cautious, now mainly expect prices to accelerate.

On the labour market front, hours worked increased by 8.0 per cent in 2021 (compared with a contraction of 11.2 per cent the previous year), confirming their elasticity to GDP growth of greater than one, but remained below pre-pandemic levels: hours worked at the end of last year were still 1.7 per cent lower than in the fourth quarter of 2019. Last year saw a recovery in labour market participation after the sharp contraction experienced in 2020, while the unemployment rate edged up (to 9.5 per cent on average for the year, from 9.4 in 2020), due to a slightly greater improvement in the activity rate than in the employment rate.

In the first quarter of 2022, the unemployment rate fell to 8.5 per cent, thanks to a jump in the employment rate to a historic high (59.7 per cent), buoyed by the decline in the working age population. In the same period, the number of inactive individuals decreased compared with the last quarter of 2021, when the vacancy rate was at a historically high level in the major sectors of the economy (especially in construction), signalling imbalances in the matching of labour demand and supply.

Contractual wages increased by 0.6 per cent last year, less than the rise in effective hourly wages. The increase remained moderate in the early 2022, despite the acceleration in consumer prices. Several more recent bargaining agreements have provided for wage adjustments that incorporate part of the sharp rise in inflation and, therefore, are higher than the forecast for the HICP index net of imported energy.[1]

In 2021 growth in hourly labour costs was substantially unchanged (-0.1 per cent on average compared with 2020), as hours worked increased by a similar percentage (7.8 per cent) as the rise in the wage bill. Hourly productivity contracted, driving the increase in unit labour costs.

[1] The forecast for 2022-2024 for the harmonised index of consumer prices (HICP) net of imported energy prices will be published by Istat in June 2022.

1.3 The macroeconomic forecasts in the EFD

1.3.1 The trend macroeconomic scenario

The trend macroeconomic scenario of the EFD was largely developed on the basis of certain assumptions about international exogenous variables (described in section 1.1) and information on geopolitical developments available in mid-March.

The MEF expects GDP to contract in the first quarter of this year, followed by a recovery in the spring that will then consolidate in the summer. In 2022 as a whole, the EFD projects trend growth of 2.9 per cent, after the sharp rebound posted in 2021 (6.6 per cent). In the third quarter, GDP is expected to approach its pre-pandemic levels and over the 2023-2025 period, economic growth is forecast to converge more closely towards its potential.

Compared with the Update to the 2021 EFD, the trend macroeconomic scenario is characterised by a substantial downward revision of GDP growth for this year (-1.8 percentage points) and half a percentage point next year. Conversely, last autumn's forecast for growth in 2024 is essentially unchanged (Table 1.4). Based on simulations produced with MEF models, the differences with respect to the 2021 Update for real GDP growth in the three-year forecast period are mainly attributable to increases in energy prices, especially for next year and the following one. The revision of growth in world trade has an impact of three-tenths of a point in 2022, while the new assumptions for interest rates and financial variables have an increasing impact in the coming years. Sanctions against Russia are holding back growth by a couple of tenths of a point this year.

On inflation, the trend macroeconomic scenario contains significant upward revisions compared with the 2021 Update, especially for import and consumer prices, attributable to the rapid increases in commodity prices observed recently, notably energy prices, which have a pervasive impact on all nominal dynamics.

Table 1.4 – The main variables in the trend scenario of the 2022 EFD and the policy scenario of the 2021 Update
(percentage changes and contributions to growth)

	2022		2023		2024		2025
	EFD	Update	EFD	Update	EFD	Update	EFD
GDP	2.9	4.7	2.3	2.8	1.8	1.9	1.5
Contributions to GDP growth							
Net exports	-0.2	-0.1	0.0	-0.1	0.0	-0.2	0.1
Inventories	-0.1	0.2	0.1	0.2	0.0	0.1	0.0
Domestic demand net of inventories	3.2	4.6	2.3	2.7	1.8	2.0	1.5
GDP deflator	3.0	1.6	2.1	1.5	1.8	1.7	1.8
Consumption deflator	5.8	1.6	2.0	1.4	1.7	1.7	1.8
Nominal GDP	6.0	6.4	4.4	4.3	3.6	3.6	3.3

Source: 2022 EFD and 2021 Update.

The EDF also presents risk scenarios for the war in Ukraine. Assuming an embargo on Russian gas beginning at the end of April 2022 and continuing for all of 2023, the scenarios consider both the case in which firms manage to diversify supplies and one in which they are forced to reduce gas consumption. In the first case, the impact on GDP would be about 1 percentage point for each forecast year, while in the second case it would be about double that.

In the trend macroeconomic scenario in the EFD, the growth of the Italian economy in 2022 is driven almost entirely by the domestic components of demand, as the contribution of net exports and the change in inventories would be virtually neutral over the forecast horizon. Household consumption this year would still grow rapidly, returning to its pre-pandemic levels as it would still benefit from the substantial savings accumulated in 2020. Over the rest of the forecast horizon, household spending would instead expand at a pace more consistent with the historical average. After the strong increases in 2021, capital accumulation in the MEF trend scenario is expected to slow down in 2022, but continue to grow at a much faster rate than the pace registered in the last decade. Export growth appears to be aligned with developments in external demand (as measured in Italy's main export markets), while import growth tracks the domestic variables that primarily drive purchases from abroad.

With regard to nominal variables, the MEF's trend macroeconomic scenario incorporates a jump in the private consumption deflator in 2022, a decline in consumer price inflation the following year (of almost 4 percentage points) and convergence towards the average for 2021 in the final two years of the forecast. The GDP deflator in the trend macroeconomic scenario in the EFD would be 3.0 per cent, an acceleration of more than 2 percentage points compared with 2021, before gradually normalising at the end of the period. The pressure on the GDP deflator exerted by the sharp increase in the private consumption deflator in 2022 is attenuated by the deterioration in the terms of trade induced by the strong rise in the import deflator, attributable to both the increase in commodity prices and the depreciation of the euro.

The MEF's trend macroeconomic scenario reflect the assumption that the labour market is able to fully absorb the increase in labour supply over the forecast horizon, which in 2024 would rise above pre-pandemic levels. The number of persons in employment is however forecast to increase by even more on average over the four years covered in the EFD than the pace registered before the health crisis.

1.3.2 The policy macroeconomic scenario

The budget measures envisaged in the EFD are incorporated into this trend macroeconomic scenario, confirming the policy deficit targets set in the 2021 Update. The increase in expansionary measures, which draws on the greater budgetary flexibility made available by the improvement in the trend public finances, will increase net borrowing above the trend by five-tenths of a point of GDP this year (to 5.6 per cent of GDP, from 5.1 per cent), two-tenths in 2023 and one-tenth in 2024 and 2025, when the policy net borrowing target is less than 3 per cent. The impact on growth estimated in the EFD's policy macroeconomic scenario increases output by about three-tenths of a percentage point overall in 2022 and 2023 (Table 1.5), while the effect is nil in the final two years of the forecast.

The increase in GDP compared with the trend macroeconomic scenario in 2022-2023 mainly reflects the improvement in domestic demand, notably public consumption and investment. The contribution of net foreign demand and the change in inventories, which beginning next year is almost neutral, does not differ substantially from that in the trend scenario. In the final year of the forecast, the differential for domestic demand with respect to the trend macroeconomic scenario is zero.

The change in the GDP deflator does not differ from that in the trend macroeconomic scenario, except for an increase of one-tenth of a point more in each of 2023 and 2024. Nominal GDP growth, which largely reflects the change in output in volume terms, is 0.3 points greater than that in the trend macroeconomic scenario this year, 0.2 points greater in 2023 and 0.1 point greater in 2024, while it is the same as in the trend scenario in 2025. Overall, the Government's policy scenario shows nominal GDP increasing by 6.3 per cent this year, slowing to 4.6 per cent in 2023 and then below 4 per cent in the last two years (3.7 per cent and 3.3 per cent respectively in 2024 and 2025).

Employment, as measured by FTEs, benefits from the faster output growth, strengthening by an average of one-tenth of a percentage point in 2022-2023, in line with the faster pace of GDP growth. The unemployment rate improves more than in the trend macroeconomic scenario, decreasing by about five-tenths of a point over the forecast horizon as a whole, falling just below 8.0 per cent at the end of the period.

Table 1.5 – Trend and policy scenarios of the EFD
(percentage changes and contributions to growth)

	2022		2023		2024		2025	
	Policy	Trend	Policy	Trend	Policy	Trend	Policy	Trend
GDP	3.1	2.9	2.4	2.3	1.8	1.8	1.5	1.5
Contributions to GDP growth								
Net exports	-0.2	-0.2	-0.1	0.0	0.0	0.0	0.1	0.1
Inventories	-0.2	-0.1	0.1	0.1	0.0	0.0	0.0	0.0
Domestic demand net of inventories	3.5	3.2	2.5	2.3	1.9	1.8	1.5	1.5
GDP deflator	3.0	3.0	2.2	2.1	1.9	1.8	1.8	1.8
Consumption deflator	5.8	5.8	2.1	2.0	1.8	1.7	1.8	1.8
Nominal GDP	6.3	6.0	4.6	4.4	3.7	3.6	3.3	3.3

Source: 2022 EFD.

1.4 Endorsement of the macroeconomic scenario

In recent months the PBO has assessed the macroeconomic scenarios published in the EFD for the 2022-2025 forecast. Although European legislation only requires endorsement of the policy forecasts, the PBO extends the endorsement process, in agreement with the MEF, the to the macroeconomic forecasts of the trend scenario as well.

On 24 March, the PBO sent a letter notifying the MEF of its endorsement of the trend macroeconomic forecasts.[2] The endorsement calendar, agreed as usual between the MEF and the PBO, was accelerated this year, reducing the time involved in the process of endorsing the trend scenario. Istat's announcement on 24 March of a special revision of the main aggregates of the annual national accounts nevertheless prompted the postponement of the presentation of the budget document by about a week.

The trend scenario in the EFD was endorsed after the PBO had raised a number of issues with an initial provisional version of the forecast formulated by the MEF, which followed up with the preparation of a new trend macroeconomic scenario, as it has done on past occasions. The forecasts were endorsed on the basis of information available in mid-March, both with regard to international economic and geopolitical developments and conditions in the Italian economy. The revision of the 2021 annual national accounts, released by Istat on 4 April, did not change the outcome of the endorsement process, as they had no impact on expected growth rates.

The PBO then conducted the endorsement exercise to the policy macroeconomic scenario, which was also endorsed.

In this Report, the accuracy of the Government's macroeconomic forecasts in recent years has also been assessed *ex post*, finding that excluding the impact of the unexpected pandemic, the forecasts were acceptable (see Box 1.1 "*Ex post* assessment of recent official macroeconomic forecasts").

Let us briefly review the methodology adopted for the validation exercise. It is based on a comprehensive analysis of the MEF's macroeconomic scenarios, using: a) the PBO forecasts for short-term developments in GDP and the main components of demand; b) the annual forecasts obtained by the PBO using the Istat econometric model, which is adopted within the scope of the framework agreement with that institution; c) the annual forecasts produced specifically for the PBO by the independent forecasters (CER, Oxford Economics, Prometeia and REF.Ricerche) that make up the PBO forecasting panel. In addition, the most recent projections available from other national and international institutions are monitored and the internal consistency of the forecasting schedules of the MEF is examined. In order to perform a like-for-like comparison with the MEF's projections, the projections of the PBO panel members (including the PBO's projections) were formulated on the basis of the same assumptions for exogenous international variables (world trade, oil prices, exchange rates, interest rates) adopted by the MEF. The trend forecasts of the PBO panel incorporate the investment programmes envisaged in the National Recovery and Resilience Plan (NRRP), whose macroeconomic impacts were simulated by the PBO (see the Box

[2] The endorsement letter is available on the PBO website, with an attached explanatory note discussing the exercise and the risks to which the estimates are exposed.

"An update of the assessment of the macroeconomic impact of the NRRP"). For the policy macroeconomic scenario, the PBO panel adopted the general assumptions concerning the budget package, developed by the PBO on the basis of information obtained from the EFD and discussions with the MEF.

In recent weeks, the range of expectations for the Italian economy has widened, due both to the intensification of inflation and the uncertainties about the length and repercussions of the conflict in Ukraine. Analysts' forecasts (Table 1.6) released in April differ from those produced in March, especially as regards 2022, with considerable diversity in growth expectations and an increase in expected consumer price inflation. The most important data, for GDP and industrial production, which were released after the end of the validation exercise, were in any case better than the expectations of the main forecasters, including those of the MEF.

1.4.1 *Endorsement of the trend forecasts*

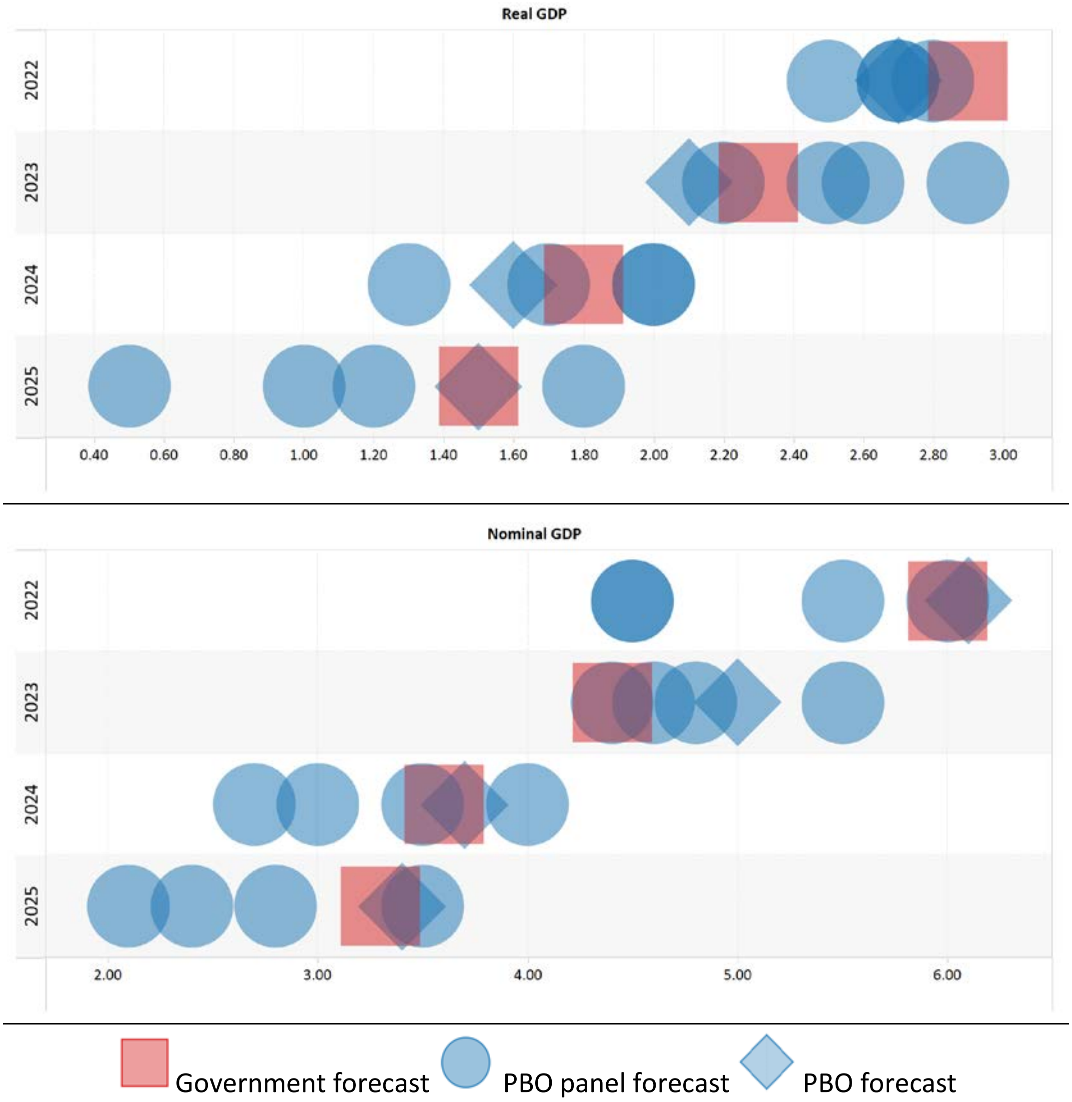
The MEF's trend macroeconomic scenario appears to fall within an acceptable valuation range for the 2023-2025 period, although it marginally overshoots the upper bound of the real GDP forecasts for this year (Figures 1.6 and 1.7). The PBO's overall assessment of the acceptability of the EFD trend projections takes account of: a) the small size of the overshoot for real GDP growth this year and the broad alignment of the forecasts with those produced by the PBO and by the panel for the rest of the forecast horizon; b) a forecast in the trend macroeconomic scenario for nominal GDP growth – a variable directly relevant to the public finances – which approximates that of the PBO and does not exceed the upper bound of the PBO panel forecasters in any year of the EFD horizon; the projections for the GDP deflator in fact fluctuate around the median of the panel forecasts; and c) the extraordinarily high degree of uncertainty surrounding the outlook at both short and medium term.

Table 1.6 – Forecasts of Italian GDP growth and consumer price inflation

		GDP			Inflation		
		2022	2023	2024	2022	2023	2024
European Commission (2)	16-May	2.4	1.9		5.9	2.3	
Consensus Economics (1)	13-May	2.5	1.8		6.2	2.1	
Oxford Economics (1)	11-May	2.9	2.2	1.6	5.8	0.9	0.4
International Monetary Fund (2)	19-Apr	2.3	1.7		5.3	2.5	
REF -Ricerche (1)	6-Apr	2.0	2.5		5.7	1.1	
Confindustria	4-Apr	1.9	1.6		6.1	2.0	
Prometeia (1)	31-Mar	2.2	2.5	1.9	5.0	1.8	1.9
Bank of Italy (1) (2)	21-Jan	3.8	2.5	1.7	3.5	1.6	

(1) GDP figure adjusted for number of working days. – (2) Harmonised price index.

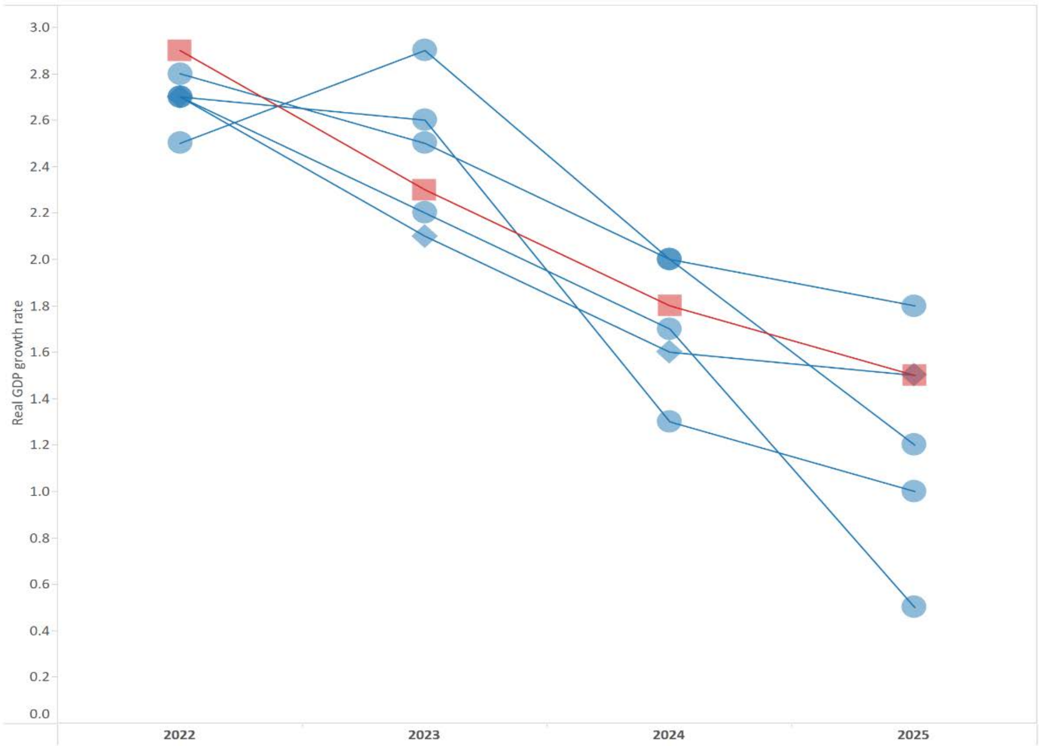
Figure 1.6 – Trend forecasting scenarios of the Government and the PBO panel



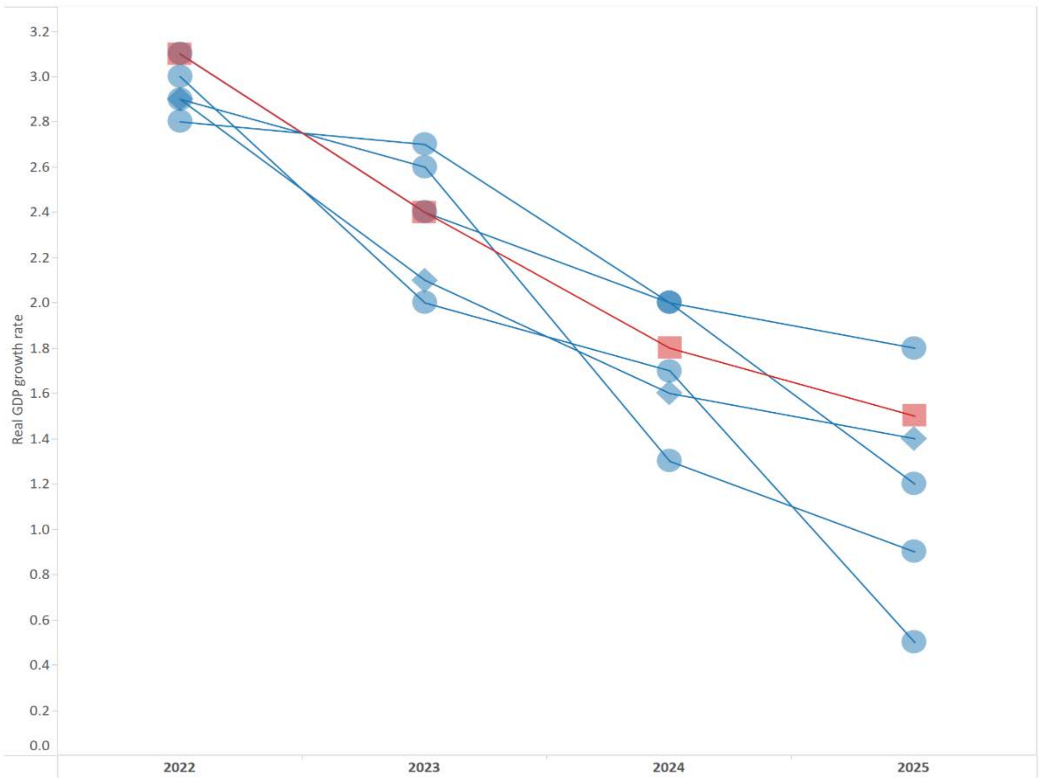
In the MEF's trend macroeconomic scenario, growth is almost entirely driven by the domestic components of demand, and this view is substantially shared by the PBO panel. Household consumption expenditure slows down this year, similar to the median of the panel forecasts, after the sharp increase recorded in 2021. It is still appreciable in 2023 before stabilising at a lower level on average in the 2024-2025 period. The growth in capital accumulation, although easing this year after the strong recovery staged in 2021, appears rapid in 2022, especially for construction, as it slightly exceeds the upper bound of the range of PBO panel forecasts. Beginning in 2023, the projections for expenditure on capital goods return to levels more consistent with panel expectations. Export growth appears to be in line with the performance of international demand (as measured by Italy's export markets), falling in the lower end of the range of panel expectations in the initial two years of the forecast period, before rising close to the upper bound in the final year of the projections. Similar developments are recorded for imports, which basically track the demand variables that primarily drive purchases from abroad.

Figure 1.7 – Trend and policy developments in real GDP

Trend



Policy



Government forecast PBO panel forecast PBO forecast

With regard to the nominal variables, the jump in the private consumption deflator in 2022 in the MEF's trend macroeconomic scenario is larger than the median forecast of the PBO panel, but is in line with the PBO forecast (Table 1.7). Consumer price inflation declines significantly from 2023, tracking the profile delineated by the PBO panel median, although the individual panel forecasts differ considerably, reflecting substantial uncertainty. At the end of the period, the private consumer price inflation forecast of the MEF is at the upper bound of the panel range, but in line with the forecasts of the PBO. The GDP deflator in the EFD's trend macroeconomic scenario rises by almost two points this year. The abrupt rise in the consumption deflator is partially offset by the deterioration in the terms of trade, reflecting the rise in the prices of energy commodities. However, the variation in the MEF import deflator appears to be very small, lying below the expectations of all panel members.

Fluctuations in the market prices of gas and oil are quickly incorporated into import prices, which in turn are reflected in the import deflator, especially for the merchandise component (Figure 1.8). Considering the simple linear correlation between these quantities, based on oil and gas prices in mid-March, one could expect an increase in the import deflator of more than ten percentage points this year, as reflected in the median forecast of the PBO panel.

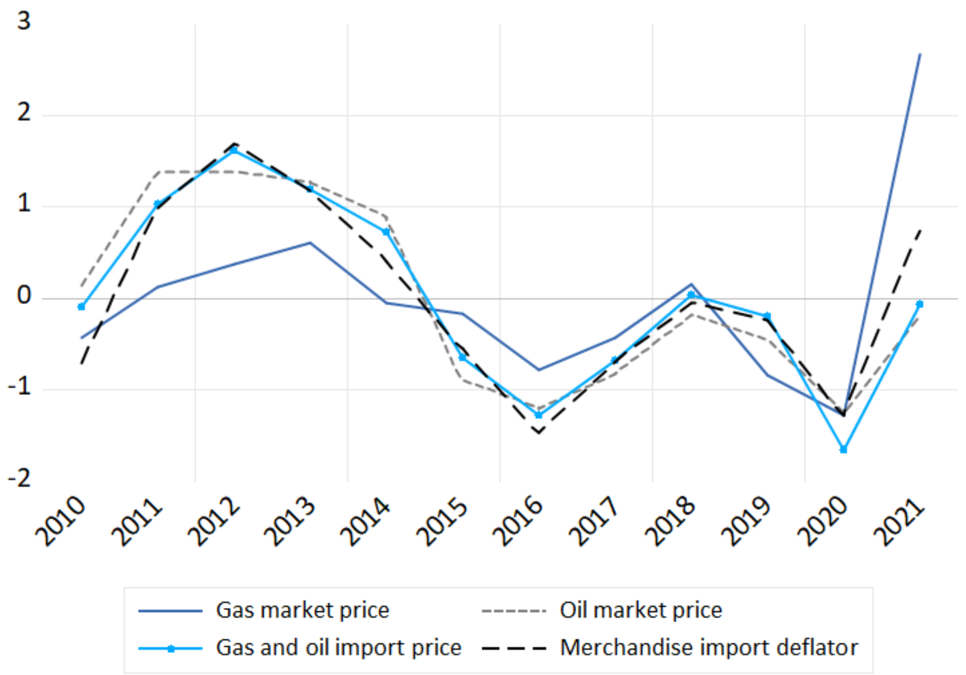
The MEF's projection for the GDP deflator over the next three years is shared by the PBO panel, lying close to the median in 2023 and between the median and the upper bound of the panel projections for the final two years of the forecast. Taking account of forecasts for economic growth, nominal GDP growth appears consistent with the forecasts of the PBO over the entire forecast horizon and does not exceed the upper bound of the panel's projections.

The variables relating to employment (measured in terms of FTEs) fall within the acceptable range delineated by the PBO panel forecasts, even if they tend to exceed the median. Conversely, the forecast for the unemployment rate is optimistic, lying below the minimum expected by forecasters over the 2022-2024 period (in 2025, the unemployment rate barely exceeds the lower bound of PBO panel forecasts).

Table 1.7 – The PBO trend and policy scenario
(percentage changes and contributions to growth)

	2022		2023		2024		2025	
	Policy	Trend	Policy	Trend	Policy	Trend	Policy	Trend
GDP	2.9	2.7	2.1	2.1	1.6	1.6	1.4	1.5
Contributions to GDP growth								
Net exports	0.0	0.1	0.0	0.0	0.1	0.1	0.2	0.2
Inventories	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0
Domestic demand net of inventories	3.0	2.7	2.1	2.2	1.5	1.5	1.3	1.3
GDP deflator	3.3	3.3	2.8	2.8	2.1	2.1	1.9	1.9
Consumption deflator	5.8	5.8	2.1	2.1	1.7	1.7	1.8	1.8
Nominal GDP	6.3	6.1	4.9	5.0	3.7	3.7	3.4	3.4

Figure 1.8 – Merchandise import deflator and commodity prices
(standardised series)



Source: based on Refinitiv and Istat data.

The decline in the unemployment rate expected by the MEF is primarily attributable to the sharp acceleration in employment, especially in 2022-2023, when it is expected to increase almost twice as fast as the labour force, which would continue to expand at its 2021 pace on the average over the forecast horizon.

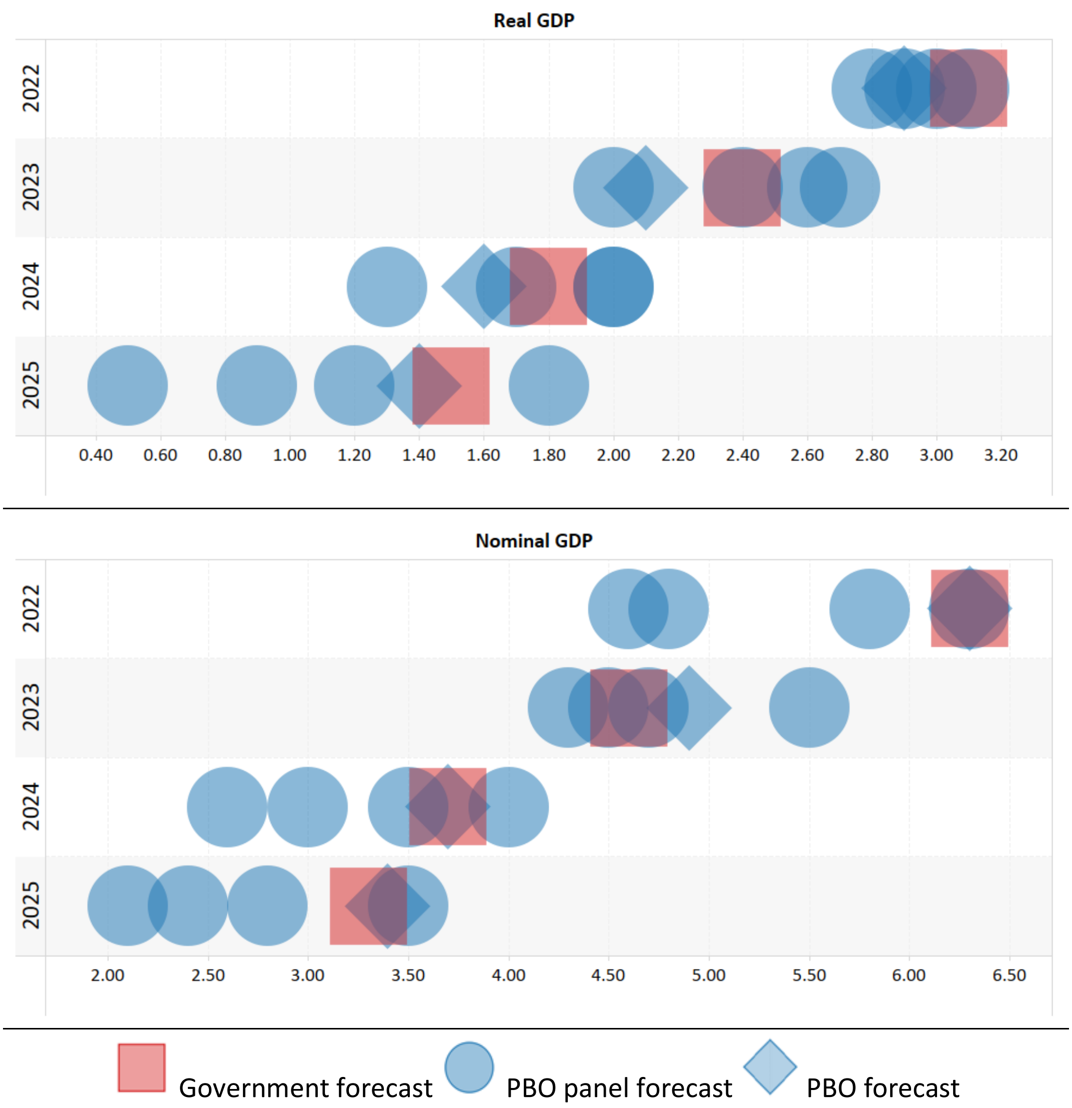
1.4.2 Endorsement of the policy forecasts

The endorsement exercise for the policy macroeconomic scenario considers the assumptions of the budget measures for 2022-2025, which comprise new programmes, mainly for 2022, to contain the cost of fuel and energy for households and firms, strengthen guarantee mechanisms to support business access to credit, supplement resources to compensate for the increase in the cost of public works, restore certain resources used to partially fund the measures of Decree Law 17/2022 and continue to support the healthcare system's response to the pandemic and the sectors most affected by the pandemic emergency.

Based on these assumptions, the MEF forecasts were consistent with those of the PBO panel, although they lie at the limit of the interval of acceptable projections (Figure 1.9). The PBO Board therefore endorsed the policy macroeconomic scenario of the EFD on the basis of the following findings: a) the rate of change in real GDP does not exceed the extreme upper bound of the PBO panel forecasts for 2022 and is broadly in line with the panel median in subsequent years; b) nominal GDP growth, a variable that most directly impacts developments in the public finances, lies at the upper bound of the panel projections in 2022 and is close to the panel median in the following two years and is similar to that forecast by the PBO in all years of the horizon contemplated by the EFD; and c) the impact of the budget measures on GDP growth is substantially in line with that estimated by the PBO forecasters.

The GDP growth projected by the EFD for 2022 lies at the upper bound of the forecast interval produced by the PBO panel, so it is particularly subject to the downside risks – outlined in section 1.5 – that already impact the trend scenario. The Government's growth forecasts lie at the median of the panel's expectations in 2023 and between the median and the upper bound of the PBO panel in the final two years of the forecast period (Figure 1.7).

Figure 1.9 – Policy forecasting scenarios of the Government and the PBO panel



The Government's estimate of the macroeconomic impact of the budget package in 2022 appears acceptable compared with the assessments of the panel forecasters and is in line with that of the PBO. For next year, the MEF expects the measures to have a further expansionary effect, which is not reflected in the assessments of the PBO panellists, but is in any case barely measurable. Over the forecast horizon as a whole, the impacts indicated in the EFD exceed those implicit in the PBO panel forecasts to very modest degree and are therefore acceptable in light of the uncertainty surrounding the estimates, which is especially pronounced in the current environment.

The composition of the growth forecast in the EFD – essentially powered by domestic demand, with a substantially neutral contribution from net foreign demand - is reflected in the macroeconomic scenarios developed by the panel members. The pace of growth in final domestic consumption in the policy macroeconomic scenario of the EFD is positioned between the median and the upper bound of the forecasts this year, is slightly below the median in the following two years and exceeds the latter in the final year of the projections. These dynamics reflect both the very rapid growth in public consumption this year and household consumption growth that fluctuates around the median of the PBO forecasters. These developments are consistent with a gradual decrease in the large accumulation of savings held by households during the pandemic. Capital accumulation in the MEF's macroeconomic scenario would continue at a high pace in 2022-2024, exceeding the median of the PBO panel forecasts, especially that of PBO itself, but not exceeding the upper bound of the panel forecasts. Investment spending remains high but tends to return to median values at the end of the period. The more rapid investment growth projected in the EFD compared with the panel median is attributable in machinery in 2022-2023, while at the end of the period construction investment also contributes.

The forecast for the private consumption deflator falls within the endorsement interval of the panel and is close to that of the PBO. More specifically, the MEF projections lie between the median and the upper bound of the panel's assessments this year, while they fluctuate around the upper bound of the PBO forecasters in subsequent years (consumer price inflation in the policy macroeconomic scenario marginally exceeds the upper bound of the panel forecasts in 2024). The GDP deflator is slightly higher than the median forecast of the panellists in the endorsement period (for about two-tenths of a point on average over the four-year period) but does not exceed that of the PBO.

Given the forecasts for developments in real GDP and the GDP deflator, the policy growth rate for nominal GDP is in line with the forecasts of the panel over the entire forecast period. This year, nominal GDP growth estimated in the EFD lies at the upper bound of the variations expected by the panel members, since it incorporates the rapid growth in real GDP. The evolution of nominal GDP is in line with the median forecast in 2023, while in the final two years of the period it exceeds the median while remaining below the upper bound of the PBO panel forecasters (by two-tenths of a percentage point on average).

1.5 Risks to the forecast

The macroeconomic scenario for the Italian economy appears to be exposed to risks, especially international risks connected with the Russia-Ukraine conflict. As regards the forecasts for economic activity, the risks are mainly oriented downwards, reflecting various factors.

War in Ukraine. – The conflict underway at the gates of the Union certainly represents the greatest risk, across all forecast horizons. While in the short term the war triggered a sudden increases in prices, the continuation of military operations could prompt further sanctions or restrictions on the supply of not only energy products, but also agricultural goods and metals. This crisis has highlighted Italy's excessive dependence on a small number of producer countries, exposing it to potential negative shocks due to the political instability of suppliers. When military hostilities are over, strains in commercial relations and the commodity markets will persist, with inevitable repercussions for a country as heavily dependent on foreign economies as Italy.

The baseline scenario of the EFD forecast assumes the resolution of the conflict in a relatively short time, an outcome that currently appears highly uncertain. In the April Report on Recent Economic Developments,[3] an attempt was made to quantify the possible effects of the conflict using the Global Macroeconometric Model developed by Oxford Economics. The analysis found that as early as March the conflict would have an adverse impact on GDP in 2022 of three, six and nine-tenths of a percentage point for the world, the euro area and Italy, respectively, with inflation increasing by about one point in the three areas. If the conflict should last through the second quarter, with normalisation extending into the second half of the year, the stagflationary economic effects would be more evident. The impact of the continuation of the conflict was then simulated using the same model, acting on transmission channels such as consumer and business confidence, interest rates, commodity prices and the crisis in the Russian economy. The exercise found that a longer conflict would entail a further reduction in GDP (beyond the decline already discounted) this year of about one percentage point for Italy and the euro area and a slightly smaller reduction for the world as a whole (seven-tenths of a point), but with a carry-over impact on next year as well. Overall, the Italian economy would be among the most severely affected by this shock, and GDP would contract more, by an additional one and a half percentage points over the two-year period. At the same time, consumer price inflation would rise more sharply, with an additional 2.5 percentage points accumulated in 2022-2023 for Italy, about half that for the euro area (1.3 percentage points) and a quarter of that (0.6 points) for the world economy. The simulations conducted assume that the continuation of military operations would exacerbate the adverse shocks already observed. Accordingly, if a more drawn out conflict did not lead to further increases in prices or shortages of materials and did not cause any additional deterioration in the climate of confidence, the impact for the Italian economy could be smaller than expected.

Evolution of the pandemic. – The forecasts for this year are based on the assumption that cases will decrease and that from next autumn, thanks to progress achieved in treatment and the spread of immunisation, COVID-19 will become endemic, avoiding economic impacts. However, in recent months the number of cases has turned upwards, not only in

[3] See Ufficio parlamentare di bilancio (2022), "Report on Recent Economic Developments – April 2022".

China but also in Italy, proving that the pandemic is still a risk factor that has not yet been entirely overcome.

Value chains and the NRRP. – Last autumn the international economy was already experiencing frictions in logistics, supply bottlenecks and steep increases in energy costs, the threat of which looking forward was then exacerbated by the Russia-Ukraine conflict. The increases and, in some cases, shortages of commodities and intermediate goods also heighten the risk associated with the assumption of the full, timely and efficient implementation of NRRP investment projects.

In the medium term, a more favourable scenario cannot be ruled out, as the high levels of savings accumulated by households during the recession could foster a more rapid recovery in consumer spending if uncertainty abates in response to any more favourable geopolitical developments. However, the rise in inflation threatens to become more persistent than anticipated by the monetary authorities and could therefore trigger further reactions from central banks.

New economic policy arrangements. When the pandemic is eradicated and the conflict in Eastern Europe ends, the world economy will have to reduce the financial imbalances accumulated to cope with both shocks. Any mismatches in the timing of recovery in the various countries could affect the risk premiums demanded by investors for economies with particularly high levels of debt, with potential repercussions for financial stability. For the countries of the European Union, these risks will also depend on the new system of fiscal rules, whose revision is currently under discussion.

Inflation. – As regards price dynamics, the risk factors mainly threaten to drive inflation higher, especially in 2022 and 2023. The markets for commodities, especially energy, are extremely volatile, so the assumption of a decline in prices over the forecast horizon appears to be accompanied by extremely high uncertainty. Moreover, bottlenecks in the supply of raw materials and intermediate goods could be more persistent than expected, even if the conflict in Ukraine comes to a rapid end.

Box 1.1 – *Ex post* assessment of recent official macroeconomic forecasts

Last January, the PBO presented an analysis of the accuracy of the macroeconomic forecasts prepared by the Government since 2014, i.e. since the PBO has conducted endorsement exercises.[4] The analysis, which focused on errors in official forecasts before and after 2014, found that: i) the Government forecasts for both real and nominal GDP up to 2014 were optimistic on average. For example, in year T+1 the average error for real growth was about 1.5 points; ii) after 2014, the forecasts became more balanced, especially with regard to real GDP growth, being marginally pessimistic for the current year; iii) non-negligible optimism for nominal GDP growth, larger as the forecast horizon widened, persisted partly reflecting the assumptions on the safeguard clauses adopted in the public finance projections; and iv) the accuracy (measured by the mean square error) of the Government's forecasts has improved in the period after 2014.

At the beginning of March this year, Istat released the annual national accounts for 2021, which were subsequently revised on 4 April, making it possible to update the previous evaluation, with regard to the most recent period. Directive 2011/85/EU requires the regular *ex post* evaluation of official forecasts, so it seems appropriate to update the exercise already conducted, with a focus on the most recent period.

In the last four years (2018-2021; Figure B1.1.1), the MEF forecasts on the current year have been slightly pessimistic for real GDP, albeit less so than those of the PBO and the European Commission, and substantially balanced for nominal GDP.

Figure B1.1.1 – GDP forecast errors at selected horizons (1)

Source: based on MEF, PBO and European Commission forecasts.

[4] See the Focus Paper "A retrospective assessment of the macroeconomic forecasts of the MEF and the PBO" of 20 January 2022, available at Focus Paper no. 1 / 20 January 2022 (Summary in English. Full text in Italian).

The accuracy of the forecasts for the following years are impacted by the economic crisis sparked by the pandemic, which could not be foreseen prior to 2020, producing very large errors, especially for the year T+1. However, excluding 2020, the average error for T+1 tends to cancel out for real GDP and is almost in line with the five-year pre-COVID period for nominal GDP.

There is also a difference in the size of the error (mean square error) between the current year and subsequent periods (the error is larger from T+1 onwards) common to all institutions. The forecasts of the European Commission differ from the others, as they did not consider the safeguard clauses, so that nominal dynamics are not inflated by the assumption of an increase in indirect taxes.

In order to assess the possibility of a bias consolidating over time, i.e. errors of the same sign over several consecutive periods, we examine the differences with respect to the data for individual years in the 2018-2021 interval. We focus on the autumn forecasts, i.e. those most relevant for the public finances, as they are then used as a reference framework for the Budget Act. Excluding the two years affected by the pandemic – 2020 and 2021 – the MEF error appears balanced for the current year and the next (Figure B1.1.2), in both real and nominal terms. At the same time, nominal GDP is somewhat overestimated at T+2 and T+3, which also reflected the presence of the VAT safeguard clauses, which were enacted and then regularly deactivated in the years preceding the pandemic.

2020 and 2021 were anomalous years for the economic cycle, and, accordingly, the forecasts on these years made in the previous years are highly distorted *a posteriori*, while during the year it was possible to incorporate more timely information that mitigated the estimation error.

By focusing attention on all the official forecasts formulated prior to 2021, it is possible to evaluate how the forecast errors have changed over time, with the divergence jumping due to the pandemic.

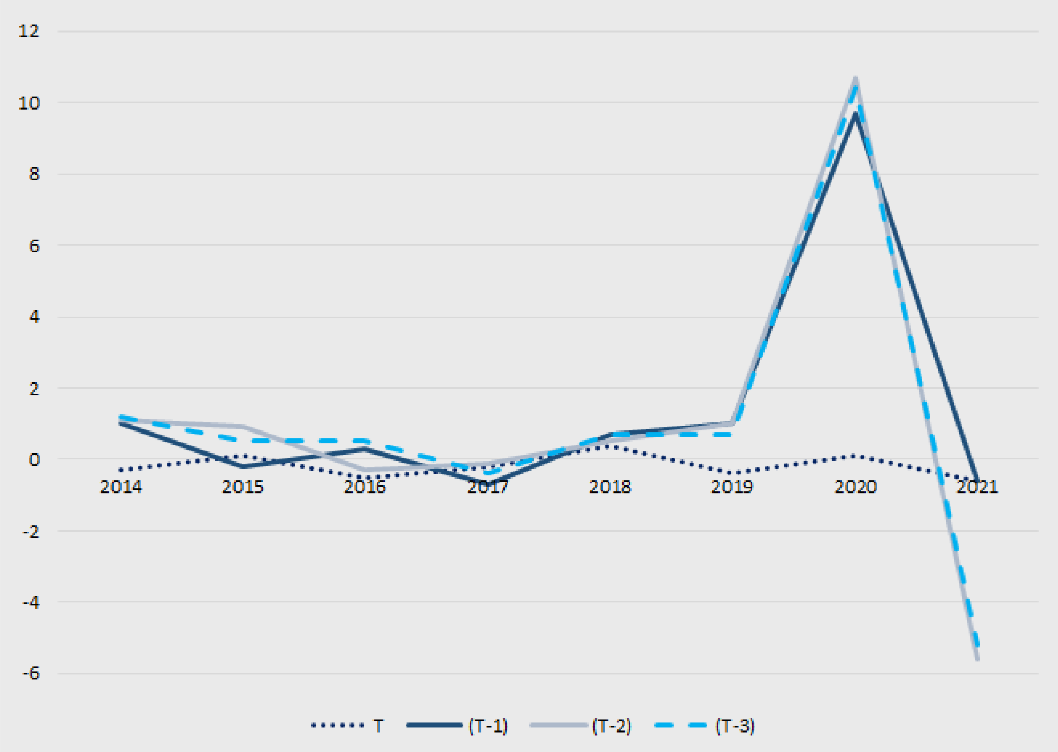
Before the outbreak of the pandemic, i.e. up to the Update of the 2019 EFD, expectations for 2021 were in fact pointing towards GDP growth of around 1 percentage point, in line with historical averages, as indicated in the planning documents for 2018 and 2019 (Figure B1.1.3). With the outbreak of the pandemic in early 2020, the outlook changed radically. Forecasts pointed to a collapse of GDP in 2020, such that a strong rebound began to be anticipated for the following year. The 2021 Budget Act was formulated on the basis of the macroeconomic scenario presented in the 2020 Update. In that document, the MEF projected GDP growth of 6 per cent for 2021, about half a point lower than what was actually achieved. The following spring (2021 EFD) the forecasts were revised downwards following the resurgence of the pandemic, but the 2021 Update took account of the strong recovery in the summer and therefore the provisional forecast for 2021 was raised towards 6 per cent.

Forecasts for nominal variables followed a similar pattern. In both the 2020 and 2021 Updates, the Government's nominal GDP growth forecasts (Figure B1.1.4) were substantially in line with those of the national accounts, just below them for the former and slightly higher in the 2021 Update. The data published by Istat, as well as by other statistical institutes, are in any case periodically revised after initial publication, as they are based on partial information drawn from the information collection and processing procedures, which are gradually completed over time. This process is typically runs completed in the first three years after the preliminary estimate.

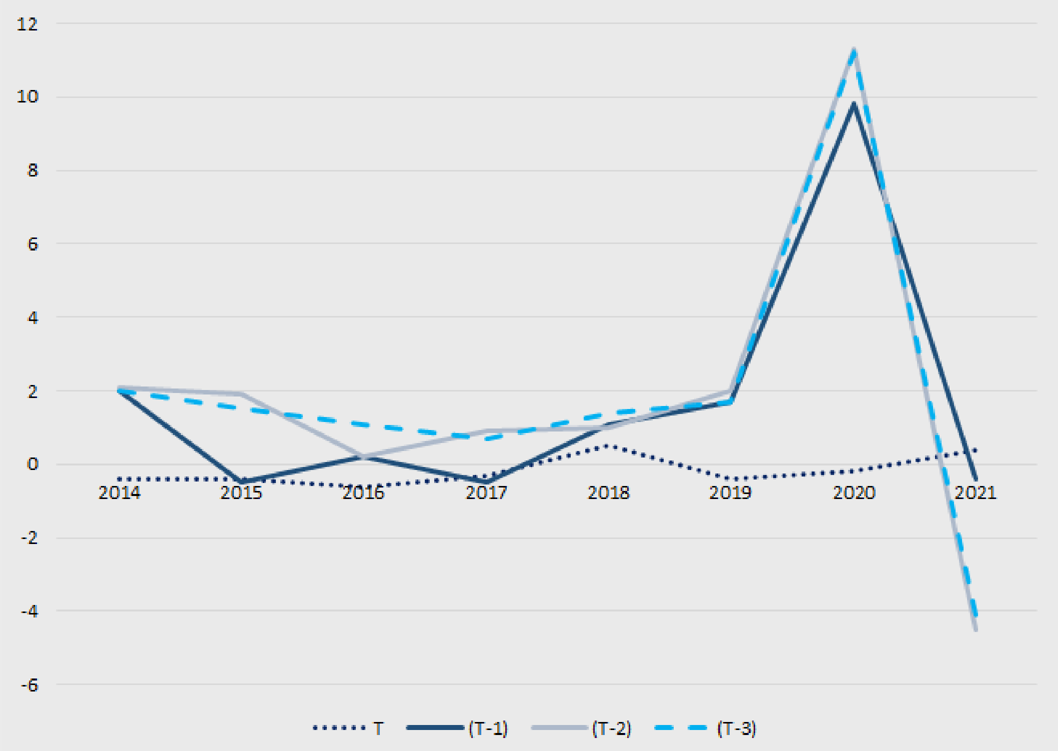
Overall, the *ex post* evaluation of the Government's macroeconomic forecasts in recent years suggests that the growth forecasts have been balanced overall and are not characterised by systematic optimism. The distortion of the official forecasts for nominal GDP could largely depend on assumptions about safeguard clauses providing for automatic increases in VAT and excise duties in certain circumstances. The forecasts for the last four years reflect the unforeseen, and unforeseeable, pandemic in 2020, excluding which the official macroeconomic forecasts can be considered acceptable.

Figure B1.1.2 – MEF forecast error for real and nominal GDP in the recent Updates (1)
(annual percentage changes)

Real GDP



Nominal GDP



(1) The charts present the error in the official MEF forecasts formulated for the Update in each year (horizontal axis) compared with the GDP figures published by Istat in April 2021.

Figure B1.1.3 – Forecasts for real GDP in 2021 in official policy documents
(annual percentage changes)

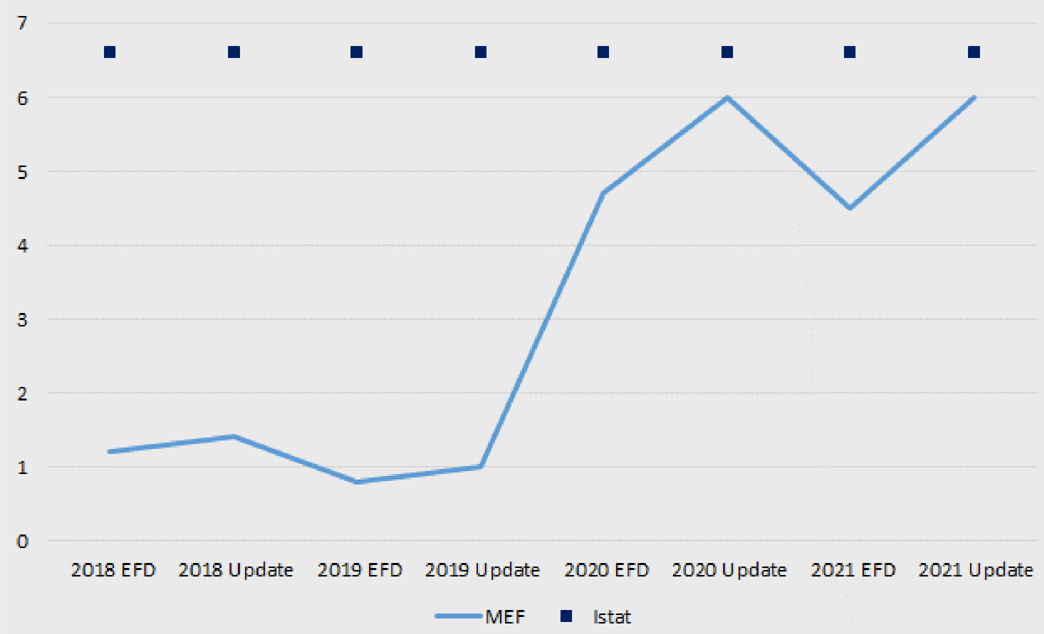
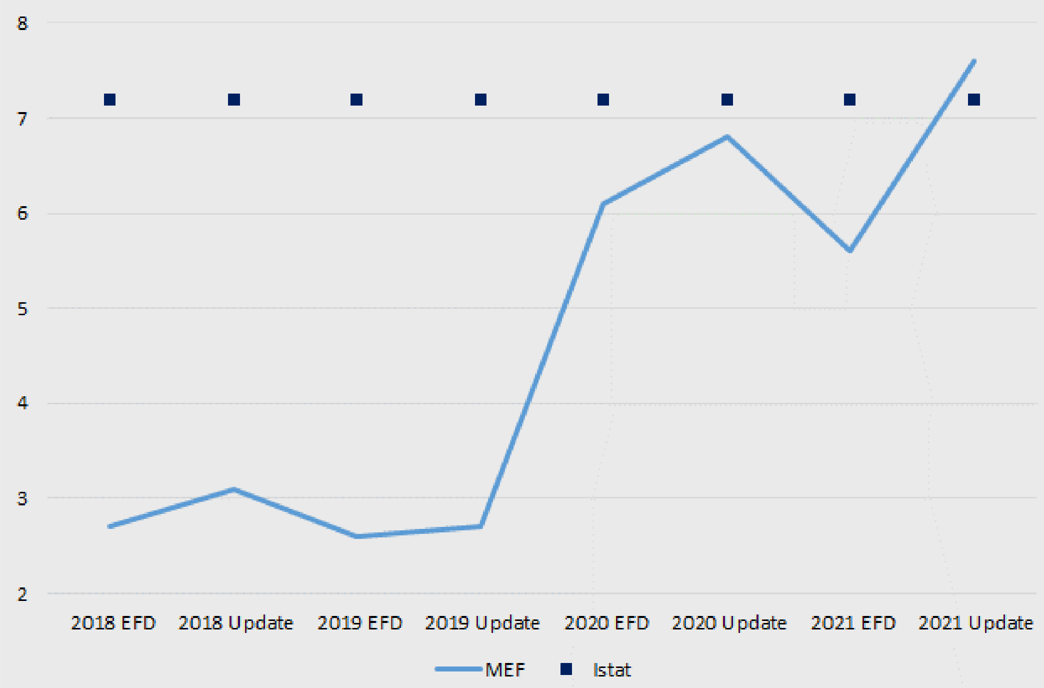


Figure B1.1.4 – Forecasts for nominal GDP in 2021 in official policy documents
(annual percentage changes)



Box 1.2 – Update of the assessment of the macroeconomic impact of the NRRP

The Government has recently revised its estimates of the macroeconomic impact of the NRRP, in light of the updated information available on the overall expenditure measures, both historically (in the 2020-2021 period) and over the implementation horizon of the Plan.[5]

The PBO firstly updated the simulation exercise it conducted in 2021 on the occasion of a parliamentary hearing.[6] The exercise considers only the resources for projects additional to those envisaged under current legislation and the measures to support capital accumulation over the programming period covered by the Plan itself, i.e. until 2026. The additional resources of the Recover and Resilience Facility (RRF) are equal to €124.5 billion, the funds available under the React-EU programme amount to €14.4 billion, the resources advanced through the Development and Cohesion Fund come to €15.6 billion and those allocated through the Complementary Fund (through 2030) amount to €30.6 billion. Overall, the stimulus to the economy is equal to €185 billion, allocated between 2021 and 2030. Based on the new time frame for the use of the funds, about 62 per cent of the resources will finance investment projects in 2021-2024, with the amount reaching 83 per cent with the addition of the 2025-2026 period and largely all resources by the end of the 2027-2030 period. As regards the breakdown of funds for additional projects among the categories in the public accounts, 71 per cent of the resources are allocated to the financing of public investments, 10 per cent are earmarked for incentives for private investment by companies, 11 per cent will be used to fund current expenditure, 6 per cent will fund transfers to households and 2 per cent will go towards reducing the contribution burden on labour.

The first simulation exercise is carried out using of the MeMo-It macroeconomic model, used under the Framework Agreement signed with Istat and modified by the PBO for its specific institutional needs.[7] The MeMo-It model is built on neo-Keynesian foundation. In the short term, the economy is driven mainly by aggregate demand conditions. The nominal variables in the model (prices and wages) react to the differences between actual and potential output, enabling the rebalancing of aggregate supply and demand. In the medium term, there is an adjustment of the internal components of expenditure, both internal and foreign, with the result that in the long term actual output returns towards the equilibrium level prior to the shock. In the model, the NRRP reforms and investments therefore do not have a significant impact on GDP in the long run.

Based on the impact assessment for 2021-2026, the expansionary effect of the measures on the level of GDP is estimated to be greater than 1.5 percentage points at the end of the 2021-2023 period, with an additional point coming in the subsequent three-year period (Table B1.2.1). Overall, at the end of the programming period, in 2026, the use of the resources made available through the NRRP would raise Italy's GDP by about 2.7 percentage points. The average fiscal multiplier would be close to one, driven largely by the exogenous impulse from public investment, which in macroeconometric models provides a greater stimulus to economic activity.

The results of the simulation appear to be in line with the official estimates presented in the 2022 National Reform Programme (NRP) in the first three years of the simulation horizon, while in the following three years the expansionary effects are markedly higher in the NRP.

Table B1.2.1 – Macroeconomic impact of the NRRP estimated with the MeMo-It model
(percentage changes on baseline scenario)

	2021	2022	2023	2024	2025	2026
GDP	0.1	1.0	1.7	2.2	2.6	2.7
Private consumption	0.0	0.2	0.6	1.0	1.3	1.6
Gross fixed investment	0.7	5.6	9.3	12.3	14.3	14.7

[5] See https://www.governo.it/sites/governo.it/files/PNRR.pdf.
[6] See Ufficio parlamentare di bilancio (2021), "Hearing as part of the examination of the proposed National Recovery and Resilience Plan", 8 February (Summary in English. Full text in Italian).
[7] See "Gli strumenti di previsione macroeconomiche dell'UPB".

Based on the official assessments indicated in the NRP, in 2026 Italy's GDP would be 3.2 per cent higher than in the baseline scenario. A significant factor explaining this deviation regards differences between the PBO and the MEF in the tool used to perform the analysis. The MeMo-It model is characterised by a relatively rapid response to expenditure shocks, but similarly to demand-driven macroeconometric models, it does not capture the productivity benefits that might be generated if the projects structurally increase the efficiency of the production system. In the medium term, the expansionary impulses activated by the public budget gradually diminish and the MeMo-It model returns to an equilibrium growth path similar to that prior to the public finance shock.

By contrast, the tool used by the MEF to conduct the impact assessment is a dynamic general equilibrium model (DGE) developed by the European Commission (QUEST III R&D)8 and partially modified by the MEF, which in addition to the impulse on expenditure includes the medium-term effects on production conditions and the effects of endogenous monetary policy. Specifically, in the MEF's macroeconomic assessment of the NRRP with the QUEST model, it was assumed: a) that public investment is characterised by a high degree of efficiency; b) that the effectiveness of government entities in implementing projects increases over the programming period compared with historical standards; c) that the borrowing costs of funds disbursed as loans are lower than the cost of Italian government securities; and d) that all grants to other EU countries are used for average-efficiency public investments. Public and private capital are also assumed to be highly complementary in the production function of firms, with the result that public capital generates a persistent improvement in the growth potential of the economy. The official estimate of the impact of the NRRP on the Italian economy is therefore based on the assumption that spending is of high quality and efficiency, so as to structurally raise productivity and therefore potential growth in the long term.

The PBO then conducted another exercise to assess the impact of the NRRP measures using a tool similar to that used for the estimates produced by the MEF,[9] adopting the same assumptions underlying the simulations conducted with the MeMo-It model regarding the distribution of funds among the different years and the different measures.

With these assumptions, GDP would grow increasingly faster than the baseline scenario starting from 2022 (Table B1.2.2). In the final year of the simulation (2026), it would be 3.2 percentage points higher than the baseline scenario. This is the result of an impact of 1 percentage point on private consumption and 9.3 percentage points on gross fixed investment.

The results of the simulations discussed in this section are similar to those reported in the NRP, in particular as regards the impact on GDP (3.2 percentage points in 2026). The difference lies mainly with investment, which in the NRP shows a greater gain[10] (10.1 percentage points in 2026), and partly with consumption, which also expands more in the NRP (1.5 percentage points in 2026).

Table B1.2.2 – Macroeconomic impact of the NRRP estimated with the QUEST III R&D model *(percentage changes on baseline scenario)*

	2021	2022	2023	2024	2025	2026
GDP	-0.1	0.7	1.4	2.1	2.9	3.2
Private consumption	-0.4	-0.7	-0.5	-0.3	0.3	1.0
Gross fixed investment	0.4	4.9	7.5	9.5	10.7	9.3

8 See Roeger W., J. Varga and J. in 't Veld (2008), "Structural reforms in the EU: a simulation-based analysis using the QUEST model with endogenous growth", European Economy Economic Paper 351 and D'Auria F., A. Pagano, M. Ratto and J. Varga (2009), "A comparison of structural reform scenarios across the EU member states: Simulation-based analysis using the QUEST model with endogenous growth", European Economy Economic Paper 392.

9 QUEST III R&D model (version 2018), with a number of adjustments consistent with assumptions used by the MEF.

10 The MEF simulation produces greater private investment because transfers to households are associated with a reduction in the risk premium on tangible capital, which stimulates private investment.

It is important to note that the results given in the NRP and in Table 2 were obtained assuming that public investment is highly efficient, i.e. output is relatively more elastic to public capital. We can therefore conduct simulations with alternative assumptions (average and low) about the efficiency of public investment compared with that assumed in the NRP. As indicated in Table B1.2.3, the difference of the impact in the various scenarios is modest in the early years of the simulation but increases in subsequent years as public capital gradually accumulates, producing a growing divergence in the impact of the measures envisaged in the NRRP. In 2026, the impact on GDP would be 1.4 percentage points assuming public investment has low efficiency and 2.3 percentage points assuming average efficiency. Accordingly, the assumption that public investment is highly efficient would have an impact of more than 0.9 points on GDP in 2026 compared with the average-efficiency assumption and 1.8 points compared with the low-efficiency scenario.

Table B1.2.3 – Impact of NRRP on GDP for different levels of efficiency of public investment in the QUEST III R&D model
(percentage changes on baseline scenario)

	2021	2022	2023	2024	2025	2026
High efficiency	-0.1	0.7	1.4	2.1	2.9	3.2
Average efficiency	-0.1	0.6	1.2	1.7	2.3	2.3
Low efficiency	-0.2	0.5	1.0	1.2	1.6	1.4

2. THE PUBLIC FINANCES

2.1 The public finances in 2021

In 2021, general government net borrowing, as indicated by Istat on 4 April 2022, was equal to 7.2 per cent of GDP, a decline compared with both the 9.6 per cent recorded in 2020 and the 9.4 per cent forecast on the basis of the estimates reported in the Technical Report accompanying the 2022-2024 Budget Act (Table 2.1).

With interest expenditure unchanged at 3.5 per cent of GDP, the improvement on the previous year reflected a substantial reduction in the primary deficit, which fell from 6.1 to 3.7 per cent of GDP (Table 2.5b). This was possible thanks to an increase of 0.9 percentage points in revenue as a proportion of GDP (from 47.4 to 48.3 per cent) – due almost exclusively to indirect taxes – and, above all, a decrease of 1.5 points of GDP in primary expenditure (from 53.5 to 52.0 per cent), attributable to primary current expenditure (which fell from 48.2 to 46.0 per cent of GDP), notably spending on social benefits. By contrast, capital expenditure increased from 5.3 to 6.0 per cent of GDP as a result of increases in all its components (gross fixed investment, investment grants, other capital expenditure).

Analysing the data published by Istat on 4 April in greater detail, primary expenditure increased by 4.1 per cent compared to 2020, reflecting growth of 20.6 per cent in capital expenditure and 2.2 per cent in primary current spending (Table 2.5c). Within the latter, the greatest increases came in intermediate consumption (5.2 per cent) and, especially, other current expenditure (9.4 per cent). The latter reflected (albeit to a lesser extent than expected) government support measures, in particular those envisaged in Decree Law 41/2021 and Decree Law 73/2021 as well as – among subsidies to production within other current expenditure – the selective contribution relief provided for in the 2021 Budget Act for the hiring of young people, women and workers in the South. The growth of compensation of employees was limited (1.6 per cent) by the slowdown in recruitment during the pandemic, the increase in the number of retirements under the "Quota 100" early retirement mechanism and the failure to renew collective bargaining agreements in the public sector for the 2019-2021 period.

Social benefits remained stable at their 2020 level, reflecting an increase in pension expenditure (2 per cent), which was fully offset by the reduction in expenditure on other social benefits (-4.7 per cent), within which especially large decreases were registered by wage supplementation benefits (-44.3 per cent, from €14.5 billion to €8 billion) and, to a much lesser extent, sickness and unemployment benefits. Conversely, there was a sharp increase in spending on family allowances (40.6 per cent), which was affected by regulatory changes (in particular by Decree Law 79/2021). Capital expenditure expanded significantly (20.6 per cent): investment (19.5 per cent) and investment grants (28.8 per cent) increased at a faster rate than other capital expenditure (17.8 per cent). As indicated by Istat, the latter reflected non-repayable grants to support business activities in the amount of €19.3 billion and spending to cover state guarantees of loans to SMEs in the amount of €7.4 billion. In addition, the deferred tax assets (DTA) of the banking sector transformed into refundable tax credits, which therefore have an immediate impact on the general government account, were substantial.

On the revenue side, which saw an increase of 9.2 per cent overall, almost all the main aggregates more than recovered the contraction of 2020 and outpaced expectations. In particular, direct taxes (6.5 per cent) posted large increases, especially in relation to certain specific taxes in lieu – such as those on financial income (+22.5 per cent compared with 2020), asset management (+114.4 per cent) and pension funds – and withholding taxes on payroll employment. Total income tax (IRPEF) revenue increased by 5.3 per cent and while that from the tax on the revaluation of company assets soared by 221.3 per cent. By contrast, IRES (corporate income tax) fell by 11 per cent, still affected by the contraction in economic activity in 2020 in reflection of the balance/payment-on-account mechanism. Indirect tax revenue was particularly dynamic (13.8 per cent), reflecting substantial increases above all in VAT revenue (+21.2 per cent) but also IRAP (+16.7 per cent), excise duty on energy products (+14 per cent), municipal property tax (+5.4 per cent) and registration fees (+32 per cent). VAT showed significant increases in both the component connected with internal trade and that on imports, influenced by the rise in energy prices. Revenue from IRAP (regional business tax) rose significantly in 2021 due to exemption granted in 2020 on payment of the 2019 balance and of the first payment on account for 2020 under the provisions of Decree Law 34/2020. Excise duties likely benefited from the anti-fraud actions in certain sectors provided for in the 2021 Budget Act. The increase in municipal property tax also reflects a decrease in exemptions in 2021 compared with 2020.

Social contributions (6.7 per cent) grew in line with the tax base and were higher than expected, due in part to the reclassification – noted above – of the selective contribution relief under production subsidies. Other current revenue (8.5 per cent) reflected the substantial recovery of various components after the decrease registered in 2020. Capital account revenue (+71.3 per cent) reflected a significant increase in taxes (+69.7 per cent, mainly attributable to inheritance and gift taxes) and the allocation, under other revenue, of EU grants to finance additional capital expenditure connected with the NRRP.

Turning now to a comparison with the policy scenario in the Technical Report (Table 2.1),[11] the better-than-expected deficit is primarily attributable to an increase of 1.5 percentage points of GDP in revenue (+€26.1 billion) and a decrease of 0.7 points in expenditure
(-€11.9 billion overall; -€14.3 billion in primary expenditure).

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[11] Specifically, see the tables in the general government policy revenue and expenditure account in the "Nota tecnico-illustrativa alla legge di bilancio 2022-2024", which also incorporate the impact of Decree Law 146/2021, the so-called Tax Decree.

Table 2.1 – General government account: 2021 forecasts and outturn *(millions of euros)*

	Tech Report to 2022 BA		Istat 4 April 2022		Diff. Istat-Tech Report	
	Preliminary	Forecast	Outturn			
	2020	2021	2020	2021	2020	2021
Compensation of employees	173,767	179,411	173,484	176,309	-283	-3,102
Intermediate consumption	150,881	162,322	149,781	157,498	-1,100	-4,824
Social benefits in cash	399,171	404,460	399,169	399,192	-2	-5,268
Pensions	*281,451*	*287,570*	*281,445*	*287,027*	*-6*	*-543*
Other social benefits	*117,720*	*116,890*	*117,724*	*112,165*	*4*	*-4,725*
Other current expenditure	74,657	86,519	76,088	83,267	1,431	-3,252
TOTAL CURRENT PRIMARY EXPENDITURE	**798,476**	**832,712**	**798,522**	**816,266**	**46**	**-16,446**
Interest expenditure	57,252	60,480	57,317	62,863	65	2,383
TOTAL CURRENT EXPENDITURE	**855,728**	**893,191**	**855,839**	**879,129**	**111**	**-14,062**
Gross fixed capital formation	42,595	51,864	42,449	50,709	-146	-1,155
Investment grants	17,617	22,871	16,175	20,829	-1,442	-2,042
Other capital expenditure	28,546	29,959	29,957	35,294	1,411	5,335
TOTAL CAPITAL EXPENDITURE	**88,758**	**104,694**	**88,581**	**106,832**	**-177**	**2,138**
TOTAL PRIMARY EXPENDITURE	**887,234**	**937,405**	**887,103**	**923,098**	**-131**	**-14,307**
TOTAL EXPENDITURE	**944,486**	**997,885**	**944,420**	**985,961**	**-66**	**-11,924**
Total tax revenue	479,482	511,506	478,750	527,050	-732	15,544
Direct taxes	*250,977*	*262,155*	*250,746*	*267,140*	*-231*	*4,985*
Indirect taxes	*227,546*	*247,867*	*227,060*	*258,308*	*-486*	*10,441*
Capital taxes	*959*	*1,484*	*944*	*1,602*	*-15*	*118*
Social contributions	228,641	233,432	229,732	245,025	1,091	11,593
Actual social contributions	*224,262*	*228,952*	*225,505*	*240,511*	*1,243*	*11,559*
Imputed social contributions	*4,379*	*4,480*	*4,227*	*4,514*	*-152*	*34*
Other current revenue	74,747	78,154	73,638	79,928	-1,109	1,774
TOTAL CURRENT REVENUE	**781,911**	**821,608**	**781,176**	**850,401**	**-735**	**28,793**
OTHER CAPITAL REVENUE	3,175	8,428	3,278	5,631	103	-2,797
TOTAL REVENUE	**786,045**	**831,520**	**785,398**	**857,634**	**-647**	**26,114**
Fiscal burden	*42.8*	*41.9*	*42.8*	*43.5*	*0.0*	*1.6*
NET PRIMARY BORROWING (-) / LENDING (+)	**-101,189**	**-105,886**	**-101,705**	**-65,464**	**-516**	**40,422**
% of GDP	*-6.1*	*-6.0*	*-6.1*	*-3.7*	*0.0*	*2.3*
NET BORROWING (-) / LENDING (+)	**-158,441**	**-166,366**	**-159,022**	**-128,327**	**-581**	**38,039**
% of GDP	*-9.6*	*-9.4*	*-9.6*	*-7.2*	*0.0*	*2.1*
Nominal GDP	***1,653,577***	***1,779,295***	***1,656,961***	***1,775,436***	***3,384***	***-3,859***

Source: Technical Report accompanying 2022-2024 Budget Act and Istat.

The greater-than-expected revenue reflected above all an increase in tax revenue (+15.5 billion), notably indirect taxes (+€10.4 billion, compared with +€5 billion in direct taxes) and social contributions (+€11.6 billion). In the case of indirect taxation, the more favourable divergence from forecasts reflected higher VAT revenue, while on the direct tax front, the best performance is attributable to taxes in lieu (in particular, taxes on financial income, asset management products and pension funds) and withholding taxes on compensation of employees. The greater contribution revenue reflected the more favourable macroeconomic scenario and Istat's classification – noted earlier – of certain selective contribution relief measures (relating to hiring of young people, women and in disadvantaged areas) under expenditure, in particular under production subsidies.

On the expenditure side, the outperformance of the forecasts in the Technical Report was a consequence (as had already happened in 2020) of lower-than-expected spending under the economic support measures introduced in response to the pandemic. Primary current expenditure was considerably lower than expected (-€16.4 billion), with significant differences – of some €3-5 billion – for compensation of employees, intermediate consumption and social benefits. Capital outflows were higher than expected (+€2.1 billion), thanks to other capital expenditure (+€5.3 billion), in particular for that relating to DTAs, more than offsetting lower-than-forecast expenditure for investment (-€1.2 billion) and investment grants (-€2 billion).

2.2 *The trend public finance scenario for 2022-2025*

The EFD's forecasts on a current legislation basis reflect – in addition to the final figures for last year published by Istat – the updating of the macroeconomic scenario, the financial impact of the measures contained in the 2022 Budget Act and those in the decree laws enacted subsequently up until last March, as well as the new scheduling of interventions financed with the resources provided under the NRRP, which reflects the postponement to 2022-2026 of unimplemented projects in the 2020-2021 plan.

As reported in the EFD, the trend forecasts reflect technical assumptions about the use of NGEU resources (grants and loans) in accordance with the time schedule indicated in Table 2.2, which also includes the indications in the 2021 EFD. For 2022-2025 – the forecast period for the 2022 EFD – it is assumed that €120.4 billion of additional resources will be used (grants and loans under the Resilience and Recovery Facility, or RRF, of €106 billion and grants under the ReactEU programme of €14.4 billion). Over the same period, €55.7 billion in "replacement" resources are also considered, i.e. funding for measures that would have been implemented even without the NRRP.

Note that resources under the Rural Development Programme, the Just Transition Fund (JTF) and other programmes have not been considered in the EFD.

A comparison of the data given in Table 2.2 for 2022 and 2021 highlights two elements. First, total resources indicated in the 2022 EFD are somewhat greater (€205.9 billion, compared with €205 billion) due to a slight increase in the resources available through the ReactEU programme. In addition, the temporal distribution of the use of the resources differs, largely connected with the realignment of spending in the light of the expenditure already undertaken in 2020-2021, which was lower than initially planned. For those years, planned expenditure in the 2021 EFD for this period was €22.5 billion, while only €4.3 billion in spending was actually carried out. The new plans distribute the unspent €18.2 billion from 2020-2021 and bring forward some of the expenditure initially scheduled for 2026 to 2022-2025 (Table 2.2, line (f)). According to the 2022 EFD, €0.6 billion more than originally planned in the 2021 EFD should be used, while expenditure should increase by €9.6 billion in 2023, €6.3 billion in 2024 and €7.4 billion in 2025. For 2026, however, the 2022 EFD reduces planned spending by €5 billion compared with that envisaged in the 2021 EFD.

In order to better analyse the public finances and the impact of NRRP measures on economic growth, it would be desirable for more detailed data on expenditure financed with European resources be published in the policy documents, distinguishing between grants and loans and, within both, between replacement and additional resources.

Table 2.2 – Proposed use of NGEU resources (1)
(billions of euros)

	2020-21	2022	2023	2024	2025	2026	Total
2022 EFD							
RRF Grants (a)	1.5	14.1	22.5	15.6	10.9	4.2	68.9
RRF Loans (b)	2.8	15.3	20.8	31.7	30.7	21.2	122.6
Total RRF (c)=(a)+(b), of which:	4.3	29.4	43.3	47.3	41.6	25.4	191.5
Additional (c.1)	*1.1*	*18.0*	*29.1*	*30.8*	*28.1*	*17.4*	124.5
Replacement (c.2)	*3.2*	*11.3*	*14.2*	*16.6*	*13.6*	*8.1*	*67.0*
ReactEU *grants (d)*	*0.0*	*4.2*	*10.2*				*14.4*
TOTAL (e)=(c)+(d), of which	**4.3**	**33.6**	**53.5**	**47.3**	**41.6**	**25.4**	**205.9**
Total additional (grants and loans) (e.1)=(c.1)+(d)	*1.1*	*22.2*	*39.3*	*30.8*	*28.1*	*17.4*	*138.9*
Total difference 2022 EFD - 2021 EFD (f)=(e)-(e')	**-18.2**	**0.6**	**9.6**	**6.3**	**7.4**	**-5.0**	**0.9**
2021 EFD 2021	*2021*						
RRF Grants (a')	10.5	16.7	26.7	10.1	4.1	0.8	68.9
RRF Loans (b'), of which:	8.0	12.0	12.0	30.9	30.1	29.6	122.6
Additional (b'.1)				*12.9*	*13.5*	*13.6*	*40.0*
Replacement (b'.2)	*8.0*	*12.0*	*12.0*	*18.0*	*16.6*	*16.0*	*82.6*
Total RRF (c')=(a')+(b')	18.5	28.7	38.7	41.0	34.2	30.4	191.5
ReactEU grants (d')	*4.0*	*4.25*	*5.25*				*13.5*
TOTAL (e')=(c')+(d')	**22.5**	**32.95**	**43.95**	**41.0**	**34.2**	**30.4**	**205.0**

Source: based on data from Tables II.2-1, Section II of the 2022 EFD and 2021 EFD.
(1) Total may not match due to rounding.

For a better understanding of expenditure developments, it would also be advisable to expressly indicate the time profile of the use of resources, highlighting any changes compared with earlier plans of the Development and Cohesion Fund (DCF) 2021-2027, whose programming has been brought forward to incorporate it within the NRRP. Finally, for the sake of full analysis, it would be necessary to provide information on the temporal distribution of all resources, distinguishing by item. The policy documents, for the RRF only and not distinguishing between additional and replacement resources, specify the resources by economic aggregates (and not by individual economic item) in relation to GDP and not in absolute value, as would be useful (Table 2.3. and 2.4).

Tables 2.3 and 2.4 show that in 2021 capital transfers equal to 0.1 per cent of GDP (offset in revenue) were financed through grants and public investments equal to 0.1 per cent of GDP through loans. The sequence of policy documents also makes clear the postponement of interventions.

Finally, note that on 13 August 2021, the European Commission disbursed an advance to Italy – equal to 13 per cent of all grants and loans – of about €24.9 billion, of which €9 billion in grants and €15.9 billion in loans. Furthermore, on 13 April 2022 the European Commission disbursed to Italy the first instalment of €21 billion (€10 billion in grants and €11 billion in loans) following the positive assessment of Italy’s achievement of the NRRP objectives set for 31 December 2021.

Table 2.3 – Use of RRF resources by economic category – Grants
(as a percentage of GDP)

		2021	2022	2023	2024	2025	2026
Revenue from RRF grants							
	2022 EFD	0.1	0.7	1.1	0.8	0.5	n.a.
RRF grants included in revenue forecasts	2021 Update	0.3	0.7	1.0	0.7	n.a.	n.a.
	2021 Update	0.6	0.9	1.4	0.5	0.2	0.0
Expenditure funded with RRF grants							
	2022 EFD	0.0	0.1	0.2	0.2	0.1	n.a.
Total current expenditure	2021 Update	0.1	0.2	0.2	0.1	n.a.	n.a.
	2021 EFD	0.1	0.1	0.2	0.1	0.0	0.0
	2022 EFD	0.0	0.2	0.3	0.3	0.3	n.a.
Gross fixed investment	2021 Update	0.1	0.2	0.3	0.3	n.a.	n.a.
	2021 EFD	0.4	0.5	0.8	0.2	0.1	0.0
	2022 EFD	0.1	0.3	0.5	0.1	0.0	n.a.
Capital transfers	2021 Update	0.1	0.3	0.3	0.2	n.a.	n.a.
	2021 EFD	0.1	0.3	0.3	0.2	0.0	0.0
Other costs funded with RRF grants							
	2022 EFD	0.0	0.1	0.2	0.3	0.1	n.a.
Reduction in tax revenue	2021 Update	0.0	0.1	0.2	0.2	n.a.	n.a.
	2021 EFD	0.0	0.0	0.1	0.1	0.1	0.1

Source: 2022 EFD, 2021 Update and 2021 EFD.

Table 2.4 – Use of RRF resources by economic category – Loans
(as a percentage of GDP)

		2021	2022	2023	2024	2025	2026
Expenditure funded with RRF loans							
	2022 EFD	0.0	0.1	0.1	0.1	0.1	n.a.
Total current expenditure	2021 Update	0.0	0.0	0.0	0.1	n.a.	n.a.
	2021 EFD	0.2	0.2	0.0	0.1	0.1	0.1
	2022 EFD	0.1	0.7	0.9	1.4	1.4	n.a.
Gross fixed investment	2021 Update	0.3	0.6	0.8	1.4	n.a.	n.a.
	2021 EFD	0.5	0.5	0.5	1.0	0.9	0.8
	2022 EFD	0.0	0.0	0.0	0.0	0.0	n.a.
Capital transfers	2021 Update	0.1	0.0	0.0	0.0	n.a.	n.a.
	2021 EFD	0.1	0.2	0.2	0.2	0.2	0.1

Source: 2022 EFD, 2021 Update and 2021 EFD.

The developments in the trend public accounts outlined in the EFD are more favourable than those indicated in the Update published last September. After better-than-expected performance in 2021, the trend forecasts delineate a continuously decreasing public deficit, which at the end of the programming period – i.e. in 2025 – falls below 3 per cent of GDP, although it still more than double that recorded in absolute terms before the pandemic. A return to a primary surplus is also expected in 2025 – after five years – i.e. a positive balance net of interest expenditure. The current balance, on the other hand, should turn positive as early as 2023 (Tables 2.5a, 2.5b and 2.5c).

Table 2.5a – General government accounts: trend forecasts
(millions of euros)

	2022 EFD					
	2020	2021	2022	2023	2024	2025
Compensation of employees	173,484	176,309	188,818	186,912	185,384	185,664
Intermediate consumption	149,781	157,498	162,813	163,934	162,227	162,321
Social benefits in cash	399,169	399,192	401,600	425,780	436,450	447,210
Pensions	*281,445*	*287,027*	*296,510*	*318,530*	*328,250*	*338,050*
Other social benefits	*117,724*	*112,165*	*105,090*	*107,250*	*108,200*	*109,160*
Other current expenditure	76,088	83,267	93,522	90,189	87,889	88,209
TOTAL PRIMARY CURRENT EXPENDITURE	**798,522**	**816,266**	**846,753**	**866,816**	**871,950**	**883,404**
Interest expenditure	57,317	62,863	65,921	61,699	61,203	63,164
TOTAL CURRENT EXPENDITURE	**855,839**	**879,129**	**912,674**	**928,515**	**933,153**	**946,568**
of which: healthcare spending	*122,721*	*127,834*	*131,710*	*130,734*	*128,872*	*129,518*
Gross fixed capital formation	42,449	50,709	57,990	70,210	71,866	75,279
Investment grants	16,175	20,829	24,080	25,143	17,427	17,592
Other capital expenditure	29,957	35,294	14,064	8,409	5,730	5,721
TOTAL CAPITAL EXPENDITURE	**88,581**	**106,832**	**96,134**	**103,762**	**95,023**	**98,593**
TOTAL PRIMARY EXPENDITURE	**887,103**	**923,098**	**942,887**	**970,578**	**966,973**	**981,997**
TOTAL EXPENDITURE	**944,420**	**985,961**	**1,008,808**	**1,032,277**	**1,028,177**	**1,045,161**
Total tax revenue	478,750	527,050	548,596	565,917	578,814	597,122
Direct taxes	*250,746*	*267,140*	*270,409*	*274,460*	*278,735*	*289,121*
Indirect taxes	*227,060*	*258,308*	*272,618*	*289,848*	*298,455*	*306,363*
Capital taxes	*944*	*1,602*	*5,569*	*1,609*	*1,624*	*1,638*
Social contributions	229,732	245,025	263,186	275,360	283,104	291,550
Actual social contributions	*225,505*	*240,511*	*258,420*	*270,500*	*278,170*	*286,517*
Imputed social contributions	*4,227*	*4,514*	*4,766*	*4,860*	*4,934*	*5,033*
Other current revenue	73,638	79,928	88,431	94,319	90,407	87,282
TOTAL CURRENT REVENUE	**781,176**	**850,401**	**894,644**	**933,987**	**950,701**	**974,316**
OTHER CAPITAL REVENUE	3,278	5,631	13,429	23,330	10,812	11,301
TOTAL REVENUE	**785,398**	**857,634**	**913,642**	**958,926**	**963,137**	**987,255**
Fiscal burden	*42.8*	*43.5*	*43.1*	*42.8*	*42.3*	*42.2*
NET PRIMARY BORROWING (-) / LENDING (+)	**-101,705**	**-65,464**	**-29,245**	**-11,652**	**-3,836**	**5,258**
% of GDP	*-6.1*	*-3.7*	*-1.6*	*-0.6*	*-0.2*	*0.2*
NET BORROWING (-) / LENDING (+)	**-159,022**	**-128,327**	**-95,166**	**-73,351**	**-65,039**	**-57,906**
% of GDP	*-9.6*	*-7.2*	*-5.1*	*-3.7*	*-3.2*	*-2.7*
Nominal GDP	*1,656,961*	*1,775,436*	*1,882,720*	*1,966,210*	*2,037,629*	*2,105,664*

Source: based on data from the 2022 EFD, Table II.2-2 and Istat.

In the absence of further interventions, after the 7.2 per cent of GDP recorded in 2021, the budget deficit would drop significantly this year, to 5.1 per cent, also reflecting the significant winding down of emergency measures to combat the pandemic-related crisis, before declining more gradually to 3.7 per cent in 2023, 3.2 per cent in 2024 and 2.7 per cent in 2025 (Tables 2.5a and 2.5b). These trends reflect, on the one hand, the impact of worse-than-expected macroeconomic conditions and, on the other hand, the positive carry-over effects of the smaller-than-expected 2021 deficit, in particular those connected with greater-than-expected structural revenues.

Table 2.5b – General government accounts: trend forecasts
(percentage of GDP)

	2022 EFD					
	2020	2021	2022	2023	2024	2025
Compensation of employees	10.5	9.9	10.0	9.5	9.1	8.8
Intermediate consumption	9.0	8.9	8.6	8.3	8.0	7.7
Social benefits in cash	24.1	22.5	21.3	21.7	21.4	21.2
Pensions	*17.0*	*16.2*	*15.7*	*16.2*	*16.1*	*16.1*
Other social benefits	*7.1*	*6.3*	*5.6*	*5.5*	*5.3*	*5.2*
Other current expenditure	4.6	4.7	5.0	4.6	4.3	4.2
TOTAL PRIMARY CURRENT EXPENDITURE	**48.2**	**46.0**	**45.0**	**44.1**	**42.8**	**42.0**
Interest expenditure	3.5	3.5	3.5	3.1	3.0	3.0
TOTAL CURRENT EXPENDITURE	**51.7**	**49.5**	**48.5**	**47.2**	**45.8**	**45.0**
of which: healthcare spending	*7.4*	*7.2*	*7.0*	*6.6*	*6.3*	*6.2*
Gross fixed capital formation	2.6	2.9	3.1	3.6	3.5	3.6
Investment grants	1.0	1.2	1.3	1.3	0.9	0.8
Other capital expenditure	1.8	2.0	0.7	0.4	0.3	0.3
TOTAL CAPITAL EXPENDITURE	**5.3**	**6.0**	**5.1**	**5.3**	**4.7**	**4.7**
TOTAL PRIMARY EXPENDITURE	**53.5**	**52.0**	**50.1**	**49.4**	**47.5**	**46.6**
TOTAL EXPENDITURE	**57.0**	**55.5**	**53.6**	**52.5**	**50.5**	**49.6**
Total tax revenue	28.9	29.7	29.1	28.8	28.4	28.4
Direct taxes	*15.1*	*15.0*	*14.4*	*14.0*	*13.7*	*13.7*
Indirect taxes	*13.7*	*14.5*	*14.5*	*14.7*	*14.6*	*14.5*
Capital taxes	*0.1*	*0.1*	*0.3*	*0.1*	*0.1*	*0.1*
Social contributions	13.9	13.8	14.0	14.0	13.9	13.8
Actual social contributions	*13.6*	*13.5*	*13.7*	*13.8*	*13.7*	*13.6*
Imputed social contributions	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*	*0.2*
Other current revenue	4.4	4.5	4.7	4.8	4.4	4.1
TOTAL CURRENT REVENUE	**47.1**	**47.9**	**47.5**	**47.5**	**46.7**	**46.3**
OTHER CAPITAL REVENUE	0.2	0.3	0.7	1.2	0.5	0.5
TOTAL REVENUE	**47.4**	**48.3**	**48.5**	**48.8**	**47.3**	**46.9**
NET PRIMARY BORROWING (-) / LENDING (+)	**-6.1**	**-3.7**	**-1.6**	**-0.6**	**-0.2**	**0.2**
NET BORROWING (-) / LENDING (+)	**-9.6**	**-7.2**	**-5.1**	**-3.7**	**-3.2**	**-2.7**
Nominal GDP	*1,656,961*	*1,775,436*	*1,882,720*	*1,966,210*	*2,037,629*	*2,105,664*

Source: based on data from the 2022 EFD, Table II.2-2 and Istat.

The improvement in the deficit reflects the improvement in both the primary balance and interest expenditure as a percentage of GDP. The primary balance is still expected to be in deficit, but down from 3.7 per cent of GDP in 2021 to 1.6 per cent this year, 0.6 per cent next year and 0.2 per cent in 2024 before becoming a surplus of 0.2 per cent in 2025. Interest expenditure is expected to remain stable at 3.5 per cent of GDP this year before declining to 3.1 per cent in 2023 and 3.0 per cent in 2024 and 2025. In absolute terms, however, interest expenditure increased in 2021 after eight years of consecutive decline, primarily reflecting the component linked to inflation, and in subsequent years it is forecast to be higher than the assumption used in the 2021 Update: in the 2022-2024 period, the updated trend forecasts in the EFD imply an increase in interest spending of just under €31 billion.

Table 2.5c – General government accounts: trend forecasts *(growth rates)*

	2022 EFD				
	2021	2022	2023	2024	2025
Compensation of employees	1.6	7.1	-1.0	-0.8	0.2
Intermediate consumption	5.2	3.4	0.7	-1.0	0.1
Social benefits in cash	0.0	0.6	6.0	2.5	2.5
Pensions	*2.0*	*3.3*	*7.4*	*3.1*	*3.0*
Other social benefits	*-4.7*	*-6.3*	*2.1*	*0.9*	*0.9*
Other current expenditure	9.4	12.3	-3.6	-2.6	0.4
TOTAL CURRENT PRIMARY EXPENDITURE	**2.2**	**3.7**	**2.4**	**0.6**	**1.3**
Interest expenditure	9.7	4.9	-6.4	-0.8	3.2
TOTAL CURRENT EXPENDITURE	**2.7**	**3.8**	**1.7**	**0.5**	**1.4**
of which: healthcare spending	*4.2*	*3.0*	*-0.7*	*-1.4*	*0.5*
Gross fixed capital formation	19.5	14.4	21.1	2.4	4.7
Investment grants	28.8	15.6	4.4	-30.7	0.9
Other capital expenditure	17.8	-60.2	-40.2	-31.9	-0.2
TOTAL CAPITAL EXPENDITURE	**20.6**	**-10.0**	**7.9**	**-8.4**	**3.8**
TOTAL PRIMARY EXPENDITURE	**4.1**	**2.1**	**2.9**	**-0.4**	**1.6**
TOTAL EXPENDITURE	**4.4**	**2.3**	**2.3**	**-0.4**	**1.7**
Total tax revenue	10.1	4.1	3.2	2.3	3.2
Direct taxes	*6.5*	*1.2*	*1.5*	*1.6*	*3.7*
Indirect taxes	*13.8*	*5.5*	*6.3*	*3.0*	*2.6*
Capital taxes	*69.7*	*247.6*	*-71.1*	*0.9*	*0.9*
Social contributions	6.7	7.4	4.6	2.8	3.0
Actual social contributions	*6.7*	*7.4*	*4.7*	*2.8*	*3.0*
Imputed social contributions	*6.8*	*5.6*	*2.0*	*1.5*	*2.0*
Other current revenue	8.5	10.6	6.7	-4.1	-3.5
TOTAL CURRENT REVENUE	**8.9**	**5.2**	**4.4**	**1.8**	**2.5**
OTHER CAPITAL REVENUE	71.8	138.5	73.7	-53.7	4.5
TOTAL REVENUE	**9.2**	**6.5**	**5.0**	**0.4**	**2.5**

Source: based on data from the 2022 EFD, Table II.2-2 and Istat.

The primary balance reflects a much more substantial decline in primary expenditure as a proportion of GDP (by 5.4 percentage points, from 52 per cent in 2021 to 46.6 per cent in 2025) than that in revenue (which declines by 1.4 percentage points, from 48.3 per cent in 2021 to 46.9 per cent in 2025). Primary current expenditure would bear the primary burden of the decrease (also given the nature of the current legislation projections, which, for example, do not incorporate spending for bargaining agreement renewals subsequent to those for the 2019-2021 bargaining round), since capital expenditure is buoyed by the impact of the additional measures being implemented under the NRRP. This would bring investment spending in the 2023-2025 period to 3.5-3.6 per cent of GDP, slightly below the peak recorded in 2009 (3.7 per cent). The reduction in revenue as a percentage of GDP would mainly be attributable to a reduction in the fiscal burden from 43.5 to 42.2 per cent, reflecting in particular the direct tax component thanks mainly to the impact of the changes in personal income tax implemented with the 2022 Budget Act. The developments in other current and capital account revenue as a proportion of GDP is essentially attributable to the recognition of EU grants to finance NRRP measures.

Examining the main components of the general government account in greater detail, direct taxes are affected in particular by the changes in the taxation of individuals and the abolition of tax credits for dependent children up to 21 years of age in conjunction with the introduction of the universal dependent child allowance, which overall will reduce revenue (€11.6 billion in 2022 and about €9.8 billion in subsequent years). Indirect taxation reflects the exemption of natural persons exercising commercial activities or the arts and professions from IRAP and, for 2022 alone, measures to contain prices in the electricity and gas sector. Social contributions evolve in line with the overall wage bill of the entire economy, which in 2022 alone will expand much more rapidly than nominal GDP (reflecting the impact of the renewal of public employment bargaining agreements for the 2019-2021 period), producing an increase as a percentage of GDP this year before gradually subsiding in the following three years. As noted, other revenue reflects the effects of EU grants. For 2022 only, the extraordinary windfall profits tax on companies operating in the energy sector provided for by Decree Law 21/2022 will impact capital taxes.

On the expenditure side, spending on compensation of employees is expected to rise sharply in absolute value this year, decline in 2023 and 2024 and broadly stabilise the following year. This profile essentially reflects the fact that most of the public employment contract renewals for the 2019-2021 period will fall in 2022, the effects of which will include the payment of arrears. The renewal of bargaining agreements for management personnel is assumed for 2023. Pending subsequent renewals, the indemnity for non-renewal of expired bargaining agreements is included. Other factors with an impact as from 2022 include outlays introduced with the 2022 Budget Act connected with: i) ancillary remuneration and professional career paths for non-executive personnel of government entities (established with the 2019-2021 bargaining round); ii) permanent hiring at State entities and non-economic public bodies); and iii) the professional training of school teachers and the hiring of university teaching and administrative staff.

Intermediate consumption increases in 2022 and 2023 in absolute terms, before declining in partial reflection of NRRP interventions. The renewal of agreements for general practitioners and internal outpatient specialists (including arrears) also has an impact on spending in 2023. By contrast, the elimination of special commissioner arrangements should reduce expenditure. Other measures to limit intermediate consumption spending in general, especially in 2022, include cuts in the appropriations for the missions and programmes of the ministries made to fund measures to contain energy costs and support the automotive industry introduced with Decree Law 17/2022.

The dynamics of social benefits are affected by a number of factors. Pension expenditure reflects the increase in inflation (with a lag of one year), while non-pension benefits are impacted by the full implementation of universal allowance for dependent children and the reform of social safety net programmes. More specifically, the growth in pension expenditure is affected by automatic equalisation, i.e. the revaluation of benefits for inflation as a result of the increase in forecast inflation compared with previous years and the modification of the indexation mechanism, which becomes more favourable from 1 January 2022, with a consequent increase in benefits. As for the universal allowance, the rationalisation and simplification of existing programmes to support families with dependent children up to 21 years of age – implemented with Legislative Decree 230/2021 – will absorb additional resources (about €6 billion when fully operational) compared with the previous system. Finally, the impact of wage supplementation benefits declines compared with the still high levels registered in 2021, despite the reorganisation of the social safety net system, which among other changes included the extension of the ordinary wage supplementation mechanism (CIG) for certain firms, the expansion of potential beneficiaries of the NASPI unemployment benefit programme and amendments to the DIS-COLL unemployment benefit programme.

Developments in capital expenditure vary over the forecast period. The profile of spending on investment and investment grants substantially reflects the implementation coefficients of the projects of the Complementary Fund envisaged by Decree Law 59/2021 and the assumptions concerning the implementation schedule for NRRP programmes. These have been modified, with spending being reorganised compared with the scheduling indicated in the 2021 Update, reflecting in part the failure to complete all projects planned for 2020-2021. For 2022 alone, the investment estimate is partly reduced by plans for real estate disposals of about €1.9 billion, double the amounts achieved in recent years. Other capital expenditure reflects the effective disappearance of grants to businesses and VAT number holders in 2020-2021, the refinancing of the guarantee fund for SMEs for 2022 and, primarily for the same year, tax credits for DTAs generated by business mergers. The declining profile of estimated provisions for standardised guarantees will reduce these expenditure items in subsequent years.

2.3 Fiscal policy guidance at the EU level and the Government's report to Parliament

2.3.1 European Union fiscal policy guidance

On 2 March the European Commission adopted the Communication "Fiscal policy guidance for 2023" containing general preliminary guidance for the budgetary strategies of the Member States in view of the preparation of their stability and convergence programmes.[12] As usual, country-specific recommendations will be published in May after the Commission's assessments of the Member States' policy documents.

According to the European Commission, the general escape clause envisaged in the Stability and Growth Pact (SGP) will remain active for 2022 but, based on their winter forecast, is expected to be deactivated as of 2023. The deactivation of the clause will in any case be reassessed on the basis of their spring forecast. However, pandemic-related temporary emergency measures are set to be mostly phased out in 2022.

The activation of the general escape clause of the SGP was decided by the European Commission on 20 March 2020 and subsequently endorsed by the Council of the European Union. As regards the preventive arm, Articles 5(1) and 9(1) of Regulation (EU) 1466/97, establish that in periods of severe economic downturn for the euro area or the Union as a whole, Member States may be allowed temporarily to depart from the adjustment path towards the medium-term objective (MTO) provided that this does not endanger fiscal sustainability in the medium term. As regards the corrective arm, Articles 3(5) and 5(2) of Regulation (EU) 1467/97 establish that in the event of a severe economic downturn in the euro area or in the Union as a whole, the Council may decide, on a recommendation from the Commission, to adopt a revised budgetary trajectory. According to the European Commission, the activation of the clause does not suspend the procedures of the SGP, but allows the Commission and the Council of the European Union to take the necessary measures to coordinate budget policies under the Pact, while departing from the budgetary obligations that would be normally applicable.

In the Communication, the European Commission stresses that, given the period of transition and the exceptional uncertainty prevailing, it will not propose to open new excessive deficit procedures in the spring. It will reassess the relevance of proposing to open procedures in the autumn.

The Communication emphasises that fiscal recommendations for 2023 will be formulated in qualitative terms with a quantitative underpinning, focusing in particular on the goal of limiting the growth of current expenditure and looking at the quality and composition of public finances.

In particular, the European Commission stresses that it will use the indicator of the overall fiscal stance introduced last year in its assessment the stability and convergence programmes. The indicator is represented by the change in primary expenditure, net of

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[12] See https://eur-lex.europa.eu/legal-content/IT/TXT/PDF/?uri=CELEX:52022DC0085&qid=1647276529498&from=IT

cyclical unemployment spending and discretionary revenue measures. Furthermore, unlike the expenditure benchmark used for the preventive arm of the SGP, changes in expenditure financed by EU grants are also considered in order to be able to gauge the expansionary impulse of transfers through the Recovery and Resilience Facility. Given the exceptional circumstances created with the COVID pandemic, temporary emergency measures related to the crisis are also excluded. For assessment purposes, this indicator is compared against the ten-year average potential GDP growth rate. The European Commission will also assess the evolution of certain sub-components of the overall fiscal stance, i.e. nationally-financed primary current expenditure, expenditure financed by transfers from the Recovery and Resilience Facility and other EU funds and nationally-financed investment.

The EFD does not contain all the information necessary for an assessment of these indicators. Specifically, estimates of the impact of temporary crisis-related emergency measures are not available for either the trend or policy scenarios. In addition, all the other components are not available for the policy scenario except for the variations in expenditure financed by grants under the RRF.

The key principles that will guide the European Commission's assessment of the Member States' stability and convergence programmes are the following.

Principle 1: Ensure policy coordination and a consistent policy mix

The appropriate fiscal stance for the euro area should result from a proper balance between sustainability and stabilisation considerations. Based on the winter forecast, the Commission is of the view that transitioning from a supportive fiscal stance in 2020-2022 to a neutral fiscal stance appears appropriate in 2023, while standing ready to react to the evolving economic situation.

Principle 2: Ensure debt sustainability through a gradual and high-quality fiscal adjustment and economic growth

Under unchanged policies, the EU public debt ratio would broadly stabilise over the next ten years but remain on an increasing path in several high-debt Member States. Multi-year fiscal adjustment combined with investment and reforms to sustain growth potential is needed to curb debt dynamics. Based on the winter forecast, the Commission is of the view that starting a gradual fiscal adjustment to reduce high public debt as of 2023 is advisable, while a too abrupt consolidation could negatively impact growth and, thereby, debt sustainability.

Principle 3: Foster investment and promote sustainable growth

Shifting the European economies onto a higher sustainable growth path and tackling the challenges of the twin ecological and digital transitions should be top of the agenda in all Member States. The Recovery and Resilience Facility and the Multiannual Financial Framework, i.e. the EU's multiannual budget, will support public investment and reforms in the coming years. All Member States should protect overall investment and, where justified, expand nationally financed investment, in particular for the green, digital and resilient transition. In the view of the Commission, nationally financed high quality public investment should be promoted and protected in medium-term fiscal plans since promoting a resilient economy, i.e. one capable of responding swiftly to unexpected external shocks, and tackling the challenges of the twin transition are common key policy objectives for 2023 and beyond.

Principle 4: Promote fiscal strategies consistent with a medium-term approach to fiscal adjustment, taking account of the Recovery and Resilience Facility

Fiscal adjustment in high-debt Member States should be gradual, not lead to an overly restrictive fiscal stance, and be underpinned by investment and reforms that relaunch growth potential, facilitating the attainment of credible downward debt trajectories. Stability and convergence programmes should demonstrate how Member States' medium-term fiscal plans ensure a gradual downward path of public debt to prudent levels and sustainable growth through gradual consolidation, investment and reforms.

Principle 5: Differentiate fiscal strategies and take into account the euro area dimension

In the view of the Commission, fiscal recommendations should continue to be differentiated across Member States and take into account possible cross-country spillovers. As of 2023, starting a gradual fiscal adjustment in high-debt Member States is necessary to stabilise and then reduce debt ratios. Low/medium-debt Member States should prioritise investment for the twin transition. National fiscal adjustment – where needed – should be delivered in a way that improves the composition of expenditure, protecting overall investment.

Pending release of the details of the policy framework in the autumn, a number of initial preliminary considerations can be formulated concerning the correspondence of the public finance strategy delineated in the EFD with the five principles set out in the European Commission's Communication.

First, in the EFD policy scenario, debt decreases by an average of 4 percentage points of GDP in 2021 and 2022 and by an average of 2 percentage points of GDP from 2023 to 2025, going from 150.8 per cent of GDP in 2021 to 141.4 per cent in the last year of the policy horizon. This appears to be consistent with the need for high-debt countries such as Italy to begin a gradual fiscal adjustment to reduce the debt/GDP ratio.

In addition, the EFD's unchanged policies scenario envisages a gradual but lasting reduction in current expenditure as a ratio of GDP from 49.5 per cent in 2021 to 45.2 per cent in 2025. At the same time, public investment is projected to increase from 2.9 per cent of GDP in 2021 to 3.7 per cent in 2025. This scenario would be consistent with the need to reduce the debt/GDP ratio while protecting investment so as to foster growth and improve composition of expenditure. It will be necessary to verify whether these public finance scenarios, which appear consistent with the principles set out in the Communication, will be retained in the public finance policy strategy that emerges in the autumn.

2.3.2 The Government's report to Parliament

Together with the EFD, the Government also presented a report to Parliament pursuant to Article 6 of Law 243/2012 to request authorisation to update the adjustment path for achieving the MTO from the previous authorisation.

The policy profile in the 2021 Update and the 2022 DBP shows net borrowing of 5.6 per cent of GDP in 2022, 3.9 per cent in 2023 and 3.3 per cent in 2024 (see section 2.4). With the new report, the Government confirms the nominal policy objectives for net borrowing from 2022 to 2024 and puts the nominal deficit at 2.8 per cent in 2025. In structural terms, the deficit is revised from the 5.4 per cent indicated in the 2022 DBP to 5.9 per cent in 2022, from 4.4 to 4.5 per cent in 2023, from 3.8 to 4 per cent in 2024 and 3.6 per cent in 2025 (Table 2.6). The debt/GDP ratio is expected to reach 147 per cent in 2022, before progressively declining to 145.2 per cent in 2023, 143.4 per cent in 2024 and 141.4 per cent in 2025 (see section 2.5).

The deterioration in the structural balance is attributable to a number of factors, notably greater interest expenditure than estimated last autumn (3.5 per cent of GDP, instead of 2.9 per cent, in 2022; Table 2.6) and greater recourse one-off measures (0.7 points of GDP instead of 0.3 points; they improve the nominal balance but have no effect on the structural balance), only partially offset by a smaller cyclically-adjusted primary deficit (revised from 2.2 per cent to 1.7 per cent).

Table 2.6 – Structural net borrowing and its determinants – Comparison of the 2022 EFD and the 2022 DBP
(percentage of GDP)

	2021			2022			2023			2024			2025
	2022 EFD	2022 DBP	Diff. 2022 EFD - 2022 DBP	2022 EFD	2022 DBP	Diff. 2022 EFD - 2022 DBP	2022 EFD	2022 DBP	Diff. 2022 EFD - 2022 DBP	2022 EFD	2022 DBP	Diff. 2022 EFD - 2022 DBP	2022 EFD
Structural net borrowing (=a-b-c) of which:	-6.1	-7.6	1.5	-5.9	-5.4	-0.5	-4.5	-4.4	-0.1	-4.0	-3.8	-0.2	-3.6
Cyclically adjusted primary balance (a)	*-2.2*	*-3.8*	*1.6*	*-1.7*	*-2.2*	*0.5*	*-1.1*	*-1.5*	*0.4*	*-0.9*	*-1.3*	*0.4*	*-0.5*
One-off measures (b)	*0.4*	*0.4*	*0.0*	*0.7*	*0.3*	*0.4*	*0.3*	*0.2*	*0.1*	*0.1*	*0.0*	*0.1*	*0.1*
Interest expenditure (c)	*3.5*	*3.4*	*0.1*	*3.5*	*2.9*	*0.6*	*3.1*	*2.7*	*0.4*	*3.0*	*2.5*	*0.5*	*3.0*
memo Nominal net borrowing	*-7.2*	*-9.4*	*2.2*	*-5.6*	*-5.6*	*0.0*	*-3.9*	*-3.9*	*0.0*	*-3.3*	*-3.3*	*0.0*	*-2.8*

Source: based on data from the 2022 EFD and 2022 DBP.

Purpose of the measure

According to the Government, the reasons for requesting an update of the adjustment path lie in the surge in COVID-19 cases driven by the Omicron variant and in the increase in the price of natural gas. Furthermore, following Russia's invasion of Ukraine, the prices of energy, food, metals and other commodities have risen further, bringing consumer inflation to 6.7 per cent. The jump in inflation has prompted the central banks to adopt a more restrictive monetary policy stance and this has generated an increase in interest rates on government securities. With these developments, the growth outlook has become more uncertain, with the forecast for this year falling from the 4.7 per cent projected in the 2021 Update to 2.9 per cent, while for 2023 it has declined from 2.8 per cent to 2.3 per cent (see chapter 1).

With the measure made possible following the authorisation of the deviation, the Government intends to take action to reimburse central government departments for the resources used to finance previous emergency programmes, take additional steps to contain the increase in electricity and fuel prices, ensure that firms have access to the liquidity they need, strengthen reception arrangements for Ukrainian refugees and adjust the funds earmarked for public investment to offset the unexpected increase in energy and raw material costs (see section 2.4). In order to implement these measures, the Government has therefore requested authorisation of a larger deficit. Expressed in terms of general government net borrowing, it would be equal to €10.5 billion in 2022, €4.2 billion in 2023, €3.2 billion in 2024 and €2.2 billion in 2025, while from 2026 the borrowing authorisation would be for interest only (Table 2.7).

The Government's request for a revision of the adjustment path towards the MTO should be considered justified in light of the exceptional events that have occurred since March 2020, which prompted the activation of the general escape clause by the European Union. As noted in section 2.3.1. the clause will remain in force in 2022 as well.

Table 2.7 – Request for borrowing authorisation – impact on general government net borrowing – 2022-2032
(millions of euros)

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
General government net borrowing	10,506	4,248	3,170	2,212	460	485	515	545	575	600	625

Source: Report of the Government to Parliament of 6 April 2022.

2.4 The policy public finance scenario for 2022-2025

The 2022 EFD policy scenario retains the targets for the deficit as a proportion of GDP set in the 2021 Update until 2024, while a deficit target of less than 3 per cent of GDP has been set for 2025, slightly higher than the trend objective (Table 2.8). The deficit therefore remains projected at 5.6 per cent of GDP in 2022, 3.9 per cent in 2023 and 3.3 per cent in 2024. A target of 2.8 per cent of GDP has been set for 2025. The debt/GDP ratio in 2021 was 150.8 per cent, down from 155.3 the previous year. In the Government's plans, the ratio is expected to continue to decline in subsequent years, from 147 per cent in 2022 to 141.4 per cent in 2025 (see section 2.5).

Given the more favourable current-legislation trajectory that has emerged following the updating of the forecasts and considering that the policy targets for the nominal deficit have not changed, a degree of flexibility is available to fund the new interventions envisaged in the EFD.

The expansionary measures amount to 0.5 per cent of GDP this year, 0.2 per cent in 2023 and 0.1 per cent in both 2024 and 2025. In absolute terms, this amounts to €10.5 billion in 2022, €4.2 billion in 2023, €3.2 billion in 2024 and €2.2 billion in 2025, as indicated in the report of 6 April submitted to Parliament requesting authorisation to revise the path of adjustment towards the MTO (see section 2.3.2).

The EFD expressly indicated that the measures would allocate the resources available to: i) restore the budget funds temporarily defunded to cover the commitments undertaken in Decree Law 17/2022; ii) increase funds for loan guarantees; iii) increase the resources available to cover the increase in the costs of public works; iv) contain fuel prices and the cost of energy; v) assist Ukrainian refugees and alleviate the economic impact on Italian companies; and vi) continue to support the healthcare system's response to the pandemic and the sectors most affected by the pandemic emergency.

The measures were partially finalised with Decree Law 38/2022 (which was folded into Decree Law 21/2022), implementing the objective of the EFD to introduce measures to contain the price of fuel and the cost of energy (point iv) above). An additional decree law (Decree Law 50/2022) used the remaining flexibility to fund further energy measures and to finance the other interventions specified in the EFD (the other five points noted above).

Table 2.8 – Deficit forecasts and targets in the 2022 EFD (1)
(percentage of GDP; positive sign = improvement in the balance)

	2022	2023	2024	2025
Trend net borrowing (a)	**-5.1**	**-3.7**	**-3.2**	**-2.7**
Post EFD measures (DL 38 and DL 50/2022)(b)	-0.5	-0.2	-0.1	-0.1
Policy net borrowing (c)=(a)+(b)	**-5.6**	**-3.9**	**-3.3**	**-2.8**

Source: based on 2022 EFD data.
(1) Totals may not match due to rounding.

The provisions of the decree are broader in scope than those envisaged in the EFD, by funding additional measures, some of a significant financial amount, concerning among other things a one-off allowance of €200 for 2022 for persons whose income falls below certain thresholds, including employees, retirees, beneficiaries of the Citizenship Income programme.

To address the increase in the cost of fuel, electricity and gas, €5.2 billion were appropriated for 2021, of which €0.8 billion for households, €0.5 billion for firms and €3.9 billion for households and firms (Decree Law 41/2021, Decree Law 73/2021, Decree Law 99/2021 and Decree Law 130/2021). For 2022, appropriations amounted to €14.5 billion, of which €5.9 billion for households, €1.3 billion for firms and €7 billion for households and firms (2022 Budget Act, Decree Law 4/2022, Decree Law 17/2022 and Decree Law 21/2022). In order to offset the increase in the prices of construction materials for public works, €100 million had already been allocated for 2021 (Decree Law 73/2021) and €610 million for 2022 (2022 Budget Act, Decree Law 4/2022, Decree Law 17/2022 and Decree Law 21/2022).

The EFD also specifies that in order to refinance the so-called unchanged-policy measures – which are currently not incorporated in the trend projections – current expenditure will be reviewed to identify an increasing volume of savings over time. The unchanged-policy measures regard a series of expenditure programmes, from the financing of future public employment contract renewals to the refinancing of international missions, which, according to preliminary information provided in the EFD, could require €4.6 billion (0.2 per cent of GDP) in 2023, €5.2 billion in 2024 (0.3 per cent of GDP) and €5.5 billion in 2025 (0.3 per cent of GDP).[13]

More specifically, central government departments are expected to contribute to funding these needs and any new measures that the Government decides to adopt with the year-end budget package, with expenditure cuts increasing from €0.8 billion in 2023 to €1.2 billion in 2024 and €1.5 billion in 2025, to be allotted among the ministries in accordance with the provisions of a decree of the President of the Council of Ministers to be issued by 31 May 2022.

In short, the "spending review within the budget cycle" has been revived. First introduced in 2016 with an amendment to the Government Accounting and Public Finance Act (Article 22-bis, Law 196/2009), it was implemented for the first and only time in 2018 as part of the 2018-2021 planning cycle (see Box 2.1).

[13] See page 26, Section II of the EFD. The amounts indicated in the text include the increase in tax and contribution revenue generated by the increase in spending on compensation of employees. The EFD underscores that "the indication of the additional resources on an unchanged-policy basis is purely indicative and does not involve any economic policy considerations. The specification of the scale or economic-social sectors considered worthy of attention in any measures that the Government should decide to adopt will be the subject of a specific assessment that shall also comprise an evaluation of their consistency with the public finance policy objectives".

Box 2.1 – The first application of the "spending review within the budget cycle", procedure provided for in Article 22-bis of Law 196/2009 in 2018 and the enhancement of the spending review in the NRRP

The introduction of Article 22-bis of the Government Accounting and Public Finance Act represented an important innovation designed to systematically integrate the spending review process into the budget cycle, strengthening the link between the definition of macro-financial objectives and allocative choices. However, its sole application, in 2018, revealed a number of critical issues, while at the same time having a positive impact in terms of increasing the accountability of government entities in preparing their budget proposals and fostering a more careful reconsideration of current-legislation forecasts.[14]

This procedure establishes that, in line with the policy objectives outlined in the EFD for general government as a whole, a decree of the Presidency of the Council of Ministers (DPCM) shall specify on a three-year basis (from year t+1 to year t+3) the spending objectives for each ministry, expressed in terms of maximum limits and savings to be achieved. These objectives represent the benchmark for the formulation of the ministries' proposals for the preparation of the budget for the following year. The provisions also provide for a specific multi-phase monitoring process to enable verification of actual achievement of the expenditure objectives and to evaluate the effects, also in terms of the quantity and quality of the goods and services delivered. In an initial phase, specific interministerial decrees (to be published on the MEF website) containing the monitoring agreements between the individual ministries and the MEF are drafted by 1 March of the following year (year t+1). By June 30 of the following year, the individual ministries shall submit to the President of the Council of Ministers and the MEF information tables, on the basis of which the Minister of the Economy, by July 15, shall inform the Council of Ministers about the state of implementation of the measures subject to monitoring. The process ends with each ministry submitting a report to the Prime Minister and the Minister of Economy by 1 March of the subsequent year (year t+2), detailing the state of achievement of the objectives through the implementation of the measures introduced in year t+1 and the reasons for any failure to achieve them. These reports shall be attached to the EFD.

The measures proposed by the ministries at the time remained anchored to the accounting approach of the chapters or, in some cases, of the management plans, apparently being disconnected from the management accountability that could be connected to the programmes (and actions) in the State budget. Even the taxonomy of the measures indicated in the DPCM of June 2017, which initiated the procedure, was applied mechanically at the chapter level without achieving what appeared to be the objective of the procedure, i.e. to produce an economic and financial assessment of the allocation of resources. Lacking were both the microeconomic analyses, aimed at evaluating the efficiency and effectiveness of the existing public policy structures, and the elimination of the fragmentation of the expenditure authorisations underlying the budget, whose revision and simplification was to be the basis for an improved relationship between the budget structure and the accountability of public managers.

At times, the measures implemented have appeared to be "remedies" to an improper formulation of the applicable legislation. Therefore, a more prudent estimation of trend developments – based on a detailed reconsideration of the various determinants of the different expenditure items and less reliant on the extrapolation of historical trends – should probably have preceded these measures and, therefore, some of the expenditure cuts included in the budget package.

In some cases, together with the proposed corrections, the risk of the formation of off-balance-sheet liabilities was made explicit – as expressly requested by the DPCM – casting doubt on the sustainability of the proposals themselves, thus preventing the permanent nature of the measures to reduce expenditure that the DPCM explicitly required. Alongside measures actually resulting from organisational changes or the adoption of best administrative practices, in some cases there

[14] The specific comments in the Box are based on those given in Ufficio parlamentare di bilancio (2019), "Audizione informale dell'Ufficio parlamentare di bilancio nell'ambito dell'attività conoscitiva concernente i risultati della prima attuazione dell'art. 22-bis della L. 196/2009 in materia di programmazione finanziaria e accordi tra ministeri", 13 March (Summary in English. Full text in Italian).

were almost identical values in the scale of cuts of current-legislation appropriations in each chapter, suggesting that linear cuts had been made to the appropriations.

Improvements to the entire procedure should be possible thanks to the inclusion of the strengthening of the expenditure review and evaluation process among the enabling reforms of the NRRP. Decree Law 152/2021 seeks to strengthen existing structures, create new ones and use specialised professionals or even external experts, providing among other things for: i) the establishment of an Advisory Committee, chaired by the State Accountant General, charged with guiding and planning the analysis and evaluation of expenditure; ii) the establishment of a special mission unit, again at the Office of the State Accountant General (RGS), with technical and support functions; iii) the resumption of the activities of the expenditure analysis and evaluation units; iv) the recruitment of new staff; and v) the possibility of activating projects and agreements with universities and research bodies and of making use of experts. Under the provisions of the NRRP reform, by the end of 2022 the RGS must prepare a report on the practices used by certain expenditure ministries to develop and implement their expenditure savings plans and their effectiveness, which can be used in the subsequent formulation of guidelines to support central government entities.

2.4.1 Comments on the public finance policy scenario

The information contained in the EFD provides grounds for a number of general observations.

The public finance policy scenario presented in the EFD sets out a strategy of pragmatic prudence in a context of elevated macroeconomic and international uncertainty. In particular, the EFD is focused – advisably – on continuity in programming. It reaffirms the goals of returning the deficit to below 3 per cent of GDP in 2025 and achieving a gradual reduction of the debt/GDP ratio, with the aim of returning it – at the end of the decade – to its pre-pandemic level (the 134.1 per cent recorded in 2019). Given the debt ratio target for the end of the decade (134.1 per cent) and that set by the government for 2025 (141.4 per cent), the ratio would have to fall by an average of about 1.5 percentage points of GDP per year, slightly slower than the decreases planned for the 2023-2025 period.

Given the lack of change in the nominal balances compared with the previous programming, the expansionary nature of the public finance strategy is therefore mainly attributable to the implementation of the NRRP. The public finance policy scenario assumes the full implementation of the measures under the NRRP and the complementary investment fund, producing very rapid trend rates of growth in public investment, especially in 2022 and 2023, when, after the 19.5 per cent increase registered in 2021, public investment is expected to increase by 14.4 per cent and 21.1 per cent, respectively.

It is important that the NRRP timeline be met in full. The commitment to comply with the integrated process of implementing expenditure and the achievement of quantitative objectives (as well as qualitative targets) is key, both for supporting growth and ensuring the regular disbursement of European funds. The link between objectives and targets and the implementation of expenditure, initially weak, will in fact become much tighter as the Plan progresses.

In this regard, it should be emphasised that – in addition to the organisational and administrative difficulties of the implementing bodies noted in PBO analyses[15] – the shortage of construction materials and the associated price increases also hinder the timely execution of many projects. It is therefore important that the Government's monitoring of these issues continue. After having already intervened repeatedly since the middle of last year, the Government implemented additional measures in this regard with Decree Law 50/2022.

Finally, it is clear that the risks to the economy, especially those of an international nature associated with the Russia-Ukraine conflict – which are oriented downwards as discussed in section 1.5 – are a crucial factor in public finance developments. This is also true for financial conditions, which could deteriorate into a situation less favourable than that envisaged in EFD, with new increases in interest rates – partly in response to the resurgence of inflation – that can cause interest expenditure to rise (see section 2.4.2).

In an environment of extraordinary uncertainty, the Government has undertaken to take swift action to support households and businesses with more robust than expected budget action should conditions deteriorate further.

The opportunities and methods for intervention identified during the year and in the next Budget Act must nevertheless be integrated within the broader European orientation of economic policies, including energy policy. More specifically, decisions will depend on the evolution of the situation, the position that the European Commission decides to take on the general escape clause of the SGP and the reform of the fiscal rules, as well as on the possibility that certain expenditure on public goods will be funded at the EU rather than national level.

What is certain is that the credibility of the debt reduction trajectory appears to be linked to the continuation of a budget management approach focusing on the sustainability of the public finances.

In the Communication "Fiscal Policy Guidance for 2023", the European Commission emphasised that stability programmes will be evaluated with particular attention to the underlying trends in nationally-financed primary current expenditure and the quality of spending, providing for specific indicators (see section 2.3.1).

[15] See, for example: Ufficio parlamentare di bilancio (2021), "Audizione del Presidente dell'Ufficio parlamentare di bilancio nell'ambito delle audizioni preliminari all'esame del Documento di economia e finanza 2021", 21 April; Ufficio parlamentare di bilancio (2021), "Audizione dell'Ufficio parlamentare di bilancio sull'attuazione e sulle prospettive del federalismo fiscale, anche con riferimento ai relativi contenuti del Piano nazionale di ripresa e resilienza", 20 October and Ufficio parlamentare di bilancio (2022), Audizione su "Assetto della finanza territoriale e linee di sviluppo del federalismo fiscale", 5 May (Summaries in English. Full texts in Italian).

From this perspective, it is necessary to consider the importance of enhancing the spending review and evaluation process, which is one of the enabling reforms of the NRRP, fully aware of the commitment needed to achieve the objectives of moderating current expenditure and, ultimately, ensuring debt sustainability.

2.4.2 Sensitivity of interest expenditure to interest rates and the inflation rate

This section discusses the results of a number of sensitivity analyses of interest expenditure on government securities with respect to the baseline scenario for Italian and European interest rates and inflation rates.

The baseline forecasts for interest expenditure are formulated using the policy assumptions for the borrowing requirement contained in the EFD for the 2022-2025 period. Furthermore, for each simulation year we assume a yield curve consistent with market expectations as incorporated in forward rates at the time the forecasts are prepared.

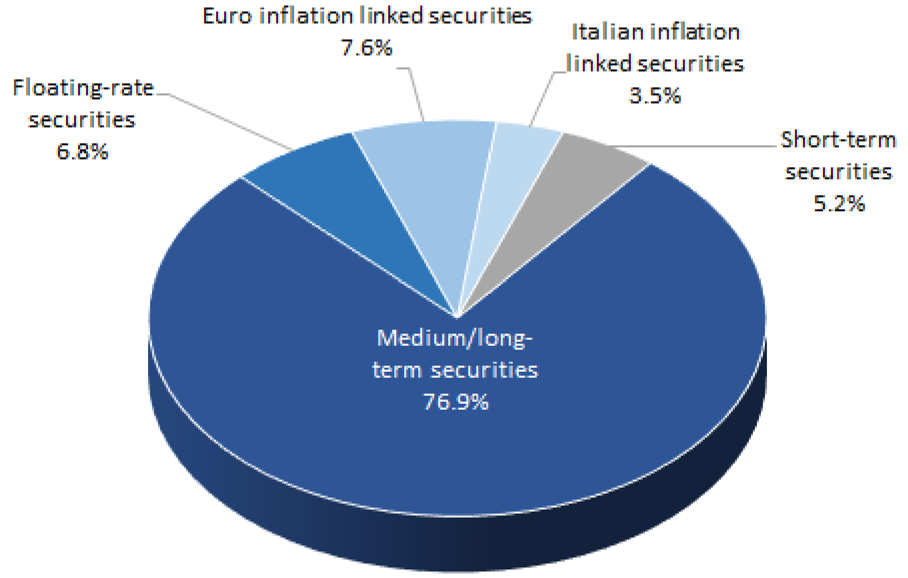
Using the PBO's interest expenditure forecast model, we can evaluate the impact on net borrowing of a temporary or permanent shock to interest rates and/or inflation.

The effects of the shock are assessed by analysing the difference between the simulation results and the baseline scenario. The simulations consider the component of the debt made up of Treasury securities (which is equal to about 84 per cent of total general government debt). Accordingly, for example, the liabilities of local authorities are excluded. At the end of 2021, medium/long-term fixed-rate securities accounted for about 77 per cent of the total stock of government securities, inflation-linked bonds about 11 per cent of the total (of which 7.6 per cent indexed to European inflation and 3.5 per cent to Italian inflation), floating-rate securities indexed to the Euribor rate accounted for around 7 per cent and, finally, short-term securities represented 5 per cent of the total (Figure 2.1).

The first exercise discussed here estimates the impact on projected interest expenditure of a permanent rise of 100 basis points in the yield curve for Italian government securities as from 2023. The results show that in this scenario, interest expenditure would increase by about €2.5 billion in 2023 compared with the baseline scenario, €6.7 billion in 2024 and €10.1 billion in 2025 (Table 2.9).

The increase in interest expenditure would amount to 0.13 per cent of GDP in the first year (2023), 0.33 per cent in the second and 0.48 per cent in the third (Table 2.10, first row). Thus, the impact of an unexpected permanent shock on the yield curve on interest spending is distributed gradually over time. This reflects the relatively high average residual life of government securities (equal to 7.11 years at the end of 2021), which has been steadily rising over the last three years (Figure 2.2).

Figure 2.1 – Composition of domestic government securities at December 31, 2021



Source: MEF.

Table 2.9 – Change in interest expenditure following 100-basis-point increase in yield curve as from 2023
(millions)

	2023	2024	2025
Permanent +100 basis point shock to interest rates	2,489	6,734	10,100

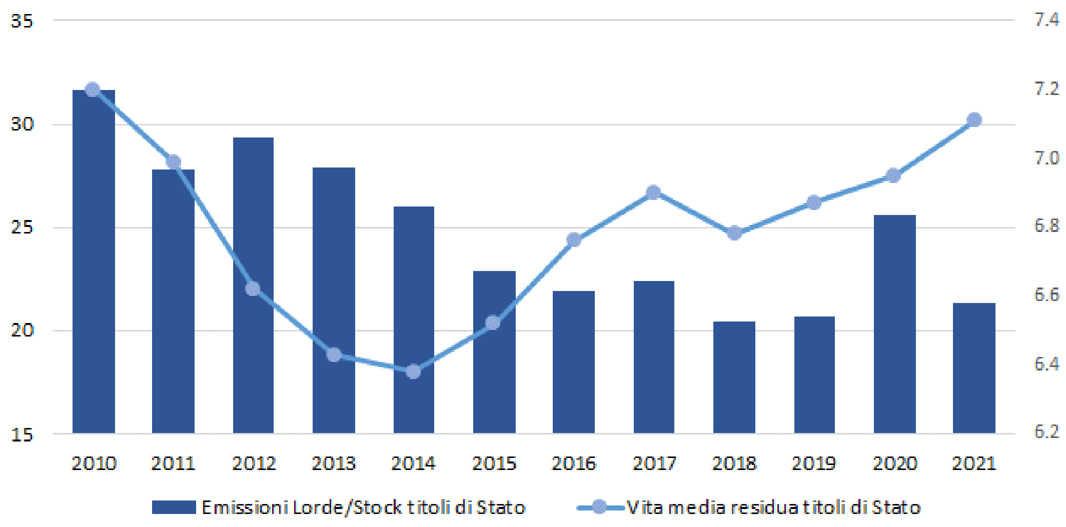
Source: based on 2022 EFD data.

Table 2.10 – Change in interest expenditure following 100-basis-point increase in yield curve
(percentage of GDP)

	Year 1	Year 2	Year 3
PBO 04/2022 (Year 1=2023)	0.13	0.33	0.48
EFD 2022 (Year 1=2022)	0.13	0.31	0.45
EFD 2021 (Year 1=2021)	0.17	0.39	0.55
EFD 2019 (Year 1=2019)	0.12	0.27	0.39
EFD 2018 (Year 1=2018)	0.11	0.25	0.36
PBO 10/2017 (Year 1=2018)	0.10	0.26	0.37
EFD 2017 (Year 1=2017)	0.13	0.28	0.40

Source: MEF and PBO.

Figure 2.2 – Ratio of gross issues and nominal stock of domestic securities and average residual life of government securities
(percentages left-hand scale; years left-hand scale)



Source: MEF.

The estimates of the sensitivity of interest expenditure to interest rates over time are lower than the values reported in the 2021 EFD (Table 2.10, third row). This difference reflects the fact that in the first simulation year of the 2021 EFD (2021), the borrowing requirement was expected to be very large (about €223 billion), which explains the increase in sensitivity with respect to the estimates published in previous documents. For the same reason, the current sensitivity estimate is higher than that recorded in the pre-COVID period (Table 2.10, last four lines).

In the second exercise, we simulate a temporary increase of 1 percentage point in the Italian and European inflation rate in 2023 compared with the baseline scenario (interest expenditure forecasts represented by the 2022 EFD policy assumptions). In this case, interest expenditure would increase by approximately €1.8 billion in the same year (Table 2.11, first line), or 0.09 per cent of GDP (Table 2.12, first line).

Table 2.11 – Change in interest expenditure following a temporary increase in the inflation rate in 2023
(millions)

	2023	2024	2025
Temporary +1% shock to Italian and European inflation rate	1,830	16	15
Temporary +1% shock to Italian and European inflation rate with differentiated decreasing impact on interest rates (average of +50 basis points)	3,338	2,019	1,389

Source: based on 2022 EFD data.

Table 2.12 – Change in interest expenditure following a temporary increase in the inflation rate in 2023
(percentage of GDP)

	2023	2024	2025
Temporary +1% shock to Italian and European inflation rate	0.09	0.00	0.00
Temporary +1% shock to Italian and European inflation rate with differentiated decreasing impact on interest rates (average of +50 basis points)	0.17	0.10	0.07

Source: based on 2022 EFD data.

We can also hypothesise a situation in which the inflation shock is transmitted at least in part to interest rates. Assume that an increase of 1 percentage point in the inflation rate has an equal impact on the three-month interest rate, while for longer maturities the impact on the curve is gradually decreasing, reaching zero for the 30-year interest rate. As a consequence, the entire rate curve rises by an average of 50 basis points. In this scenario, we would observe an increase in interest expenditure of about €3.3 billion in 2023, €2 billion in 2024 and €1.4 billion in 2025 (Table 2.11, second line). As a proportion of GDP, interest would increase by 0.17 percentage points in the first year, 0.10 points in the second year and 0.07 points in the third year (Table 2.12, second line).

2.5 Policy developments in the public debt

In 2021, the public debt/GDP ratio fell by 4.4 percentage points compared with 2020, reaching 150.8 per cent (Table 2.13). This was lower than the estimate of 153.5 per cent published in the 2021 Update, thanks above all to a smaller-than-expected actual general government deficit.

In nominal terms, the increase of €105.2 billion in the stock of debt compared with 2020, from €2,573 billion to €2,678 billion, reflects both a general government borrowing requirement of about €92.4 billion and an increase of about €5 billion in Treasury liquidity. Issue and redemption discounts and premiums, the revaluation of inflation-linked securities and exchange rate developments increased the debt by €7.8 billion overall.[16] Note that the general government borrowing requirement underlying the debt was about €14 billion less than the state sector borrowing requirement, an especially substantial amount compared with previous years, calling for clear explanation of the causes.

At the end of last year, the average life of general government debt lengthened to 7.6 years, continuing the rise from 7.2 years at the end of 2018 (Figure 2.3). As it is well-known, an increase in this indicator represents a mitigation of the refinancing risk and reduces the exposure of the issuer to rapid increases in interest rates.

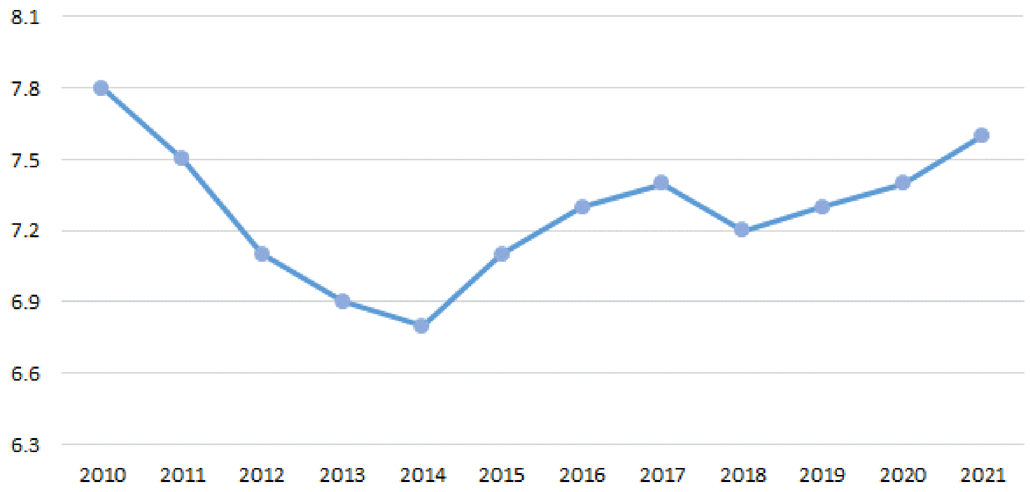
Table 2.13 – Determinants of the change in the debt/GDP ratio (1)
(percentage of GDP and percentage changes)

	2020	2021	2022	2023	2024	2025
Debt/GDP ratio	155.3	150.8	147.0	145.2	143.4	141.4
Change in debt/GDP ratio	21.1	-4.4	-3.8	-1.9	-1.8	-2.0
Primary surplus (2) (accruals basis)	**6.1**	**3.7**	**2.1**	**0.8**	**0.3**	**-0.2**
Snow-ball effect (3), of which:	**14.8**	**-6.8**	**-5.4**	**-3.4**	**-2.2**	**-1.6**
Interest expenditure/nominal GDP	*3.5*	*3.5*	*3.5*	*3.1*	*3.0*	*3.0*
Contribution of growth in nominal GDP	*11.3*	*-10.4*	*-8.9*	*-6.5*	*-5.2*	*-4.6*
memo : Average cost of debt	*2.4*	*2.4*	*2.5*	*2.2*	*2.1*	*2.2*
memo: Net borrowing	*-9.6*	*-7.2*	*-5.6*	*-3.9*	*-3.3*	*-2.8*
Stock-flow adjustment: of which	**0.2**	**-1.3**	**-0.5**	**0.7**	**0.1**	**-0.2**
Cash accruals difference		*-1.1*	*-1.4*	*0.0*	*-0.3*	*-0.5*
Net accumulation of financial assets, of which:		*0.0*	*1.0*	*0.6*	*0.5*	*0.4*
Privatisation receipts		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Debt valuation effects		*-0.5*	*0.2*	*0.2*	*0.1*	*0.1*
Other		*0.3*	*-0.2*	*-0.1*	*-0.2*	*-0.2*

Source: based on 2022 EFD data.
(1) Totals may not match due to rounding. – (2) A "primary surplus" with a positive sign indicates a deficit and therefore increases the debt/GDP ratio. – (3) The snow-ball effect is calculated as the sum of interest expenditure as a proportion of GDP and the contribution of nominal GDP growth, given by $(d_{t-1}/PIL_{t-1})x(-g_t/(1+g_t))$, where d_{t-1} is debt at time t-1 and g_t is the rate of nominal GDP growth at time t.

[16] See Banca d'Italia (2022), "Economic Bulletin", no. 2, April.

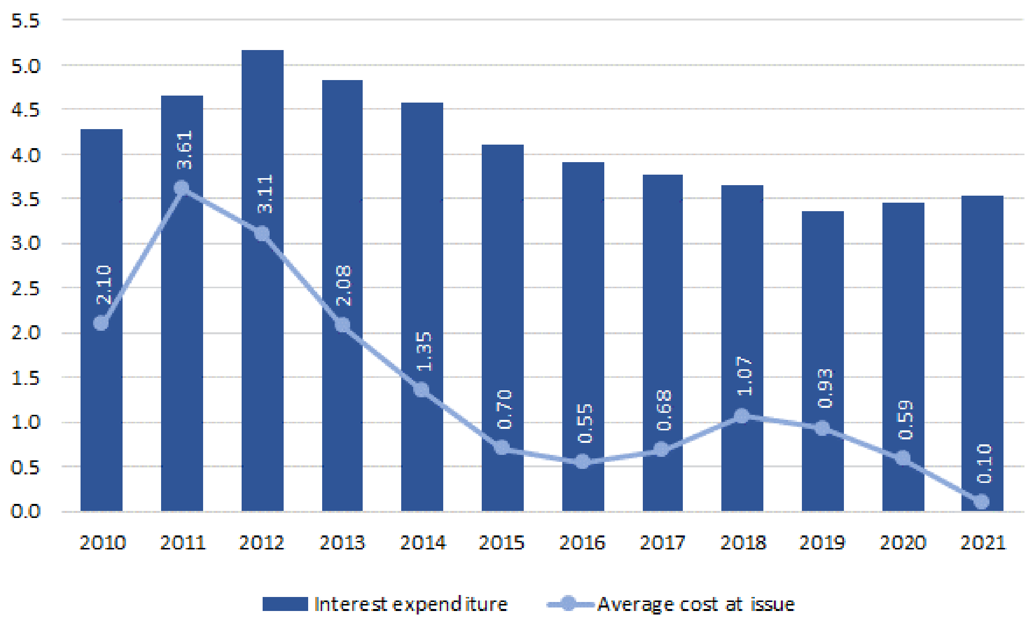
Figure 2.3 – Average residual life of general government debt



Source: Bank of Italy.

In 2021, the weighted average cost of new issues fell further from 0.59 per cent in 2020 to 0.10 per cent (Figure 2.4). Interest expenditure increased by 9.7 per cent in absolute value (€5.5 billion), ending the continuous decline registered from 2013 to 2020. Interest expenditure was equal to 3.54 per cent of GDP in 2021, slightly higher than the 3.46 per cent registered the previous year.

Figure 2.4 – Interest expenditure as a percentage of GDP and weighted average cost at issue

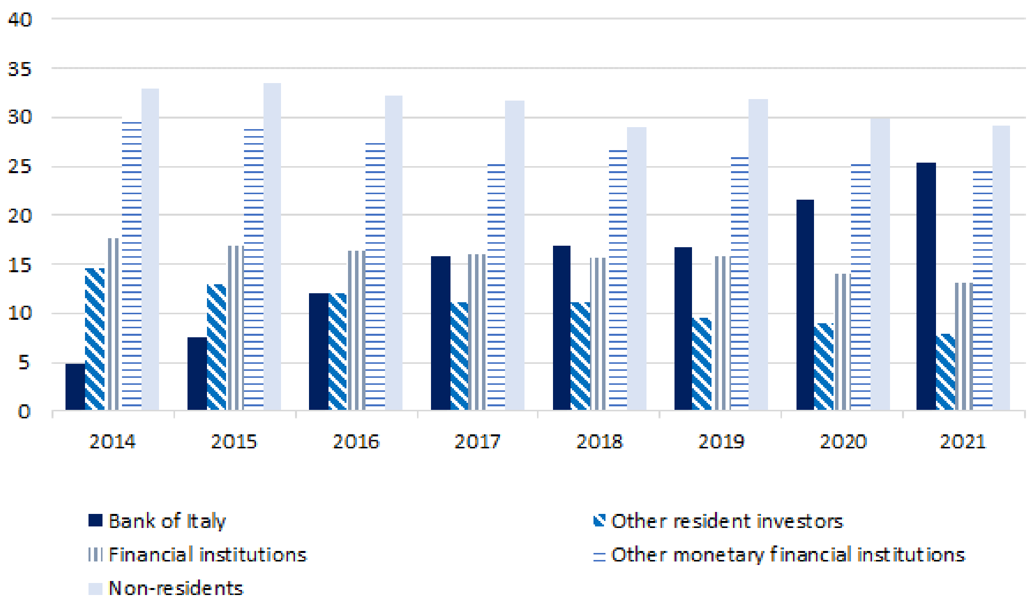


Source: Istat e MEF.

As regards the composition of the debt by holder (Figure 2.5), as a result of the Eurosystem's secondary market purchase programmes for government securities since 2015, the share held by the Bank of Italy has increased significantly, rising from 4.8 per cent in 2014 to 25.3 per cent at the end of 2021. In the same period, there was a decrease in the share held by other investors: in particular, the most marked reduction (6.7 percentage points) was seen for other resident investors (mainly households and firms), which held 7.9 per cent of debt at the end of 2021, followed by other monetary financial institutions (mainly banks, 5.4 percentage points) and financial institutions (mainly investment funds, 4.5 percentage points), which at the end of 2021 held 24.6 per cent and 13.1 per cent of public debt respectively. Finally, the share held by non-residents has also contacted slightly since 2014 (3.9 percentage points), reaching 29.1 per cent at the end of 2021.[17]

According to the EFD's policy scenario, the debt/GDP ratio should continue to decline to 147 per cent of GDP this year, down by 3.8 percentage points compared with 2021. In subsequent years, the decline in the ratio is expected to be less rapid, reaching 145.2 per cent in 2023, 143.4 per cent in 2024 and 141.4 per cent in 2025. Accordingly, the expected reduction over the forecast horizon of the EFD is equal to 9.4 percentage points of GDP (Table 2.13).

Figure 2.5 – Gross debt: holders by sector
(percentages)



Source: Bank of Italy.

[17] More specifically, "other monetary financial institutions" are banks and other resident monetary financial institutions; "financial institutions" are financial intermediaries (securities investment firms, SICAVs and investment funds), financial auxiliaries, insurance undertakings and pension funds. "Other resident investors" comprise households and non-profit institutions serving households and non-financial corporations. "Non-residents" include, inter alia, securities purchased by the Eurosystem, with the exception of those held by the Bank of Italy, as part of programmes for the purchase of government securities on the secondary market.

The debt/GDP ratio in the EFD policy scenario is 0.2 percentage points higher than the trend scenario forecast for the end of the period, which is equal to 141.2 per cent of GDP.

Breaking down the dynamics of the debt/GDP ratio into the various components, the primary deficit is expected to have an adverse impact over the four-year forecast period, accounting for 3 percentage points of GDP. The snow-ball effect component, which reflects the differential between interest expenditure and the contribution of nominal GDP, would reduce the debt/GDP ratio over the entire forecast period by about 12.7 percentage points, of which 25.2 percentage points due to the recovery in nominal GDP partially offset (12.6 percentage points) by interest expenditure.[18] The average cost of debt is expected to increase from 2.4 per cent in 2021 to 2.5 per cent in 2022, largely reflecting the revaluation of inflation-linked securities, before declining to 2.1 per cent in the following two years and rising to 2.2 per cent in the last forecast year. Finally, the stock-flow adjustment, also including the impact of transactions through the "Targeted Fund" ("Fondo Patrimonio"), would increase the ratio in the four-year period by a total of 0.3 percentage points of GDP.[19]

Treasury liquidity is expected to gradually decline over the EFD forecast horizon, falling from the €47.5 billion registered at the end of 2021 to about €35 billion in 2025, returning the account balance to the level registered at the end of 2019, before the onset of the pandemic.

2.5.1 Impact of the Eurosystem's purchase programme on the Italian government securities market

During 2021, the Eurosystem continued to make substantial purchases of financial assets on the secondary market, albeit at a less rapid pace than in 2020. Summing together the various programmes, the Eurosystem purchased about €1,080 billion in public and private securities for the euro area as a whole: more specifically, purchases included €240 billion under the Asset Purchase Programme (APP) and €840 billion under the Pandemic Emergency Purchase Programme (PEPP). These were joined by purchases associated with the reinvestment of principal repayments on maturing securities acquired under the APP and PEPP held by the Eurosystem. As regards Italian government securities, a total of about €150 billion were purchased in the secondary market, of which €18 billion under the APP and an estimated €132 billion under the PEPP.

In the first quarter of 2022, the Eurosystem's total purchases of financial assets by the Eurosystem for the euro area as a whole will amount to about €222 billion, of which €101 billion under the APP and €121 billion under the PEPP. Total Eurosystem purchases of

[18] The interest rate scenario underlying the interest expenditure forecast incorporates a rise in government securities yields resulting from the ECB's monetary policy decisions in response to strong inflationary pressures and the increased volatility of financial markets due to the conflict in Ukraine.
[19] The 2022 estimate includes SACE repurchases of about €4.3 billion; the transaction was carried out on 21 March 2022.

financial assets for the euro area as a whole are forecast to amount to about €272 billion this year, of which €151 billion under the APP and €121 billion already acquired under the PEPP.

At its meeting of 10 March 2022, the Governing Council of the ECB confirmed the termination of purchases under the PEPP at the end of March and the continuation of net purchases under the APP, revising the path for the following months: €40 billion in April, falling to €30 billion in May and €20 billion in June. The Governing Council also plans to end purchases under the APP in the third quarter of the year if expectations of rapid inflation in the medium term are borne out. If inflation forecasts should prove inconsistent with progress towards the ECB's 2 per cent target, the Council stands ready to review the duration and size of net purchases under the APP. At its meeting on 14 April 2022, the Board announced that the information available after the previous meeting supported its expectation that net purchases will end in the third quarter.

Using a number of assumptions, we can estimate the possible impact of the Eurosystem's purchase programmes on the Italian government securities market in 2022, i.e. the net residual amount of securities that will have to be purchased by private investors.

Gross government securities issues in 2022 are expected to total €449 billion, less than issues in 2021 (Table 2.14). This estimate was derived from a forecast for issues to cover the State sector borrowing requirement of €90 billion, maturing securities amounted to an estimated €386 billion, net of the remaining loans under the RRF of about €23 billion and the change in the Treasury's liquidity account of about €4 billion.

As regards Eurosystem purchases, it is assumed that on average 80 per cent of total APP purchases in the second quarter of 2022 involve government securities issued by euro-area countries, based on the final data published on purchases made since start of the COVID-19 emergency and that purchases of Italian government securities were based on Italy's capital key (Italy's share of the ECB's capital), which is equal to about 17 per cent.

Table 2.14 – Gross issues of Italian government securities net of the Eurosystem's purchase programmes

	2020	2021	2022
State sector borrowing requirement (a)	159	106	90
Redemption of government securities (b)	376	387	386
Change in Treasury liquidity account (c)	10	5	-4
EU loans: *SURE* (d)	17	11	0
EU loans: RRF (e)	0	16	23
Gross primary market issues of government securities (f) = (a) + (b) + (c) - (d) - (e)	**528**	**471**	**449**
Secondary market purchases of government securities under the APP and PEPP (g)	175	151	45
Reinvestment of maturing securities on secondary market under the APP and PEPP (h)	34	42	52
Gross secondary market purchases of government securities under the APP and PEPP (i) = (g) + (h)	**209**	**193**	**97**
Gross primary market issues of government securities, net of APP and PEPP (l) = (f) - (i)	**320**	**279**	**352**

Source: based on data from the 2022 EFD, the ECB, the Bank of Italy and the MEF.

To estimate of the reinvestment of principal repayments on maturing securities, Italy's capital key is applied to the aggregate data published by the ECB for total maturing government securities under the APP, plus an estimate of the reinvestment of maturing securities under the PEPP, adopting a number of assumptions developed on the basis of information on the stock and average residual maturity of securities in the portfolio.

With these assumptions, secondary market purchases of Italian government securities by the Eurosystem in 2022 are estimated to total about €97 billion, of which €52 billion from reinvestment of principal repayments on maturing securities), equal to 22 per cent of the Treasury's total expected gross issues on the primary market (Table 2.14). Compared with the previous year, the Eurosystem's gross purchases are expected to fall by half.

In this scenario, gross issues of government securities net of Eurosystem secondary market purchases would amount to €352 billion, an increase of about €73 billion on 2021.

The estimate for net issues of government securities net of Eurosystem secondary market purchases would be a positive €21 billion, compared with a negative €51 billion in 2021 (Table 2.15).

The calculation also takes into account the Eurosystem's non-reinvestment of amounts from maturing securities acquired under the Securities Markets Program (SMP), the ECB's first intervention in the government securities market to preserve the financial stability of the euro area.

Finally, note that the share of debt held by the Bank of Italy is projected to rise further from 25.3 per cent in 2021 to around 26 per cent in 2022.

To estimate the stock of debt held by the Bank of Italy in 2022, net purchases of government securities on the secondary market in 2022 (Table 2.15) are added to the stock of debt held by the Bank of Italy at the end of 2021. We also employ the simplifying assumption that all Eurosystem purchases of Italian government securities in 2022 will be made by the Bank of Italy.

Table 2.15 – Net issues of Italian government securities net of the Eurosystem's purchase programmes

	2020	2021	2022
State sector borrowing requirement (a)	159	106	90
Change in Treasury liquidity account (b)	10	5	-4
EU loans: *SURE* (c)	17	11	0
EU loans: RRF (d)	0	16	23
Net government securities issues (e) = (a) + (b) - (c) - (d)	**152**	**84**	**64**
Secondary market purchases of government securities under the APP and PEPP (f)	175	151	45
Maturing government securities under the SMP (g)	-9	-15	-3
Net secondary market purchases of government securities (h) = (f) + (g)	**166**	**135**	**42**
Net government securities purchases net of purchases under the APP and PEPP and maturing securities under the SMP (i) = (e) - (h)	**-14**	**-51**	**21**

Source: based on data from the 2022 EFD, the ECB, the Bank of Italy and the MEF.

2.5.2 *Sensitivity of the debt/GDP ratio to macroeconomic assumptions*

This section assesses the sensitivity of the policy path of the debt/GDP ratio presented in the EFD with respect to alternative assumptions for the rate of inflation and real growth.

The starting scenario of the analysis ("EFD scenario") is represented by the policy evolution of the debt/GDP ratio indicated in the EFD for 2022-2025. The alternative scenario ("PBO scenario") is instead based on the growth forecasts for real GDP and the GDP deflator developed by the PBO for the same period.

In the PBO scenario, the ratio between primary balance and GDP is calculated by applying an elasticity of 0.544 to the real growth differential between the PBO scenario and the EFD scenario, in line with the estimates updated by the European Commission in 2019.[20] An elasticity of the primary balance of 0.15[21] was applied to the inflation differential between the two scenarios. It is also assumed that the inflation differential partially translates onto fixed nominal interest rates, and the impact of the same differential on interest expenditure connected with inflation-linked securities is taken into account.[22]

The PBO macroeconomic scenario envisages slightly slower real growth rates than the EFD scenario (with differences of between two and three-tenths of a point in 2022-2024, declining to zero in 2025), while the GDP deflator is expected to be larger over the entire forecast horizon, especially in 2023 (when the rise in the price index would be six-tenths of a point greater than that forecast by the Government). Overall, the evolution of nominal GDP would be similar in the two scenarios.

The above simulations produce a trajectory for the debt/GDP ratio that can be substantially superimposed on that forecast by the Government, with differences that exceed half a point of GDP only in 2024-2025, when the debt/GDP ratio in the alternative scenario exceeds that indicated in the EFD by 0.6 percentage points (in 2024) and 1 percentage point (in 2025), reaching 142.4 per cent in the last programming year (Figure 2.6). This reflects the accumulation of the (negative) effect of slower real GDP growth on the primary balance and, to a lesser extent, increase in interest expenditure associated with the sharper acceleration in prices.

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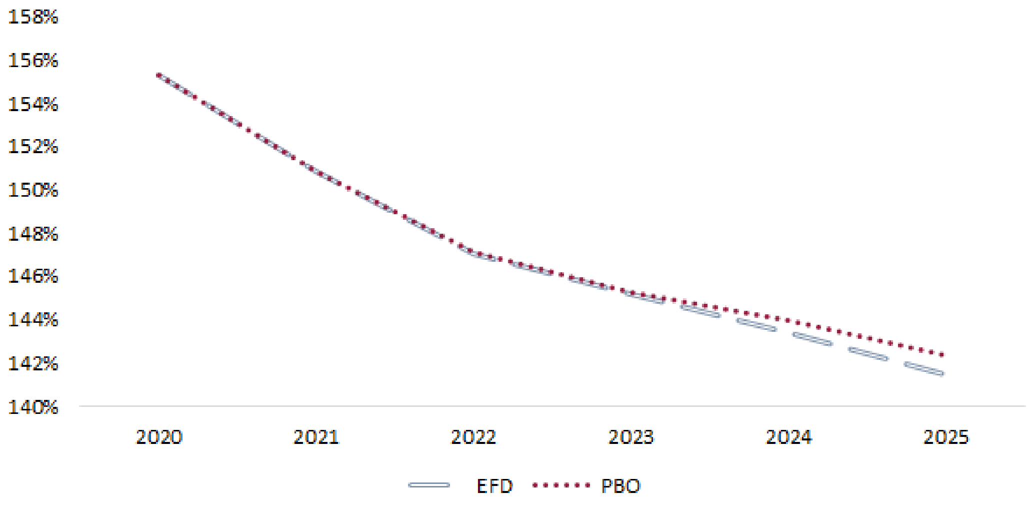
[20] Mourre et al. (2019), "The Semi-Elasticities Underlying the Cyclically-Adjusted Budget Balance: An Update & Further Analysis", *European Economy Discussion Paper*, n. 098, European Commission.

[21] The impact of the changes in the inflation rate on the primary balance was estimated on the basis of Attinasi et al. (2016), "The effect of low inflation on public finances", Chapter 10 in S. Momigliano (ed.), *Beyond the Austerity Dispute: New priorities for fiscal policy*, Banca d'Italia, making a number of specific adjustments to take account of developments in Italian law concerning the indexing of a number of major expenditure items subsequent to the years considered in that paper.

[22] For more information on the PBO framework for analysing the sustainability of the public debt, see Ufficio parlamentare di bilancio (2021), "Assessing Italy's public debt dynamics in the medium term with the PBO framework: Illustrative scenario analysis for the post-Covid period", Working Paper no. 2, by C. Gabbriellini, G. Nocella and F. Padrini.

Figure 2.6 – Sensitivity of debt/GDP ratio to growth and inflation assumptions *(percentages)*



Source: based on 2022 EFD data.

To account for the uncertainty in the forecasts, stochastic simulations were performed, i.e. simulations where the macroeconomic variables that influence the dynamics of the debt/GDP ratio (real GDP growth rate, GDP deflator, short-term interest rate and differential between short-term and long-term interest rates) are subjected to temporary shocks, based on their historical variability and correlation,[23] in order to obtain a large number of scenarios in the EFD forecast horizon and determine probability intervals.[24] More specifically, we estimated 5,000 possible trajectories for the debt/GDP ratio using the "PBO scenario" described in the first part of this section as the reference scenario.

Given these assumptions, this procedure enables the construction of a probability fan chart for the debt/GDP ratio (Figure 2.7). In the distribution obtained, the ratio in the EFD policy scenario is close to the median in the initial years of the forecast and close to the 40th percentile in the last year: this means that in more than half of the scenarios generated the debt/GDP ratio is higher than projected in the EFD. Accordingly, there is a relatively high risk that the evolution of the ratio will be less favourable than expected in the EFD policy scenario.

The stochastic simulations also make it possible to determine the probability of a reduction in the debt/GDP ratio compared with the previous year (Figure 2.8).[25] This probability is just under 80 per cent in 2022-2023, before declining to around 70 per cent

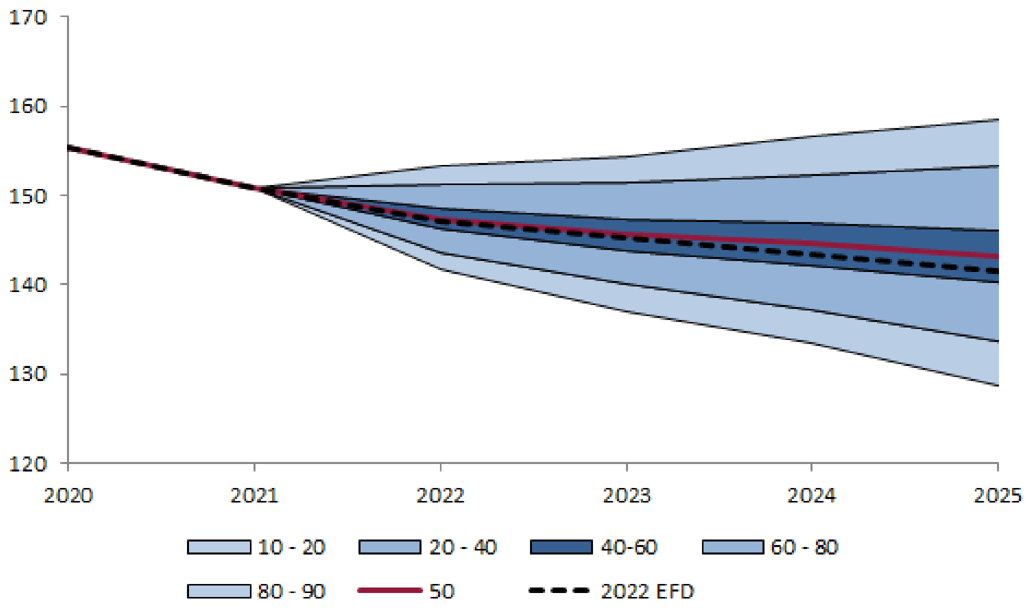
[23] To construct the shocks, we considered values observed until the end of the first quarter of 2020. Accordingly, the time series exclude the highly volatile observations registered after the onset of the COVID-19 emergency.

[24] The methodology adopted broadly follows that proposed by Berti, K. (2013), "Stochastic public debt projections using the historical variance-covariance matrix approach for EU countries", European Commission, *Economic Papers 480*.

[25] For each year of the analysis, we observe the number of simulations where the debt/GDP ratio is lower than the previous year and divide that by the total number of simulations conducted.

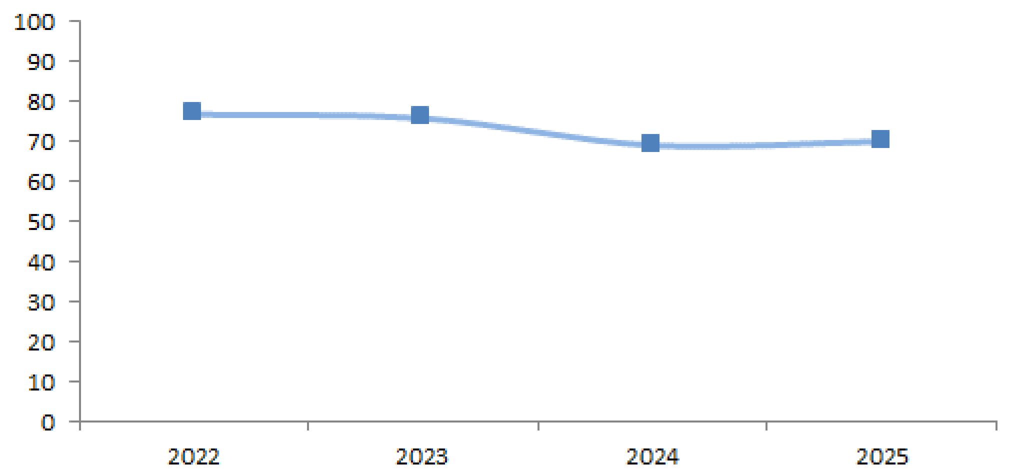
in the last two years of the EFD forecast horizon. The analysis therefore suggests that there is a probability of around 20-30 per cent that the debt/GDP ratio will turn upwards during the period under consideration.

Figure 2.7 – Stochastic analysis of debt/GDP ratio
(percentage points)



Source: based on 2022 EFD data.

Figure 2.8 – Implied probability of a decline in the debt/GDP ratio compared with the previous year
(percentage points)



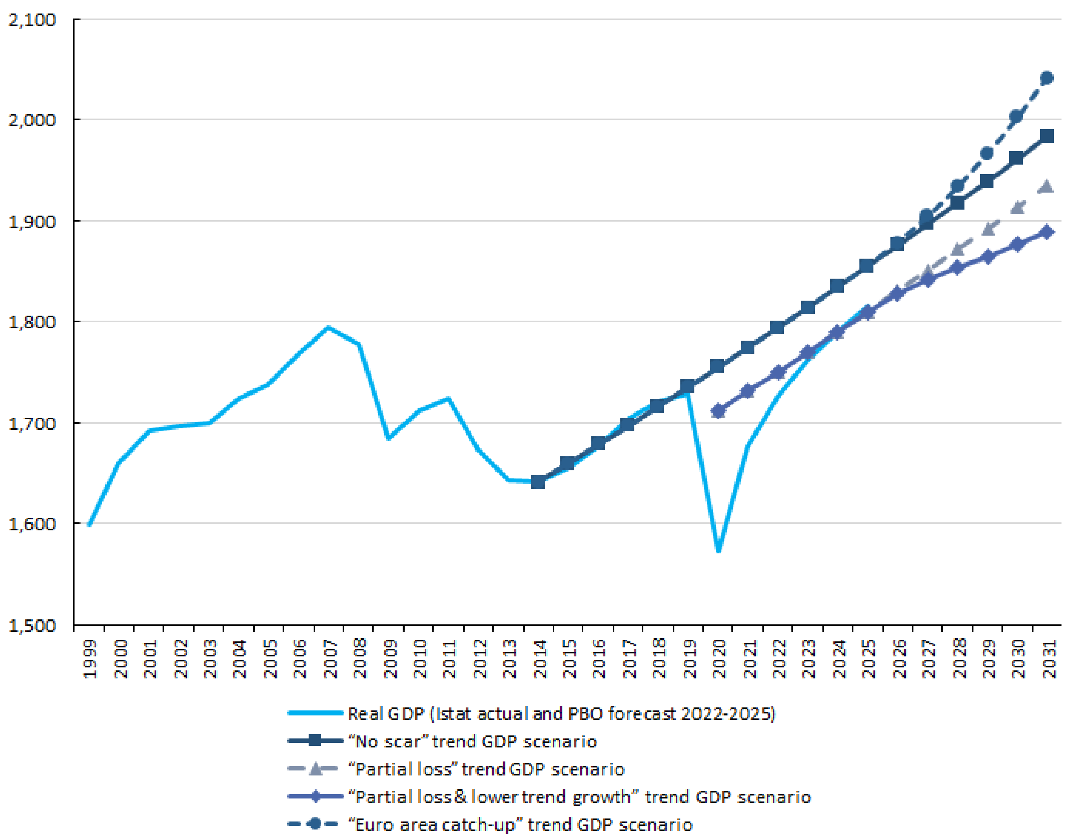
Source: based on 2022 EFD data.

2.5.3 *Scenarios for the medium-term evolution of the debt/GDP ratio*

In order to assess the dynamics of the debt/GDP ratio over the medium term, the PBO scenario up to 2025 discussed in the previous section has been extended to 2031 with the aid of specific assumptions to project the key macroeconomic variables, again using the PBO's framework for the analysis of debt sustainability.

Since the estimate of potential output is subject to considerable uncertainty, which increases significantly during a reversal of the cycle or in the presence of "anomalous" factors impacting developments in actual GDP (such as the current period, which is characterised by uncertainties concerning the impact of the pandemic and the international geopolitical crisis and, working in the opposite direction, the investment and reform programmes envisaged in the NRRP), in the medium-term scenarios alternative assumptions using simpler metric were adopted, based on an assumed trend GDP growth rate. Accordingly, four alternative scenarios have been considered for trend GDP growth (Figure 2.9):

Figure 2.9 – Evolution of trend GDP level in alternative scenarios
(billions of euros)



Source: based on data from 2022 EFD and Istat.

1) the “no scar” scenario, which assumes a gradual return of GDP to the pre-COVID trend, i.e. the trend observed in 2014-2019 period (the expansionary phase preceding the pandemic), during which growth averaged around 1.1 per cent. This scenario would be consistent with the hypothesis that the measures implemented by the Government in 2020-2022 have preserved the potential of the Italian economy from the economic consequences of the pandemic;

2) the “partial loss” scenario, which assumes that trend GDP level is about 2.4 percentage points lower than that in the “no scar” scenario. This roughly corresponds to the average annual loss of trend GDP recorded after the 2008-2013 crisis years. In this less optimistic scenario, the measures adopted by the Government have only partially preserved the potential of the Italian economy from the adverse effects of the pandemic;

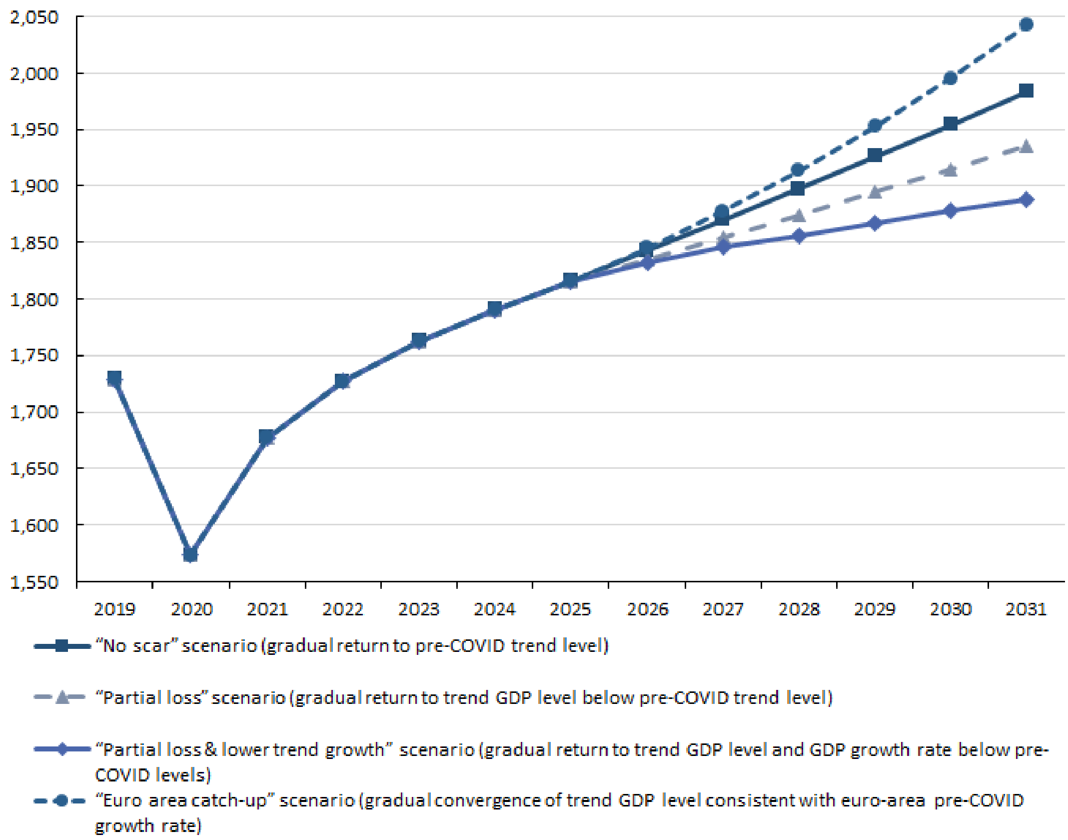
3) the “partial loss & lower trend growth” scenario, which assumes that until 2025 the trend level of GDP is identical to that in the “partial loss” scenario, while from 2026 it is assumed that the trend growth rate converges to the lower value of 0.6 per cent by 2028, consistent with the current Consensus Forecast medium-term growth projection;

4) the “euro area catch-up” scenario, in which trend GDP is equal to that in the “no scar” scenario until 2025, after which trend growth progressively converges to that of the euro area one recorded prior to the pandemic, i.e. around 2 per cent. This more optimistic scenario would be consistent with the effective use of Next Generation EU funds.

The evolution of the real GDP level in each scenario is obtained by considering the additional assumption of a gradual and linear closure of the estimated output gap for 2025 over 6 years, from 2026 to 2031. The implications of the above assumptions for the projections of developments in the real GDP level over the medium term are shown in Figure 2.10.

With these assumptions, in 2026-2031 average annual real GDP growth would be 1.5 per cent in the “no scar” scenario, 1.1 per cent in the “partial loss” scenario, 0.7 per cent in the “partial loss & lower trend growth” scenario and 2 per cent in the “euro area catch-up” scenario. In the latter scenario, GDP growth would accelerate over time, reflecting the lagged impact of reforms and investment on growth.

Figure 2.10 – Evolution of real GDP level in alternative scenarios
(billions of euros)



Source: based on data from 2022 EFD and Istat.

For the other non-fiscal determinants of developments in the debt/GDP ratio, the projections for 2026-2031 are as follows: i) inflation gradually converges to the ECB target (2 per cent); ii) yields at issue on government securities gradually converge to 1.8 per cent for short-term paper and 3 per cent for long-term notes[26]; and iii) the stock-flow adjustment each year is equal to the median value recorded between 1999 and 2021 (0.3 per cent of GDP).

These assumptions are consistent with scenarios in which the fiscal stance remains neutral (i.e. unchanged policies) from 2026, thus implying a constant structural primary balance equal to that estimated for 2025 for the "no scar" and "partial loss" scenarios. This amounts to assuming that primary expenditure growth is approximately equal to trend GDP growth and that no discretionary revenue measures are implemented. For the "euro area catch-up" scenario, the faster trend growth compared with the "no scar" scenario translates into an improvement in the structural primary balance without the need for any fiscal adjustment, while in the "partial loss & lower trend growth" scenario,

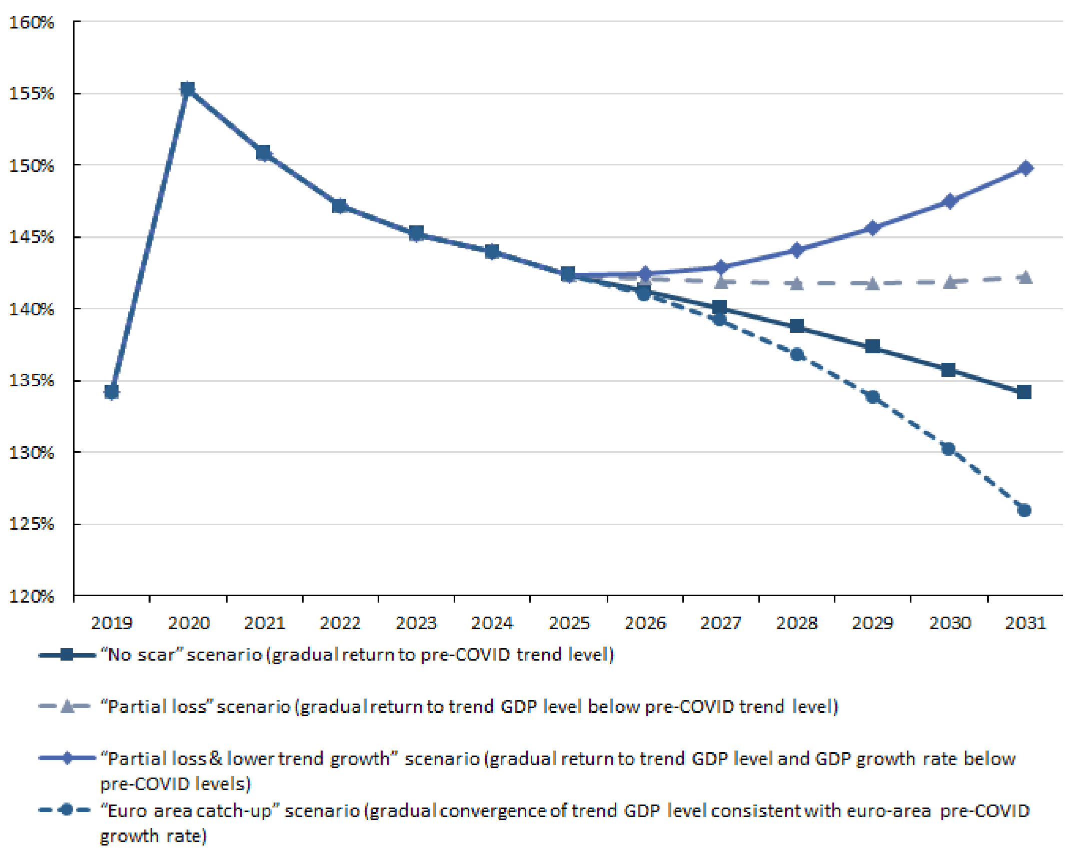
[26] These values are consistent with the return of the short-term rate differential with respect to nominal GDP growth and with the forward premium on long-term rates to values equal to the median value registered between 1999, i.e. from the launch of the euro area, and 2021.

the slower trend growth compared with the "no scar" scenario implies a deterioration in the structural primary balance without the implementation of expansionary measures.

With these assumptions, in the "no scar" scenario, the debt/GDP ratio would continue to decline at an almost constant rate after 2025 (Figure 2.11), falling on average by 1.4 points of GDP per year, reaching 134.1 per cent in 2031 (the same as that recorded in 2019, before the pandemic). In the "partial loss" scenario, the debt/GDP ratio would hold steady at around 142 per cent from 2025 until the end of the simulation period. Conversely, in the "partial loss & lower trend growth" scenario, the debt/GDP ratio would rise from 2026 to reach 149.8 per cent in 2031. Finally, in the "euro area catch-up" scenario, the debt/GDP ratio would decline more steeply than in the "no scar" scenario, reaching 125.9 per cent in 2031: in this scenario, the objective – repeatedly declared by the Government – to return the debt/GDP ratio to below its pre-COVID value by 2030 would be achieved one year early.

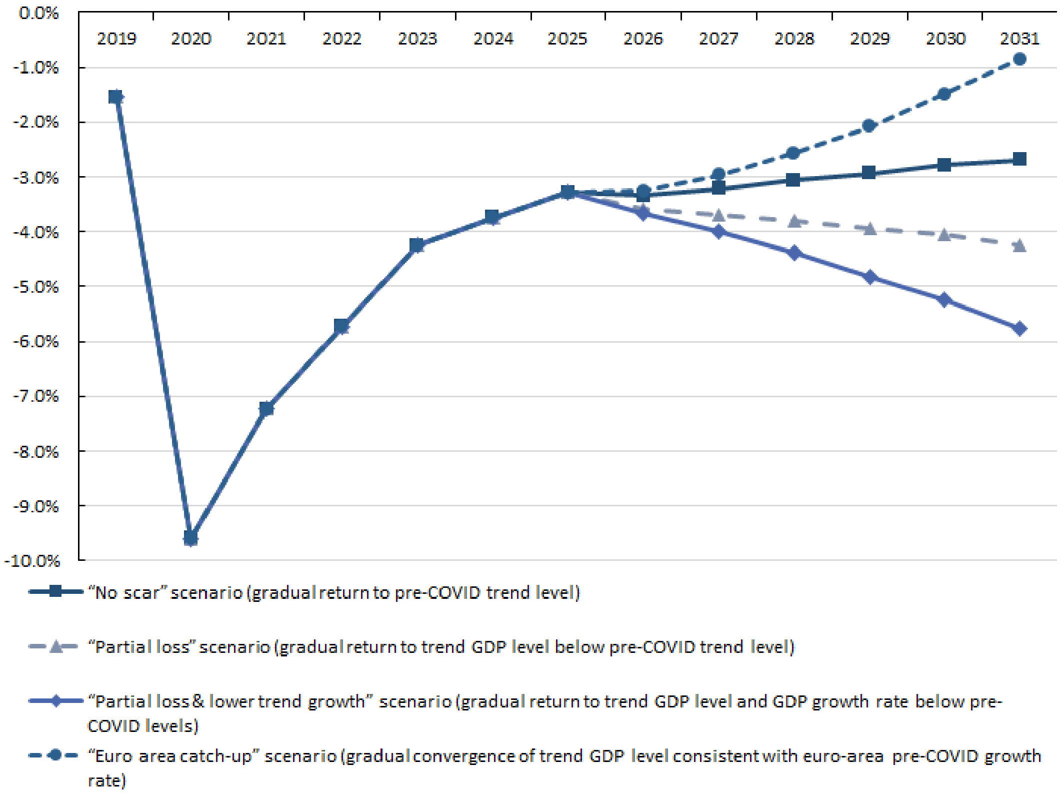
In interpreting the results, it should be noted that the assumption of a neutral fiscal stance from 2026 implies a nominal deficit that declines from 3.3 per cent of GDP in 2026 to 2.7 per cent in 2031 in the "no scar" scenario (Figure 2.12).

Figure 2.11 – Evolution of debt/GDP ratio in alternative scenarios
(percentage points of GDP)



Source: based on date from 2022 EFD, the Bank of Italy and Istat.

Figure 2.12 – Evolution of the budget deficit in alternative scenarios
(percentage points of GDP)

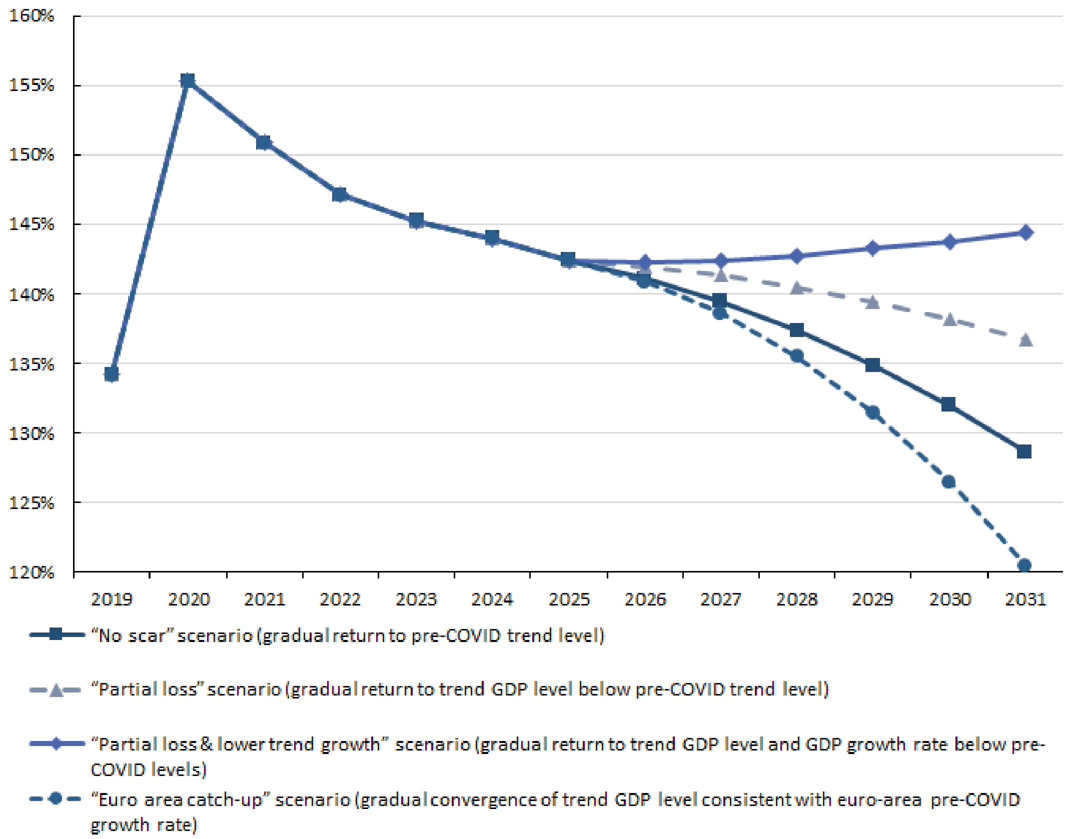


Source: based on data from 2022 EFD and Istat.

In the "partial loss" scenario, the deficit would deteriorate from 3.6 per cent of GDP in 2026 to 4.2 per cent in 2031. In the "partial loss & lower trend growth" scenario, the deficit would increase even more sharply, reaching 5.8 per cent at the end of the period. Therefore, in the latter two scenarios, the nominal deficit would remain above the 3 per cent threshold set by the Stability and Growth Pact. In the case of the "euro area catch-up" scenario, the deficit would improve continuously to reach 0.8 per cent at the end of the projection horizon.

It is therefore an interesting exercise to evaluate the debt trajectory in scenarios with a fiscal consolidation. To this end, starting from 2026, each scenario is modified to include an adjustment of the structural primary balance of half a percentage point each year. Despite the feedback effects on real GDP growth, the consolidation plan produces a more favourable evolution in the debt ratio in all scenarios than the assumption of a neutral fiscal policy does (Figure 2.13). In the "no scar" scenario, at the end of the time horizon the ratio would be about 6 percentage points lower than the pre-COVID level. In the "partial loss" scenario, the debt/GDP ratio would reach 136.7 per cent in 2031. The "partial loss & and lower trend growth" scenario would show the ratio continuing to rise from 2027, albeit at a slower pace, reaching around 144 per cent in 2031. Finally, in the "euro area catch-up" scenario, the structural adjustment would bring lower debt ratio to around 120 per cent by 2031.

Figure 2.13 – Evolution of the debt/GDP ratio in alternative scenarios with structural adjustment from 2026
(percentage points of GDP)



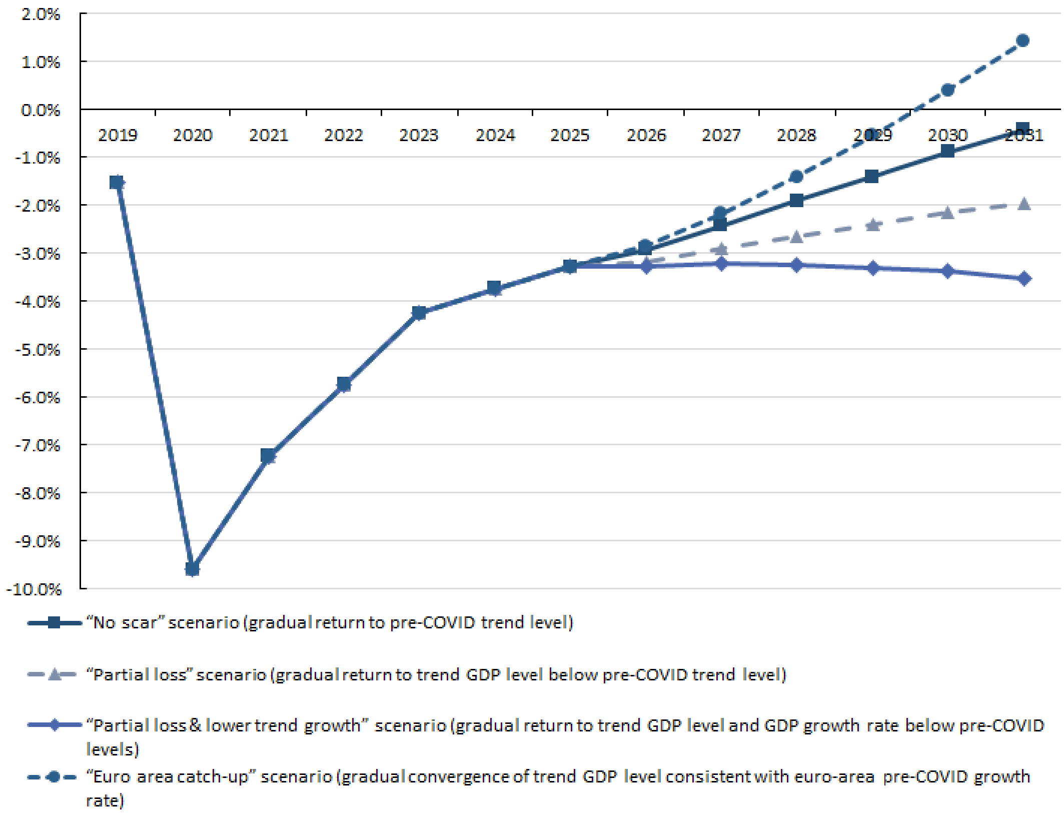
Source: based on data from 2022 EFD, the Bank of Italy and Istat.

The budget balance in the "no scar" scenario would be close to zero by the end of the projection period (Figure 2.14), while in the "partial loss" scenario, the deficit would be below the 3 per cent threshold after 2026. By contrast, in the "partial loss & lower trend growth" scenario, the deficit would remain just above the 3 per cent threshold until 2028, after which it would begin to rise again, due in part to the increase in interest expenditure connected with the assumption of a gradual "normalisation" of interest rates. In the "euro area catch-up" scenario, the budget balance would turn to surplus from 2030.

In interpreting the results, it is important to emphasise that the improvement in the budget balance and the dynamics of the debt ratio compared with the unchanged policy scenarios is smaller than expected considering the structural adjustment at face value. The structural adjustment has an adverse impact on the cycle and this translates into a negative feedback effect on the public finances.

These alternative simulations therefore show the importance, for the purposes of improving the public finance aggregates, not only of a gradual but constant adjustment of structural budget balances but also of faster medium-term GDP growth than the current Consensus forecast.

Figure 2.14 – Evolution of the budget balance in alternative scenarios with structural adjustment from 2026
(percentage points of GDP)



Source: based on data from 2022 EFD and Istat.

For a comparison of the scenarios in this section with those presented in the 2022 EFD,[27] the latter indicate a high probability that further budget adjustments will be required after 2025 in order to further lower the debt/GDP ratio. According to the 2022 EFD, in the scenario with no fiscal adjustment from 2025, the debt/GDP ratio would decrease until 2026, after which it would turn upwards, reaching 150 in 2033. Conversely, in the scenario with fiscal adjustment from 2026, the debt/GDP ratio would trend downwards to reach 130.4 per cent in 2033. The scenario incorporating the full favourable impact of the reforms on GDP growth but with no fiscal adjustments would cause the debt/GDP ratio to decline until 2029, after which it would rise to 137.5 in 2033.

To better understand the differences between the 2022 EFD scenarios and those illustrated in this section, note that the potential output estimate in the 2022 EFD scenario, which does not consider the effects of reforms, exhibits much slower growth than assumed in this section until 2022 before subsequently reviving. This scenario would therefore seem approximately consistent with the "partial loss" scenario discussed in this section. In addition, the 2022 EFD structural primary balance projections incorporate a deterioration attributable to an increase in expenditure related to the aging of the population. Conversely, the "partial loss" scenario with unchanged policies

[27] See 2022 EFD, Section I, sub-section IV.2, page 97.

presented in this section assumes a constant structural primary balance and, therefore, implicitly assumes that these expenditures are offset by measures of the opposite sign.

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