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LE GOUVERNEMENT
DU GRAND-DUCHÉ DE LUXEMBOURG
Ministère des Finances

# de Stabilitéits-programm 2023

Stability and Growth Programme of the Grand-Duchy of Luxembourg
2023 > 2027

# Table of contents

# I. Overall budgetary policy orientations and objectives

More than a year after Russia launched its war of aggression against Ukraine, the edition of the Stability and Growth Programme (SGP) for the year 2023 continues to be set in a context of "polycrisis". Having faced the COVID-19 pandemic, the world is now confronted with a war that is shaking the geopolitical order and very severely impacting supply chains, energy prices and thus inflation.

In spring 2022, many were forecasting economic collapse because of the large fluctuations on energy markets. Nevertheless, this fear gradually dissipated as the months passed and the European economy proved resilient, thanks in particular to efficient energy management and diversification of sources of supply.

In Luxembourg, Government interventions put in place since 2022 have mitigated the effects of these external shocks. Implementation of targeted measures supported the economy, protected jobs and maintained households' purchasing power. Domestic inflation was contained, with Luxembourg's inflation rate currently being the lowest in the European Union (EU).

The economy has proven to be resilient and public finances took a more favourable turn than expected. As a result, the general government balance ended 2022 with a surplus of €138 million (0.2% of GDP). The central government deficit is €723 million, around €600 million better than forecasted in the 2023 Budget.

Although economic activity in Europe has stabilised and energy prices have been falling since the start of the year, inflationary pressures and downside risks continue to threaten growth prospects.

In this difficult climate, Luxembourg continues to demonstrate resilience and is adequately equipped to meet the short- and medium-term challenges, thanks to its strong economic fundamentals and sound management of public finances. The successive "AAA" ratings confirmed by the rating agencies highlight the country's sound financial position.

With the new "Solidaritéitspak 3.0" package of measures agreed in the tripartite discussions in early March 2023, the Government is reiterating its commitment to supporting households' purchasing power and the competitiveness of businesses. This package is the result of consensus achieved in the tripartite coordinating committee. Thanks to the extension of specific measures to stabilise energy prices, an inflationary shock will be avoided at the beginning of 2004. Key measures in the package include the adjustment of the tax brackets with inflation and the compensation of businesses for a third indexation tranche.

The "Solidaritéitspak 3.0", which uses the fiscal space provided by the cumulative effect of the improvement in the 2022 balance and the upgraded forecasts for the period under review as a whole, represents a significant budgetary envelope. For the fiscal measures, this amounts to €300 million for 2023 and, structurally, around €460 million a year for subsequent years. The cost of the other measures, which are aimed at countering inflation, is assessed as €125 million for 2023 and €446 million for 2024, €350 million of which is accounted for by the extension of the energy measures.

The fiscal support provided by the previous packages of measures ("Energiedësch" and "Solidaritéitpak 1.0 and 2.0"), State guarantees included, amounts to more than €2.5 billion, or 3.1% of GDP, for the years 2022 to 2027.

As a result of this generous State support and the more positive economic performance, Luxembourg's GDP is estimated to be 2.4% in 2023 and 3.8% in 2024 according to STATEC's most recent forecasts, which incorporate the second-round effects of the above-mentioned support. The measures adopted will help to contain inflation and allow inflationary pressures to be mitigated during the coming months. Luxembourg's economic growth for the period 2025–2027 is forecast to average at 2.6%, with inflation getting closer to the European Central Bank's target of 2.0%.

The State's finances are impacted, particularly in the short-term, by the various tripartite agreements, with the central government balance expected to reach a deficit of €2,351 million in 2023 and €2,457 million in 2024. Underpinned by a Social Security surplus, the consolidated general government result should be -€1,224 million (-1.5% of GDP) in 2023 and -€1,517 million (-1.7% of GDP) in 2024.

In light of a more favourable medium-term macroeconomic environment than forecast in the autumn, the central government deficit will remain high but will gradually fall to €1,613 million in 2027. Given the ageing population, the Social Security balance will fall to €573 million by 2027 and will thus contribute progressively less to the general government balance. The general government deficit will be €887 million or 0.9% of GDP in 2027.

The movement of the central government balance is reflected in the level of public debt, which will rise from 24.6% of GDP in 2022 to 29.0% in 2027. Despite this continuing increase over the projection period, debt will remain below the threshold of 30% of GDP set by the Government in the coalition agreement and well below the limit of 60% of GDP established in the Stability and Growth Pact.

Finally, the general escape clause introduced during the pandemic years will be deactivated in 2023. As a result, European fiscal rules will apply again from 2024. The figures presented in this edition of the SGP confirm Luxembourg's compliance with the Maastricht criteria for the period 2023–2027 and thus demonstrate the Government's firm commitment to maintaining sustainable public finances[1].

[1] According to the Maastricht treaty, the general government deficit must not exceed 3% of GDP and public debt must not exceed 60% of GDP. Official Journal of the European Communities, July 1992: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:C:1992:191:FULL

# Summary Table

| PUBLIC FINANCES | 2022 | | | 2023 | | | 2024 | | | 2025 | | | 2026 | | | 2027 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | in bn euros | in % of GDP | rate of change, in % | in bn euros | in % of GDP | rate of change, in % | in bn euros | in % of GDP | rate of change, in % | in bn euros | in % of GDP | rate of change, in % | in bn euros | in % of GDP | rate of change, in % | in bn euros | in % of GDP | rate of change, in % |
| **TOTAL REVENUE** | **33.965** | **43.5** | **+7.7** | **36.182** | **44.2** | **+6.5** | **38.066** | **43.9** | **+5.2** | **40.413** | **44.2** | **+6.2** | **42.425** | **44.4** | **+5.0** | **44.340** | **44.3** | **+4.5** |
| of which: | | | | | | | | | | | | | | | | | | |
| *Taxes on production and imports ("indirect" taxes)* | 8.939 | 11.4 | +6.8 | 9.268 | 11.3 | +3.7 | 9.816 | 11.3 | +5.9 | 10.351 | 11.3 | +5.4 | 10.879 | 11.4 | +5.1 | 11.366 | 11.4 | +4.5 |
| *Current taxes on income, wealth, etc. ("direct" taxes)* | 12.378 | 15.8 | +8.1 | 13.219 | 16.2 | +6.8 | 13.983 | 16.1 | +5.8 | 14.831 | 16.2 | +6.1 | 15.603 | 16.3 | +5.2 | 16.351 | 16.3 | +4.8 |
| *Social contributions* | 9.273 | 11.9 | +7.9 | 10.154 | 12.4 | +9.5 | 10.669 | 12.3 | +5.1 | 11.514 | 12.6 | +7.9 | 12.097 | 12.6 | +5.1 | 12.692 | 12.7 | +4.9 |
| **TOTAL EXPENDITURE** | **33.827** | **43.3** | **+9.0** | **37.406** | **45.7** | **+10.6** | **39.583** | **45.6** | **+5.8** | **41.318** | **45.2** | **+4.4** | **43.172** | **45.1** | **+4.5** | **45.226** | **45.2** | **+4.8** |
| of which: | | | | | | | | | | | | | | | | | | |
| *Public Investment* | 3.187 | 4.1 | +7.9 | 3.668 | 4.5 | +15.1 | 3.929 | 4.5 | +7.1 | 4.050 | 4.4 | +3.1 | 4.086 | 4.3 | +0.9 | 4.166 | 4.2 | +1.9 |
| *Social payments* | 14.528 | 18.6 | +9.9 | 15.611 | 19.1 | +7.5 | 16.452 | 19.0 | +5.4 | 17.573 | 19.2 | +6.8 | 18.584 | 19.4 | +5.8 | 19.690 | 19.7 | +5.9 |
| *Intermediate consumption* | 3.388 | 4.3 | +11.0 | 3.673 | 4.5 | +8.4 | 3.830 | 4.4 | +4.3 | 3.960 | 4.3 | +3.4 | 4.093 | 4.3 | +3.4 | 4.237 | 4.2 | +3.5 |
| *Compensation of employees* | 7.937 | 10.2 | +7.8 | 8.818 | 10.8 | +11.1 | 9.467 | 10.9 | +7.4 | 9.960 | 10.9 | +5.2 | 10.338 | 10.8 | +3.8 | 10.777 | 10.8 | +4.3 |
| **NET LENDING/BORROWING OF GENERAL GOVERNMENT** | **0.138** | **0.2** | | **-1.224** | **-1.5** | | **-1.517** | **-1.7** | | **-0.905** | **-1.0** | | **-0.747** | **-0.8** | | **-0.887** | **-0.9** | |
| *Net lending/borrowing of central government* | -0.723 | -0.9 | | -2.351 | -2.9 | | -2.457 | -2.8 | | -1.903 | -2.1 | | -1.652 | -1.7 | | -1.613 | -1.6 | |
| *Net lending/borrowing of local government* | -0.128 | -0.2 | | 0.030 | 0.0 | | 0.080 | 0.1 | | 0.110 | 0.1 | | 0.142 | 0.1 | | 0.153 | 0.2 | |
| *Net lending/borrowing of social security funds* | 0.989 | 1.3 | | 1.097 | 1.3 | | 0.860 | 1.0 | | 0.888 | 1.0 | | 0.763 | 0.8 | | 0.573 | 0.6 | |
| **STRUCTURAL BALANCE** | | **0.9** | | | **-0.8** | | | **-1.6** | | | **-0.9** | | | **-0.7** | | | **-0.9** | |
| **GROSS DEBT** | **19.223** | **24.6** | | **21.383** | **26.1** | | **23.840** | **27.5** | | **25.743** | **28.2** | | **27.394** | **28.6** | | **29.007** | **29.0** | |

| MACROECONOMIC INDICATORS | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |
|---|---|---|---|---|---|---|
| **GROWTH** | | | | | | |
| Real GDP (in %) | 1.5 | 2.4 | 3.8 | 2.9 | 2.5 | 2.5 |
| Nominal GDP (in %) | 8.1 | 4.7 | 6.0 | 5.4 | 4.6 | 4.7 |
| Nominal GDP (levels, in bn euros) | 78.130 | 81.816 | 86.739 | 91.434 | 95.656 | 100.136 |
| **PRICE DEVELOPMENTS** | | | | | | |
| Inflation NICP (in %) | 6.3 | 3.4 | 2.8 | 3.4 | 1.6 | 1.8 |
| **EMPLOYMENT** | | | | | | |
| Employment (growth, in %) | 3.5 | 2.7 | 2.5 | 2.2 | 2.4 | 2.2 |
| Unemployment rate (ADEM definition, in %) | 4.8 | 4.9 | 5.0 | 5.3 | 5.5 | 5.7 |

Source: Ministry of Finance, STATEC.

# II. Economic situation and macroeconomic forecasts

*The macroeconomic forecasts underlying the SGP 2023 were prepared on an independent basis by STATEC and are based on the projections published on 24 February 2023. Those projections were subsequently partially updated for the purposes of the SGP to take account of the direct and indirect effects of the "Solidaritéitspak 3.0" measures on the economic activity and inflation. Projections were finalised on 17 March 2023.*

## II.1 The European macroeconomic environment

In 2022, the international economy was characterised by historically high inflation and tighter monetary policies. In this situation, activity in the euro area worsened and GDP growth slowed from 5.3% in 2021 to 3.3% in 2022.

Nevertheless, economic activity in the second half of 2022 bore witness to the resilience of the euro area economy to external shocks. Significant fiscal support by governments and increased financial saving by households impacted positively on private consumption and the level of investment. After peaking in 2022, inflation slowed as a result of falling energy prices. The natural gas reference price in Europe fell below its pre-war level as a result of the collective effort to save energy and diversify sources of supply.

Despite these encouraging signs, the euro area economy is expected to stagnate in 2023. One year after Russia launched its war of aggression against Ukraine, a slowdown in economic activity has been recorded. The lagged effects of the rise in energy prices and of higher interest rates continue to impact households' purchasing power and businesses' profitability.

Nevertheless, the main macroeconomic variables in 2023 benefit from the significant support measures put in place in Europe to deal with the energy crisis, and from the downward trend in inflation that has been recorded.

Although growth in the euro area is expected to resume in 2024, with an estimated rate of 1.8%, the outlook will depend on developments in inflation, monetary policy and geopolitical tensions.

## II.2 The macroeconomic situation in Luxembourg

Nationally, Luxembourg's economy proved more resilient than expected in 2022, despite the tense geopolitical environment. The Government's actions mitigated the impact of the energy crisis and contained inflation in Luxembourg. As a result, the country has one of the lowest rates of inflation in the EU (6.3%). The Government's measures and household savings also supported private consumption and investment.

The measures of the tripartite agreements contributed to the positive performance of the job market in 2022. Employment rose by 3.5% and the unemployment rate continued to fall, down to 4.8%.

Although GDP continued to grow at the start of 2022, it fell sharply in the fourth quarter (-3.8% over a quarter). This trend was driven by a fall in financial sector activity and a slowdown in private consumption. As a result, the country experienced more modest growth over the year, at only 1.5%.

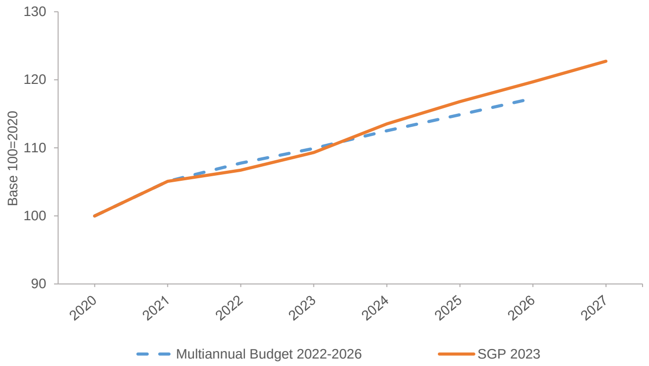
Current projections, which take account of the agreed Government measures and an expected economic recovery, point to GDP rebounding, with a growth of 2.4% in 2023 and 3.8% in 2024. The "Solidaritéitspak 3.0" will also have a positive impact on price levels (-2 percentage points in 2024[2]), and will prevent an inflationary shock in early 2024. Inflation is expected to be 3.4% in 2023 and 2.8% in 2024.

STATEC expects a third indexation tranche to be triggered during the fourth quarter of the year, in addition to the two tranches of 1st February 2023 and 1st April 2023 (bracket carried forward from July 2022).

Luxembourg's GDP is expected to grow by an average of 2.6% in the medium term. At the same time, employment should increase by around 2.3% and the unemployment rate should begin to increase slightly again, reaching 5.7% in 2027 (see Charts 1–3).

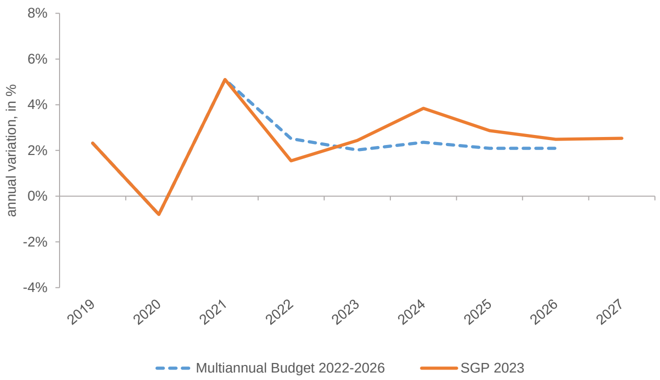
[2] "Economic Flash Report ("Conjoncture Flash"), March 2023: "Weaker consumption in the 4th quarter", STATEC, March 2023: https://statistiques.public.lu/dam-assets/catalogue-publications/conjoncture-flash/2023/flash-2023-03.pdf

*Chart 1: Change in Real GDP (base 100=2020)*



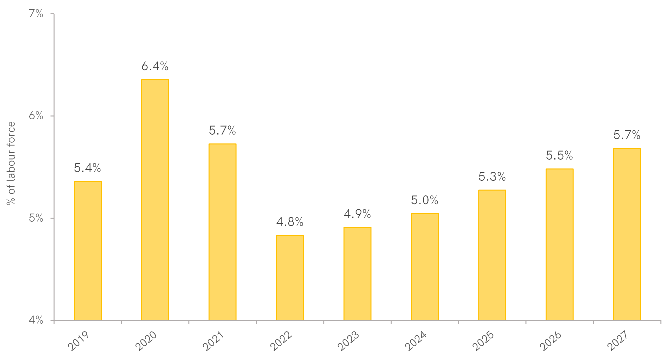

Source: STATEC, Ministry of Finance calculations.

*Chart 2: Real GDP Growth (2019-2027)*




Source: STATEC, Ministry of Finance calculations.

*Chart 3: Changes in the unemployment rate (2019–2027), ADEM definition*




Source: ADEM, STATEC.

## II.3 Risks and uncertainties

After experiencing two major crises in the space of just a few months, the world continues to face major economic uncertainties, with the economic outlook still contingent upon geopolitical tensions.

In this context, international trade relations might be affected by protectionist tendencies. The potential repercussions of implementation of the US Inflation Reduction Act remain unclear.

There is also a risk that energy prices will rise again, particularly next winter, once more significantly impacting economic growth in Europe and the rest of the world.

Continued tightening of monetary policy to counter the rise in the general level of prices could reduce private consumption and investment, impacting economic growth. The real estate sector could be particularly affected by a fall in demand, as result of, among others, higher interest rates.

The redesign of the international tax system in respect of corporate tax, developed across the OECD, could also impact Luxembourg's economy and public finances. It is, however, too early to quantify the potential impact on future revenue, as this will depend to a great extent on the strategies adopted by the different countries and the behaviours of the multinational companies concerned.

A more detailed sensitivity analysis is presented in chapter III.6, with the aim of providing an estimate of the effects should certain risks materialise (e.g. shocks to national growth, higher interest rates).

# III. Budgetary position and public debt

## III.1 General budgetary policy orientations

On 8 March 2023, the European Commission provided fiscal policy guidance for 2024[3].

The Commission announced that the general escape clause of the Stability and Growth Pact will be deactivated from 2024 in light of the recovery of the European economy and the recent reduction in energy prices.

As a reminder, this clause temporarily suspends the application of the EU's fiscal rules to enable Member States to provide fiscal support in exceptional crisis situations. The Commission had triggered the escape clause in 2020 as a result of the onset of the pandemic and had extended its application in 2022 because of the economic consequences of Russia's war of aggression against Ukraine.

The European Commission's fiscal guidance invites Member States to seek to gradually consolidate their public finances while providing support to vulnerable businesses and households affected by the rise in energy prices. In this regard, the Commission emphasises that *"costly support measures cannot be kept in place indefinitely"*.

Application of the rules of the Growth and Stability Pact must be considered in the context of the economic governance review (EGR) currently under way (see Box 1). While Member States must comply with the current fiscal criteria for 2024, they are also invited to focus on investment, on reforms aimed at consolidating their public finances, and on sustainable and inclusive growth.

[3] *"Fiscal policy guidance for 2024"*, European Commission, March 2023: https://economy-finance.ec.europa.eu/system/files/2023-03/COM_2023_141_1_EN_ACT_part1_v4.pdf

**Box 1: Reform of the EU's economic governance framework**

On 9 November 2022, the European Commission followed up on the public debate relaunched in 2021 by publishing its guidelines[4] for reform of the EU's economic governance framework. This reform also includes a redesign of the fiscal rules of the Stability and Growth Pact.

The aim is to simplify the budgetary framework, improve national ownership and enhance application of the Stability and Growth Pact. The European Commission's proposals thus put public debt sustainability and sustainable growth at the heart of the new economic governance framework.

Through *"national medium-term fiscal-structural plans",* Member States could thus combine prudent fiscal strategies with investments and reforms that favour the dual green and digital transition. Multiannual trajectories expressed in terms of net primary expenditures could be used as the single indicator to evaluate compliance with fiscal requirements.

Although the European Commission wishes to retain the rules limiting the deficit and public debt to 3% and 60% of GDP respectively, it is proposing substantial changes to the current fiscal framework. These changes have given rise to lively discussions with Member States during recent months.

Negotiations at the European level finally led, in March 2023, to conclusions of the Council of the EU that open the way to amendments to the existing regulations[5].

The Government's budgetary policy continues to be based around the strategy outlined in the draft annual and multiannual budget proposals submitted in October 2022 and adopted by the Chamber of Deputies on 23 December 2022.

Despite the uncertainties Luxembourg faces, the Government is resolutely pursuing its actions to address the country's structural challenges and establish the foundations for a qualitative, sustainable growth. In particular, the ambitious investment policy supporting the dual green and digital transition is confirmed. This is complemented by the measures of the "Energiedësch" and the three "Solidaritéitspak" aimed primarily at reducing energy prices, as well as stimulating energy efficiency and reducing dependence on fossil fuels.

In response to the current inflationary context, the Government is paying particular attention to maintaining households' purchasing power and the competitiveness of businesses. Thus, the measures decided within the framework of the recent tripartite agreements (see Box 2) provide support for households and protect Luxembourg's economy. In line with the commitment given when the 2023 budget was presented, the Government is dedicating a

[4] *"Communication on orientations for a reform of the economic governance framework of the EU"*, European Commission, November 2022: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52022DC0583
[5]"*Orientations for a reform of the economic governance framework of the EU*" Secretariat General of the Council, March 2023: https://data.consilium.europa.eu/doc/document/ST-6995-2023-REV-1/en/pdf

sizeable budgetary envelope to reducing the tax burden on households and thus strengthening their purchasing power.

Finally, a prudent, forward-looking, responsible approach is being maintained to ensure the long-term sustainability of public finances. The Government is ensuring that the State's finances are managed soundly and public debt is kept below 30% of GDP.

**Box 2: Measures supporting households' purchasing power and the competitiveness of businesses**

Faced with the increasing inflationary pressures since 2022, social dialogue has fulfilled its role in Luxembourg, enabling the Government, employers and trade unions to rapidly achieve a consensus on the solutions to be applied.

In early 2022, the Government reacted resolutely by bringing energy suppliers together to discuss the significant rise in energy prices and security of energy supply. In light of the strong inflationary trend and the worsening economic situation, the Government convened several meetings of the tripartite coordinating committee.

These various consultations and negotiations led to four packages of measures ("Energiedësch", "Solidaritéitspak 1.0", "Solidaritéitspak 2.0" and "Solidaritéitspak 3.0") to ensure households' purchasing power and the competitiveness of businesses are maintained.

The fiscal support provided by the "Energiedësch" and "Solidaritéitspak 1.0 and 2.0" packages of measures, State guarantees included, amounts to more than €2.5 billion, or 3.1% of GDP, for the years 2022 to 2027.

The "Solidaritéitspak 3.0", which uses the fiscal space provided by the cumulative effect of the improvement in the 2022 balance and the upgraded forecasts for the period under review as a whole, represents a significant budgetary envelope. For the fiscal measures, the envelope amounts to €300 million for 2023 and to structurally around €460 million a year for subsequent years. The cost of the other measures, which are aimed at countering inflation, is assessed as €125 million for 2023 and €446 million for 2024, more than €350 million of which is accounted for by the extension of the energy measures.

**"Solidaritéitspak 3.0"**

In light of STATEC's forecasts that indicated the risk of an inflationary shock when the "Solidaritéitspak 2.0" ends at the end of 2023, the tripartite coordinating committee decided in March 2023 to extend some of the support measures and to put new measures in place.

The "Solidaritéitspak 3.0" measures include:

- **Compensation for businesses for a third indexation tranche in 2023 and until January 2024.** The State will compensate businesses for the impact of the third indexation tranche in 2023 and until January 2024 inclusive.
- **Extension of the energy prices stabilisation measures in the "Solidaritéitspak 2.0" agreement to contain inflation.** The measures designed to limit energy prices are extended until 31 December 2024 in order to contain the risk of a rise in inflation at the beginning of 2024.
- **Introduction of a tax credit ("crédit d'impôt conjuncture") for the 2023 tax year.** A tax credit based on the income tax brackets being adjusted by two indexation brackets to take account of inflation is introduced for the 2023 tax year. It applies retroactively from 1 January 2023.
- **Adjustment to the personal income tax brackets.** The personal income tax rate schedule is adjusted by 2.5 indexation brackets from 1 January 2024.
- **Extension of the energy allowance for beneficiaries of the cost-of-living allowance.** The energy allowance is extended until the end of 2024 for households

benefiting from the cost-of-living allowance and households whose income is up to 25% higher than the qualifying income for the cost-of-living allowance.

- **State contribution to financing the increase in energy costs of accommodation facilities.** The State will continue to finance part of the increase in energy costs of integrated residential centres for the elderly, nursing homes, independent living facilities and psychogeriatric day-care centres until 31 December 2024.
- **Tax credit to offset the cost of the CO2 tax on low incomes workers.** The existing social compensation of the CO2 price is extended and will be implemented through a specific tax credit from 1 January 2024.
- **Increase of the tax credit ceiling on registration fees.** The ceiling of the registration fees tax credit, known as the "Bëllegen Akt" tax credit, will increase from €20,000 to €30,000 once the required law is adopted.
- **Adjustment to the interest ceilings on property loans.** The ceiling on interest on a property loan for accommodation occupied or intended to be occupied by the owner, deductible from the rental value as acquisition costs ("frais d'obtention"), is increased by 50% as of the 2023 tax year.
- **Increase in the exemption for housing subject to social rental management ("gestion locative sociale").** Net rental income from organisations under contract for social rental management benefits from a 75% exemption as of the 2023 tax year.
- **The power threshold above which income from operation of a photovoltaic installation is taxable is increased from 10 to 30 kWp.**
- **Maintaining the tax credit equivalent for recipients of the social inclusion income ("revenu d'inclusion sociale") and the severe disability income ("revenu pour personnes gravement handicapées").** The equivalent of the energy tax credit continues to be paid to recipients of the social inclusion income and the severe disability income until 31 December 2024.
- **Extension of assistance to businesses particularly affected by the rise in energy prices.** This assistance scheme, introduced as part of the "Solidaritéitspak 2.0", is extended until 31 December 2023 and adapted pursuant to the new *"Temporary Crisis and Transition Framework"* announced by the European Commission.

*Table 1: Overview of the support measures and their budgetary envelope*

| Measure | Budgetary envelope (in million EUR) | | | | | |
|---|---|---|---|---|---|---|
| | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |
| **« Solidaritéitspak 3.0 » package of measures** | **-** | **425** | **907** | **456** | **456** | **456** |
| ***Implementation and extension of measures from previous inflation packages*** | **-** | ***125*** | ***446*** | **-** | **-** | **-** |
| Compensation for businesses for a third indexation tranche in 2023 and until January 2024 | - | 95 | 60 | - | - | - |
| Extension of the energy prices stabilisation measures in the “Solidaritéitspak 2.0” agreement to contain inflation | - | - | 354 | - | - | - |
| Extension of the energy allowance for beneficiaries of the cost-of-living allowance | - | 8 | 9 | - | - | - |
| State contribution to financing the increase in energy costs of accommodation facilities | - | 8 | 7 | - | - | - |
| Maintaining the tax credit equivalent for recipients of the social inclusion income and the severe disability income | - | 14 | 17 | - | - | - |
| Extension of assistance to businesses particularly affected by the rise in energy prices | - | - | - | - | - | - |
| ***Implementation of tax measures*** | **-** | ***300*** | ***461*** | ***456*** | ***456*** | ***456*** |
| Adjustment to the personal income tax brackets | - | - | 300 | 300 | 300 | 300 |
| Introduction of a tax credit (“crédit d’impôt conjuncture”) for the 2023 tax year | - | 255 | 5 | - | - | - |
| Tax credit to offset the cost of the CO2 tax on low incomes workers* | - | - | 20 | 20 | 20 | 20 |
| Increase of the tax credit ceiling on registration fees | - | 45 | 90 | 90 | 90 | 90 |
| Adjustment to the interest ceilings on property loans | - | - | 45 | 45 | 45 | 45 |
| Increase in the exemption for housing subject to social rental management | - | - | 1 | 1 | 1 | 1 |
| Increase from 10 to 30 kWp in the power threshold above which income from operation of a photovoltaic installation is taxable | - | - | - | - | - | - |
| **« Solidaritéitspak 2.0 » package of measures**** | **135** | **1,020** | **5** | **1** | **1** | **1** |
| **« Solidaritéitspak 1.0 » package of measures and measures taken in addition to the final Tripartite agreement** | **672** | **176** | **-** | **-** | **-** | **-** |
| *Aid scheme in the form of guarantees* | 500 | | - | - | - | - |
| **« Energiedësch » package of measures** | **65** | **-** | **-** | **-** | **-** | **-** |

* Amount to be adapted according to the decisions to be taken on the future adaptation of the CO2 tax
** Excluding abolition of the advance payment of social security contributions (2023)

Source: Ministry of Finance.

## III.2 Medium-term budgetary objective

The "Fiscal Compact[6]" and the preventive arm of the Stability and Growth Pact are organised around compliance with a "medium-term budgetary objective ("MTO") specific to each country.

MTOs are defined so as to guarantee compliance with objectives on deficit and debt, whilst retaining fiscal space and ensuring that public finances are sustainable in the medium and long term.

In practice, every three years each Member State is required to set its MTO level, complying with a minimum MTO calculated by the European Commission. In light of the ageing-related cost projections presented in the "Ageing Report 2021[7]", the MTO calculated by the European Commission for the period 2023–2025 is 0.0% of GDP.

In accordance with its obligations under the Fiscal Compact and the Stability and Growth Pact, Luxembourg aligned itself on the minimum calculated by the European Commission and, in 2022, set the MTO at 0.0% of GDP for the period 2023–2025.

## III.3 The budgetary situation in 2022 and 2023

***2022***

The general government balance was +€138 million or +0.2% of GDP in 2022, substantially better than earlier forecasts predicted (see Chapter III.7). This result demonstrates the resilience of public finances despite the economic headwinds; its origins lie in the €723 million reduction in the central government deficit.

Central government revenue grew by 7.7% compared to the previous year. This positive trend can be largely attributed to the solid performance of the job market and to a rise in inflation supporting tax bases despite the loss of revenue due to granting the energy tax credit.

Central government expenditures rose by 9.0% compared to 2021 as a result of inflation and implementation of the assistance measures.

At the same time, efforts to invest in the country's future and prepare for the environmental and digital transition also continued. Public investment allocated to mobility and public

[6] *"The Treaty on Stability, Coordination and Governance in the Economic and Monetary* Union", European Union, March 2012, : https://www.consilium.europa.eu/media/20399/st00tscg26_en12.pdf
[7] "*The 2021 Ageing Report: Economic and Budgetary Projections for the EU Member States (2019-2070)*", European Commission, May 2021, https://economy-finance.ec.europa.eu/publications/2021-ageing-report-economic-and-budgetary-projections-eu-member-states-2019-2070_en

infrastructure in general was maintained at a high level, reaching €2.5 billion. Total public investment remains high (4.1% of GDP).

In respect of the general government sub-sectors, the local authorities sector recorded a balance in the region of -€128 million in 2022 and Social Security was +€989 million in 2022.

***2023***

In light of the deterioration of the macroeconomic context and the packages of measures adopted in 2022, the budgetary forecasts set out in the 2023 budget projected a general government deficit of €1,813 million (-2.2% of GDP) and a central government deficit of €2,836 million in 2023.

The position of the public finances at the start of the year was, however, better than expected thanks to, among other things, the more favourable performance of the economy and a significant fall in energy prices. As a result, the general government and central government deficits would have improved substantially under unchanged policies (i.e. without the new measures of the March 2023 tripartite agreement).

The “Solidaritéitspak 3.0” package of measures, agreed in early March 2023, will, however, have a significant budgetary impact. Following its implementation, the general government balance is expected to show a deficit of €1,224 million, (-1.5% of GDP) in 2023. The central government deficit is expected to be €2,351 million in 2023. Thus, the expected deficits for 2023 would be lower than initially forecasted in the 2023 budget, despite the significant expenditure associated with the measures’ implementation.

The central government deficit will arise primarily from the effects of the tax relief and the support measures decided in the tripartite agreements.

This improvement in the balance compared to the budget is all the more remarkable as, in addition to the measures adopted to address the short-term challenges, the Government is continuing its ambitious investment policy and expects to invest 4.5% of GDP in 2023. It should be noted that this focus on investment also helps businesses, which will benefit from the resulting orders in this difficult period.

Finally, the balance is impacted by the additional contribution to the EU budget in the region of €247 million[8], as well as by the booking of €190 million associated with the acquisition of a military satellite in accordance with the ESA 2010 rules.

[8] The payment was carried forward from 2022 to 2023 following a change in European legislation.

As regards the other general government subsectors, the local authorities' balance is expected to be €30 million, while Social Security is expected to end 2023 with a surplus of €1,097 million, or 1.3% of GDP.

***Compliance with the rules of the preventive arm of the Stability and Growth Pact in 2022–2023***

The structural balance (see Box 3) is 0.9% of GDP in 2022 and -0.8% of GDP in 2023. Thus, in 2023, Luxembourg is below its MTO of 0.0% defined for the reference period 2023–2025.

By virtue of the application of the general escape clause of the Stability and Growth Pact in 2022 and in 2023, evaluation of compliance with the MTO is suspended for these years.

## Box 3: Calculation of the structural balance

The formula to obtain the "structural" balance from the "nominal" balance is expressed as follows:

**Structural balance = Nominal balance – 0.462 x (Output Gap)**

The following formula is used to determine the output gap:

**Output gap**

**=**

**(Real GDP Level - Potential GDP Level) / (Potential GDP Level)**

Appendix 7 of the draft law relating to multiannual financial programming for the period 2022 to 2026 contains more detailed explanations on the concept of the structural balance and on the methodology underlying the associated calculations.

* * *

The calculation of the structural balance for the SGP 2023 is based on the following:

*Table 2: Calculation of the structural balance for the SGP 2023*

| | | | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |
|---|---|---|---|---|---|---|---|---|---|
| Real GDP | In bn* | PR | 62.184 | 63.147 | 64.683 | 67.167 | 69.045 | 71.046 | 73.134 |
| | In % | | 5.1% | 1.5% | 2.4% | 3.8% | 2.8% | 2.9% | 2.9% |
| Potential GDP | In bn | PP | 62.595 | 64.192 | 65.657 | 67.341 | 69.164 | 71.107 | 73.134 |
| | In % | | 2.2% | 2.6% | 2.3% | 2.6% | 2.7% | 2.8% | 2.9% |
| Output gap | As % of potential GDP | $EC = \frac{PR - PP}{PP}$ | -0.7% | -1.6% | -1.5% | -0.3% | -0.2% | -0.1% | 0.0% |
| Nominal balance | In bn | SN | 0.519 | 0.138 | -1.224 | -1.517 | -0.905 | -0.747 | -0.887 |
| | As % of potential GDP | | 0.7% | 0.2% | -1.5% | -1.7% | -1.0% | -0.8% | -0.9% |
| Structural balance | As % of potential GDP | $SN - 0{,}462 * EC$ | 1.0% | 0.9% | -0.8% | -1.6% | -0.9% | -0.7% | -0.9% |

Note: *This level is obtained from the European Commission model used to calculate Luxembourg's structural balance and therefore differs from the real GDP appearing elsewhere in the document. It is derived mechanically from the potential GDP levels and the output gap to ensure compliance with the "closure rule".

Source: Ministry of Finance, STATEC.

### III.4 The budgetary situation in 2024-2027

The development of public finances over the period 2024–2027 reflect two trends. At the start of the period, budgetary policy aims temporarily to support households and businesses to protect them from the rise in inflation. In the medium term, the Government is seeking to ensure that the public finances are restored to achieve balanced budgets.

In addition to the short-term support to address the crisis, Luxembourg is continuing its ambitious investment policy, exceeding 4.2% of GDP at all times. At the same time, the growth in current expenditure will be contained to ensure sustainable public finances in the medium term.

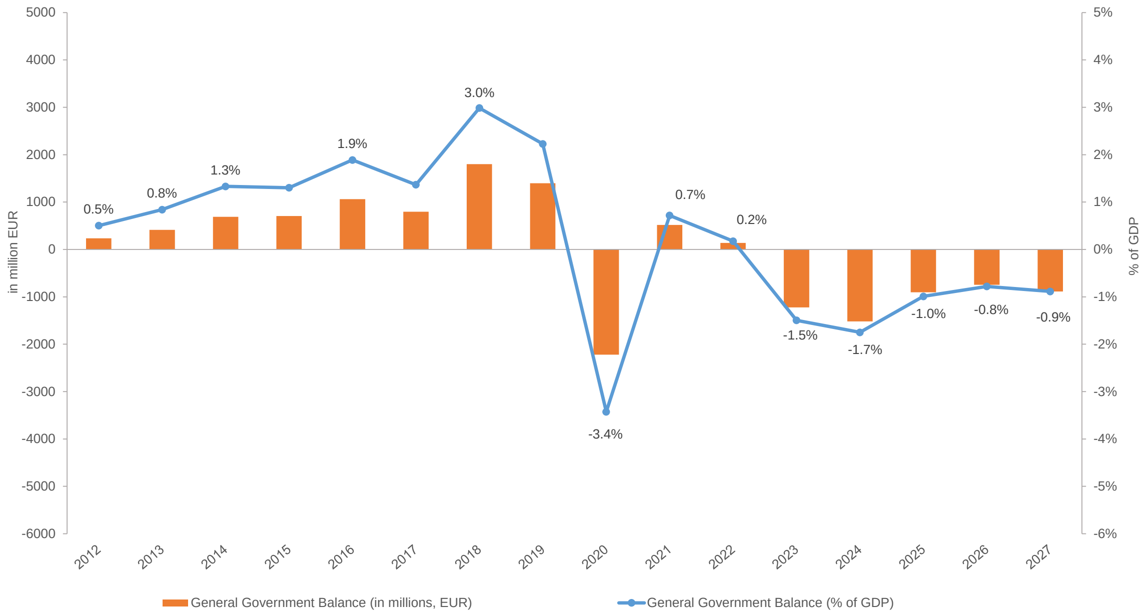
Public expenditure should increase by 4.9% a year. Revenue is expected to grow by an average of 5.2% and will thus exceed the growth rate of public expenditure.

This positive scissors effect should make it possible to reduce the general government deficit up to the end of the period under review. While the general government deficit is still expected to be -€1,517 million (-1.7% of GDP) in 2024 because of the support measures, it should continue its downward trend to reach -€887 million (-0.9% of GDP) in 2027 (see Chart 4).

This trend is primarily attributable to the gradual recovery of the central government balance. This balance is estimated to be -€2.457 million in 2024 before falling to -€1.613 million in 2027, representing an improvement of €844 million, even though it will remain significantly in deficit (see Chart 5).

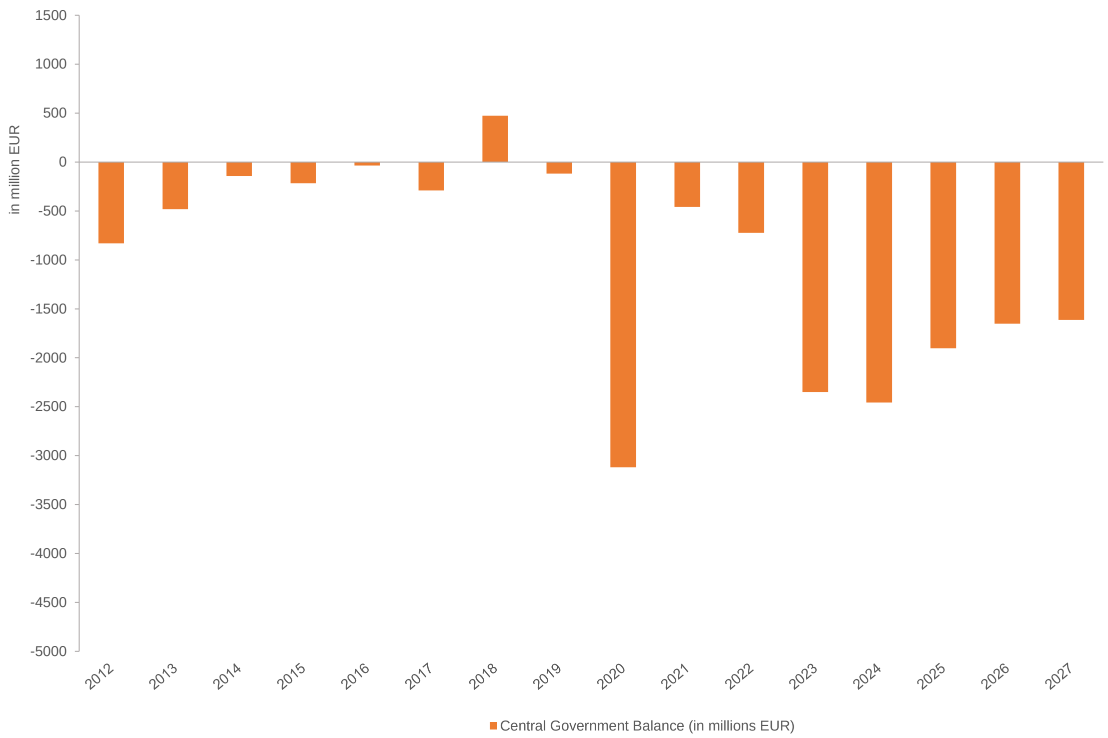
The local authorities' balance is expected to remain in surplus over the whole 2024–2027 period. The Social Security balance is expected to be €860 million in 2024 and to peak at €888 million in 2025. This surplus should fall to €573 million in 2027 due to, in particular, the ageing population.

*Chart 4: Changes in the general government balance*




Source: Ministry of Finance, STATEC.

*Chart 5: Changes in the central government balance*

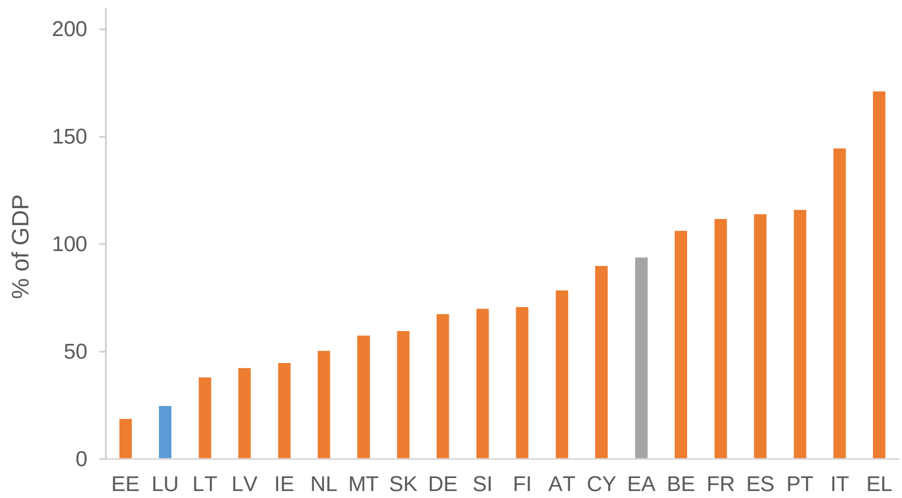



Source: Ministry of Finance, STATEC.

## III.5 Public debt

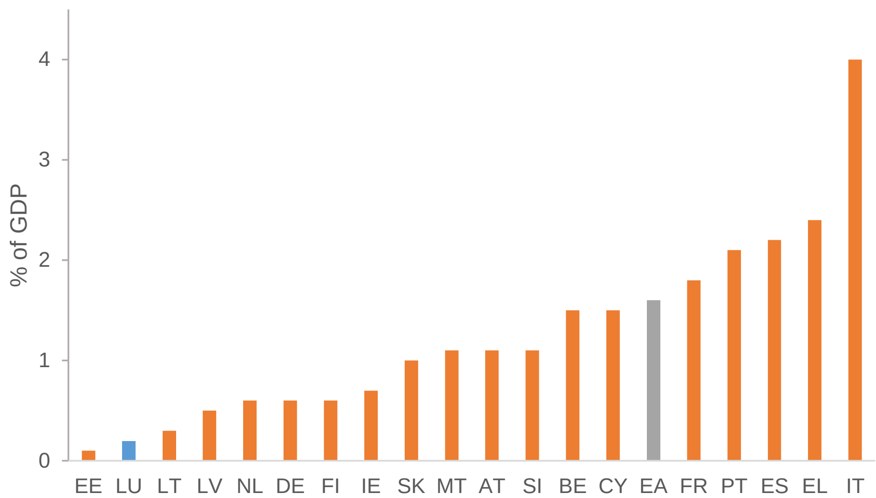
By the end of 2022, Luxembourg had the second lowest debt ratio and interest burden in the euro area, behind Estonia (see Charts 6–7).

Chart *6: Public debt within the euro area in 2022*




Source: European Commission (AMECO), Ministry of Finance.

*Chart 7: Interest burden within the euro area in 2022*

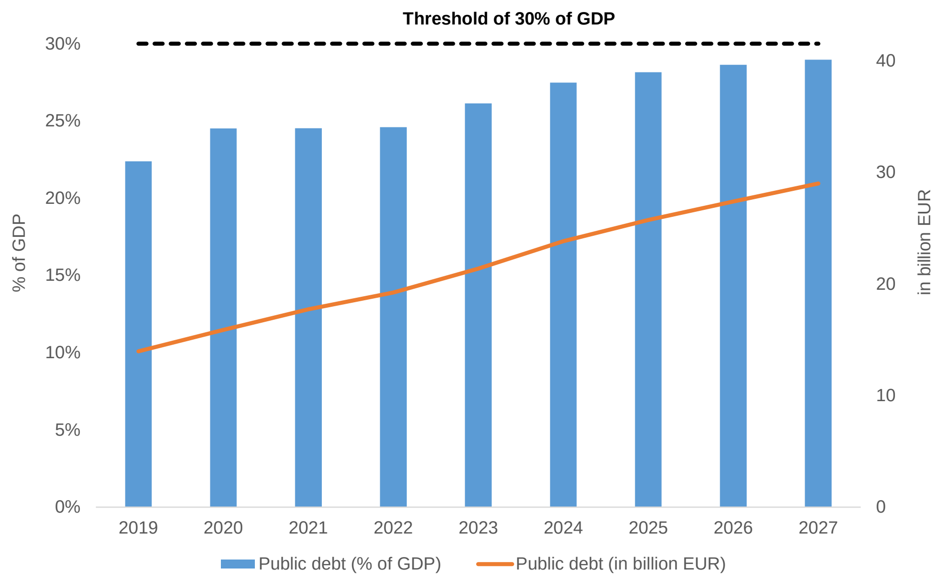



Source: European Commission (AMECO), Ministry of Finance.

In 2022, Luxembourg's public debt was €19,223 million, or 24.6% of GDP. Public debt grew by €5.3 billion between 2019 and 2022 as a result of the "polycrisis" Luxembourg is facing and the Government's efforts to counter its socio-economic effects. Despite this increase in absolute terms, the debt ratio has remained stable since 2020 at around 24.5% of GDP.

According to the forecasts prepared in the context of this SGP, public debt is expected to rise from €21,383 million in 2023 to €29,007 in 2027 (see Chart 8). Public debt is expected to rise to 26.1% of GDP in 2023 and 29.0% at the end of the projection period, remaining under the ceiling of 30% of GDP established in the coalition agreement. Luxembourg will thus remain below the EU's reference threshold (60% of GDP).

*Chart 8: Changes in public debt since 2019*




Source: Ministry of Finance, STATEC.

The changes in the level of public debt described above reflect the trends at the level of central government. The impact of the packages of measures adopted to counter the effects of the rise in inflation will be seen in particular in persistent, larger central government deficits, assumed to be financed in full by recourse to public debt.

Indeed, the public debt forecasts are based on the central government deficits being mechanically added to the public debt as of 2023. In practice, however, borrowing requirements will be dictated by developments of the State's liquidity position, the applicable market conditions, the choice of the financing instrument, as well as the budgetary developments, which could result in a different debt profile than the one calculated mechanically.

The "AAA" rating with stable outlook has been confirmed by the main rating agencies and will enable Luxembourg to benefit from favourable interest rates. This benefit will be all the more valuable in view of the widespread rise in interest rates on sovereign bonds resulting from the tightening of monetary policy in the euro area.

In light of the changes in the level of debt and in the rates charged, it is estimated that the interest burden will increase during the next few years, rising from €128 million in 2023 to €510 million in 2027, reaching four times its current amount.

The upward trajectory of public debt must be put in perspective, in that general government as a whole holds financial assets worth around 45% of GDP, almost double the level of public debt.

With assets worth 32% of GDP at 31 December 2022, the reserve of the "Fonds de compensation" is on its own at a higher level than public debt. The Luxembourg State also holds shares in commercial and non-commercial entities with an estimated value of around 12% of GDP. Additionally, the assets of the Luxembourg Intergenerational Sovereign Fund, with a value of around 0.6% of GDP, serve as savings for future generations.

## III.6 Sensitivity analysis

This sensitivity analysis allows alternative trajectories to be visualised for the public finances according to various technical simulations.

The first part of this analysis presents the results obtained on the basis of two alternative economic scenarios (see Tables 3–4 and Charts 9–11): one is based on a weaker economic growth compared to the baseline forecasts of this document (the central scenario) and the other on a more favourable trend.

The second part assesses the impact of an additional increase in interest rates of 100 basis points with respect to the behaviour of rates included in the central scenario.

*Alternative economic scenarios*

<u>The unfavourable scenario (SC1)</u>

The unfavourable scenario is based on the application of a permanent shock of -0.5 percentage points to Luxembourg's economic growth during the period 2023–2027.

In the context of this theoretical exercise, employment growth would reach 2.4% in 2023 and would fall to 1.9% in 2027. By analogy, the unemployment rate would increase over the period under review to reach 6.1% in 2027.

The shock on the economic activity would also have an impact on public finances. As a result, the general government deficit would be at its highest in 2024 (-2.1% of GDP) and would be -2.0% in 2027 (compared to -0.9% in the central scenario).

Public debt would increase more rapidly than in the central scenario and would reach the threshold of 30% of GDP in 2025. In this alternative scenario, public debt would reach 33.2% of GDP in 2027, compared to 29.0% of GDP in the central scenario.

The favourable scenario (SC2)

In the favourable scenario, a permanent shock of the same scale as in the unfavourable scenario (+0.5 percentage points) is applied to Luxembourg's growth.

As a result of higher economic growth, job creation would be 2.9% in 2023 and 2.6% in 2027. The unemployment rate would rise from 4.8% in 2023 to only 5.3% in 2027.

The general government balance would be -1.3% of GDP in 2023 compared to -1.5% of GDP for the central scenario. The balance would continue to improve from 2025 and move into surplus from 2026.

The central government balance would improve over the years, with a deficit of only -0.5% of GDP in 2027.

Due to the stronger economic recovery, the debt ratio would develop more favourably than outlined in the central scenario. Public debt would reach 26.8% of GDP in 2024 and would then start to decline. At the end of the period under review, debt would stand at 25.4% of GDP.

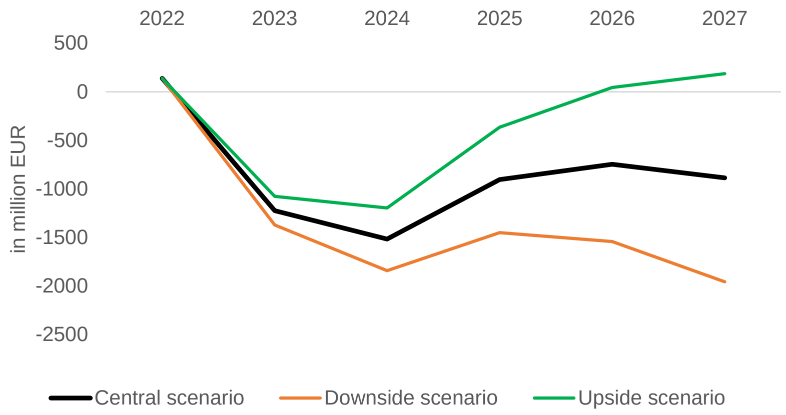
*Table 3: Shock to growth – Macroeconomic projections*

| | **2022** | **2023** | | | **2024** | | | **2025** | | | **2026** | | | **2027** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Base** | SC1 | **Central** | SC2 | SC1 | **Central** | SC2 | SC1 | **Central** | SC2 | SC1 | **Central** | SC2 | SC1 | **Central** | SC2 |
| Real GDP Euro area (change in %) | **3.3** | -0.3 | **0.0** | 0.3 | 1.5 | **1.8** | 2.1 | 1.7 | **2.1** | 2.5 | 1.3 | **1.8** | 2.2 | 0.9 | **1.4** | 1.9 |
| Real GDP (change in %) | **1.5** | 1.9 | **2.4** | 2.9 | 3.3 | **3.8** | 4.3 | 2.4 | **2.9** | 3.4 | 2.0 | **2.5** | 3.0 | 2.0 | **2.5** | 3.0 |
| Nominal GDP (change in %) | **8.1** | 4.2 | **4.7** | 5.3 | 5.3 | **6.0** | 6.7 | 4.6 | **5.4** | 6.2 | 3.8 | **4.6** | 5.4 | 3.8 | **4.7** | 5.5 |
| Employment level (change in %) | **3.5** | 2.4 | **2.7** | 2.9 | 2.2 | **2.5** | 2.8 | 1.9 | **2.2** | 2.6 | 2.0 | **2.4** | 2.7 | 1.9 | **2.2** | 2.6 |
| Unemployment rate, in % (ADEM definition) | **4.8** | 5.0 | **4.9** | 4.8 | 5.2 | **5.0** | 4.8 | 5.6 | **5.3** | 5.0 | 5.8 | **5.5** | 5.1 | 6.1 | **5.7** | 5.3 |
| Eurostoxx (change in %) | **-6.5** | 0.8 | **2.0** | 3.1 | 1.3 | **2.4** | 3.6 | 0.9 | **2.1** | 3.2 | -0.1 | **1.1** | 2.3 | -0.5 | **0.7** | 1.7 |

*Table 4: Shock to growth – Public finances*

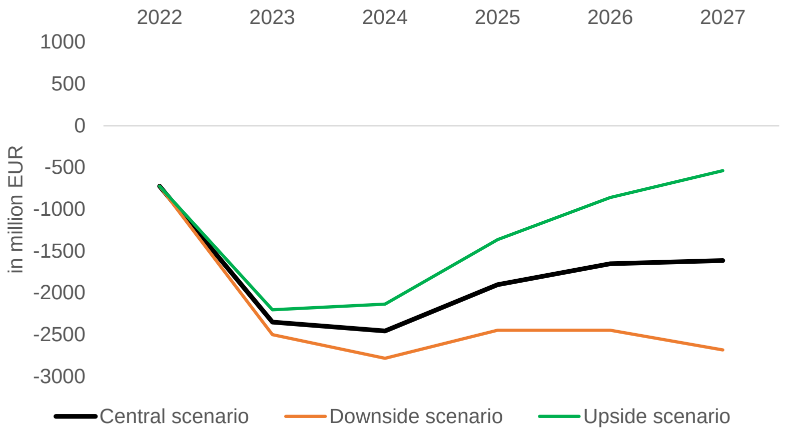
| **General government** | **2022** | **2023** | | | **2024** | | | **2025** | | | **2026** | | | **2027** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Base** | SC1 | **Central** | SC2 | SC1 | **Central** | SC2 | SC1 | **Central** | SC2 | SC1 | **Central** | SC2 | SC1 | **Central** | SC2 |
| Nominal balance (in millions, EUR) | **138** | -1,372 | **-1,224** | -1,076 | -1,841 | **-1,517** | -1,195 | -1,450 | **-905** | -364 | -1,541 | **-747** | 45 | -1,957 | **-887** | 187 |
| Nominal balance (% of GDP) | **0.2** | -1.7 | **-1.5** | -1.3 | -2.1 | **-1.7** | -1.4 | -1.6 | **-1.0** | -0.4 | -1.7 | **-0.8** | 0.0 | -2.0 | **-0.9** | 0.2 |
| Structural balance (% of GDP) | **0.9** | -1.0 | **-0.8** | -0.6 | -1.9 | **-1.6** | -1.4 | -1.4 | **-0.9** | -0.4 | -1.6 | **-0.7** | 0.0 | -2.0 | **-0.9** | 0.2 |
| **Central government** | | | | | | | | | | | | | | | | |
| Nominal balance (in millions, EUR) | **-723** | -2,500 | **-2,351** | -2,203 | -2,782 | **-2,457** | -2,135 | -2,447 | **-1,903** | -1,361 | -2,446 | **-1,652** | -859 | -2,684 | **-1,613** | -539 |
| Nominal balance (% of GDP) | **-0.9** | -3.1 | **-2.9** | -2.7 | -3.2 | **-2.8** | -2.4 | -2.7 | **-2.1** | -1.5 | -2.6 | **-1.7** | -0.9 | -2.8 | **-1.6** | -0.5 |
| **Public debt** | | | | | | | | | | | | | | | | |
| Public debt (in millions, EUR) | **19,223** | 21,722 | **21,383** | 21,426 | 24,504 | **23,840** | 23,561 | 26,951 | **25,743** | 24,922 | 29,397 | **27,394** | 25,782 | 32,080 | **29,007** | 26,321 |
| Public debt (% of GDP) | **24.6** | 26.7 | **26.1** | 26.1 | 28.6 | **27.5** | 26.8 | 30.0 | **28.2** | 26.7 | 31.6 | **28.6** | 26.2 | 33.2 | **29.0** | 25.4 |

*Chart 9: Shock to growth – Trends in the general government balance*



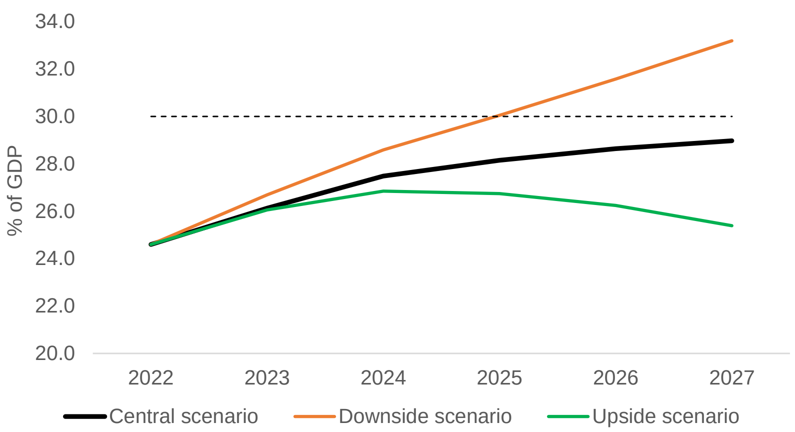

Source: Ministry of Finance calculations, STATEC.

*Chart 10: Shock to growth – Trends in the central government balance*




Source: Ministry of Finance calculations, STATEC.

*Chart 11: Shock to growth – Trends in public debt*




Source: Ministry of Finance calculations, STATEC.

Simulation of an interest rate shock

The shock applied to interest rates makes it possible to simulate the potential impact on Luxembourg's economic and financial situation of an annual increase in short-term interest rates of 100 basis points (see Tables 5–6 and Charts 12–13).

Such a shock would have a negative impact on Luxembourg's GDP compared to the trajectory projected in the central scenario. Economic growth would be 1.0% in 2023 (compared to 2.4% in the central scenario) before stabilising at around 2.4% from 2025.

As for the job market, the interest rate shock would lead to a slowing of job creation and a rise in unemployment compared to the central scenario throughout the 2023-2027 period.

An interest rate shock would also impact the public finances, resulting in a higher deficit for the years 2023–2027. At the end of the period, the general government balance would stand at -1.5% of GDP (compared to -0.9% of GDP in the central scenario).

The central government balance would remain in deficit throughout the analysed period, with a higher deficit than that projected in the central scenario (-2.3% of GDP compared to -1.6% in the central scenario for 2027).

Public debt would gradually increase during the period under review and the debt ratio would exceed the threshold of 30% of GDP as of 2025. Public debt would reach 32.2% of GDP in 2027.

*Table 5: Interest rate shock – Macroeconomic projections*

| | **2022** | **2023** | | **2024** | | **2025** | | **2026** | | **2027** | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Base** | Shock - | **Central** | Shock - | **Central** | Shock - | **Central** | Shock - | **Central** | Shock - | **Central** |
| Short-term interest rate EUR (%) | **0.3** | 3.8 | **2.8** | 2.9 | **1.9** | 2.4 | **1.4** | 2.4 | **1.4** | 2.3 | **1.3** |
| Long-term interest rate EUR (%) | **1.9** | 3.4 | **2.9** | 3.0 | **2.5** | 3.2 | **2.3** | 3.3 | **2.3** | 3.3 | **2.3** |
| Real GDP (change in %) | **1.5** | 1.0 | **2.4** | 4.2 | **3.8** | 2.5 | **2.9** | 2.3 | **2.5** | 2.4 | **2.5** |
| Employment (change in %) | **3.5** | 2.1 | **2.7** | 2.5 | **2.5** | 2.0 | **2.2** | 2.1 | **2.4** | 2.1 | **2.2** |
| Unemployment rate, in % (ADEM definition) | **4.8** | 5.1 | **4.9** | 5.1 | **5.0** | 5.4 | **5.3** | 5.6 | **5.5** | 5.8 | **5.7** |
| Eurostoxx (change in %) | **-6.5** | -2.0 | **2.0** | 2.2 | **2.4** | 0.6 | **2.1** | 1.8 | **1.1** | 2.3 | **0.7** |

*Table 6: Interest rate shock – Public finances*

**General government**

| | **2022** | **2023** | | **2024** | | **2025** | | **2026** | | **2027** | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Base** | Shock - | **Central** | Shock - | **Central** | Shock - | **Central** | Shock - | **Central** | Shock - | **Central** |
| Nominal balance (in millions, EUR) | **138** | - 1,672 | **-1,224** | - 1,888 | **-1,517** | - 1,414 | **-905** | - 1,329 | **-747** | - 1,512 | **-887** |
| Nominal balance (% of GDP) | **0.2** | -2.1 | **-1.5** | -2.2 | **-1.7** | -1.6 | **-1.0** | -1.4 | **-0.8** | -1.5 | **-0.9** |
| Structural balance (% of GDP) | **0.9** | -1.1 | **-0.8** | -2.0 | **-1.6** | -1.4 | **-0.9** | -1.3 | **-0.7** | -1.5 | **-0.9** |

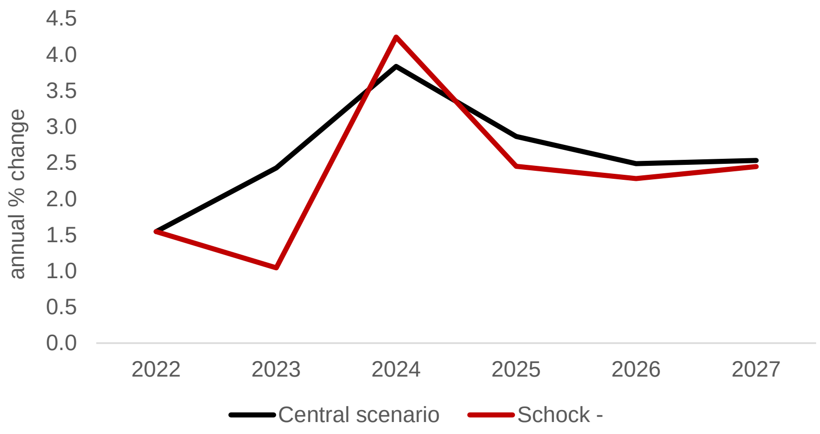
**Central government**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal balance (in millions, EUR) | **-723** | -2,799 | **-2,351** | -2,828 | **-2,457** | -2,412 | **-1,903** | -2,234 | **-1,652** | -2,238 | **-1,613** |
| Nominal balance (% of GDP) | **-0.9** | -3.5 | **-2.9** | -3.3 | **-2.8** | -2.7 | **-2.1** | -2.4 | **-1.7** | -2.3 | **-1.6** |

**Public debt**

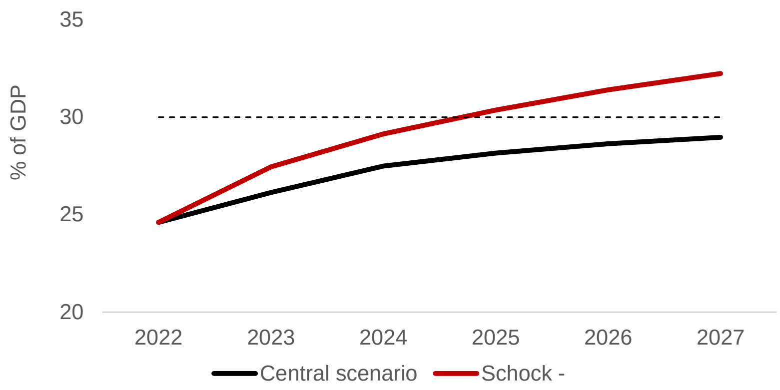
| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Public debt (in millions, EUR) | **19,223** | 22,022 | **21,383** | 24,850 | **23,840** | 27,262 | **25,743** | 29,496 | **27,394** | 31,734 | **29,007** |
| Public debt (% of GDP) | **24.6** | 27.5 | **26.1** | 29.1 | **27.5** | 30.4 | **28.2** | 31.4 | **28.6** | 32.2 | **29.0** |

*Chart 12: Interest rate shock – Trends in Luxembourg's real GDP*




Source: Ministry of Finance calculations, STATEC.

*Chart 13: Interest rate shock – Trends in the level of public debt*




Source: Ministry of Finance calculations, STATEC.

## III.7 Comparison with the SGP 2022 and the multiannual budget 2022–2026

A comparative analysis between the SGP 2022, the multiannual budget 2022–2026 and the SGP 2023 gives rise to the following general observations:

1) Compared to the forecasts presented in the SGP 2022 and the multiannual budget, real GDP in the SGP 2023 performs better, rebounding strongly in 2024 (see Chart 14). Economic activity is expected to grow by 3.8% in 2024 (compared to 2.9% in the SGP 2022 and 2.4% in the multiannual budget).

2) General government recorded a surplus in 2022, contrary to what was forecast in the SGP 2022 and the multiannual budget (see Chart 15). The general government balance improved considerably for that same year and reached +0.2% of GDP (compared to -0.7% in the SGP 2022 and -0.4% in the multiannual budget).

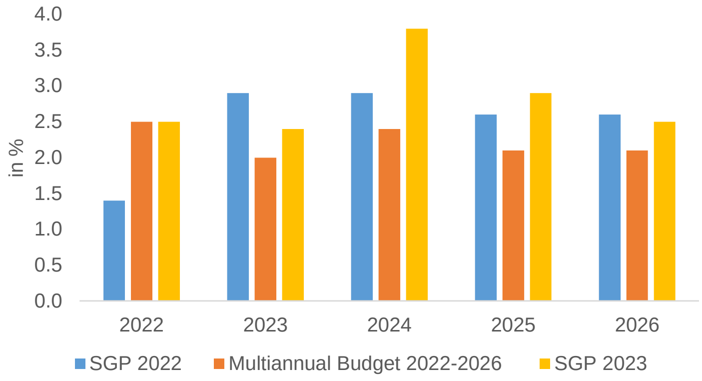
3) Compared to the SGP 2022, the support measures provided for in the multiannual budget and in the SGP 2023 lead to a sizeable increase in the general government deficit in 2023 and 2024.

4) In the SGP 2023, the impact of the measures will continue to affect the general government balance in 2025 and 2026, but to a lesser extent than forecasted in the multiannual budget.

5) Despite public debt rising, the debt ratio in the SPG 2023 is situated between the estimates presented in the SGP 2022 and the multiannual budget, while remaining below the 30% threshold (see Chart 16).

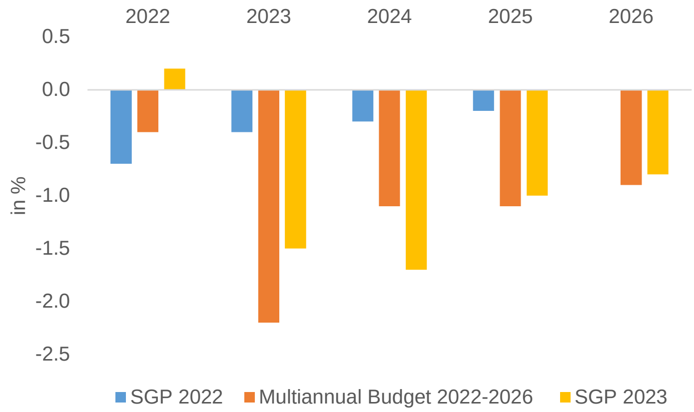
It should be noted that the macroeconomic projections in the SGP 2022 were prepared at the outset of Russia’s war against Ukraine and reflected the scenario of a short war mainly impacting 2022. As hopes that the war in Ukraine would be short had dissipated, continuation of the risks was taken into account when the multiannual budget and the SGP 2023 were drawn up.

*Chart 14: Comparison with the previous update to the SPG and the multiannual budget – Real GDP (annual change, in %)*



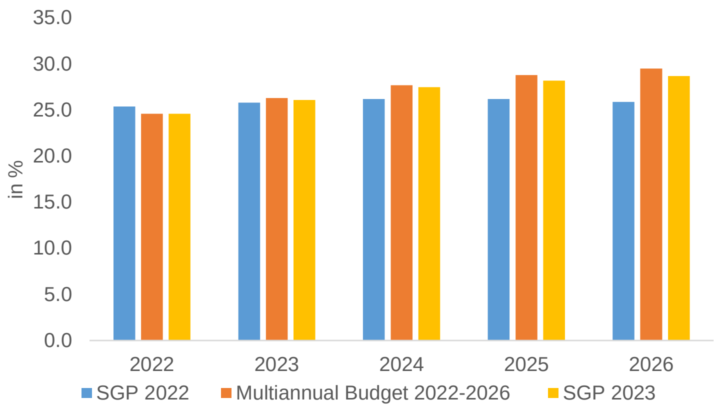

Source: Ministry of Finance, STATEC.

*Chart 15: Comparison with the previous update to the SPG and the multiannual budget – General government balance (as % of GDP)*




Source: Ministry of Finance, STATEC.

*Chart 16: Comparison with the previous update to the SPG and the multiannual budget – Public debt (as % of GDP)*




Source: Ministry of Finance, STATEC.

# IV. Quality of public finances

The quality of Luxembourg's public finances is reflected first and foremost in the continued compliance with the Maastricht criteria. As regards public debt, the threshold of 30% of GDP established in the coalition agreement has never been crossed, even in the crisis years. According to the projections, Luxembourg will continue to comply with this threshold over the period 2023–2027.

The sound management of Luxembourg's public finances is above all attributable to a prudent approach in the preparation of budgets as well as a rigorous and controlled budget implementation at all times.

Public revenue increases from 43.5% of GDP in 2022 to 44.2% of GDP in 2023, reaching 44.3% of GDP in 2027. By way of comparison, in the euro area public revenues are estimated to fall from 47.1% of GDP in 2022 to 46.7% in 2023.

The prudent management of Luxembourg's public finances is also reflected in the level of expenditure. Expenditure rises from 43.3% of GDP in 2022 to 45.7% in 2023 as a result of the significant fiscal support put in place in response to the crisis, before falling to 45.2% of GDP in 2027. By way of comparison, expenditure as a percentage of GDP in the euro area was 50.5% in 2022 and is expected to be 50.4% in 2023.

Despite an increase in general government intermediate consumption (i.e. operating costs) from 4.3% of GDP in 2022 to 4.5% of GDP in 2023, this should subsequently fall to 4.2% of GDP in 2027. Intermediate consumption as a share of GDP in the euro area falls from 5.8% in 2022 to 5.6% in 2023.

In spite of the inflationary pressures which impact the evolution of the wage bill, the expenditure related to the remuneration of the general government officials, in relation to the GDP, should stabilise around 10.8% of the GDP for the years 2023-2027.

Over the same period, social spending as a share of GDP is expected to rise from 19.1% in 2023 to 19.7% in 2027 due to demographic changes in Luxembourg.

However, the quality of public finances is not only measured in "quantitative" terms, but also in "qualitative" terms. Under the 2023 finance law (loi budgétaire), the Government is continuing to implement an ambitious investment policy focusing on the energy and digital transition, access to housing, and mobility and public infrastructure.

Over the period 2022–2026, public investment in Luxembourg will exceed €3 billion a year and represent on average 4.1% of GDP. According to the projections, the amount allocated to central government public investment would be €3,317 million in 2023 and €3,816 million in 2026.

The table below gives a breakdown of public investment by area at the level of central government. The majority of the public investment consists of projects with a budget above €40 million.

*Table 7: 2022–2026 public investment by category (central government)*

***in million EUR***

| Category of public investment | 2022 | 2023 | 2024 | 2025 | 2026 |
|---|---|---|---|---|---|
| | Projected | Adopted Budget | Multi-annual | Multi-annual | Multi-annual |
| Environment and climate | 422 | 530 | 803 | 652 | 572 |
| Public infrastructure | 215 | 293 | 373 | 407 | 414 |
| Education | 78 | 115 | 142 | 154 | 137 |
| Housing | 200 | 298 | 352 | 382 | 352 |
| Health | 74 | 160 | 176 | 255 | 313 |
| Security | 105 | 62 | 74 | 123 | 228 |
| State-owned real estate | 128 | 114 | 122 | 127 | 127 |
| Cooperation and humanitarian action | 314 | 342 | 350 | 365 | 382 |
| Other (Culture, sport, economy,...) | 537 | 661 | 538 | 532 | 521 |
| **Subtotal projects > 40 million euros** | **2,073** | **2,575** | **2,931** | **2,996** | **3,045** |
| **Subtotal projects < 40 million euros** | **644** | **742** | **830** | **752** | **771** |
| **Total public investment** | **2,717** | **3,317** | **3,761** | **3,747** | **3,816** |
| **Total as % of GDP** | **3.5%** | **4.1%** | **4.3%** | **4.1%** | **4.0%** |

Source: Ministry of Finance, IGF.

The amounts listed in Table 7 comprise direct and indirect investment made at central government level. There may therefore be differences with the general government investment amounts presented elsewhere in this SGP.

Public investment in favour of the *environment and climate* has the largest budgetary envelope, with around €3 billion for the period 2022–2026, a large proportion of which is allocated to public transport and the energy transition.

The Government is prioritising mobility planning in particular and anticipating future requirements to align development of the public transport network to growth in demand. Particular emphasis is placed on modernising the rail network and rolling stock and extending the tram network.

The energy transition and energy efficiency form a key pillar of the Government's climate strategy. Consequently, a climate and energy fund is dedicated to this cause, with almost €50 million earmarked to support the acquisition of solar panels.

There is a budgetary envelope of around €1.7 billion for investment in *public infrastructure* for the period 2022–2026. This budget allocation is intended both to strengthen essential structures and to maintain and enhance the quality of existing infrastructures.

The corresponding funds will be used inter alia to continue large-scale projects, including widening the A3 motorway to three lanes in both directions as well as new construction projects in Belval.

The key road projects also include improving the national network of cycle paths and the rapid tram project between Luxembourg and Esch-sur-Alzette.

The Government is pursuing a proactive policy that aims to increase the number of affordable homes. As a consequence, public investment of around €1.6 billion to support access to housing is planned for the multiannual period 2022–2026. In addition, the increase in the budget for the acquisition of land within the framework of the Housing Pact 2.0 (“Pacte Logement 2.0”) will support housing policy in the municipal sector over the coming years.

Finally, the Government will continue to invest in large projects in other key areas, such as security, health, education, cooperation and humanitarian actions.

# V. Long-term sustainability of public finances

More specifically, in regard to the general pension scheme, the last major reform of which entered into force on 1st January 2013, the legislation provides that the General Social Security Inspectorate (IGSS) will produce for each ten-year coverage period, firstly, a technical appraisal and actuarial projections which are used as a basis for determining the overall contribution rate for the coverage period, and secondly, an actuarial appraisal in the middle of the ten-year coverage period. In practice, this means drawing up a report on the general pension scheme every five years.

The current coverage period began on 1 January 2023 and will run until 2032. This is why the IGSS produced its technical appraisal in 2022. Following this report, presented on 26 April 2022[9], the Government Council set the overall contribution rate for the 2023–2032 period and decided on the follow-up to the report and the results and conclusions contained therein.

As regards the overall contribution rate, the Government Council decided to keep it at 24%, spread equally among employees, employers and the State. In fact, the technical appraisal shows that the scheme's reserve remains well above the statutory minimum of 1.5 times over the whole coverage period 2023–2032. Indeed, the reserve should even grow in absolute terms during the next period. Therefore increase in the rate does not seem necessary and thus the current level is maintained.

In light of the importance of the long-term sustainability of the general pension scheme, as well as intergenerational equity, the report was made public on 26 April 2022 for the information of all stakeholders. In addition to the report, the IGSS also published an overview of Luxembourg's public pension schemes in supplementary table 29 of the national accounts[10], providing additional information concerning the link between the European System of Accounts and the pension schemes in Luxembourg.

In addition to keeping the contribution rate at 24% and still within the context of the IGSS's actuarial appraisal, the Government Council also decided on 25 April 2022 to consult the Economic and Social Council (CES)[11] with this technical appraisal in order to analyse, discuss and suggest possible future avenues to ensure the financial sustainability of the general pension scheme over the very long term.

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[9] Presentation of the technical appraisal of the general pension scheme 2022: https://mss.gouvernement.lu/fr/actualites.gouvernement%2Bfr%2Bactualites%2Btoutes_actualites%2Bcommuniques%2B2022%2B04-avril%2B26-haagen-pensions.html

[10] Overview no. 16, IGSS: https://igss.gouvernement.lu/fr/publications/apercus-et-cahiers/apercus/202203no16.html

[11] https://ces.public.lu/fr/ces.html

Although the scheme is viable over the short and medium term, there are challenges over the long and very long term given the demographic trend affecting all countries of the European Union, Luxembourg being no exception. It was, moreover, out of concerns for sustainability that the 2012 reform, which entered into force on 1st January 2013, had incorporated various mechanisms and parameters into the general pension scheme. According to the results of the work of the IGSS recorded in the 2022 balance sheet, these measures should reduce the scheme’s expenditure, according to the adjustment moderator applied, by between 3.7 and 5.5 percentage points of GDP by 2070.

The consultation of the CES on such an important topic reflects the Government's wish to involve the social partners in meaningful discussions which concern society at large. We should note in this regard that the last IGSS actuarial report submitted on 2 December 2016[12] was already discussed by a group of experts composed of public sector representatives. However, the Government does not want to restrict discussions only to experts but to widen them through the CES. The relevant work is currently in progress. Once the CES has submitted its report to the Government, the latter will decide on the next steps.

Regarding the long-term care insurance, there were a total of 16,062 beneficiaries on 31 December 2021 (latest consolidated data available). In 2016, the Government had already undertaken a reform to modernise this pillar in order to meet the challenges of an ageing population and to continue to ensure fair access to high-quality benefits[13]. The main objectives of the reform[14] which entered into force on 1 January 2018, consist of providing a personalised package of the benefits that meets each person's daily needs, of enhancing quality through clear standards and criteria with adequate controls, of simplifying procedures and of consolidating the system in light of societal developments and the principles of the fundamental law of 1998.

In addition, the reform put in place tools to allow for better monitoring of the entire long-term care insurance scheme, to better anticipate future changes and the system's financial balance. This involves, among other things, drawing up analyses and reports on the quality of benefits provided (Long-term Care Insurance Assessment and Monitoring Authority (AEC)) and whether the levels of fixed cover established by the reform matches actual needs in terms of

[12] Press release of 2 December 2016: https://gouvernement.lu/fr/actualites/toutes_actualites/communiques/2016/12-decembre/02-bilan-assurance-pension.html
[13] Press release of 21 June 2016: https://gouvernement.lu/fr/actualites/toutes_actualites/communiques/2016/06-juin/21-schneider-copas.html
[14] Law of 29 August 2017: https://legilux.public.lu/eli/etat/leg/loi/2017/08/29/a778/jo

essential acts of life (IGSS). The IGSS's last report was produced in 2021[15] and the next one will be produced in 2023. The last AEC quality report was published in 2022[16].

In addition to this analysis of the quality of benefits, the AEC also carries out a satisfaction survey of beneficiaries living at home and their carers. This report was presented in June 2022[17] and analyses the role carers play on a daily basis. This analysis also looked at the options for better supporting carers in their tasks. The various actions identified are in the process of implementation or have already been partially implemented. Those requiring changes to the law will be discussed subsequently with the relevant actors.

In this context, it should be noted that the Government's priorities include involving, to the extent possible, social partners and more broadly all stakeholders in preparing and implementing the various reforms. This approach seeks to ensure that the reforms will be supported as far as possible by all stakeholders, while continuing to guarantee access to high-quality benefits and ensuring the financial stability of the various social security pillars. In fact, in addition to financial stability, which must of course be ensured, the level of benefits for each pillar is of key importance, whether for pensions, healthcare (health insurance) or long-term care (long-term care insurance).

This priority thus falls within the sustainable development goals[18] of the United Nations and more specifically those aimed at ensuring that all protected persons have access to high-quality social security benefits. This also applies to pensions, the level of which must enable all beneficiaries to live with dignity, including those pensioners who were on a low income during their working lives.

The same applies to benefits aimed at maintaining as far as possible the independence of beneficiaries who require the support of a third party (care situation).

This update of the SGP includes the most recent forecasts on ageing-related expenditure produced by the "*Ageing Working Group*" of the Economic Policy Committee of the ECOFIN Council, as part of the publication of the 2021 Ageing Report (cf. Table 7 of the statistical appendix). According to previous projections in the 2018 Ageing Report, ageing-related expenditure was expected to reach 30.9% of GDP in 2070. The updated forecasts show a rate

[15] Forecast analysis report 2021: https://igss.gouvernement.lu/fr/publications/rapport-previsionnel-2019/2021/rapport-analyse-previsionnel-2021.html
[16] Biennial quality report 2022: https://mss.gouvernement.lu/fr/actualites.gouvernement%2Bfr%2Bactualites%2Btoutes_actualites%2Bcommuniques%2B2022%2B06-juin%2B30-rapport-aec.html
[17] Presentation of the results of the satisfaction survey of beneficiaries of long-term care insurance living at home and their carers: https://mss.gouvernement.lu/fr/actualites.gouvernement%2Bfr%2Bactualites%2Btoutes_actualites%2Bcommuniques%2B2022%2B06-juin%2B09-haagen-aec.html
[18] Luxembourg 2030: 3rd National Plan for Sustainable Development: https://environnement.public.lu/dam-assets/documents/developpement-durable/PNDD.pdf

of 27.3% of GDP for the same year, thus a downward revision of 3.6 percentage points. This revision emanates mainly from long-term care and education expenditure and is mainly explained by the adaptation of the demographic projections produced by EUROSTAT (EUROPOP2019) as well as updates to the underlying data used to produce them.

# VI. Institutional aspects of public finances

*Legal framework*

The last substantial reform of the governance of public finances was carried out with the entry into force of the law of 12 July 2014 on the coordination and governance of public finances. This law transposed into national law the provisions of the various legislative packages decided in the aftermath of the crisis of 2010 and notably introduced:

- the setting of a Medium-Term Objective (MTO) and an adjustment path;
- a medium-term budgetary framework including four-year programming;
- a correction mechanism triggered if there is a significant variation;
- a special procedure in case the State's annual budget cannot be adopted;
- provisions aimed at promoting the transparency of public finances; and
- the National Council of Public Finances "Comité économique et financier national" (CNFP) as an independent body responsible for overseeing compliance with European fiscal rules and evaluating the macroeconomic and budgetary forecasts.

*Involvement of stakeholders in the European Semester*

Since 2016, the Government regularly and automatically involves stakeholders in the annual coordination cycle of the "European Semester". This initiative is motivated by the desire to improve consultations with the main stakeholders and actors of the country, and thereby enhance the governance process of public finances in Luxembourg.

The social partners have met several times since 2022 to seek a rapid and appropriate response to the current "polycrisis". These discussions led to three tripartite agreements responding to the constantly changing emergency situation.

The Government also invited the social partners to a meeting to discuss the 2023 European Semester cycle before submission of this SGP and the National Reform Programme (NRP) to the European authorities. The NRP also sets out the progress achieved in implementation of the Recovery and Resilience Plan (RRP).

Presentation and debating of the SGP and the NRP in the Chamber of Deputies takes place before the official submission of these documents, scheduled for 30 April at the latest.

"*Comité économique et financier national*"

Under the authority of the Ministers of Economy and Finance, and chaired by the Treasury Director, the "National Council of Public Finances" (CEFN) coordinates the work necessary to enable the Government to meet the obligations incumbent upon it under European economic and financial governance, including in particular the preparation of the SGP and the NRP. This committee was institutionalised in 2017 to replace the former "Forecasting Committee", which at the time coordinated the actors involved in preparing economic and budgetary forecasts.

*Reconciliation of public finance concepts in line with the 2010 ESA and the provisions of the 1999 Act.*

In the 2019 State Budget, several measures were implemented so as to reconcile the views of public finances according to the different concepts currently applied, namely the European System of Accounts (ESA 2010) and the accounting provisions of the Law of 8 June 1999 on the Budget, Accounting and Treasury of the State.

Whilst taking into account structural changes made in order to reconcile the two accounting systems, the State budget, as established each year, still differs on a number of points from the central government budget, which is drawn up in accordance with the rules of the ESA 2010.

The Luxembourg authorities are pursuing in parallel feasibility studies concerning application of the international public sector accounting standards (IPSAS). The IPSAS aim to improve the quality, transparency and comparability of the financial statements of public sector entities. The eventual enactment of these standards would also provide the necessary basis for a gradual transition towards the European public sector accounting standards (EPSAS)..

*Green budgeting in Luxembourg*

Green budgeting involves the use of budgeting policy tools that contribute to achieving climate and environmental objectives, since budgets reflect a government's desire to implement its policy.

Over recent years, Luxembourg has continued its efforts to develop and apply elements of green budgeting, particularly as regards the "*Sustainability Bond*"[19] and the integrated national energy and climate plan (PNEC)[20].

[19] Issuance of a sustainability bond", State Treasury, September 2020, https://te.public.lu/fr/finance-durable/Cadre_obligations_durables

[20] "Integrated national energy and climate plan", Government of the Grand Duchy of Luxembourg, May 2020, https://environnement.public.lu/fr/actualites/2020/05/pnec.html

Over the medium term, the underlying budgeting methodology will develop according to the experience acquired at national and European levels.

Similarly, the Government intends to strengthen the monitoring and evaluation of the impact of policies on sustainable development when drafting legislation and regulations through the "Nohaltegkeetscheck". The latter is an instrument for better identifying and understanding any impact on sustainable development in Luxembourg and for maintaining policy coherence throughout the legislative cycle.

# VII. Statistical Appendix

## Table 1a. Macroeconomic prospects

| | ESA Code | Year 2022 | Year 2022 | Year 2023 | Year 2024 | Year 2025 | Year 2026 | Year 2027 |
|---|---|---|---|---|---|---|---|---|
| | | Level | rate of change | rate of change | rate of change | rate of change | rate of change | rate of change |
| **1. Real GDP** | B1*g | 63,147 | 1.5 | 2.4 | 3.8 | 2.9 | 2.5 | 2.5 |
| **2. Nominal GDP** | B1*g | 78,130 | 8.1 | 4.7 | 6.0 | 5.4 | 4.6 | 4.7 |
| **Components of real GDP** | | | | | | | | |
| **3. Private consumption expenditure** | P.3 | 20,513 | 2.8 | 3.2 | 3.1 | 3.0 | 2.6 | 2.5 |
| **4. Government consumption expenditure** | P.3 | 11,600 | 3.8 | 3.5 | 2.5 | 2.0 | 1.3 | 1.4 |
| **5. Gross fixed capital formation** | P.51 | 10,511 | -0.5 | -9.3 | 15.2 | 2.4 | -1.0 | -1.1 |
| **6. Changes in inventories and net acquisition of valuables (% of GDP)** | P.52 + P.53 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **7. Exports of goods and services** | P.6 | 129,101 | -0.6 | 4.8 | 6.2 | 5.2 | 5.1 | 5.0 |
| **8. Imports of goods and services** | P.7 | 109,078 | -0.9 | 4.3 | 7.2 | 5.6 | 5.3 | 4.9 |
| **Contributions to real GDP growth** | | | | | | | | |
| **9. Final domestic demand** | | - | 1.5 | 0.1 | 3.8 | 1.7 | 0.9 | 0.9 |
| **10. Changes in inventories and net acquisition of valuables** | P.52 + P.53 | - | -0.2 | -0.2 | -0.1 | 0.2 | 0.3 | -0.1 |
| **11. External balance of goods and services** | B.11 | - | 0.3 | 2.5 | 0.1 | 1.0 | 1.3 | 1.7 |

## Table 1b. Price developments

| | ESA Code | Year 2022 | Year 2022 | Year 2023 | Year 2024 | Year 2025 | Year 2026 | Year 2027 |
|---|---|---|---|---|---|---|---|---|
| | | Level | rate of change | rate of change | rate of change | rate of change | rate of change | rate of change |
| **1. GDP deflator** | | 1.2 | 6.4 | 2.2 | 2.1 | 2.5 | 2.1 | 2.1 |
| **2. Private consumption deflator** | | 1.2 | 5.6 | 3.3 | 2.9 | 3.4 | 1.6 | 1.8 |
| **3a. HICP** | | 118.6 | 8.2 | 3.2 | 2.7 | 2.7 | 1.5 | 1.7 |
| **3b. NICP** | | 115.8 | 6.3 | 3.4 | 2.8 | 3.4 | 1.6 | 1.8 |
| 4. Public consumption deflator | | 1.2 | 3.7 | 7.1 | 5.3 | 4.4 | 3.3 | 3.1 |
| 5. Investment deflator | | 1.3 | 11.0 | 5.3 | 2.7 | 1.9 | 2.1 | 2.0 |
| **6. Export price deflator (goods and services)** | | 1.3 | 7.7 | 0.7 | 0.7 | 1.1 | 1.2 | 1.5 |
| **7. Import price deflator (goods and services)** | | 1.3 | 8.1 | 1.3 | 1.1 | 1.0 | 1.2 | 1.5 |

## Table 1c. Labour market developments

| | ESA Code | Year 2022 | Year 2022 | Year 2023 | Year 2024 | Year 2025 | Year 2026 | Year 2027 |
|---|---|---|---|---|---|---|---|---|
| | | Level | rate of change | rate of change | rate of change | rate of change | rate of change | rate of change |
| **1. Employment, persons**[1] | | 502.6 | 3.5 | 2.7 | 2.5 | 2.2 | 2.4 | 2.2 |
| 2. Employment, hours worked (in million of hours worked) | | 740.4 | 3.9 | 2.0 | 2.2 | 2.0 | 2.1 | 2.0 |
| **3a. Unemployment rate (%) (harmonised definition, Eurostat)** | | 13.3 | 4.4 | 4.5 | 4.6 | 4.9 | 5.1 | 5.3 |
| **3b. Unemployment rate (%) (ADEM definition)** | | 14.6 | 4.8 | 4.9 | 5.0 | 5.3 | 5.5 | 5.7 |
| **4. Labour productivity, persons**[2] | | 125.7 | -1.9 | -0.2 | 1.3 | 0.6 | 0.1 | 0.3 |
| 5. Labour productivity, hours worked[3] | | 85.3 | -2.3 | 0.5 | 1.6 | 0.9 | 0.4 | 0.6 |
| **6. Compensation of employees (in billion of euros)** | D.1 | 38.5 | 9.1 | 8.4 | 6.6 | 5.9 | 4.4 | 4.2 |
| **7. Compensation per employee (in thousands of euros)** | | 76.5 | 5.6 | 5.7 | 4.2 | 3.7 | 2.0 | 1.9 |

[1]Occupied population, in thousands, domestic concept national accounts definition.

[2]National accounts definition.

[3]Number of people unemployed expressed in thousands.

[4]Idem.

[5]Real GDP per person employed.

[6]Real GDP per hour worked.

## Table 1d. Sectoral balance sheets

| in % of GDP | ESA Code | Year 2022 | Year 2023 | Year 2024 | Year 2025 | Year 2026 | Year 2027 |
|---|---|---|---|---|---|---|---|
| **1. Net lending/borrowing vis-à-vis the rest of the world** | B.9 | - | - | - | - | - | - |
| **2. Net lending/borrowing of the private sector** | B.9 | - | - | - | - | - | - |
| **3. Net lending/borrowing of general government** | EDP B.9 | 0.2 | -1.5 | -1.7 | -1.0 | -0.8 | -0.9 |
| **4. Statistical discrepancy** | | - | - | - | - | - | - |

## Table 2a. General government budgetary prospects

| | ESA Code | Year 2022 | Year 2022 | Year 2023 | Year 2024 | Year 2025 | Year 2026 | Year 2027 |
|---|---|---|---|---|---|---|---|---|
| | | Level | % of GDP | % of GDP | % of GDP | % of GDP | % of GDP | % of GDP |
| **Net lending (EDP B.9) by sub-sector** | | | | | | | | |
| **1. General government** | S.13 | 138 | 0.2 | -1.5 | -1.7 | -1.0 | -0.8 | -0.9 |
| **2. Central government** | S.1311 | -723 | -0.9 | -2.9 | -2.8 | -2.1 | -1.7 | -1.6 |
| **3. State government** | S.1312 | … | … | … | … | … | … | … |
| **4. Local government** | S.1313 | -128 | -0.2 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 |
| **5. Social security funds** | S.1314 | 989 | 1.3 | 1.3 | 1.0 | 1.0 | 0.8 | 0.6 |
| **General government (S13)** | | | | | | | | |
| **6. Total revenue** | TR | 33,965 | 43.5 | 44.2 | 43.9 | 44.2 | 44.4 | 44.3 |
| **7. Total expenditure** | TE[1] | 33,827 | 43.3 | 45.7 | 45.6 | 45.2 | 45.1 | 45.2 |
| **8. Net lending/borrowing** | EDP B.9 | 138 | 0.2 | -1.5 | -1.7 | -1.0 | -0.8 | -0.9 |
| **9. Interest expenditure** | EDP D.41 | 125 | 0.2 | 0.2 | 0.2 | 0.3 | 0.4 | 0.5 |
| **10. Primary balance[2]** | | 263 | 0.3 | -1.3 | -1.5 | -0.7 | -0.4 | -0.4 |
| **11. One-off and other temporary measures[3]** | | … | … | … | … | … | … | … |
| **Selected components of revenue** | | | | | | | | |
| **12. Total taxes (12=12a+12b+12c)** | | 21,526 | 27.6 | 27.8 | 27.7 | 27.8 | 27.9 | 27.9 |
| **12a. Taxes on production and imports** | D.2 | 8,939 | 11.4 | 11.3 | 11.3 | 11.3 | 11.4 | 11.4 |
| **12b. Current taxes on income, wealth, etc.** | D.5 | 12,378 | 15.8 | 16.2 | 16.1 | 16.2 | 16.3 | 16.3 |
| **12c. Capital taxes** | D.91 | 209 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 |
| **13. Social contributions** | D.61 | 9,273 | 11.9 | 12.4 | 12.3 | 12.6 | 12.6 | 12.7 |
| **14. Property income** | D.4 | 900 | 1.2 | 1.1 | 1.0 | 1.1 | 1.0 | 1.0 |
| **15. Other[4]** | | 2,266 | 2.9 | 2.9 | 2.8 | 2.8 | 2.7 | 2.7 |
| **16=6. Total revenue** | TR | 33,965 | 43.5 | 44.2 | 43.9 | 44.2 | 44.4 | 44.3 |
| **p.m.: Tax burden (D.2+D.5+D.61+D.91-D.995)[5]** | | 30,799 | 39.4 | 40.2 | 40.0 | 40.4 | 40.6 | 40.6 |
| **Selected components of expenditure** | | | | | | | | |
| **17. Compensation of employees and intermediate consumption** | D.1+P.2 | 11,325 | 14.5 | 15.3 | 15.3 | 15.2 | 15.1 | 15.0 |
| 17a. Compensation of employees | D.1 | 7,937 | 10.2 | 10.8 | 10.9 | 10.9 | 10.8 | 10.8 |
| 17b. Intermediate consumtpion | P.2 | 3,388 | 4.3 | 4.5 | 4.4 | 4.3 | 4.3 | 4.2 |
| **18. Social payments (18=18a+18b)** | | 14,528 | 18.6 | 19.1 | 19.0 | 19.2 | 19.4 | 19.7 |
| ***of which Unemployment benefits*** [6] | | 601 | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 |
| 18a. Social transfers in kind supplied via market producers | D.6311, D.63121, D.63131 | 2,460 | 3.1 | 3.3 | 3.3 | 3.4 | 3.4 | 3.5 |
| 18b. Social transfers other than in kind | D.62 | 12,069 | 15.4 | 15.8 | 15.7 | 15.8 | 16.0 | 16.2 |
| **19=9. Interest expenditure** | EDP D.41 | 125 | 0.2 | 0.2 | 0.2 | 0.3 | 0.4 | 0.5 |
| **20. Subsidies** | D.3 | 944 | 1.2 | 1.5 | 1.4 | 1.1 | 1.1 | 1.0 |
| **21. Gross fixed capital formation** | P.51 | 3,187 | 4.1 | 4.5 | 4.5 | 4.4 | 4.3 | 4.2 |
| **22. Capital transfers** | D.9 | 830 | 1.1 | 1.1 | 1.3 | 1.1 | 1.2 | 1.3 |
| **23. Other[7]** | | 2,888 | 3.7 | 4.1 | 3.8 | 3.8 | 3.6 | 3.6 |
| **24=7. Total expenditure** | TE[1] | 33,827 | 43.3 | 45.7 | 45.6 | 45.2 | 45.1 | 45.2 |

[1]Adjusted for the net flow of swap-related flows, so that TR-TE=EDP B.9.

[2]The primary balance is calculated as (EDP B.9, item 8) plus (EDP D.41, item 9).

[3]A plus-sign means deficit-reducing one-off measures.

[4]P.11+P.12+P.131+D.39+D.7+D.9 (other than D.91).

[5]Including those collected by the EU and including an adjustment for uncollected taxes and social contributions (D.995), if appropriate.

[6]Includes cash benefits (D.621 et D.624) and in kind benefits (D.631) related to unemployment benefits.

[7]D.29+D4 other than D.41)+ D.5+D.7+P.52+P.53+K.2+D.8.

## Table 2b. No-policy change projections

| | | Year 2022 | Year 2022 | Year 2023 | Year 2024 | Year 2025 | Year 2026 | Year 2027 |
|---|---|---|---|---|---|---|---|---|
| | | Level | % of GDP | % of GDP | % of GDP | % of GDP | % of GDP | % of GDP |
| **1. Total revenue at unchanged policies** | | 33,965 | 43.5 | 44.6 | 44.5 | 44.7 | 44.8 | 44.7 |
| **2. Total expenditure at unchanged policies** | | 33,827 | 43.3 | 45.6 | 45.4 | 45.3 | 45.1 | 45.1 |
| **3. Net borrowing/lending (general government)** | | 138 | 0.2 | -1.0 | -0.8 | -0.6 | -0.3 | -0.4 |
| 3.a. Net borrowing/lending (central government) | | -723 | -0.9 | -2.4 | -2.1 | -1.7 | -1.3 | -1.2 |
| 3.b. Net borrowing/lending (local government) | | -128 | -0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 |
| 3.c. Net lending/borrowing (social security funds) | | 989 | 1.3 | 1.2 | 1.1 | 0.9 | 0.7 | 0.5 |

## Table 2c. Amounts to be excluded from the expenditure benchmark

| | | Year 2022 | Year 2022 | Year 2023 | Year 2024 | Year 2025 | Year 2026 | Year 2027 |
|---|---|---|---|---|---|---|---|---|
| | | Level | % of GDP | % of GDP | % of GDP | % of GDP | % of GDP | % of GDP |
| **1. Expenditure on EU programmes fully matched by EU funds revenue** | | 124 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| **2. Cyclical unemployment expenditure[1]** | | 601 | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 |
| **3. Effect of discretionary revenue measures** | | -362 | -0.5 | -0.6 | 0.4 | 0.1 | 0.0 | 0.0 |
| **4. Revenue increases mandated by law** | | … | … | … | … | … | … | … |

[1]Absolute level of unemployment expenditure, based on COFOG 10.50.

## Table 3. General government expenditure by function

| % of GDP | COFOG Code | Year 2021 | Year 2027 |
|---|---|---|---|
| 1. General public services | 1 | 4.7 | 5.3 |
| 2. Defence | 2 | 0.4 | 0.5 |
| 3. Public order and safety | 3 | 1.2 | 1.3 |
| 4. Economic affairs | 4 | 5.4 | 5.6 |
| 5. Environmental protection | 5 | 0.9 | 1.0 |
| 6. Housing and community amenities | 6 | 0.6 | 0.7 |
| 7. Health | 7 | 5.4 | 5.5 |
| 8. Recreation, culture and religion | 8 | 1.2 | 1.3 |
| 9. Education | 9 | 4.7 | 4.8 |
| 10. Social protection | 10 | 18.3 | 19.2 |
| 11. Total expenditure | TE[1] | 42.9 | 45.2 |

[1]Adjused for the net-flow of swap-related flows, so that TR-TR-TE=EDP B.9.

## Table 4. General government debt developments

| % of GDP | ESA Code | Year 2022 | Year 2023 | Year 2024 | Year 2025 | Year 2026 | Year 2027 |
|---|---|---|---|---|---|---|---|
| **1. Gross debt[1]** | | 24.6 | 26.1 | 27.5 | 28.2 | 28.6 | 29.0 |
| **2. Change in gross debt ratio** | | 0.1 | 1.5 | 1.3 | 0.7 | 0.5 | 0.3 |
| **Contributions to changes in gross debt** | | | | | | | |
| **3. Central government balance effect** | | 1.0 | 2.8 | 3.0 | 2.2 | 1.8 | 1.7 |
| **4. Denominator effect** | | -1.8 | -1.1 | -1.5 | -1.4 | -1.2 | -1.3 |
| **5. Other** | | 0.9 | -0.1 | -0.2 | -0.1 | -0.1 | -0.1 |
| **4. Interest expenditure[2]** | | 0.2 | 0.2 | 0.2 | 0.3 | 0.4 | 0.5 |
| **5. Stock-flow adjustment** | | -0.9 | -1.3 | -1.5 | -1.4 | -1.3 | -1.3 |
| **p.m.: Implicit interest rate on debt[3]** | | 0.7 | 0.7 | 1.0 | 1.2 | 1.6 | 1.9 |

[1]As defined in Regulation 3605/93 (not an ESA concept).

[2]Cf. item 9 in Table 2a.

[3]Proxied by interest expenditure divided by the debt level of the previous year.

## Table 5. Cyclical developments

| % of GDP | ESA Code | Year 2022 | Year 2023 | Year 2024 | Year 2025 | Year 2026 | Year 2027 |
|---|---|---|---|---|---|---|---|
| **1. Real GDP growth (%)** | | 1.5 | 2.4 | 3.8 | 2.9 | 2.5 | 2.5 |
| **2. Net lending of general government** | EDP B.9 | 0.2 | -1.5 | -1.7 | -1.0 | -0.8 | -0.9 |
| **3. Interest expenditure** | EDP D.41 | 0.2 | 0.2 | 0.2 | 0.3 | 0.4 | 0.5 |
| **4. One-off and other temporary measures[1]** | | … | … | … | … | … | … |
| 5. Potential GDP growth (%) | | 2.6 | 2.3 | 2.6 | 2.7 | 2.8 | 2.9 |
| 6. Output gap | | -1.6 | -1.5 | -0.3 | -0.2 | -0.1 | 0.0 |
| 7. Cyclical budgetary component | | -0.8 | -0.7 | -0.1 | -0.1 | 0.0 | 0.0 |
| 8. Cyclically-adjusted balance (2 - 7) | | 0.9 | -0.8 | -1.6 | -0.9 | -0.7 | -0.9 |
| 9. Cyclically-adjusted primary balance (8 + 3) | | 1.1 | -0.7 | -1.4 | -0.6 | -0.3 | -0.4 |
| **10. Structural balance** | | 0.9 | -0.8 | -1.6 | -0.9 | -0.7 | -0.9 |

[1]A plus sign means deficit-reducing one-off measures.

## Table 6. Divergence from previous update and the multiannual budget

| | ESA Code | Year 2022 | Year 2023 | Year 2024 | Year 2025 | Year 2026 | Year 2027 |
|---|---|---|---|---|---|---|---|
| **Real GDP growth (%)** | | | | | | | |
| 2021 SGP | | 1.4 | 2.9 | 2.9 | 2.6 | 2.6 | … |
| Multiannual budget 2021 - 2025 | | 2.5 | 2.0 | 2.4 | 2.1 | 2.1 | … |
| 2022 SGP | | 1.5 | 2.4 | 3.8 | 2.9 | 2.5 | 2.5 |
| Difference 2022 SGP vs. 2021 SGP | | 0.1 | -0.5 | 1.0 | 0.3 | -0.1 | … |
| Difference 2022 SGP vs. Multiannual budget 2021-2025 | | -1.0 | 0.4 | 1.5 | 0.8 | 0.4 | … |
| **Nominal GDP growth (%)** | | | | | | | |
| 2021 SGP | | 5.4 | 4.5 | 4.3 | 4.1 | 4.3 | … |
| Multiannual budget 2021 - 2025 | | 7.8 | 6.4 | 3.8 | 3.6 | 3.5 | … |
| 2022 SGP | | 8.1 | 4.7 | 6.0 | 5.4 | 4.6 | 4.7 |
| Difference 2022 SGP vs. 2021 SGP | | 2.7 | 0.2 | 1.7 | 1.3 | 0.4 | … |
| Difference 2022 SGP vs. Multiannual budget 2021-2025 | | 0.3 | -1.7 | 2.2 | 1.8 | 1.2 | … |
| **General government net lending (% of GDP)** | EDP B.9 | | | | | | |
| 2021 SGP | | -0.7 | -0.4 | -0.3 | -0.2 | 0.0 | 0.0 |
| Multiannual budget 2021 - 2025 | | -0.4 | -2.2 | -1.1 | -1.1 | -0.9 | … |
| 2022 SGP | | 0.2 | -1.5 | -1.7 | -1.0 | -0.8 | -0.9 |
| Difference 2022 SGP vs. 2021 SGP | | 0.9 | -1.1 | -1.4 | -0.8 | … | … |
| Difference 2022 SGP vs. Multiannual budget 2021-2025 | | 0.6 | 0.7 | -0.6 | 0.1 | … | … |
| **Structural balance** | | | | | | | |
| 2021 SGP | | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | … |
| Multiannual budget 2021 - 2025 | | -0.2 | -2.0 | -1.0 | -1.0 | -0.8 | … |
| 2022 SGP | | 0.9 | -0.8 | -1.6 | -0.9 | -0.7 | -0.9 |
| Difference 2022 SGP vs. 2021 SGP | | 0.8 | -1.0 | -1.7 | -0.9 | -0.7 | … |
| Difference 2022 SGP vs. Multiannual budget 2021-2025 | | 1.1 | 1.2 | -0.7 | 0.1 | 0.1 | … |
| **General government gross debt (% of GDP)** | | | | | | | |
| 2021 SGP | | 25.4 | 25.8 | 26.2 | 26.2 | 25.9 | … |
| Multiannual budget 2021 - 2025 | | 24.6 | 26.3 | 27.7 | 28.8 | 29.5 | … |
| 2022 SGP | | 24.6 | 26.1 | 27.5 | 28.2 | 28.6 | 29.0 |
| Difference 2022 SGP vs. 2021 SGP | | -0.8 | 0.4 | 1.3 | 2.0 | 2.7 | … |
| Difference 2022 SGP vs. Multiannual budget 2021-2025 | | 0.0 | -0.2 | -0.2 | -0.6 | -0.9 | … |

## Table 7. Long-term sustainability of public finances

| (% of GDP) | AR 2021 *) | | | AR 2018 **) | | |
|---|---|---|---|---|---|---|
| | 2019 | 2070 | 2070-2019 | 2019 ***) | 2070 | 2070-2019 |
| **Age-related expenditure** | **16.9** | **27.3** | **10.4** | **18.1** | **30.9** | **12.9** |
| of which pension expenditure | 9.2 | 18.0 | 8.7 | 9.0 | 17.9 | 8.9 |
| of which health care expenditure | 3.6 | 4.6 | 1.1 | 4.0 | 5.1 | 1.0 |
| of which long-term care | 1.0 | 2.5 | 1.4 | 1.4 | 4.1 | 2.7 |
| of which education expenditure | 3.0 | 2.2 | -0.8 | 3.2 | 3.4 | 0.3 |
| of which unemployment expenditure | - | - | - | 0.5 | 0.4 | -0.1 |
| *Pension reserve fund ("fonds de compensation") (in billion of dollars)* | *34.9* | *0.0* | | *32.9* | *0.0* | |
| | | | | | | |
| **Assumptions** | AR 2021 *) | | | AR 2018 **) | | |
| | 2019 | 2070 | 2070-2019 | 2019 ***) | 2070 | 2070-2019 |
| Labour productivity growth | -0.8 | 1.5 | 2.4 | 0.7 | 1.5 | 0.9 |
| Real GDP growth | 2.3 | 1.3 | -1.0 | 3.7 | 1.7 | -2.0 |
| Participation rate (males, aged 15-64) | 76.6 | 73.6 | -3.0 | 75.5 | 72.1 | -3.4 |
| Participation rate (females, aged 15-64) | 67.4 | 71.8 | 4.4 | 66.0 | 66.5 | 0.5 |
| Total participation rates (aged 20-64) | 72.1 | 72.7 | 0.6 | 70.8 | 69.3 | -1.5 |
| population (in million) | 0.6 | 0.8 | 0.2 | 0.6 | 1.0 | 0.4 |
| Working-age population (15-64/total) | 69.5 | 57.4 | -12.2 | 69.0 | 57.2 | -11.9 |
| Ratio non-active/active (65+/15-64) | 20.8 | 51.7 | 30.9 | 21.3 | 48.9 | 27.5 |
| Ratio elderly active/active (55-64/15-64) | 17.6 | 22.1 | 4.5 | 17.8 | 20.1 | 2.3 |
| Unemployment rate (15-64) | 5.7 | 4.9 | -0.9 | 5.7 | 5.0 | -0.7 |

Sources:

*) 2021 Ageing report (AR) baseline scenario

**) 2018 Ageing report (AR) baseline scenario

***) estimated values 2019, base year 2016

## Table 8. Stock of guarantees adopted/announced according to the SGP

| Measures | | Adoption date | Maximum amount (% of GDP) | Estimated take-up[1] (% of GDP) |
|---|---|---|---|---|
| In response to COVID-19 | State guarantee scheme | Apr-20 | 3.2 | 0.2 |
| | Office du Ducroire (support to companies that export internationally, including to markets affected by COVID-19) | Apr-20 | 0.2 | 0.1 |
| | European Guarantee Fund at the EIB | Jun-20 | 0.1 | 0.0 |
| | SURE Guarantee | Jun-20 | 0.1 | 0.1 |
| | Subtotal | | 3.6 | 0.5 |
| Other | Non-Covid-19 public guarantees | ... | 9.1 | 5.7 |
| | *of which guarantees to the financial sector* [1] | ... | 4.8 | 3.4 |
| | Subtotal | | 9.1 | 5.7 |
| **Total** | | | **12.6** | **6.1** |

[1]At 31.12.2022.

[2]Including the credit line to the Single Resolution Fund.

## Table 9. Basic assumptions

| | Year 2022 | Year 2023 | Year 2024 | Year 2025 | Year 2026 | Year 2027 |
|---|---|---|---|---|---|---|
| **Short-term interest rate (annual average)** | 0.3 | 2.8 | 1.9 | 1.4 | 1.4 | 1.3 |
| **Long-term interest rate (annual average)** | 1.9 | 2.9 | 2.5 | 2.3 | 2.3 | 2.3 |
| **Exchange rate €/$ (annual average)** | 1.05 | 1.06 | 1.06 | 1.09 | 1.11 | 1.14 |
| **Nominal effective exchange rate** | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| **EU GDP growth** | 3.3 | 0.0 | 1.8 | 2.1 | 1.8 | 1.4 |
| **Growth of relevant foreign markets** | 7.3 | 2.3 | 4.3 | 3.4 | 2.4 | 2.2 |
| **Oil prices (Brent, $/baril)** | 94.8 | 84.9 | 84.0 | 80.2 | 79.8 | 80.8 |

## Table 10. Impact of the Recovery and Resilience Facility (RRF) on the SGP forecast - Grants

| Revenue from RRF grants (% of GDP) | Year 2020 | Year 2021 | Year 2022 | Year 2023 | Year 2024 | Year 2025 | Year 2026 |
|---|---|---|---|---|---|---|---|
| **RRF GRANTS as included in the revenue projections** | - | 0.017 | 0.000 | 0.026 | 0.022 | 0.016 | 0.017 |
| **Cash disbursements of RRF GRANTS from EU** | - | 0.017 | 0.000 | - | - | - | - |

| Expenditure financed by RRF grants (% of GDP) | Année 2020 | Année 2021 | Année 2022 | Année 2023 | Année 2024 | Année 2025 | Année 2026 |
|---|---|---|---|---|---|---|---|
| Compensation of employees D.1 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Intermediate consumption P.2 | 0.003 | 0.001 | 0.003 | 0.007 | 0.011 | 0.004 | 0.000 |
| Social payments D.62+D.632 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Interest expenditure D.41 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Subsidies, payable D.3 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Current transfers D.7 | 0.000 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| **TOTAL CURRENT EXPENDITURE** | **0.003** | **0.003** | **0.003** | **0.007** | **0.011** | **0.004** | **0.001** |
| **Gross fixed capital formation P.51g** | 0.001 | 0.000 | 0.001 | 0.002 | 0.002 | 0.000 | 0.000 |
| **Capital transfers D.9** | 0.000 | 0.000 | 0.002 | 0.043 | 0.009 | 0.006 | 0.002 |
| **TOTAL CAPITAL EXPENDITURE** | **0.001** | **0.000** | **0.002** | **0.045** | **0.011** | **0.006** | **0.002** |

| Other costs financed by RRF grants (% of GDP)[1] | Année 2020 | Année 2021 | Année 2022 | Année 2023 | Année 2024 | Année 2025 | Année 2026 |
|---|---|---|---|---|---|---|---|
| **Reduction in tax revenue** | - | - | - | - | - | - | - |
| **Other costs with impact on revenue** | - | - | - | - | - | - | - |
| **Financial transactions** | - | - | - | - | - | - | - |

[1] This covers costs that are not recorded as expenditure in national accounts