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DE STABILITÉITS-PROGRAMM

Stability and Growth Programme of the Grand-Duchy of Luxembourg 2022 > 2026

THE GOVERNMENT
OF THE GRAND-DUCHY OF LUXEMBOURG
Ministry of Finance

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I. Overall policy framework and budgetary objectives

Two years into the pandemic and in spite of the improvement on that front at the beginning of the year, this edition of the Stability and Growth Programme for 2022 (hereafter the "SGP 2022") is presented amid a worrying and highly uncertain context.

Russia's invasion of Ukraine as of 24 February 2022 is above all a geopolitical crisis of historic proportions and presents a pivotal moment for the European continent. Beyond the suffering of the Ukrainian people, with whom Luxembourg expresses its utmost solidarity, it is also a time of major international upheaval, the repercussions of which will be felt by the entire world economy.

The scope and duration of the economic shock caused by the Russian military attack and the support provided by the international community as the conflict develops are almost impossible to predict or quantify accurately at this point. This SGP 2022 therefore aims to provide an initial overview of the economic and budgetary consequences for Luxembourg, based on the available information in mid-April 2022 and the more recent political decisions.

It should be specified from the outset that Luxembourg has the necessary capacities to tackle the challenges arising from this new crisis, due to its strong economic fundamentals and overall sound financial position, as reflected by the successive AAA credit rating confirmations given by the major rating agencies. Throughout the COVID-19 pandemic, the Luxembourg economy has shown resilience. Employees and companies have managed to adapt to the new circumstances and Luxembourg has returned to pre-pandemic economic and budgetary trends.

The economic recovery took hold at the end of 2020 and accelerated throughout 2021. Thus, real GDP growth is now estimated at +6.9% and the labour market has proven to be just as dynamic, leading to a continuous decline in unemployment in recent months to 4.7% by the end of March 2022.

Against the backdrop of a recovering economy, Luxembourg's public finances also experienced a remarkable improvement in 2021. After recording a historic deficit of around -€2.2 billion or -3.4% of GDP in 2020, general government closed the 2021 financial year with a balance of +€650 million or +0.9% of GDP. This improvement is attributable to the rigorous management of public funds at central government level, with the deficit being divided by ten, reduced from -€3.1 billion in 2020 to around -€326 million in 2021. Public debt has also been reduced from 24.8% in 2020 to 24.4% of GDP in 2021.

Despite ongoing epidemiological uncertainties, the continuous deployment of targeted government support for companies and employees has helped boost the confidence of economic actors, and the government's emphasis in fiscal policy on public investment and on strengthening the purchasing power has proven beneficial. In parallel, international economic developments were better than expected and the financial markets had a very positive year. This favourable environment enabled tax revenues to make up for the slowdown that occurred in 2020 and to report strong growth in 2021.

This economic and budgetary improvement should have continued in 2022. However, the Russian-Ukrainian conflict has sent shock waves through the world economy, which is being reflected in the surge in energy prices as well as food prices. The upsurge in these prices only exacerbates the inflationary pressures that emerged during the second semester of 2021 due to the synchronised global economic recovery and the bottlenecks encountered in supply chains.

The Russian invasion also threatens to undermine the confidence of households and businesses as well as financial markets, which are marked by increased volatility. Direct exposure to the Russian and Ukrainian markets remains relatively limited for Luxembourg according to the figures published by STATEC[1] and the Central Bank of Luxembourg[2].

The forecasts at the disposal of the Ministry of Finance[3] around mid-February for the purpose of drawing up this SGP 2022 did not reflect the reality anymore longer and the figures had to be adjusted to better take into account the changed environment. The precise impact is not, however, quantifiable in such a short space of time, especially given the fast-moving international context.

It is therefore assumed – on a preliminary basis, pending the preparation of more complete projections by STATEC in its "Note de Conjoncture 1-2022" – that Luxembourg's growth outlook is to be revised downwards, while remaining positive, and is now estimated at +1.4% in 2022 instead of the initial forecast of +3.5%. In the medium term, economic growth is expected to oscillate between 2.5% and 3.0% over the period between 2023 and 2026.

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[1] "*Russia represents 1.7% of trade in goods and services*", STATEC, April 2022, https://statistiques.public.lu/fr/actualites/economie-finances/relation-eco-exterieures/2022/04/20220406.html

[2] "*Communication from the BCL on the Luxembourg financial system's financial interactions with counterparties resident in the Russian Federation*", Central Bank of Luxembourg, March 2022, https://www.bcl.lu/fr/media_actualites/communiques/2022/03/Exposition-russie/index.html

[3] "*Medium-term macroeconomic forecasts 2022-2026*", STATEC, March 2022, https://statistiques.public.lu/fr/publications/series/analyses/2022/analyses-01-22.html

The SGP 2022 also takes into account the rapid increase in prices as well as the policy measures decided upon in recent weeks, notably within the context of the Tripartite. The impact of said measures on inflation developments was incorporated into the SGP 2022, such that the rate of inflation as measured by the national consumer price index (NCPI) is estimated at 5.2% for 2022 as a whole and – under the assumption of a stabilisation or even a reduction in oil prices – at 1.6% in 2023.

With regard to more recent policy measures, a meeting of the Government and natural gas and electricity suppliers was held on 28 February 2022, within the context of the "Energiedësch" [4], to tackle the surge in energy prices already reported prior to the war in Ukraine.

A package of measures amounting to € 75 million was decided on this occasion to mitigate the impact of the rise in energy prices, by way of an increase in the cost-of-living allowance for low-income households, a stabilisation of electricity prices and a subsidy for gas network costs.

The worsening situation prompted the Government to convene the social partners to meet within the context of the Tripartite coordination committee starting on 22 March 2022, in order to find, in the spirit of solidarity that is characteristic to Luxembourg, solutions to address the concerns expressed by households and businesses and to reduce inflationary pressures.

On 31 March 2022, an agreement was reached to postpone the index tranche – based on the updated STATEC inflation forecasts – which had been due in August 2022 to April 2023[5] and to compensate in a targeted manner for the resulting loss of purchasing power for low- and middle-income households. Such compensation will mainly be achieved through the introduction of a new "energy tax credit".

The package of measures resulting from the Tripartite discussions known as "Solidaritéitspak" also includes measures equivalent to the "energy tax credit" for beneficiaries of the social inclusion income (REVIS) and of student bursaries, a temporary reduction in fuel and heating oil prices, the freezing of rents and an extension of rent subsidies, the introduction of aid

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[4] "*Mitigating the impact of the rise in energy prices: Xavier Bettel, Claude Turmes, Corinne Cahen and Franz Fayot have presented a package of measures within the framework of the rise in energy prices*", Government of the Grand Duchy of Luxembourg, February 2022, https://gouvernement.lu/dam-assets/documents/actualites/2022/02-fevrier/28-briefing-conseil-energiedesch/20220228-Communique-de-presse-Paquet-de-mesures-Prix-de-l-energie-.pdf

[5] After an indexation bracket was triggered in October 2021 and in April 2022, a further indexation in August 2022 would have been the third adjustment within 10 months.

schemes and state guarantees for companies heavily impacted by the surge in energy prices, as well as an increased support to accelerate the energy transition further.

In total, the discretionary measures that are estimated to have a direct budgetary impact amount to € 827 million, or 1.1% of GDP. Including state guarantees, Luxembourg is mobilising a total of € 1.3 billion or 1.7% of GDP to deal with the immediate aftermath of this new crisis.

More generally, the deterioration of the macroeconomic situation will have a concurrent negative impact on public finances through the free play of automatic stabilisers (unemployment, tax revenues linked to the economic situation etc.) and additional costs, which are likely to be incurred in a context of war, notably for the intake of Ukrainian refugees.

Other challenges also persist over the medium term, including the evolution of public revenue following the agreement with the OECD/"Inclusive framework on international corporate taxation". As per usual, budgetary forecasts are thus characterised by a prudent and forward-looking approach in view of the uncertainties and risks surrounding the medium-term outlook.

As a result of the interaction of the aforementioned factors, the updated budgetary projections in the SGP 2022 result in a significantly deteriorated situation over the short term. The general government balance is projected to turn negative again, from +0.9% in 2021 to -0.7% of GDP in 2022. Public revenues are expected to increase by only 4.3% (following an expansion of 12.7% in 2021) and public expenditure would increase by 8.3%. Central government should see its balance deteriorate from -€ 326 million in 2021 to - € 1.6 billion in 2022 and public debt is likely to increase anew to 25.4% of GDP.

In the medium term, the trajectory of public finances is gradually restored thanks to the recovery of economic activity, to reach a balanced general government balance by 2026. The structural balance is around 0% over the entire period and respects the new medium-term budgetary objective (MTO) fixed in the SGP 2022 for the next three years (cf. Chapter III.2). Despite the fact that public debt is rising in absolute terms, the debt ratio remains below the ceiling of 30% of GDP, as set by the Government in its coalition agreement.

The improvement at the consolidated level of general government, however, masks contrary trends at the level of the sub-sectors, with central government heading towards a more balanced situation again by 2023, while the social security funds' surplus shrinks over the forecast horizon. This development also corresponds to the latest projections made by the General Inspectorate of Social Security (IGSS) (cf. Chapter V.) in its new technical report. The latter suggests that the pure distribution premium could exceed the overall contribution rate of 24% in the second half of the ten-year coverage period 2023-2032, i.e. that the annual current expenditure of pension insurance would then be higher than the annual contribution revenue, in which case the mechanisms set out in Article 225bis of the Social Security Code would be triggered.

* * *

Bearing in mind the uncertainties surrounding the unwinding of the Russian-Ukrainian conflict, the macroeconomic and budgetary forecasts described above should be assessed with due caution.

The figures should also be considered within the context of the continued application of the general escape clause, under which the rules of the Stability and Growth Pact remain suspended in 2022, with the European Commission having announced its intention to review the reintroduction of the rules (currently planned for 2023) towards the end of May on the basis of its Spring forecast.

In addition, discussions on the possible reform of the Pact are ongoing and, in the absence of a concrete proposal from the European Commission, the Government stands by the commitment of the coalition agreement to meet the MTO from 2023 onwards should it continue to play a leading role in a reformed Pact.

Luxembourg thus reaffirms its commitment to sustainable and balanced public finances, while remaining ready to respond in a socially targeted and time-bound manner to an unprecedented crisis, as recommended by the international institutions.

At the same time, the Government's budgetary policy continues to be fully geared towards qualitative growth and the strengthening of purchasing power, favouring the country's competitiveness, innovation and social inclusion and by giving the highest priority to reforms and investments to meet the challenges of the dual environmental and digital transition.

It is also in this spirit that Luxembourg has drafted, in parallel to the SGP 2022, its National Reform Programme for 2022 (NRP 2022). Both of these documents form a consistent and concerted package of government action under the European Semester 2022.

Summary Table

PUBLIC FINANCES	2021			2022			2023			2024			2025			2026		
	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	**31.664**	**43.2**	**+12.7**	**33.037**	**42.8**	**+4.3**	**34.541**	**42.8**	**+4.6**	**36.237**	**43.0**	**+4.9**	**37.766**	**43.1**	**+4.2**	**39.501**	**43.2**	**+4.6**
of which:																		
Taxes on production and imports ("indirect" taxes)	8.475	11.6	+20.5	9.236	12.0	+9.0	9.573	11.9	+3.7	9.956	11.8	+4.0	10.319	11.8	+3.7	10.719	11.7	+3.9
Current taxes on income, wealth, etc. ("direct" taxes)	11.450	15.6	+12.1	11.358	14.7	-0.8	11.930	14.8	+5.0	12.588	14.9	+5.5	13.213	15.1	+5.0	13.901	15.2	+5.2
Social contributions	8.591	11.7	+5.8	9.127	11.8	+6.2	9.604	11.9	+5.2	10.083	12.0	+5.0	10.524	12.0	+4.4	10.988	12.0	+4.4
TOTAL EXPENDITURE	**31.015**	**42.3**	**+2.4**	**33.581**	**43.5**	**+8.3**	**34.854**	**43.2**	**+3.8**	**36.506**	**43.3**	**+4.7**	**37.928**	**43.3**	**+3.9**	**39.494**	**43.2**	**+4.1**
of which:																		
Public Investment	2.931	4.0	-3.5	3.149	4.1	+7.4	3.503	4.3	+11.2	3.654	4.3	+4.3	3.705	4.2	+1.4	3.800	4.2	+2.6
Social payments	13.297	18.1	-0.5	14.172	18.3	+6.6	15.008	18.6	+5.9	15.841	18.8	+5.5	16.696	19.0	+5.4	17.617	19.3	+5.5
Intermediate consumption	3.046	4.2	+8.8	3.375	4.4	+10.8	3.347	4.1	-0.8	3.419	4.1	+2.1	3.486	4.0	+2.0	3.576	3.9	+2.6
Compensation of employees	7.293	9.9	+5.1	7.812	10.1	+7.1	8.341	10.3	+6.8	8.791	10.4	+5.4	9.140	10.4	+4.0	9.507	10.4	+4.0
NET LENDING/BORROWING OF GENERAL GOVERNMENT	**0.650**	**0.9**		**-0.544**	**-0.7**		**-0.313**	**-0.4**		**-0.269**	**-0.3**		**-0.162**	**-0.2**		**0.007**	**0.0**	
Net lending/borrowing of central government	-0.326	-0.4		-1.641	-2.1		-1.284	-1.6		-1.141	-1.4		-0.884	-1.0		-0.551	-0.6	
Net lending/borrowing of local government	0.070	0.1		0.198	0.3		0.226	0.3		0.225	0.3		0.254	0.3		0.316	0.3	
Net lending/borrowing of social security funds	0.906	1.2		0.900	1.2		0.745	0.9		0.647	0.8		0.469	0.5		0.242	0.3	
STRUCTURAL BALANCE		**1.2**			**0.1**			**0.1**			**0.0**			**0.0**			**0.0**	
GROSS DEBT	**17.856**	**24.4**		**19.598**	**25.4**		**20.804**	**25.8**		**22.032**	**26.2**		**22.966**	**26.2**		**23.679**	**25.9**	
MACROECONOMIC INDICATORS	**2021**			**2022**			**2023**			**2024**			**2025**			**2026**		
GROWTH																		
Real GDP (in %)	6.9			1.4			2.9			2.9			2.6			2.6		
Nominal GDP (in %)	14.2			5.4			4.5			4.3			4.1			4.3		
Nominal GDP (levels, in bn euros)	73.313			77.266			80.729			84.234			87.686			91.417		
PRICE DEVELOPMENTS																		
Inflation NICP (in %)	2.5			5.2			1.6			2.0			1.5			1.8		
EMPLOYMENT																		
Employment (growth, in %)	3.1			2.4			2.1			2.2			2.3			2.2		
Unemployment rate (ADEM definition, in %)	5.7			5.2			5.2			5.1			5.0			5.0		

Source: Ministry of Finance, STATEC.

II. Economic situation and macroeconomic forecasts

The macroeconomic forecasts underlying the SGP 2022 were prepared on an independent basis by STATEC. Given that STATEC's projections as published on 8 March 2022[6] *did not take into account the repercussions of the Russian invasion of Ukraine, ad hoc adjustments on a preliminary basis were made to better reflect the recent geopolitical developments and discretionary measures targeting inflation, while awaiting a more detailed analysis to be presented by STATEC in its "Note de Conjoncture 1-2022".*

II.1 The European macroeconomic environment

After having recorded a rise of 5.1% in 2021, the euro area's GDP growth is expected to lose its momentum, dropping to 3.0% in 2022 then 2.3% in 2023. Economic activity is expected to be dampened by the consequences of the conflict in Ukraine, which has weighed on the short-term economic outlook. Over the medium term, the European macroeconomic environment is expected to be less favourable than in the past. By the end of the period, growth would be marked by more moderate growth levels than in the previous expansionary cycle. For the period 2024-2026, economic growth is expected to vary between 1.3% and 1.6%.

Prior to the Russian invasion, the European Commission's winter 2022 economic forecast still considered that the headwinds should ease as the year progresses. The setback caused by the prevalence of the "Omicron" variant was expected to be short-lived as some bottlenecks would be overcome and inflationary pressures were to ease as the pace of energy prices slowed.

The main macroeconomic variables were thus expected to return to those prevailing in the pre-crisis period. Political parameters are also expected to normalise, with the gradual withdrawal of the exceptional accommodative monetary policy measures and the gradual lifting of the temporary fiscal measures taken in response to the pandemic.

Although most Member States have gradually eased health restrictions, encouraging signs were quickly overshadowed by the geopolitical tensions. The war in Ukraine resulted in significant economic and financial economic shocks, particularly through the commodity markets, with the surging oil and gas prices.

The existing supply difficulties have been exacerbated and energy prices are expected to remain at a high level. Agricultural products and metal prices have also risen sharply. This has further increased inflationary pressures, and, as a consequence, costs for producers in

[6] "*Medium-term macroeconomic forecasts 2022-2026* ", STATEC, March 2022, https://statistiques.public.lu/fr/publications/series/analyses/2022/analyses-01-22.html

various sectors and for many consumer goods are likely to rise. According to the latest estimates published by Eurostat[7], the euro area annual inflation should reach 7.4% in March 2022, compared to 5.9% in February.

The share of euro area exports to Russia and the Ukraine is only marginal and amounts to approximately 1% of GDP[8]. On the other hand, the indirect effect through increases in the energy and raw materials prices is expected to significantly reduce the financial room for manoeuvre of companies and households, with consequences to be expected on consumption, investment and employment prospects.

This is already reflected in the most recent consumer surveys conducted by the European Commission. The economic sentiment indicator for March 2022[9] fell by 9.9 percentage points.

Given the uncertainties over the European economy, financial markets experienced increased volatility and significant corrections shortly after the Russian invasion of Ukraine. The Eurostoxx50 recorded losses of up to 17% before bouncing back in March and April. For 2022 as a whole, the index is expected to decline slightly by -0.2% followed by a reduction of -3.6% for 2023. Over the medium term, the Eurostoxx 50 is expected to increase by 2% on average until the end of the period under review.

II.2 The macroeconomic situation in Luxembourg in the short and medium term

At national level, the year 2021 was marked by a strong recovery that began at the end of 2020. The implementation of targeted government measures supporting the country's economy, jobs and household purchasing power has cushioned the impact of the pandemic. In effect, the sectors that were mainly affected by the health measures caught up during the course of 2021[10].

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[7] *"March 2022"*, Eurostat, April 2022,
https://ec.europa.eu/eurostat/documents/2995521/14497739/2-21042022-AP-EN.pdf/24299719-6c7c-606b-cd57-c1d69218e20c?t=1650528074611

[8] *"Ukraine-EU - International trade in goods statistics"*, Eurostat, February 2022,
https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Ukraine-EU_-_international_trade_in_goods_statistics

"Russia-EU - International trade in goods statistics", Eurostat, February 2022,
https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Russia-EU_%E2%80%93_international_trade_in_goods_statistics

[9] *"Flash consumer confidence indicator for EU and Euro area"*, Eurostat, March 2022,
https://ec.europa.eu/info/sites/default/files/flash_consumer_2022_03_en.pdf

[10] The catering and hotel, construction and retail trade sectors saw their gross value added increase by 8.5%,
[11].4% and 9.9% respectively.

Luxembourg's sound economic performance is also attributable to the fact that the share of the activities likely to have been significantly affected by the health restrictions is relatively small. The recovery was as a consequence driven by those sectors that withstood the crisis well, such as the financial sector and the information and communication services sector, which adapted to the situation well by moving quickly to remote working solutions, thanks to high-quality digital infrastructures.

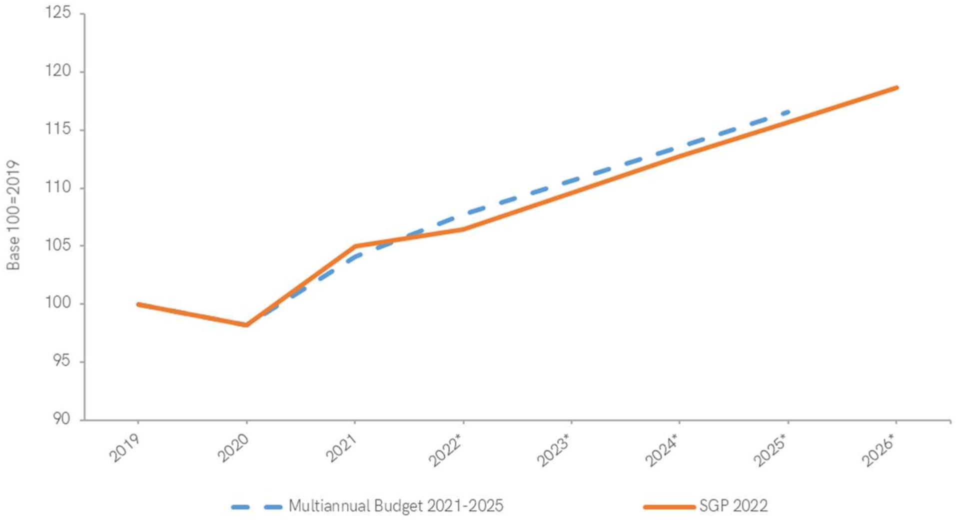
In addition, the European determination to pave the way for a coordinated and sustainable recovery[11], by supporting productive investments and reforms, has generated positive spillover effects that will benefit the European Union as a whole. On the basis of these positive developments, Luxembourg reported growth of 6.9% for 2021 (see Chart 1 and 2) which is well above the rate for the euro area of 5.1%.

For 2022, the first quarter shows a more mixed picture. Although the signs were encouraging at the beginning of the year, the outlook has become gloomier with the Russian invasion. While STATEC still assumed a growth of 3.5% for 2022, this estimate has been revised downwards by 2 percentage points[12] in this SGP (1.4%). In 2023, real GDP is expected to return to growth levels of 2.9% and to maintain a similar steady pace over the 2024-2026 period.

[11] "NextGenerationEU", European Union, July 2020, https://europa.eu/next-generation-eu/index_fr

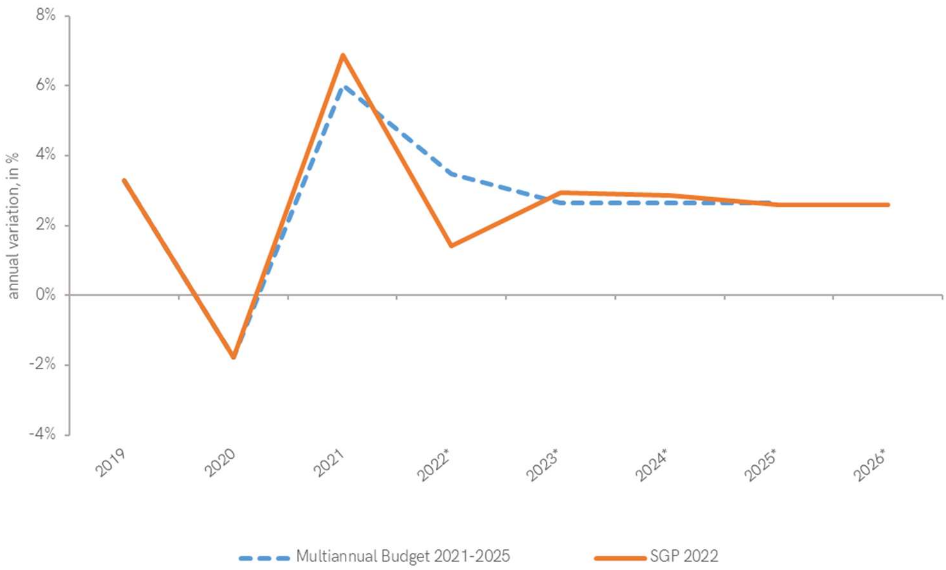
[12] Preliminary estimate which may be further revised in light of the events and not incorporating the second-round benefits of the measures decided upon within the framework of the Tripartite and the Energiedësch. A more complete update will be presented within the framework of STATEC's "*Conjoncture Flash 1-2022*".

Chart 1: Trends in real GDP (base 100=2019)



Source: STATEC, calculations Ministry of Finance.

Chart 2: Real GDP Growth (2019-2026)



Source : STATEC, calculations by the Ministry of Finance.

Inflationary pressures emerged during the course of 2021 in the context of a synchronised global economic recovery. Fears of more acute inflation subsequently reinforced with the onset of the armed attack on Ukraine by Russia. The escalation of this conflict has contributed to driving energy prices up. The price of oil is therefore expected to reach an average price of $102 dollars per barrel in 2022 before dropping back down to $ 83 dollars in 2023.

Due to the dynamic price development a wage indexation on 1st October 2021 and a second one on 1st April 2022 was triggered. According to the latest STATEC forecasts, an additional index tranche should have been due in August 2022. However, following the Tripartite discussions at the end of March, an agreement was reached between the Government and the social partners (UEL, LCGB and CGFP) to postpone this index tranche to April 2023. It was also decided to postpone any potential additional index tranche in 2023 by 12 months in order to provide more predictability for companies. At the same time, the agreement envisages targeted measures to compensate for the loss of purchasing power of consumers and to support businesses, some of which are aimed to support the energy transition.

Luxembourg's inflation rate, as measured by the NICP while taking into account the direct effects of the policy measures to mitigate the increase in energy prices (cf. Box 1), is expected to record a rate of 5.2% in 2022 before dropping back down to 1.6% in 2023. Over the medium term, the level of inflation is assumed to fall in line with the inflation target of the European Central Bank (ECB) of 2%.

The labour market, for its part, continues its positive momentum throughout the first three months of the year (+3.7 in March 2022 over one year)[13]. Some caution is, however, called for due to the uncertainties surrounding the economic outlook for the rest of the year. Given that economic activity is expected to expand at a slower pace than initially projected by STATEC at the beginning of March 2022 (-2 percentage points), employment is only expected to grow by 2.4% in 2022. Over the medium term, employment growth is expected to be around 2%.

With Luxembourg's continued job growth, the decline in the unemployment rate is expected to continue. Based on more recent trends, the number of jobseekers has declined in all categories, including those registered with the Employment Agency (ADEM) for more than12 months. Thus, the unemployment rate is expected to continue to drop to 5.2% in 2022 and to 5.0% from now until the end of the period under review (see Chart 3).

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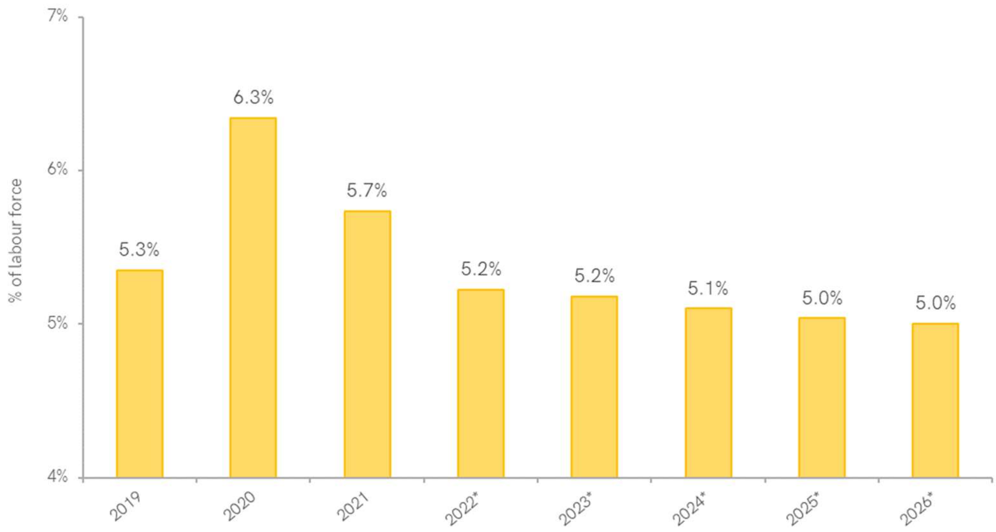
[13] "Key figures March 2022", ADEM, April 2022, https://statistiques.public.lu/dam-assets/fr/actualites/population/travail/2022/04/20220420/chiffres-cles-mar-2022.pdf

Chart 3: Trends in the unemployment rate (2019-2026), ADEM definition



Source: ADEM, STATEC.

II.3 Risks and uncertainties

Two years following the outbreak of the COVID-19 crisis, the world still faces considerable uncertainty, and economic developments in 2022 will largely depend on the outcome of the war in Ukraine.

The 2022 SGP aims to provide an initial overview of the economic repercussions, whilst bearing in mind that the situation could evolve quickly and that it is almost impossible to make reliable predictions at the current stage due to the great levels of uncertainty.

The economic situation is likely to worsen if relations between Russia and Europe deteriorate any further. In addition, the possibility of a quicker tightening of monetary policy poses upward risks on the interest rate of state bonds within the euro area. Depending on how events develop, structural damages could result from this geopolitical crisis with consequences on potential growth in the long run.

In addition, from the perspective of cutting off energy relations with Russia and in light of the conclusions of the latest IPCC report[14], signals are being reinforced in Europe for accelerating the energy transition. The economic and social impacts of the transition, which may arise in the short run, could turn out to be more intense under these conditions.

In addition to the risks resulting from the Russian-Ukrainian conflict, there are other uncertainties that remain, such as the ongoing COVID-19 pandemic, with a risk of further waves of infections or new virus variants. The development of the international health situation also remains uncertain and the return of lockdowns in China may further affect global production and supply chains.

The redesign of the international tax system in terms of corporate taxation across the OECD may also impact Luxembourg's economy and public finances. The impact on future revenues remains highly uncertain and will be largely dependent upon the behaviour of the countries and the multinational companies concerned.

[14] *"Working Group III Contribution to the IPCC sixth Assessment Report (AR6)"*, Intergovernmental Panel on Climate Change, April 2022, https://report.ipcc.ch/ar6wg3/pdf/IPCC_AR6_WGIII_SummaryForPolicymakers.pdf

III. Budgetary position and public debt

III.1 Guiding principles of budgetary policy

The European framework

As in the previous year, the European Commission confirmed on 2 June 2021 that the general escape clause of the Stability and Growth Pact should be maintained in 2022 in order to allow Member States to continue to temporarily deviate from the applicable budgetary rules, in order to support the economic recovery.

In light of the uncertainties weighing on European economies, the Commission will reassess the deactivation of the general escape clause (currently foreseen for 2023) towards the end of May, depending on the spring economic forecasts. In addition, the current economic governance review could lead to an adaptation of the budgetary rules.

On 2 March 2022, the European Commission also provided guidelines for the conduct of budgetary policies in 2023. These guidelines are organised around five key principles, namely: (1) ensure policy coordination and a consistent policy mix, (2) ensure debt sustainability through a gradual and high-quality fiscal adjustment and economic growth, (3) foster investment and promote sustainable growth (4) promote fiscal strategies consistent with a medium-term approach to fiscal adjustment, and (5) differentiate fiscal strategies and take into account the euro area dimension.

Similarly to other Member States with low or average debt, Luxembourg is required to *"strengthen the necessary investment for the green and digital transitions, aiming at achieving an overall neutral policy stance".*

More generally, the European Commission budgetary guidelines for 2023 focus on limiting the growth of current spending and highlighting the quality and composition of public finances.

The national framework

By analogy with the maintenance of the escape clause at European level, the "clause for exceptional circumstances" provided for in article 6, paragraph 1 of the amended law of 12 July 2014 on the coordination and governance of public finances also continues to be applicable in 2022. In practice, this national clause suspends the obligation to present "*measures to re-establish the trajectory as foreseen in the multi-annual budget law*" if there is a significant deviation from the MTO.

Budgetary orientations

The Government's budgetary policy continues to be focused on the strategy outlined in the draft annual and multi-annual budget projects submitted in October 2021. The discretionary measures decided in February and March this year (cf. Box 1) to mitigate the sharp rise in energy prices on households and businesses temporarily complement the governmental action.

Consequently, the measures included in the the "Solidaritéitspak" with a total budgetary envelope of € 753 million, pursue a dual objective: to mitigate the inflationary pressures resulting from the surge in energy prices, and to compensate for the loss of purchasing power, particularly for low-income households.

Despite the significant aforementioned challenges that Luxembourg faces over in the short run, the budgetary policy also aims to address the country's structural objectives, namely favouring the dual environmental and digital transition, promoting competitiveness, innovation and ensuring social inclusion, focusing in particular on affordable housing and quality infrastructure.

The "Energiedësch" consequently also comprises a strengthened aid scheme favouring the energy transition as a complement to the substantial public investment planned over the next five years.

Box 1: Measures decided in the context of the energy crisis

In light of the impact of the new geopolitical situation, two complementary packages of measures (the "Energiedësch" package and the "Solidaritéitspak" package) were decided upon by the Government to offset the inflationary effects on companies and households.

The social dialogue was the central platform of exchange between the Government, employers and trade unions in the development of some of these measures. The consultations that were conducted within the Tripartite coordination committee led to an agreement that preserves social peace and competitiveness of businesses, while strengthening household purchasing power.

The cumulative volume of the support measures amounts to approximately € 830 million, which corresponds to 1.1% of GDP estimated in 2022. In addition to the direct budgetary support measures, Luxembourg also puts in place a State guarantee scheme with a total volume of up to € 500 million. As such, the State support amounts to € 1.327 million, or approximately 1.7% of GDP.

The selective and temporary nature of the adopted support measures should be highlighted. In particular, the measures target above all the maintenance of purchasing power of the most vulnerable households and the support to businesses heavily impacted by the rise in energy prices. The State support is also time-bound.

"Energiedësch" (February 2022)

Due to the surging energy prices, a first package of measures amounting to a cumulative amount of € 75 million was put in place comprising the following elements:

- **Energy allowance for low-income households**. A unique energy allowance capped at 400 euros for low-income households is introduced. Households benefiting from the cost-of-living allowance (AVC) and households whose income is up to 25% higher than the income qualifying for the cost-of-living allowance are entitled to receive the energy allowance.

- **Stabilisation of electricity prices.** Electricity prices are stabilised by increasing the State's contribution to the compensation mechanism for renewable energies.

- **Subsidy for gas network costs**. The gas network costs are temporarily covered by the State. The resulting reduction in energy bills is estimated at approximately 500 euros per household.

- **Acceleration of the energy transition**. The financial aid measures are strengthened to accelerate the energy transition by supporting energy-efficient renovations, renewable energy and sustainable mobility infrastructure.

"Solidaritéitspak" (March 2022)

In light of the new geopolitical situation and the acceleration in inflationary pressures, the second package of measures ("Solidaritéitspak") strengthens and complements the first set of support measures. This package of measures reflects the agreement reached within the framework of the Tripartite coordination committee and aims first and foremost at compensating households for the postponement of an index tranche, which was for foreseen for August 2022, towards April 2023[15]. The total volume of the support measures amounts to € 752.5 million, or 1% of GDP estimated in 2022.

- **Introduction of an energy tax credit.** With the aim of offsetting the loss of purchasing power associated with the postponement of an index tranche, an energy tax credit is temporarily introduced. The support is socially targeted and aims to compensate, even overcompensate the lowest wage brackets, for the loss of purchasing power.
- **Support for companies particularly impacted by the rise in energy prices**. A number of different support schemes are introduced. They are aimed, inter alia, at offsetting part of the additional costs faced by companies qualified as large energy consumers, to compensate for part of the costs related to the greenhouse gas emission trading system (ETS) and to enhance support for companies to identify their energy saving and decarbonisation potential.
- **Temporary reduction of the price of fuel by 7.5 euro cents per litre.** To reduce the energy bill of households and businesses, the State temporarily finances a reduction of the consumer price of petrol, diesel and heating oil of 7.5 euro cents per litre.
- **Adaptation of the rent subsidy.** The eligibility criteria are extended and the amounts allocated within the framework of the rent subsidy are increased.
- **Increase of financial aid for higher education**. Taking into account the increase in the cost of living, financial aid schemes for students are increased.
- **Adaptation of the social inclusion revenue REVIS**. An equivalent of the energy tax credit is allocated to the beneficiaries of the REVIS and of the income for seriously disabled people (RPGH).
- **Adaptation of the "Prime House" support**. Financial support made available for replacing old fossil-fuelled boilers is increased. At the same time, the number of households that qualify for the aid contributing to reducing energy poverty is extended and the allowance is revised upwards.
- **Support scheme in the form of guarantees**. This measure aims to facilitate access to bank credits for businesses that may face additional liquidity needs as a result of the deteriorated economic situation.

[15] Family allowances are not affected by the postponement of the index tranche that was foreseen for August 2022. They continue to be adjusted in line with the cost of living index.

Table 1: Overview of the support measures and their budgetary impact

Measure	Budgetary impact in millions of euros
"Energiedësch" package of measures (February 2022)	**75**
Energy allowance for low-income households	15
Stabilisation of electricity prices	12
Subsidy for gas network costs	45
Acceleration of the energy transition	N.A.
"Solidaritéitspak" package of measures (March 2022)	**752.5**
Introduction of an energy tax credit	440
Aid for companies particularly impacted by the rise in energy prices	225
Reduction of the price of fuel by 7.5 cents per litre	66
Adaptation of the rent subsidy	5
Increase of financial aid for higher education	10
Adaptation of the social inclusion revenue REVIS	4.5
Adaptation of the "Prime House" support	2
Total *(without guarantees)*	**827.5**
Total as % of estimated GDP in 2022	**1.1%**
Aid scheme in the form of guarantees	500
Total *(with guarantees)*	**1327.5**
Total as % of estimated GDP in 2022	**1.7%**

Source: Ministry of Finance.

III.2 Medium-term budgetary objective

The "Fiscal Compact"[16] and the "preventive" arm of the Stability and Growth Pact mainly focus on compliance with the "medium-term budgetary objective" (MTO), which is specific to each country.

MTOs are defined to guarantee compliance with deficit and debt criteria, whilst retaining a margin for budgetary manoeuvre and ensuring sustainable public finances in the medium and long run.

In practice, every three years each Member State is required to set its MTO, whilst complying with a minimum MTO calculated by the European Commission. For the period of 2020-2022, Luxembourg set its MTO at +0.5% of GDP, or in other words, at the same level as the minimum benchmark value determined at the time.

The calculation of the minimum MTO by the European Commission for the period 2023-2025 takes into consideration updated forecasts of ageing-related costs presented in the "Ageing Report 2021"[17]. For Luxembourg, the long-term forecasts table a slightly less pronounced increase in ageing-related expenditure compared to the 2018 edition of the "Ageing Report".

Thus, the new minimum MTO calculated by the European Commission for the period 2023-2025 amounts to 0% of GDP. In line with past practice, Luxembourg again aligns itself with this minimum value and sets its MTO at 0% of GDP for the period 2023-2025.

Following the extension of the general escape clause of the Stability and Growth Pact until 2022, Luxembourg is currently exempt from having to comply with the MTO. As a reminder, said clause was triggered in 2020 to allow all EU Member States to deploy the resources necessary to tackle the pandemic crisis.

The assessment of compliance with the MTO as of 2023 must, however, be considered in the broader context of the European Commission's fiscal policy guidance[18] and the economic governance review that is currently ongoing.

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[16] "*Treaty on Stability, Coordination and Governance in the Economic and Monetary Union* ", European Union, March 2012, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:42012A0302(01)&from=EN

[17] "*The 2021 Ageing Report: Economic and Budgetary Projections for the EU Member States (2019-2070)*", European Commission, May 2021, https://ec.europa.eu/info/sites/default/files/economy-finance/ip148_en.pdf

[18] "*Fiscal policy guidance for 2023*", European Commission, March 2022, https://ec.europa.eu/info/sites/default/files/economy-finance/com_2022_85_1_en_act_en.pdf

The role of the MTO in the budgetary framework is examined in the context of the aforementioned review, bearing in mind that the wider debate on the future of the Stability and Growth Pact aims to reach an agreement on the way forward well ahead of 2023.

Given that the European Commission has not yet presented a concrete reform proposal, the role the MTO will play a role in a reformed Stability and Growth Pact still remains open at this stage.

Luxembourg is in line with its new MTO, however, in the event that the escape clause was deactivated as of 2023 and if budgetary rules were to remain unchanged.

III.3 The budgetary situation in 2021 and 2022

2021

The general government balance amounts to + € 650 million or +0.9% of GDP in 2021. This upturn in comparison with the previous estimates (cf. Chapter III.7) stems from the central government, which should see its balance increase to - € 326 million, while the 2021 Budget estimated a deficit of - € 2.703 million.

Driven by the gradual lifting of the health measures as well as by the improvement of the macroeconomic situation, public revenues experienced a significant rebound compared to the crisis year 2020 and increased by 12.7%, while expenditure increased by only 2.4%. Less recourse to the support measures put in place in the context of the pandemic crisis, including in particular the partial unemployment scheme, contributed to curbing expenditure.

COVID-19 related expenditure amounted to € 734 million in 2021, or 1.0% of GDP. Support measures for businesses under the recovery and solidarity fund and employment support measures were the most requested. They have as a consequence the most significant budgetary impact (cf. table 2).

Table 2: Discretionary measures in response to the COVID-19 pandemic as of 31 March 2022 (general government)

Measures	***Detail***	***Sub-sector***	***Amounts disbursed in 2021***	
			in millions of euros	***in % of GDP***
	Discretionary expenditure			
Expenditure on crisis management			**206**	**0.3%**
	of which: HCPN	*Central government*	109	0.1%
	of which: Expert fees/ Purchase of medicines/ Operating costs of emergency shelters	*Central government*	97	0.1%
Aid for businesses			**286**	**0.4%**
	of which: Reimbursable advances	*Central government*	28	<0,1%
	of which: Direct aid and sectoral aid	*Central government*	1	<0,1%
	of which: Recovery and Solidarity Fund	*Central government*	233	0.3%
	of which: Measures to support investment	*Central government*	24	<0,1%
Aid to households			**242**	**0.3%**
	of which: Short-time working scheme	*Central government*	199	0.3%
	Other (educational measures, social assistance, sick pay, family leave)	*Central government & Social security*	43	0.1%
		Sub-total (Discretionary expenditure):	**734**	**1.0%**
	Revenue			
Direct taxes (Cancellation of tax advances and deferral of payment)			**4**	**<0,1%**
Indirect taxes (Administrative tolerance and refunds of VAT credit balances < EUR 10 000)			-	-
Social security contributions (suspension of interest on arrears)			**4**	**<0,1%**
		Subtotal (Revenue):	**8**	**<0,1%**
TOTAL			**742**	**1.0%**

Note: The table provides an overview of all COVID-19 measures taken within the scope of the general government in 2021 (both on the expenditure and revenue side).

Source : IGF, calculations Ministry of Finance.

The efforts to invest in the country's future and prepare for the environmental and digital transition remain high on the agenda. Public investment amounted to € 2.931 million, or 4.0% of GDP, which corresponds to the level reached during the crisis year 2020. Compared to 2019, public investment has even increased by +14%.

As far as the general government sub-sectors are concerned, the local government recorded a positive balance of around +€ 70 million in 2021 and social security funds increased to + € 906 million in 2021.

2022

With the recovery of public finances in 2021 and the improvements on the pandemic front, the starting position for 2022 was better than expected. Consequently, the macroeconomic forecasts established at the beginning of the year capitalised on the continuation of the economic recovery with a positive impact on public finances.

However, the Russian invasion of Ukraine has changed the situation and the impacts of the new geopolitical situation on the national economy are significant. The measures that the Government took to support households and businesses should, however, mitigate certain consequences of the crisis, in particular as regards the energy dimension (cf. Box 1).

The deteriorated macroeconomic situation and the significant cumulative cost of the aforementioned measures will without doubt have a significant impact on public finances in 2022.

The general government balance will report a deficit of - € 544 million (-0.7% of GDP) in 2022, while the 2022 Budget estimated a deficit of - € 159 million (cf. Chart 6).

The shortfalls in terms of revenue stemming from the tax credits and the deteriorated macroeconomic situation, as well as the measures weighing on public spending will above all have an impact on the central government balance. Added to this is the "one-off" effect of Luxembourg's additional contribution of around € 247 million to the European Union budget following the reassessment of gross national income for the period 2010-2020.

Despite the crisis, Luxembourg continues to pursue its investment policy and plans to invest 4.1% of GDP in 2022. Box 3 provides an overview of the priority areas in which Luxembourg will invest in the coming years.

Under the aforementioned circumstances, the central government budget balance will amount to - € 1.641 million in 2022. By way of comparison, the annual budget adopted in December 2021 foresaw a deficit of - € 1.247 million.

As for the other general government sub-sectors, the local government is expected to close the financial year 2022 with an aggregated budget balance of + €198 million or +0.3% of GDP. The social security funds surplus should amount to + € 900 million or +1.2% of GDP in 2022.

Compliance with the rules of the preventive arm of the Stability and Growth Pact in 2021-22

The structural budget balance – calculated using the output gap estimated by STATEC according to European methodology (cf. Box 2) – amounts to +1.2% of GDP in 2021 (i.e. above the theoretically applicable MTO) and at +0.1% of GDP in 2022 (i.e. below but close to the MTO).

By virtue of the application of the general escape clause of the Stability and Growth Pact in 2021 and in 2022, a potential non-compliance with the rules of the preventative arm of the Pact does not entail procedural consequences.

Box 2: Calculation of the structural balance

The formula to obtain the "structural" balance from the so-called "nominal" balance is 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)

The 2021 SGP (pp. 42-43), as well as appendix 7 of the draft multi-annual budget law for the period 2021 to 2025, contain more detailed explanations on the concept of the structural balance and on the methodology underlying related calculations.

* * *

The calculation of the structural balance for the SGP 2022 is based on the following elements:

			2020	2021	2022	2023	2024	2025	2026
Real GDP***	In bn	PR	59.592	63.740	64.647	66.554	68.423	70.378	72.425
	In %		-1.8%	7.0%	1.4%	2.9%	2.8%	2.9%	2.9%
Potential GDP	In bn	PP	62.632	64.206	65.772	67.325	68.950	70.648	72.425
	In %		2.6%	2.5%	2.4%	2.4%	2.4%	2.5%	2.5%
Output gap	As % of potential GDP	$EC = \frac{PR - PP}{PP}$	-4.9%	-0.7%	-1.7%	-1.1%	-0.8%	-0.4%	0.0%
Nominal balance	In bn	SN	-2,196	0.650	-0.544	-0.313	-0.269	-0.162	0.007
	As % of nominal GDP		-3.4%	0.9%	-0.7%	-0.4%	-0.3%	-0.2%	0.0%
Structural balance	In %	$SN - 0{,}462 * EC$	-1.2%	1.2%	0.1%	0.1%	0.0%	0.0%	0.0%

Source: Ministry of Finance, STATEC.

*** Important note for the reader: The real GDP levels or the relative growth rates do not correspond in full to the forecasts underlying the 2022 SGP but result from the application of the European Commission's methodology for calculating the output gap. These figures are deducted mechanically from the levels of potential GDP and the output gap in order to respect the "closure rule", under which the output gap closes at the end of the forecast horizon.

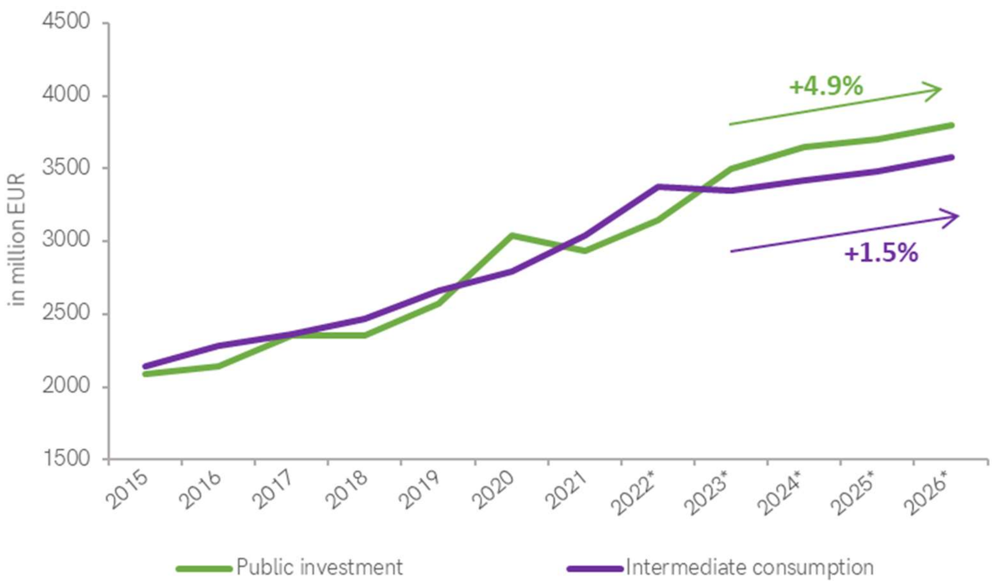
III.4 The budget situation for 2023-2026

The medium-term trajectory of public finances is characterised on the one hand by the gradual recovery of the economy and, on the other hand, the gradual restoration of the budgetary position.

As in previous years, Luxembourg maintains its ambitious investment policy (committing on average 4.2% of its GDP to investment over the forecast period) and will maintain continuous control over expenditure growth to ensure sustainable public finances over the medium term.

Consequently, while maintaining an annual average increase in public investment of +4.9% between 2023 and 2026, intermediate consumption would only increase by +1.5% on average over the same period (cf. Chart 4). In total, public expenditure is expected to increase by +4.1% per year. Public revenue should report an average growth rate of +4.6%, that is, slightly higher than the growth rate for expenditure and in line with the overall macroeconomic situation.

Chart 4: Trends in public investment and intermediate consumption



Source: Ministry of Finance, STATEC.

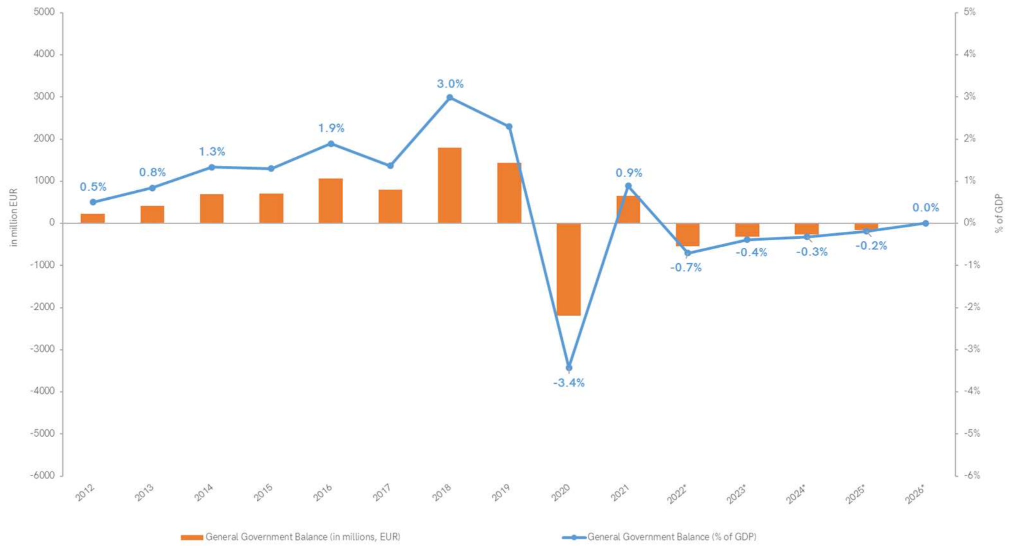
Under a no policy change scenario, and thanks to the aforementioned positive scissor effect, the general government balance should go from - € 544 million in 2022 (-0.7% of GDP) to - € 313 million (-0.4% of GDP) in 2023. The central government balance should see its deficit be reduced, ranging from - €1.641 million in 2022 to - €1.284 million in 2023 and the balance of the local authorities should continue to remain positive, reaching + € 226 million in 2023. On the other hand, the balance of social security funds is expected to decline from + € 900 million in 2022 to + € 745 million in 2023.

From 2024 onwards, the general government balance should continue its upward trend and should post a small surplus of + € 7 million (0% of GDP) in 2026 (cf. Chart 5).

Central government should see its balance improve by 2026 to reach - € 551 million (cf. Chart 7) and the local authorities should post a balance of + € 316 million at the end of the period.

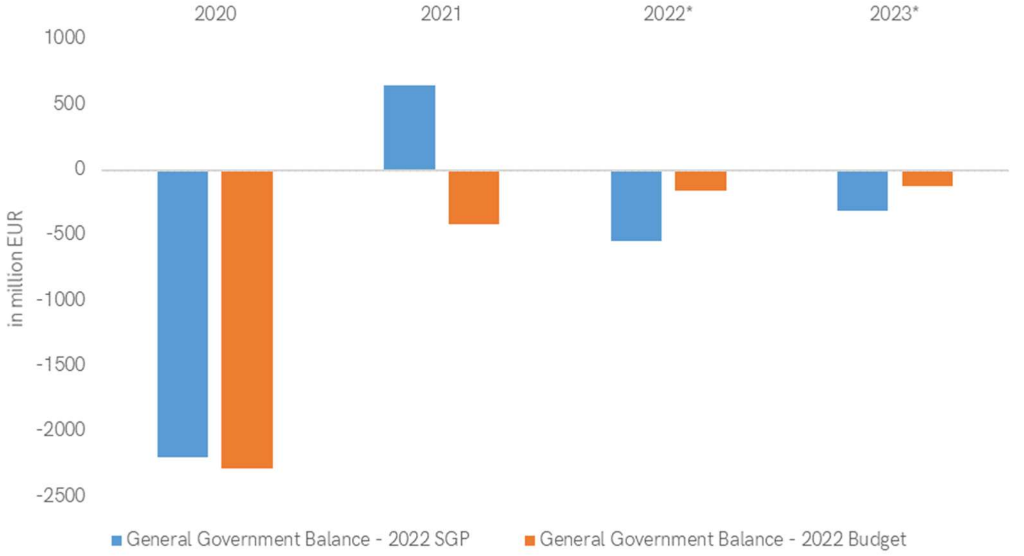
On the other hand, the balance of social security funds is expected to continue a downward trend throughout the period under review and should close the financial year 2026 with a surplus of + € 242 million. The deterioration of this balance is attributable to an increase in retirements combined with a slowdown of the labour market. Indeed, the number of pensioners should increase on average by 3.9%, while employment should only increase by 2.2%. Pension expenditure should consequently increase more rapidly than social security contributions.

Chart 5: Trends in the general government balance



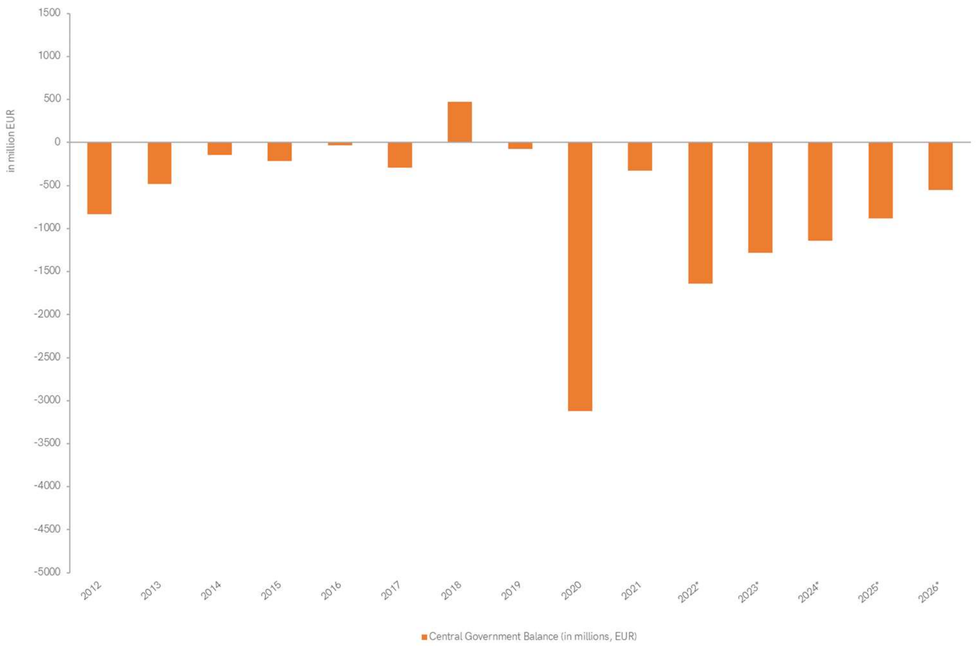
Source: Ministry of Finance, STATEC.

Chart 6: Trends in the general government balance (2022 SGP vs 2022 Budget)



Source: Ministry of Finance, STATEC.

Chart 7: Trends in the central government balance



Source: Ministry of Finance, STATEC.

Box 3: Public investment at a glance

Maintaining public investment at a high level is a well-established key component of Luxembourg's budgetary policy and constitutes an effective counter-cyclical instrument. This intent is all the more important during this period of uncertainty.

Overall, public investment is an essential lever to address the structural challenges with which the country is confronted and to lay the foundations of a more sustainable and resilient growth.

This box provides a breakdown of public investment by thematic area. It provides a more detailed overview of the scope envisaged and explains how the Government intends to navigate the structural changes over the medium term, which could also guide future efforts aimed at improving the efficiency of public investment.

The amounts listed in table 3 comprise direct and indirect investment made at central government level. Differences can therefore occur with the investment amounts presented elsewhere in this SGP which are aggregated at general government level.

Over the 2021-2025 period, the annual amount of central government public investment exceeds € 3 billion, which corresponds to approximately 4% of GDP. The majority of public investment consists of projects with a budget above € 40 million.

In accordance with government priorities, the main investment categories target the environment and climate, public infrastructure and housing. Investments dedicated to the environment and the climate constitute the largest expenditure component with a total budget of over € 2.8 billion over the period. A significant share of public funds is dedicated to energy transition and to mobility decarbonisation.

Budgetary resources of up to € 1.5 billion are made available to meet the growing needs for quality public infrastructure. In order to support access to affordable housing, investments in the amount of € 1.5 billion are planned over the same multiannual period.

Table 3: 2021-2025 public investment by category (central government)

in million EUR

Category of public investment	2021	2022	2023	2024	2025
Environment and climate	437	489	572	660	611
Public infrastructure	183	240	297	366	396
Education	122	128	96	103	123
Housing	162	313	330	345	315
Health	76	134	213	265	279
Security	5	5	206	109	109
State-owned real estate	118	118	105	106	104
Cooperation and humanitarian action	240	284	300	306	323
Other (Culture, sport, economy, projects < 40 million euros)	1,772	1,479	1,150	1,183	1,167
Total public investment	**3,114**	**3,190**	**3,270**	**3,442**	**3,428**
Total as % of GDP	**4.2%**	**4.1%**	**4.1%**	**4.1%**	**3.9%**

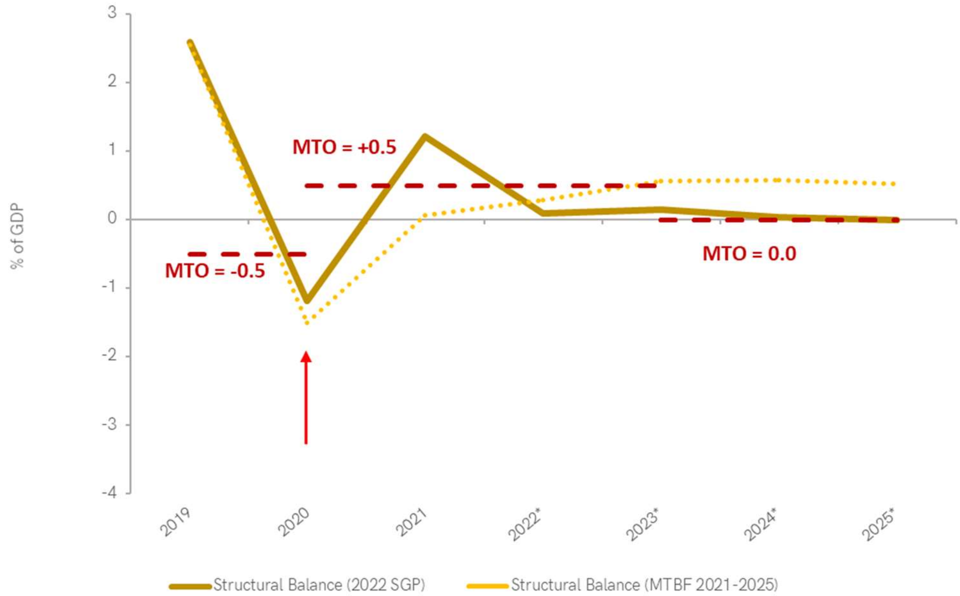
Source: Ministry of Finance, IGF.

Compliance with the rules of the preventive part of the Stability and Growth Pact

The structural balance is estimated to be around 0% of GDP over the 2023-2026 period, thus meeting the new MTO set from 2023 onwards.

Consequently, Luxembourg should fully comply with the Stability and Growth Pact should the budgetary rules become applicable again from 2023 onwards (cf. Chart 8), or if the MTO continues to play a key role in the reformed Pact.

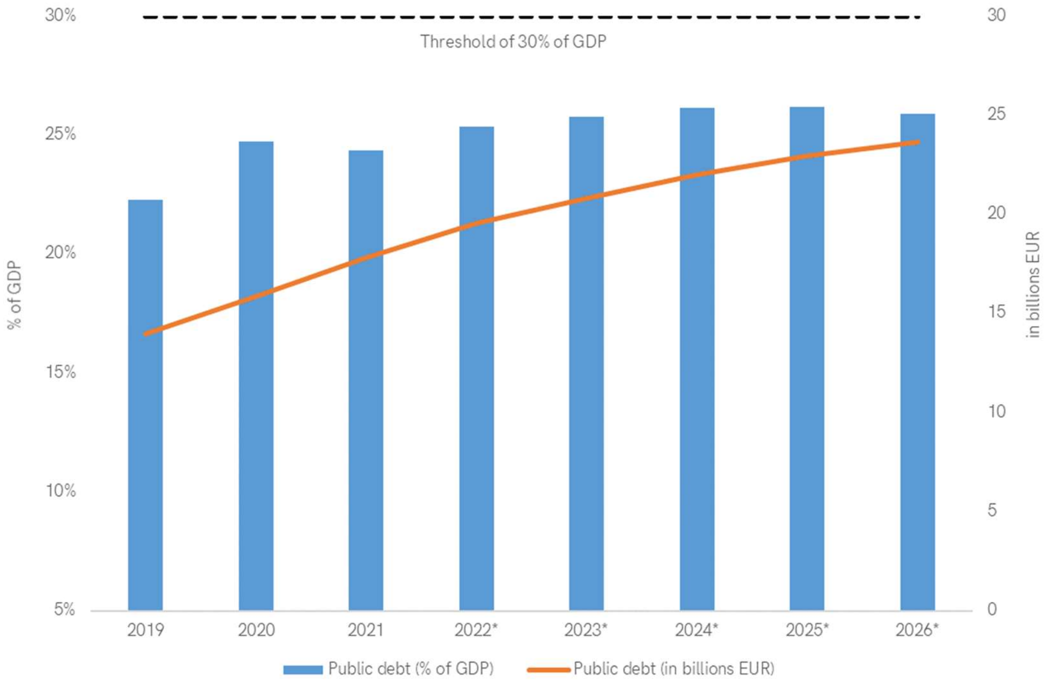
Chart 8: Trends in the general government structural balance



Source: Ministry of Finance, STATEC.

III.5 Public debt

Chart 9: General government debt developments since 2019



Source: Ministry of Finance, STATEC.

At the end of 2019, just before the pandemic, Luxembourg's public debt stood at €14 billion, or 22.3% of GDP, which corresponds to a ratio comparable to the ratio at the end of 2013.

Due to the growing financing needs of the central government resulting from the pandemic, public debt has grown by + € 3.9 billion in absolute terms (+2.1 percentage points of GDP) during the two crisis years 2020 and 2021. Despite this substantial rise, Luxembourg was, behind Estonia, the least indebted country in the euro area in 2021 (cf. Chart 10).

Although it had been possible to reduce the debt ratio by 0.4 percentage points, from 24.8% of GDP in 2020 to 24.4% of GDP in 2021, the Russian invasion of Ukraine and the economic and budgetary disruptions arising therefrom loom over the outlook for the coming years. The vast solidarity package decided upon at the end of the Tripartite, combined with the negative impact on public revenue following the economic deterioration, will strain the State's budget considerably.

For the purpose of establishing forecasts for public debt for the 2022 SGP, it is presupposed, in a purely mechanical way, that central government deficits will be financed in full by additional bonds or loans.

In practice, borrowing requirements will nevertheless be dictated by developments in the State's liquidity position, the applicable market conditions, the choice of the financing instrument as well as budgetary developments, which could result in a different debt profile than that calculated mechanically.

By virtue of the aforementioned mechanical approach, the evolution of public debt therefore reflects for the most part of the one pertaining to the central government whose deficits should widen further compared to the autumn 2021 budgetary forecasts.

Public debt will continue to rise until the end of the period under review and stand at € 23.7 billion in 2026. The debt ratio should grow in parallel to reach a peak of 26.2% in 2025, but should drop slightly to 25.9% of GDP in 2026 (cf. Chart 9).

Public debt should at all times be below the threshold of 30% of GDP laid down in the 2018 government programme, and Luxembourg would retain a significant margin with respect to the European reference rate of 60% of GDP.

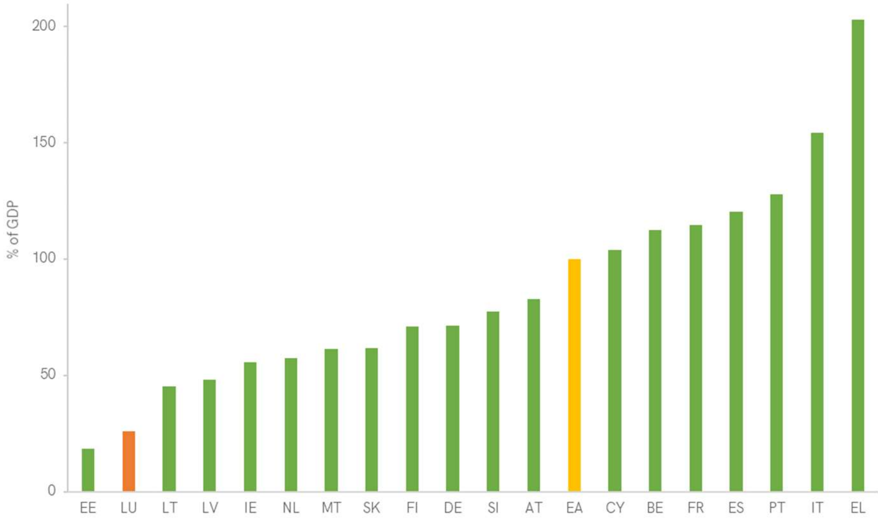
Following the confirmation of the "AAA" credit rating with stable prospects issued by the four main credit rating agencies, Luxembourg should continue to be able to refinance itself at very favourable interest rates over the coming years. On this subject, it should, however, be noted that the corresponding rates will be dependent on the monetary policy, where the trend appears to shifting towards tightening.

The cost of public debt service is estimated to increase from € 111 million in 2022 to € 229 million by the end of the period. At euro area level, only Estonia had a lower interest burden in 2021, expressed in % of GDP (cf. Chart 11).

It should be noted that the trend of rising public debt is to be put in perspective, insofar as Luxembourg holds in parallel financial assets of up to approximately 48% of GDP.

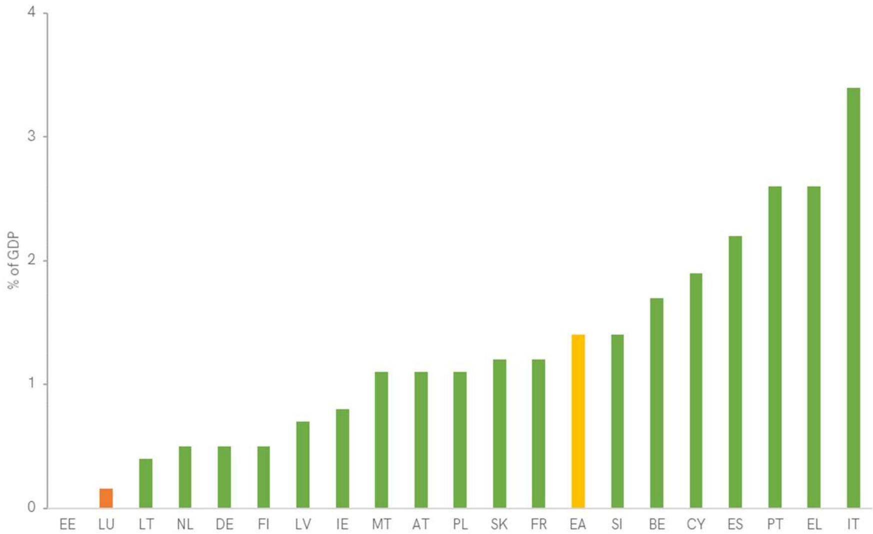
With funds in the amount of 37% of GDP at 31 December 2021, the reserve of the 'Fonds de compensation' alone is at a higher level than public debt. In addition, the State's stakes in commercial and non-commercial entities with a value estimated at approximately 10% of GDP as well as the assets of the Inter-generational sovereign wealth fund, which now stand at around 0.8% of GDP and which has been set up to build up savings for future generations, need to be considered.

Chart 10: Public debt within the euro area in 2021



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

Chart 11: Interest burden within the euro area in 2021



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

III.6 Sensitivity analysis

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

The first part of this analysis presents the results obtained under two scenarios, one of which is based on a more favourable growth trend, and the other on a less favourable trend.

The second part assesses the impact of an additional increase in interest rates of 50 basis points with respect to the change in the rate included in the baseline scenario.

Simulation of 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 on Luxembourg's growth throughout the period under review. The shock was simulated using the STATEC Modux macroeconometric model by adjusting euro area real GDP and the stock index Eurostoxx 50 in such a way that Luxembourg's growth is reduced by 0.5 percentage points compared to the central scenario.

Thus, in the context of this theoretical exercise, employment growth would reach 2.1% in 2022 and would stabilise around an average value of 1.8% until 2026. By analogy, the unemployment rate would increase slightly, from 5.3% in 2022 to 5.4% in 2023, and would remain stable thereafter.

The negative shock would also have an impact on public finances. As a result, the general government balance would be -0.9% of GDP for 2022, compared to -0.7% under the central scenario. Until 2024, the deficit would remain stable at approximately 0.9%. Thereafter, the growth of general government expenditure would exceed that of revenue, which would result in a continued deterioration of the balance down to -1.1% of GDP in 2026.

The structural balance would deteriorate over the 2022-2026 period. It would become negative from 2024 and would therefore not be compliant with the MTO in force.

Public debt would increase more quickly than under the central scenario without exceeding the threshold of 30% of GDP laid down in the government programme. In this alternative scenario, public debt would reach 29.7% of GDP in 2026, compared to 25.9% of GDP in the central scenario.

The favourable scenario (SC2)

A permanent additive shock in the same order of magnitude as the unfavourable scenario is applied to Luxembourg's growth.

As a result of higher growth, job creation would stand at 2.6% compared to 2.4% under the central scenario in 2022. Over the period under review, employment would vary on average by 2.5% each year. Conversely, the unemployment rate would gradually decrease and would reach a level of 4.6% in 2026.

General government would post a balance of -0.6% of GDP in 2022 compared to -0.7% of GDP under the central scenario. The balance would continue to increase gradually and would be in surplus from 2024 onwards, while the central scenario would not bring about a surplus until 2026.

At sub-sector level, the central government balance would improve gradually over the coming years and would post a surplus as of 2026. As regards the structural balance, the latter would be in compliance with the MTO in force from 2023 onwards.

Due to the stronger economic recovery, the debt ratio would follow a more favourable trend than that outlined under the central scenario. Public debt would reach 25.4% of GDP in 2023 and would then start to decline. At the end of the period under review, debt would stand at 22.4% of GDP.

Table 4: Macroeconomic forecasts

	2021	2022			2023			2024			2025			2026		
	Base	SC1	**Central**	SC2	SC1	**Central**	SC2	SC1	**Central**	SC2	SC1	**Central**	SC2	SC1	**Central**	SC2
Real GDP Euro area (change in %)	**5.1**	2.7	**3.0**	3.2	2.0	**2.3**	2.6	1.3	**1.6**	2.0	0.8	**1.2**	1.6	0.8	**1.3**	1.7
Real GDP (change in %)	**6.9**	0.9	**1.4**	1.9	2.4	**2.9**	3.4	2.3	**2.9**	3.4	2.1	**2.6**	3.1	2.1	**2.6**	3.1
Nominal GDP (change in %)	**14.2**	4.9	**5.4**	5.9	3.8	**4.5**	5.2	3.6	**4.3**	5.1	3.3	**4.1**	4.9	3.4	**4.3**	5.1
Employment level (change in %)	**3.1**	2.1	**2.4**	2.6	1.8	**2.1**	2.4	1.9	**2.2**	2.5	1.9	**2.3**	2.6	1.8	**2.2**	2.6
Unemployment rate, in % (ADEM definition)	**5.7**	5.3	**5.2**	5.1	5.4	**5.2**	5.0	5.4	**5.1**	4.8	5.4	**5.0**	4.7	5.4	**5.0**	4.6
Eurostoxx (change in %)	**22.8**	-1.3	**-0.2**	0.9	-4.6	**-3.6**	-2.6	0.7	**1.9**	3.0	0.9	**2.1**	3.2	1.0	**2.1**	3.1

Table 5: Public finances

General government

	2021	2022			2023			2024			2025			2026		
	Base	SC1	**Central**	SC2	SC1	**Central**	SC2	SC1	**Central**	SC2	SC1	**Central**	SC2	SC1	**Central**	SC2
Nominal balance (in millions, EUR)	**650**	-656	**-544**	-432	-582	**-313**	-45	-732	**-269**	194	-850	**-162**	529	-939	**7**	960
Nominal balance (% of GDP)	**0.9**	-0.9	**-0.7**	-0.6	-0.7	**-0.4**	-0.1	-0.9	**-0.3**	0.2	-1.0	**-0.2**	0.6	-1.1	**0.0**	1.0
Structural balance (% of GDP)	**1.2**	0.0	**0.1**	0.2	0.0	**0.1**	0.3	-0.4	**0.0**	0.5	-0.8	**0.0**	0.7	-1.1	**0.0**	1.0

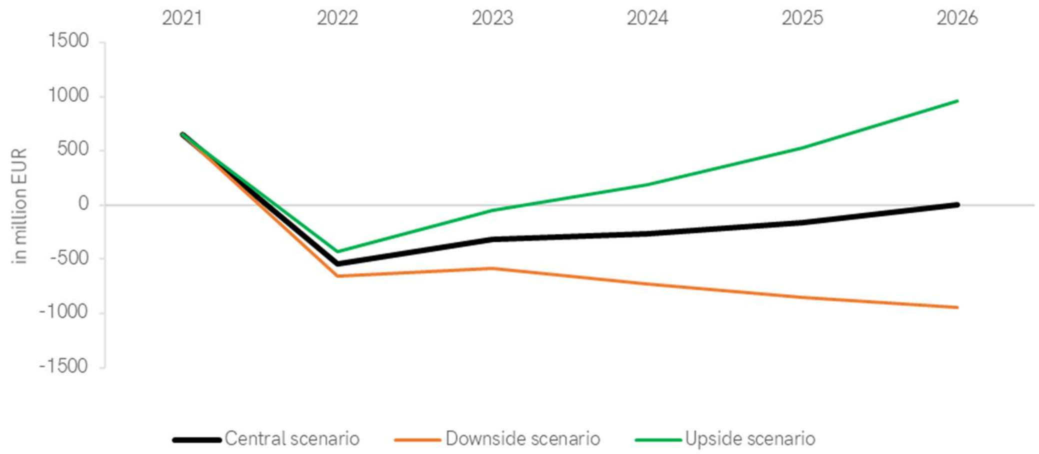
Central government

Nominal balance (in millions, EUR)	**-326**	-1,754	**-1,641**	-1,529	-1,553	**-1,284**	-1,016	-1,604	**-1,141**	-679	-1,573	**-884**	-194	-1,497	**-551**	401
Nominal balance (% of GDP)	**-0.4**	-2.3	**-2.1**	-2.0	-2.0	**-1.6**	-1.3	-2.0	**-1.4**	-0.8	-1.9	**-1.0**	-0.2	-1.7	**-0.6**	0.4

Public debt

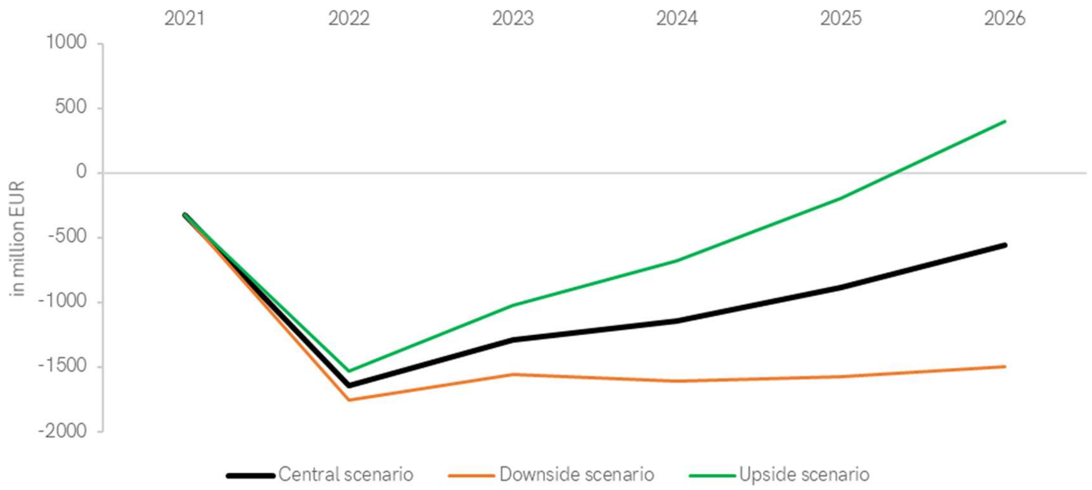
Public debt (in millions, EUR)	**17,856**	19,610	**19,598**	19,385	21,162	**20,804**	20,401	22,766	**22,032**	21,080	24,339	**22,966**	21,274	25,837	**23,679**	20,873
Public debt (% of GDP)	**24**	26	**25**	25	27	**26**	25	28	**26**	25	29	**26**	24	30	**26**	22

Chart 12: Shock on growth – Trends in the general government balance



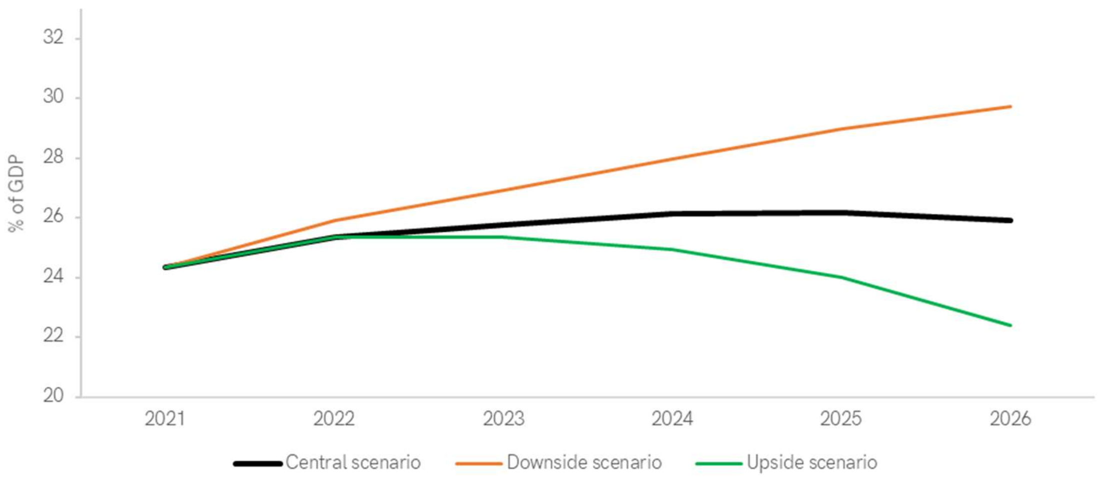
Source : STATEC, calculations Ministry of Finance.

Chart 13: Shock on growth – Trends in the general government balance



Source : STATEC, calculations Ministry of Finance.

Chart 14: Shock on growth – Trends in public debt



Source : STATEC, calculations Ministry of Finance.

Simulation of an interest rate shock

A permanent deviation in interest rates of 50 basis points with respect to the trajectory foreseen under the central scenario would have an impact on growth over the short term. Growth would reach 0.9% for 2022 compared to 1.4% under the baseline scenario. Towards the end of the period under review, GDP growth would again be closer to the central scenario.

As regards the labour market, the interest rate shock would lead to a slowdown in job creation in 2022 (2.1% compared to 2.4% under the baseline scenario). Consequently, the unemployment rate would reach 5.3%, that is, 0.1 percentage points above the central scenario. At the end of the period, the rate would reach 5.1%.

The shock would have a relatively small impact on public finances. At the end of the period, the general government deficit would be slightly above that of the baseline scenario (approximately -0.2 percentage points of GDP).

At central government level, the balance would remain in deficit throughout the period. It would stand at an average of -0.3 points below the one forecast in the baseline scenario for the years 2022-2026. Public debt would increase accordingly and reach a level of 27.1% of GDP at the end of the period instead of 25.9% of GDP under the central scenario.

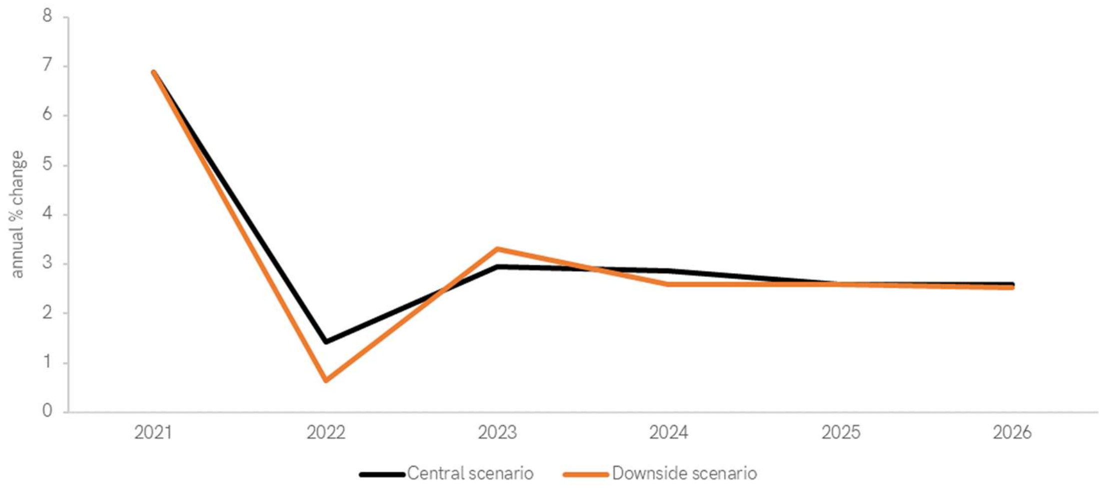
Table 6: Macroeconomic forecasts

	2021	2022		2023		2024		2025		2026	
	Base	Shock -	**Central**	Shock -	**Central**	Shock -	**Central**	Shock -	**Central**	Shock -	**Central**
Short-term interest rate EUR (%)	**-0.5**	0.0	**-0.5**	0.0	**-0.5**	0.1	**-0.4**	0.4	**-0.1**	0.8	**0.3**
Long-term interest rate EUR (%)	**0.1**	0.7	**0.5**	1.2	**1.0**	1.7	**1.3**	1.9	**1.4**	2.1	**1.6**
Real GDP (change in %)	**6.9**	0.9	**1.4**	3.1	**2.9**	2.6	**2.9**	2.5	**2.6**	2.6	**2.6**
Employment (change in %)	**3.1**	2.1	**2.4**	2.1	**2.1**	2.1	**2.2**	2.2	**2.3**	2.1	**2.2**
Unemployment rate, in % (ADEM definition)	**5.7**	5.3	**5.2**	5.2	**5.2**	5.1	**5.1**	5.1	**5.0**	5.1	**5.0**
Eurostoxx (change in %)	**22.8**	-2.2	**-0.2**	-3.7	**-3.6**	1.1	**1.9**	2.5	**2.1**	2.9	**2.1**

Table 7: Public finances

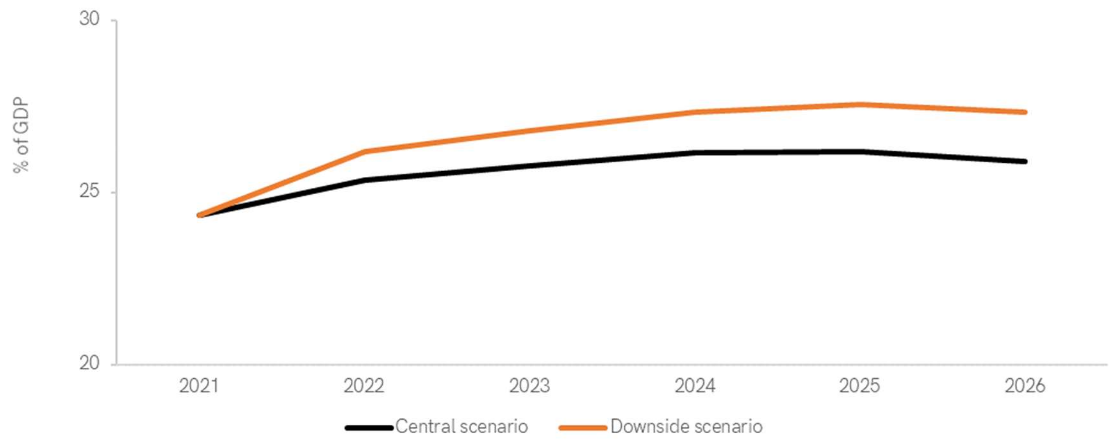
General government	2021	2022		2023		2024		2025		2026	
	Base	Shock -	**Central**	Shock -	**Central**	Shock -	**Central**	Shock -	**Central**	Shock -	**Central**
Nominal balance (in millions, EUR)	**650**	-694	**-544**	-448	**-313**	-458	**-269**	-372	**-162**	-207	**7**
Nominal balance (% of GDP)	**0.89**	-0.9	**-0.7**	-0.6	**-0.4**	-0.6	**-0.3**	-0.4	**-0.2**	-0.2	**0.0**
Structural balance (% of GDP)	**1.22**	0.0	**0.1**	0.0	**0.1**	-0.2	**0.0**	-0.2	**0.0**	-0.2	**0.0**
Central government											
Nominal balance (in millions, EUR)	**-326**	-1,791	**-1,641**	-1,418	**-1,284**	-1,330	**-1,141**	-1,095	**-884**	-766	**-766**
Nominal balance (% of GDP)	**-0.4**	-2.4	**-2.1**	-1.8	**-1.6**	-1.6	**-1.4**	-1.3	**-1.0**	-0.9	**-0.6**
Public debt											
Public debt (in millions, EUR)	**17,856**	19,647	**19,598**	21,066	**20,804**	22,396	**22,032**	23,491	**22,966**	24,256	**23,679**
Public debt (% of GDP)	**24.4**	26.1	**25.4**	26.7	**25.8**	27.2	**26.2**	27.4	**26.2**	27.1	**25.9**

Chart 15: Interest rate shock – Trends in Luxembourg's real GDP



Source : STATEC, calculations Ministry of Finance.

Chart 16: Interest rate shock – Trends in public debt



Source : STATEC, calculations Ministry of Finance.

III.7 Comparison with the Stability and Growth Programme 2021 and the Autumn 2021 Multiannual budget

A comparative analysis between the SGP 2021, the Autumn 2021 Multiannual budget and the SGP 2022 gives rise to the following observations:

1) Following a strong rebound in 2021, real GDP was revised downwards in 2022 due to the new geopolitical context (cf. Chart 17).
2) In parallel to the worsened macroeconomic conditions, the budgetary forecasts are also revised downwards despite the positive base effect which could have been expected with the better than predicted outcome in 2021.
3) Public debt expressed in % of GDP is lower over the forecast horizon due to the upward revision of nominal GDP for previous years following the update of the national accounts by STATEC published in October 2021.

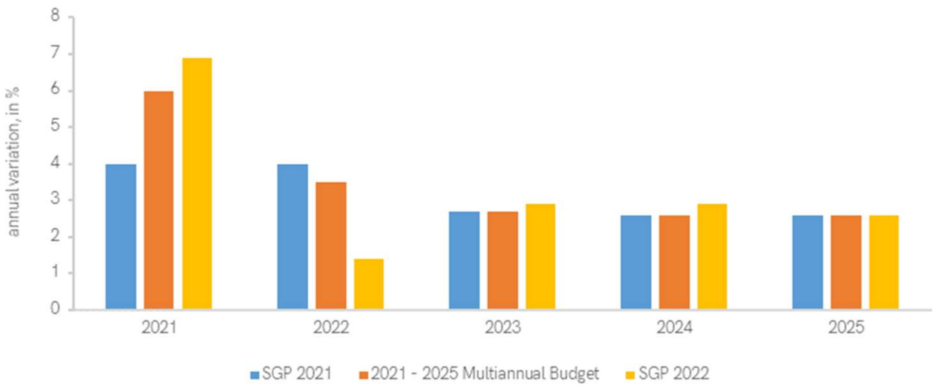
As for the short term (see also Chapter III.3):

- For 2021, the general government balance improves considerably, from -2.0% (SGP 2021) to +0.9% of GDP. This revision is mainly attributable to the economic recovery and the considerable increases in tax revenues arising therefrom.
- With respect to 2022, the general government balance is expected to deteriorate as a consequence of the gloomy macroeconomic environment and the aid made available to support households and businesses. Consequently, the general government balance is estimated at -0.7% of GDP, while the 2021 budget provided for a balance of -0.2% of GDP.
- In 2021, public debt amounts to €17.9 billion, or 24.4% of GDP, which represents a considerable reduction with regard to the level expected in the SGP 2021 (-2.5 percentage points).
- A reduction in debt can also be observed with respect to the October 2020 forecast in the Multiannual budget, which reflects the less negative than expected performance of public finances in 2021.

As for the medium term 2023-2025 (see also Chapter III.4):

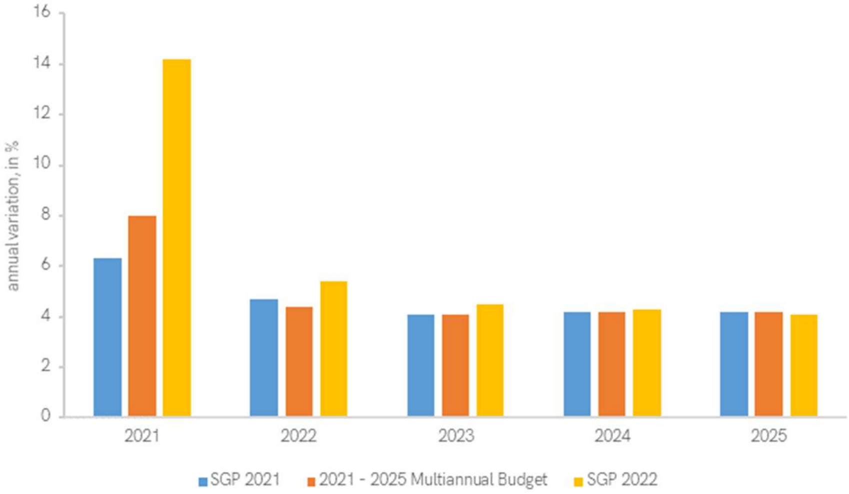
- The general government balance has worsened markedly compared to the SGP 2021 and compared to the 2021-2025 Multiannual budget over the entire period under review (cf. Chart 19). The difference is more pronounced compared to the 2021-2025 Multiannual budget and varies from -0.2 percentage points in 2023 to -0.5 percentage points in 2025.
- By virtue of the expected economic recovery over the medium term, the general government balance should improve gradually. This readjustment goes hand in hand with the continued high level of public investment of 4.3% of GDP on average over the period under review.
- Over the medium term, public debt is slightly lower compared to the forecast undertaken in October and the SGP 2021 (cf. Chart 20). Debt remains below the threshold of 30% set by the Government. This downward trend results from the upward revision of the GDP levels over the medium term.
- By virtue of the aforementioned mechanical approach which presupposes that the central government deficits will be financed by additional bonds or other loans, public debt should continue to rise during the period under review and should reach 26.2% of GDP in 2025.

Chart 17: Comparison with the SGP 2021 and the 2021-2025 Multiannual budget
Real GDP (annual variation, in %)



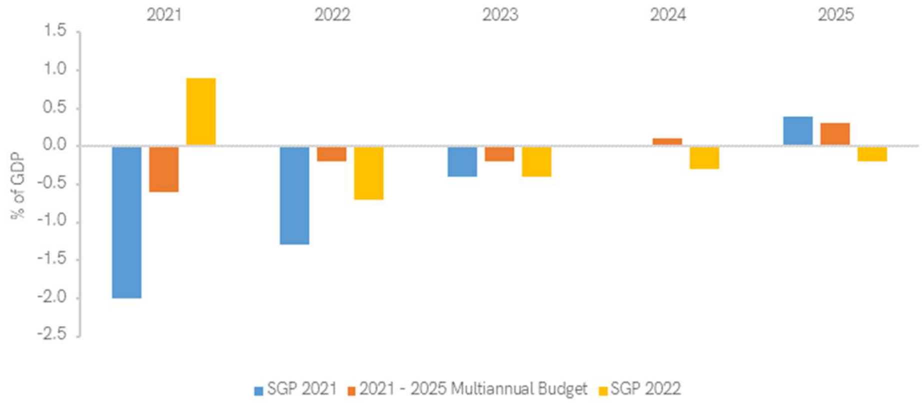
Source: Ministry of Finance, STATEC.

Chart 18: Comparison with the SGP 2021 and the 2021-2025 Multiannual budget Nominal GDP (annual variation, in %)



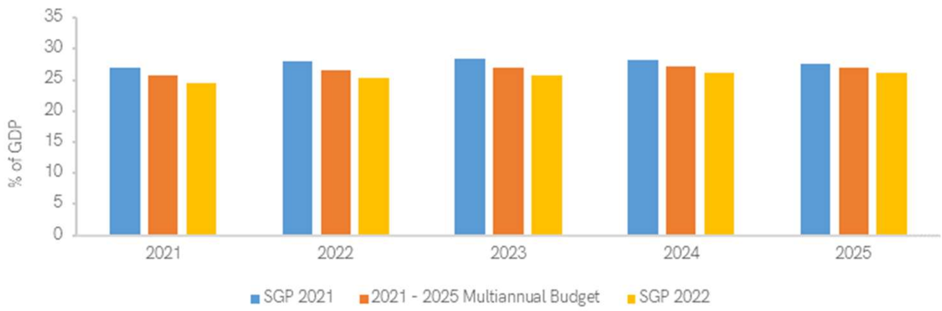
Source: Ministry of Finance, STATEC.

Chart 19: Comparison with the SGP 2021 and the 2021-2025 Multiannual budget General government balance (in % of GDP)



Source: Ministry of Finance, STATEC.

Chart 20: Comparison with the SGP 2021 and the 2021-2025 Multiannual budget Public debt (as a % of GDP)



Source: Ministry of Finance, STATEC.

IV. Quality of public finances

Luxembourg's quality of public finances is reflected in the continued compliance with the MTO, excluding the pandemic years. In parallel, the threshold of 30% of GDP as regards to public debt has never been exceeded, even during the crisis.

The sound management of Luxembourg public finances is above all attributable to a cautious approach in the preparation of budgets and the rigorous execution of the budget.

At the same time, Luxembourg pays particular attention to the quality of public finances by focusing as a priority on maintaining the public investment rate above 4% of GDP, with the aim of preparing the country for future challenges and maintaining a competitive and predictable economic and fiscal environment, as well as high-quality social security services.

Investments associated with the achievement of the objectives of the "Integrated national energy and climate plan" (INECP)[19] have increased over the reporting period. The budgetary expenditure contributing to said objectives amounts to € 1.9 billion in 2022 and to € 2 billion in 2023[20].

In general, it should be noted that the proportion of government expenditure in GDP is expected to decline between 2022 and 2026 (from 43.5% to 43.2% of GDP), despite the impact of the Ukraine war and while maintaining a public investment rate above 4% of GDP.

Such prudent management of public funds is also confirmed by a European comparison: in 2021, the government expenditure ratio stood at 42.3% in Luxembourg in 2021, versus 53.2% in the euro area.

The proportion of expenditure associated with intermediate consumption, or operating expenses, reduces from 4.4% of GDP in 2022 to 3.9% of GDP in 2026. The cost of public debt service stands on average at 0.2% of GDP over the entire period.

Government revenue moves from 43.2% of GDP in 2021 to 42.8% of GDP in 2022. By European comparison, government revenues in the euro area are estimated to drop from 46.1% of GDP in 2021 to 45.5% in 2022. The share of indirect taxes should decrease from 12.0% in 2022 to 11.7% of GDP in 2026 while the contrary trend can be observed for direct taxes, which should see its share rise from 14.7% of GDP in 2022 to 15.2% of GDP in 2026.

[19] *"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

[20] *"Budget 2022 (Volume 1 - Chapter 7.4 "Environmental efforts")*, Ministry of Finance, October 2021, https://budget.public.lu/dam-assets/lb/budget2022/links-dokumenter/Budget-2022.pdf

However, the quality of public finances is not only measured in "quantitative" terms, but also in "qualitative" terms. The composition of public finances consequently reflects the policy objectives according to the priorities set out in the 2022 budget law. These priorities are part of a long-term ambitious investment policy, focused on sustainable growth and a rapid return to qualitative growth and job creation, in compliance with the dual environmental and digital transition. The 2022 Budget also comprises an important social dimension and favours in particular an increase in the offer of affordable housing.

V. Long-term sustainability of public finances

Turning to the general pension scheme, of which the last major reform entered into force on 1st January 2013, the legislation provides that the General Inspectorate of Social Security (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.

As the current coverage period began in 2013, the next one will begin in 2023 and will run until 2032. This is why the IGSS produced its technical appraisal at the beginning of this year. Subsequently, the Government Council was consulted to set the overall contribution rate for the 2023-2032 period and to decide on the follow-up to the report, and respectively the results and conclusions contained therein.

As regards to the overall contribution rate, currently set at 24% divided equally between employees, employers and the State, the Government Council decided to maintain this rate for the next coverage period given that it is apparent from the technical appraisal that the plan's reserve fund, which is currently equal to 4.8 times the level of annual benefits (consolidated data at 31 December 2020), or a level equivalent to 37.5% of GDP, will still be considerably higher than the legal minimum of 1.5 times over the entire 2023-2032 coverage period, and this situation is likely to continue until 2041 (2035 in the 2016 appraisal). In fact, the reserve should even grow in absolute terms during the next period. The medium-term forecast and long-term actuarial projections confirm that the current overall contribution rate of 24% is sufficient to meet the requirements of Article 238 of the Social Security Code until the end of the current coverage period from 2023 to 2032. Consequently, an increase in the rate would not prove adequate, such that the current level is maintained.

Taking into consideration the importance of the long-term sustainability of the general pension scheme, which concerns all of the pension scheme members, as well as intergenerational equity, the report was made public on 26 April 2022 for the information of all stakeholders.

In addition to this publication, the Government Council decided to consult the Economic and Social Council (CES) 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.

Indeed, although the scheme is viable over the short and medium term, there are challenges over the long and very long term taking into consideration the demographic trend which concerns all countries of the European Union, Luxembourg being no exception. It is due to concerns for sustainability the 2012 reform, which entered into force on 1st January 2013, had introduced various mechanisms and parameters to the general pension scheme. According to 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 between now and 2070.

The consultation of the CES reflects the Government's objective to involve the social partners in substantive discussions that involve all of society. It should be noted that the last IGSS actuarial report submitted on 2 December 2016 was already discussed by a group of experts appointed by all of the stakeholders. That group was set up by the Government of the 2013–2018 legislative period. However, the Government did not wish to restrict the discussions solely to experts but to extend them through the inclusion of the CES with the aim of conducting substantive discussions. Once the CES has submitted its report to the Government, the latter will decide on the next steps.

With regards to the care insurance scheme, which counted 15,480 beneficiaries on 31 December 2020 (last data consolidated), the Government has undertaken a reform to modernise this pillar in order to meet the challenges of demographic developments and continue to guarantee fair access to high-quality benefits. The main objectives of the reform, which entered into force on 1 January 2018, consist of providing a personalised offer of the benefits that meets each person's daily needs, strengthening the quality through clear standards and criteria with adequate controls, 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 services provided (State Office for Assessment and Monitoring of the long-term care insurance (AEC)) and on balance between fixed cover established by the reform and the real needs in terms of essential acts of life (IGSS). The last report was produced in 2021. The AEC quality report was published in 2020.

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 by resorting to concerted action. This approach seeks to ensure that the reforms are also taken up by stakeholders and to continue to guarantee future access to high-quality services whilst ensuring that there is a healthy financial balance across the various social security pillars. In addition to financial stability, which must of course be guaranteed, the level of services for each pillar is just as essential, whether for pensions, healthcare (health insurance) or long-term benefits (care insurance).

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

The same applies to benefits aimed at beneficiaries retaining a certain level of independence, to the extent possible, if they need the support of a third person (care situation).

This update of the Stability and Growth Programme includes the most recent forecasts on ageing-related expenditure which have been produced by the "Ageing Working Group" of the Economic Policy Committee within 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 of 27.3% of GDP for the same year, thus a relative reduction 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 introduced the provisions of the various legislative packages decided in the shadow of the crisis of 2010 and in particular introduced:

- the rule stating that the budgetary situation must be balanced or in surplus;
- sets a Medium-Term Objective (MTO) and a trajectory for related adjustments;
- a budgetary rule relating to central government spending;
- a medium-term budgetary framework including 4-year programming;
- a correction mechanism triggered if there is a significant deviations;
- a special procedure in case the State's annual budget cannot be adopted;
- provisions aimed at promoting the transparency of public finances; and
- the creation of the "National Council of Public Finance" (CNFP) as an independent body responsible for monitoring public finances.

Involvement of stakeholders in the European Semester

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

In this context, two social dialogue meetings with the social partners and Government were organised in February and March 2022 to discuss the 2022 cycle of the European Semester and the Government's priorities as outlined in its NRP 2022 and SGP 2022, as well as the progress achieved within the framework of the implementation of the Recovery and Resilience Plan (RRP). Chapter 7 of the NRP 2022 entitled "*Institutional issues and the role of stakeholders*" presents an overview of the discussions which took place within the framework of these meetings.

The involvement of parliament is ensured through the presentation and debate on the NRP and SGP during the plenary session of the Chamber of Deputies, prior to their transmission to the European Commission on 29 April 2022.

« Comité économique et financier national"

Under the authority of the Ministers of the Economy and Finance, the "Comité économique et financier national" (CEFN) is called upon to coordinate the work enabling the Government to meet the obligations incumbent upon it under European economic and financial governance, in particular the preparation of the SGP and the NRP. This committee was institutionalised in 2017 to replace the former "Comité de prévision" which ensured at the time the coordination between the stakeholders involved in preparing economic and budgetary forecasts.

Reconciliation of public finance concepts in line with the 2010 SEC and pursuant to the provisions of the 1999 Act

Since the 2019 State Budget, several measures were implemented so as to reconcile the views on 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 on an eventual 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, to the extent that budgets represent one of the main statements of intent of a government to implement its policy.

In this context, Luxembourg has pursued efforts over recent years to develop and apply green budgeting elements at national level, based on a detailed monitoring of investments carried out within the framework of the bond issuance of the "Sustainability Bond"[21] in 2020 as well as efforts made to achieve the objectives of Luxembourg's national "Integrated national energy and climate plan" (INECP).[22]

Over the medium term, the underlying budgeting methodology will develop according to the experience gained in the field and through efforts realised at European level to develop the tools in question.

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 evaluating any impact on sustainable development in Luxembourg and for maintaining policy coherence throughout the legislative cycle.

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

[22] *"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

VII. Statistical Appendix

Table 1a. Macroeconomic prospects

	ESA Code	Year 2021	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025	Year 2026
		Level	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change
1. Real GDP	B1*g	63,696	6.9	1.4	2.9	2.9	2.6	2.6
2. Nominal GDP	B1*g	73,313	14.2	5.4	4.5	4.3	4.1	4.3
Components of real GDP								
3. Private consumption expenditure	P.3	19,705	7.4	6.0	4.5	3.6	3.2	2.8
4. Government consumption expenditure	P.3	11,157	4.7	3.0	2.3	2.6	3.2	3.5
5. Gross fixed capital formation	P.51	11,193	12.3	0.7	2.0	1.1	0.5	1.3
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	132,880	9.7	4.8	5.1	5.2	4.7	4.6
8. Imports of goods and services	P.7	111,571	10.4	6.4	5.6	5.5	5.0	4.9
Contributions to real GDP growth								
9. Final domestic demand		-	2.9	2.5	2.2	1.8	1.7	1.7
10. Changes in inventories and net acquisition of valuables	P.52 + P.53	-	0.0	0.1	0.0	0.0	0.0	0.0
11. External balance of goods and services	B.11	-	4.1	-1.0	0.8	1.0	0.9	0.9

Table 1b. Price developments

	ESA Code	Year 2021	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025	Year 2026
		Level	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change
1. GDP deflator		1.2	6.8	3.9	1.5	1.4	1.5	1.6
2. Private consumption deflator		1.1	2.4	5.1	1.4	1.9	1.5	1.8
3a. HICP		109.6	3.5	6.2	1.1	2.0	1.2	1.7
3b. NICP		108.9	2.5	5.2	1.6	2.0	1.5	1.8
4. Public consumption deflator		1.1	0.3	5.8	3.6	2.9	2.8	2.7
5. Investment deflator		1.1	4.6	3.5	2.0	2.3	2.0	1.9
6. Export price deflator (goods and services)		1.2	7.8	3.9	0.7	1.0	1.0	1.3
7. Import price deflator (goods and services)		1.2	6.5	4.0	0.5	1.0	1.0	1.4

Table 1c. Labour market developments

	ESA Code	Year 2021	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025	Year 2026
		Level	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change
1. Employment, persons[1]		487	3.1	2.4	2.1	2.2	2.3	2.2
2. Employment, hours worked (in million of hours worked)		673	9.5	1.9	1.6	1.7	1.8	1.7
3a. Unemployment rate (%) (harmonised definition, Eurostat)		19	6.2	5.7	5.6	5.5	5.5	5.4
3b. Unemployment rate (%) (ADEM definition)		17	5.7	5.2	5.2	5.1	5.0	5.0
4. Labour productivity, persons[2]		131	3.7	-0.9	0.8	0.6	0.3	0.4
5. Labour productivity, hours worked[3]		95	6.5	-0.4	1.3	1.1	0.8	0.9
6. Compensation of employees (in billion of euros)	D.1	35	8.5	7.5	4.5	4.0	4.2	4.3
7. Compensation per employee (in thousands of euros)		71	5.4	5.1	2.4	1.7	1.9	2.1

[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 2021	Year 2022	Year 2023	Year 2024	Year 2025	Year 2026
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	0.9	-0.7	-0.4	-0.3	-0.2	0.0
4. Statistical discrepancy		-	-	-	-	-	-

Table 2a. General government budgetary prospects

	ESA Code	Year 2021	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025	Year 2026
		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	650	0.9	-0.7	-0.4	-0.3	-0.2	0.0
2. Central government	S.1311	-326	-0.4	-2.1	-1.6	-1.4	-1.0	-0.6
3. State government	S.1312	…	…	…	…	…	…	…
4. Local government	S.1313	70	0.1	0.3	0.3	0.3	0.3	0.3
5. Social security funds	S.1314	906	1.2	1.2	0.9	0.8	0.5	0.3
General government (S13)								
6. Total revenue	TR	31,664	43.2	42.8	42.8	43.0	43.1	43.2
7. Total expenditure	TE[1]	31,015	42.3	43.5	43.2	43.3	43.3	43.2
8. Net lending/borrowing	EDP B.9	650	0.9	-0.7	-0.4	-0.3	-0.2	0.0
9. Interest expenditure	EDP D.41	116	0.2	0.1	0.2	0.2	0.2	0.3
10. Primary balance[2]		766	1.0	-0.6	-0.2	-0.2	0.0	0.3
11. One-off and other temporary measures[3]		…	…	…	…	…	…	…
Selected components of revenue								
12. Total taxes (12=12a+12b+12c)		20,089	27.4	26.9	26.9	27.0	27.1	27.2
12a. Taxes on production and imports	D.2	8,475	11.6	12.0	11.9	11.8	11.8	11.7
12b. Current taxes on income, wealth, etc.	D.5	11,450	15.6	14.7	14.8	14.9	15.1	15.2
12c. Capital taxes	D.91	163	0.2	0.2	0.3	0.2	0.2	0.2
13. Social contributions	D.61	8,591	11.7	11.8	11.9	12.0	12.0	12.0
14. Property income	D.4	863	1.2	1.0	1.0	1.0	1.1	1.1
15. Other[4]		2,121	2.9	3.0	3.0	3.0	2.9	2.9
16=6. Total revenue	TR	31,664	43.2	42.8	42.8	43.0	43.1	43.2
p.m.: Tax burden (D.2+D.5+D.61+D.91-D.995)[5]		28,680	39.1	38.7	38.8	39.0	39.1	39.2
Selected components of expenditure								
17. Compensation of employees and intermediate consumption	D.1+P.2	10,339	14.1	14.5	14.5	14.5	14.4	14.3
17a. Compensation of employees	D.1	7,293	9.9	10.1	10.3	10.4	10.4	10.4
17b. Intermediate consumtpion	P.2	3,046	4.2	4.4	4.1	4.1	4.0	3.9
18. Social payments (18=18a+18b)		13,297	18.1	18.3	18.6	18.8	19.0	19.3
of which Unemployment benefits[6]		738	1.0	0.9	0.9	0.8	0.8	0.8
18a. Social transfers in kind supplied via market producers	D.6311, D.63121, D.63131	2,400	3.3	3.4	3.4	3.4	3.5	3.6
18b. Social transfers other than in kind	D.62	10,896	14.9	14.9	15.2	15.4	15.5	15.7
19=9. Interest expenditure	EDP D.41	116	0.2	0.1	0.2	0.2	0.2	0.3
20. Subsidies	D.3	749	1.0	1.1	1.0	1.0	1.0	0.9
21. Gross fixed capital formation	P.51	2,931	4.0	4.1	4.3	4.3	4.2	4.2
22. Capital transfers	D.9	1,003	1.4	1.3	1.0	1.0	0.9	0.9
23. Other[7]		2,579	3.5	4.0	3.6	3.6	3.5	3.4
24=7. Total expenditure	TE[1]	31,015	42.3	43.5	43.2	43.3	43.3	43.2

[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 2021	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025	Year 2026
		Level	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP
1. Total revenue at unchanged policies		31,664	43.2	43.5	43.1	42.8	42.8	43.0
2. Total expenditure at unchanged policies		31,015	42.3	43.3	43.3	43.1	43.0	43.0
3. Net borrowing/lending (general government)		650	0.9	0.2	-0.1	-0.2	-0.2	0.0
3.a. Net borrowing/lending (central government)		-326	-0.4	-1.3	-1.4	-1.4	-1.0	-0.7
3.b. Net borrowing/lending (local government)		70	0.1	0.3	0.3	0.4	0.4	0.4
3.c. Net lending/borrowing (social security funds)		906	1.2	1.2	0.9	0.8	0.5	0.3

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

		Year 2021	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025	Year 2026
		Level	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP
1. Expenditure on EU programmes fully matched by EU funds revenue		109	0.1	0.2	0.1	0.1	0.1	0.1
2. Cyclical unemployment expenditure[1]		738	1.0	0.9	0.9	0.8	0.8	0.8
3. Effect of discretionary revenue measures		18	0.0	0.4	-0.3	-0.3	0.3	0.1
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 2020	Year 2026
1. General public services	1	5.1	4.8
2. Defence	2	0.7	0.4
3. Public order and safety	3	1.3	1.2
4. Economic affairs	4	5.8	5.4
5. Environmental protection	5	1.0	0.9
6. Housing and community amenities	6	0.5	0.7
7. Health	7	5.9	5.5
8. Recreation, culture and religion	8	1.2	1.2
9. Education	9	5.0	4.7
10. Social protection	10	20.6	18.4
11. Total expenditure	TE[1]	47.2	43.2

[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 2021	Year 2022	Year 2023	Year 2024	Year 2025	Year 2026
1. Gross debt[1]		24.4	25.4	25.8	26.2	26.2	25.9
2. Change in gross debt ratio		-0.4	1.0	0.4	0.4	0.0	-0.3
Contributions to changes in gross debt							
3. Central government balance effect		0.5	2.2	1.7	1.4	1.1	0.6
4. Denominator effect		-3.1	-1.2	-1.1	-1.1	-1.0	-1.1
5. Other		2.2	0.0	-0.2	0.0	0.0	0.2
4. Interest expenditure[2]		0.2	0.1	0.2	0.2	0.2	0.3
5. Stock-flow adjustment		-0.8	-1.1	-1.2	-1.0	-1.0	-0.9
p.m.: Implicit interest rate on debt[3]		0.6	0.6	0.7	0.6	0.7	0.9

[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 2021	Year 2022	Year 2023	Year 2024	Year 2025	Year 2026
1. Real GDP growth (%)		6.9	1.4	2.9	2.9	2.6	2.6
2. Net lending of general government	EDP B.9	0.9	-0.7	-0.4	-0.3	-0.2	0.0
3. Interest expenditure	EDP D.41	0.2	0.1	0.2	0.2	0.2	0.3
4. One-off and other temporary measures[1]		....	...	...	...	...	...
5. Potential GDP growth (%)		2.5	2.4	2.4	2.4	2.5	2.5
6. Output gap		-0.7	-1.7	-1.1	-0.8	-0.4	0.0
7. Cyclical budgetary component		-0.3	-0.8	-0.5	-0.4	-0.2	0.0
8. Cyclically-adjusted balance (2 - 7)		1.2	0.1	0.1	0.0	0.0	0.0
9. Cyclically-adjusted primary balance (8 + 3)		1.4	0.2	0.3	0.2	0.2	0.3
10. Structural balance		1.2	0.1	0.1	0.0	0.0	0.0

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

Table 6. Divergence from previous update and the multiannual budget

	ESA Code	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025	Year 2026
Real GDP growth (%)							
2021 SGP		4.0	4.0	2.7	2.6	2.6	...
Multiannual budget 2021 - 2025		6.0	3.5	2.7	2.6	2.6	...
2022 SGP		6.9	1.4	2.9	2.9	2.6	2.6
Difference 2022 SGP vs. 2021 SGP		2.9	-2.6	0.3	0.2	0.0	...
Difference 2022 SGP vs. Multiannual budget 2021-2025		0.9	-2.1	0.3	0.2	0.0	...
Nominal GDP growth (%)							
2021 SGP		6.3	4.7	4.1	4.2	4.2	...
Multiannual budget 2021 - 2025		8.0	4.4	4.1	4.2	4.2	...
2022 SGP		14.2	5.4	4.5	4.3	4.1	4.3
Difference 2022 SGP vs. 2021 SGP		7.8	0.7	0.4	0.1	-0.1	...
Difference 2022 SGP vs. Multiannual budget 2021-2025		6.2	1.0	0.4	0.1	-0.1	...
General government net lending (% of GDP)	EDP B.9						
2021 SGP		-2.0	-1.3	-0.4	0.0	0.4	...
Multiannual budget 2021 - 2025		-0.6	-0.2	-0.2	0.1	0.3	...
2022 SGP		0.9	-0.7	-0.4	-0.3	-0.2	0.0
Difference 2022 SGP vs. 2021 SGP		2.9	0.6	0.0	-0.4	-0.5	...
Difference 2022 SGP vs. Multiannual budget 2021-2025		1.5	-0.5	-0.2	-0.4	-0.5	...
Structural balance							
2021 SGP		-0.7	-0.3	0.3	0.4	0.4	...
Multiannual budget 2021 - 2025		0.1	0.3	0.6	0.6	0.5	...
2022 SGP		1.2	0.1	0.1	0.0	0.0	0.0
Difference 2022 SGP vs. 2021 SGP		1.9	0.4	-0.2	-0.3	-0.4	...
Difference 2022 SGP vs. Multiannual budget 2021-2025		1.2	-0.2	-0.4	-0.5	-0.5	...
General government gross debt (% of GDP)							
2021 SGP		26.9	28.0	28.4	28.2	27.6	...
Multiannual budget 2021 - 2025		25.8	26.6	27.0	27.2	26.9	...
2022 SGP		24.4	25.4	25.8	26.2	26.2	25.9
Difference 2022 SGP vs. 2021 SGP		-2.5	-2.7	-2.7	-2.1	-1.4	...
Difference 2022 SGP vs. Multiannual budget 2021-2025		-1.5	-1.2	-1.2	-1.0	-0.7	...

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	3.4	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		3.8	0.5
Other	Non-Covid-19 public guarantees	...	8.3	5.7
	of which guarantees to the financial sector [1]	...	5.2	4.3
	Subtotal		8.3	5.7
Total			**12.1**	**6.2**

[1]At 31.12.2021.

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

Table 9. Basic assumptions

	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025	Year 2026
Short-term interest rate (annual average)	-0.5	-0.5	-0.5	-0.4	-0.1	0.3
Long-term interest rate (annual average)	0.1	0.5	1.0	1.3	1.4	1.6
Exchange rate €/$ (annual average)	1.18	1.11	1.17	1.21	1.24	1.25
Nominal effective exchange rate	0.94	0.94	0.94	0.94	0.94	0.94
EU GDP growth	5.1	3.0	2.3	1.6	1.2	1.3
Growth of relevant foreign markets	7.1	5.8	5.1	3.4	2.4	2.4
Oil prices (Brent, $/baril)	70.7	101.9	83.3	71.1	68.8	70.2

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

Revenue from RRF grants (% of GDP)							
	2020	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**
RRF GRANTS as included in the revenue projections	-	0.017	0.034	0.026	0.019	0.013	0.007
Cash disbursements of RRF GRANTS from EU	-	0.017	0.000	0.000	0.000	0.000	0.000

Expenditure financed by RRF grants (% of GDP)							
	2020	**2021**	**2022**	**2023**	**2024**	**2025**	**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	0.011	0.010	0.009	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	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL CURRENT EXPENDITURE	0.003	0.003	0.011	0.010	0.010	0.004	0.001
Gross fixed capital formation P.51g	0.001	0.000	0.001	0.004	0.000	0.000	0.000
Capital transfers D.9	0.000	0.000	0.012	0.022	0.015	0.016	0.002
TOTAL CAPITAL EXPENDITURE	0.004	0.004	0.024	0.036	0.024	0.020	0.003

Other costs financed by RRF grants (% of GDP)[1]							
	2020	**2021**	**2022**	**2023**	**2024**	**2025**	**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

VIII. Glossary

ADEM	Agence pour le développement de l'emploi (Employment Agency)
AEC	State Office for Assessment and Monitoring of the long-term care insurance
AMECO	Annual macro-economic database of the European Commission's Directorate General for Economic and Financial Affairs
AVC	Cost-of-living benefit
CEFN	Comité économique et financier national
CES	Economic and Social Council
CNFP	National Council of Public Finance
BCL	Central Bank of Luxembourg
ECB	European Central Bank
EPSAS	European public sector accounting standards
ESA 2010	European system of accounts
ETS	Greenhouse gas emissions trading system
EU	European Union
GDP	Gross domestic product
HCPN	High Commission for National Protection
IGF	General Inspectorate of Finances
IGSS	General Inspectorate of Social Security
INECP	Integrated national energy and climate plan
IPCC	Intergovernmental panel on climate change
IPSAS	International public sector accounting standards
MTO	Medium-term budgetary objective
NCPI	National consumer price index
NRP	National Reform Programme
OECD	Organisation for Economic Cooperation and Development
REVIS	Social inclusion income
RPGH	Allowance for severely disabled
RRP	Recovery and Resilience Plan
SC1	Unfavourable scenario
SC2	Favourable scenario
SC5	Simulation of an interest rate shock
SGP	Stability and Growth Programme
STATEC	National Institute of statistics and economic studies of the Grand Duchy of Luxembourg