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DE STABILITÉITSPROGRAMM 2020

Stability and Growth Programme 2020

of the Grand Duchy of Luxembourg

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I. OVERALL POLICY FRAMEWORK AND OBJECTIVES IN THE CONTEXT OF THE COVID-19 CRISIS

Against the backdrop of the current health, economic and social crisis caused by COVID-19, the presentation of this year's Stability and Growth Programme 2020 (SGP 2020) takes place in an unprecedented context in the contemporary history of Europe and the world.

Luxembourg's SGP 2020 follows the guidelines issued by the European Commission on April 6, 2020 on form and content. Thus, it focuses primarily on the years 2020 and 2021 and lists the sanitary, economic and social measures that have been taken during this period of crisis.

In light of the uncertainty surrounding the current crisis, the SGP 2020 estimates on the country's economic and budgetary situation represent only a momentary picture of the situation and are based on preliminary assumptions and data that still risk to change substantially. At present, the short-term and medium-term repercussions remain difficult to quantify and structural consequences ensuing from the crisis are even less predictable.

Since the outbreak and exponential spread of the SARS-CoV-2 virus, the Government has taken rapid and substantial decisions to contain the virus within the population. With the entry into force of the state of emergency on March 18, 2020, the Government was able to act promptly and to implement all the essential and necessary measures in the fight against the COVID-19 pandemic.

The measures linked to the outbreak of the COVID-19 fall under the scope of the activation of the general escape clause of the Stability and Growth Pact. This general and derogatory clause has been triggered for the first time in the Pact's history and will apply at least to the year 2020. Luxembourg and the other Member States of the European Union unanimously supported the imminent activation of the clause.

Given the scale of the crisis, the clause allows for the effective suspension of the EU budgetary requirement (i) to reach or to converge towards the medium-term budgetary objective ("MTO") and (ii) to respect the Maastricht deficit threshold. Luxembourg will consequently be able to make use of all the fiscal space under the Stability and Growth Pact to mobilise the necessary resources required to offset the effects of the crisis.

It is thanks to the favourable budgetary situation established by the current and previous government that Luxembourg is on a solid footing to face the challenges that are still developing.

In 2019, the general government displayed a surplus of 1.4 billion euros or 2.2 % of GDP. Indeed, for the second year in a row, the central government closed 2019 positively, and public debt stood at 22.1% of GDP. If one excludes the pre-financing of a bond loan maturing in May 2020, public debt would even have been reduced to 19.4% of GDP.

The health crisis forced the Government to introduce numerous restrictions for commercial and craft activities, including the closure of construction sites, to stem the spread of COVID-19. Beyond these regulatory prohibitions, teaching activities have been suspended.

Recent data suggests that the measures taken by the Government in the initial stage of containment have borne fruits, as the rate of new infections is on a downward trend. The Government has thus announced on April 15, 2020 that containment measures will be prudently and gradually lifted in the coming months with a continuous monitoring of the situation.

Using several innovative methods and on the basis of various hypotheses, STATEC has established a first estimate of the impact of these containment measures on Luxembourg's economic activity. A strict confinement phase would lead to a reduction in economic activity of around 25%.

For 2020, the STATEC estimates that the Grand Duchy's real GDP would contract by around 6%, as presented in their baseline scenario. On the basis of negative assumptions, a 12.4% fall in GDP could materialise. The estimates made by STATEC are in line with the latest estimates drawn up by the International Monetary Fund and the OECD.

To mitigate the economic and social impact of the crisis and to prepare the country for a rapid recovery, the Government has decided on a broad set of measures aimed at maintaining the country's productive apparatus, protecting, as far as possible, the financial capacities of companies of all sizes, including the self-employed, and safeguarding employment and household purchasing power.

These measures are described in detail in Chapter IV of this SGP 2020 and include direct budgetary measures, through grants and subsidies, to the benefit of companies, self-employed persons and employees. They also include measures to strengthen the liquidity position of businesses through deferrals of tax and social security payments and through the provision of state guarantees to facilitate the access to loans provided by banks.

In parallel to these economic measures, being primarily aimed at businesses, the self-employed and households, Luxembourg has as well released the necessary funds to invest in its crisis management capacity, through the acquisition of health equipment and infrastructure.

The overall package of health and economic measures is estimated at a total of 10.4 billion euros or 17.5% of GDP. This is an increase from the initially announced 8.8 billion euros on March 25, 2020 and is explained by the introduction of new measures since March and the inclusion of health measures and other initiatives taken by different entities within the scope of the general government. In total, the direct impact of COVID-19 related measures on the general government balance amounts to 3.3 billion euros or 5.5% of GDP.

The total volume of the Government's package of measures is in the same order of magnitude as the overall volume decided at the European level. By way of comparison, the direct expenditure measures decided in the EU as a whole amount to 3% of GDP, compared with 3.8% in the case of Luxembourg, while the measures to promote business liquidity (deferrals and guarantees) amount to 16% of GDP in Europe, compared with 13.7% of GDP in Luxembourg.

The combination of the above-discussed factors, namely the massive slowdown in economic activity and the budgetary cost of the measures enacted by the Government, allow now to establish a first estimate of the budgetary situation in 2020.

The general government, consisting of central, local governments and social security funds, is estimated to have a deficit of 8.5 % of GDP or 5 billion euros in 2020. Public debt is assumed to rise mechanically to 28.7% of GDP in 2020.

Luxembourg will be able to benefit from the fiscal space that the current and previous government have been able to establish through their provident and prudent policies, which aimed at complying at all times with the budgetary rules of the Stability and Growth Pact and kept public debt well below 30% of GDP.

The State's solid financial footing was further strengthened at the end of April 2020 through an innovative debt operation to borrow 2.5 billion euros at a negative yield.

However, the budgetary estimates for 2020 should be assessed with the utmost prudence. The estimates for GDP remain provisional and their impact on tax revenues will only become clearer as the health crisis progresses. Likewise, the budgetary impact of the economic stabilisation measures is based on a multitude of assumptions and is estimated in the broadest possible sense.

For 2021, and in line with STATEC's baseline scenario, it is assumed that economic activity will regain momentum with sanitary measures coming to an end and the economic stabilisation package displaying its full effect. Hence, STATEC forecasts a (mechanical) return of growth to 7%. In this baseline scenario, which remains subject to significant uncertainties and risks, the general government balance is assumed to recover with the fading out of the budgetary impact of measures related to the current crisis. Nevertheless, the general government balance is estimated to remain negative on a no-policy change basis.

For all fiscal estimates for 2020 and 2021, Luxembourg continues to follow – as in the past- a prudent approach, both in terms of revenues and expenditures. The nature and scale of the current COVID-19 crisis calls for continued vigilance in all cases. In view of significant uncertainties, substantial revisions may occur once the full sanitary and economic impact of the crisis becomes clearer in the coming months.

Luxembourg reiterates, through the SGP 2020, its commitment to ensure sustainable, sound and balanced public finances and to maintain its 'AAA' credit rating. At the same time, the Government is seeking to promote a rapid return to a qualitative growth pattern, in line with its environmental, climate and job creating objectives, in order to uphold the economic and social successes the country has experienced over the last few years.

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Luxembourg's SGP 2020 was adopted by the Government Council on 29 April 2020 and was presented to Parliament on the same day.

SUMMARY TABLE

PUBLIC FINANCES	2019			2020			2021		
	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	**28.506**	**44.9**	**+4.6**	**26.167**	**44.1**	**-8.2**	**28.208**	**43.5**	**+7.8**
of which:									
Taxes on production and imports ("indirect" taxes)	7.349	11.6	+3.9	6.555	11.0	-10.8	7.204	11.1	+9.9
Current taxes on income, wealth, etc. ("direct" taxes)	10.510	16.5	+3.7	8.906	15.0	-15.3	9.836	15.2	+10.4
Social contributions	7.714	12.1	+5.6	7.787	13.1	+0.9	7.953	12.3	+2.1
TOTAL EXPENDITURE	**27.121**	**42.7**	**+6.8**	**31.191**	**52.6**	**+15.0**	**30.174**	**46.5**	**-3.3**
of which:									
Public Investment*	2.731	4.3	+14.7	2.844	4.8	+4.2	3.024	4.7	+6.3
Additional public investment linked to COVID-19	-	-	-	0.194	0.3	-	-	-	-
Social payments	11.557	18.2	+5.8	13.454	22.7	+16.4	12.783	19.7	-5.0
Intermediate consumption	2.639	4.2	+8.7	2.851	4.8	+8.0	2.910	4.5	+2.1
Compensation of employees	6.400	10.1	+7.5	6.872	11.6	+7.4	7.227	11.1	+5.2
Total impact COVID-19 measures (see Chapter IV)	-	-	-	-3.284	-5.5	-	-0.476	-0.7	-
Macroeconomic Impact	-	-	-	-2.494	-4.2	-	-2.432	-3.7	-
NET LENDING/BORROWING OF GENERAL GOVERNMENT	**1.385**	**2.2**		**-5.024**	**-8.5**		**-1.966**	**-3.0**	
Net lending/borrowing of central government	0.000	0.0		-4.933	-8.3		-2.159	-3.3	
Net lending/borrowing of local government	0.246	0.4		-0.372	-0.6		-0.150	-0.2	
Net lending/borrowing of social security funds	1.138	1.8		0.281	0.5		0.342	0.5	
GROSS DEBT	**14.013**	**22.1**		**17.015**	**28.7**		**19.224**	**29.6**	

MACROECONOMIC INDICATORS	2019	2020	2021
Growth			
Real GDP (in %)	2.3	-6.0	7.0
Nominal GDP (in %)	5.8	-6.6	9.3
Nominal GDP (levels, in bn euros)	63.516	59.344	64.893
PRICE DEVELOPMENTS			
Inflation NICP (in %)	1.7	0.6	1.6
EMPLOYMENT			
Employment (growth, in %)	3.6	0.7	1.0
Unemployment rate (ADEM, in %)	5.4	6.7	7.2

* : Public investment excluding COVID-19 crisis related capital transfers and the acquisition of the military aircraft. The accounting impact of the military aircraft is included in the total expenditure and balance.

Source: Ministry of Finance, STATEC.

II. ECONOMIC SITUATION AND MACROECONOMIC FORECASTS

Over the past years, Luxembourg has experienced strong economic development above the euro area average, thanks to the continued action towards qualitative growth of the current and past government since 2013. The labour market has developed in a dynamic manner, creating tens of thousands of new jobs in diverse economic sectors. Consequently, Luxembourg is facing today's challenges from a favourable starting position, in spite that the COVID-19 pandemic is likely to have significant negative consequences for Luxembourg's economy, as everywhere else in the world.

The SGP 2020 is published in an unprecedented context and the structural effects of the COVID-19 crisis, beyond the acute phase of the crisis, are difficult to predict at this moment in time. Exit strategies both in Luxembourg and in our neighbouring countries remain significantly uncertain in regards to the continuation of economic activity in the short term.

As for the macroeconomic projections underlying the SGP 2020, the budget forecasts were initially based on the "global recession" scenario as published by STATEC on March 12, 2020.[1] *For the purposes of this SGP, STATEC has recently updated the figures presented in March 2020, bringing together various sources of information and making use of innovative estimation methods to best quantify the consequences of the current crisis for the economy, for 2020 and 2021.*

The macroeconomic projections, discussed in this chapter, are surrounded by a great level of uncertainty (even more than usually) and are largely dependent on the assumptions made at this moment in time. The real consequences of this crisis remain to be seen.

As in the past, the fiscal forecasts have been prepared in a prudent manner. They consider, to the extent possible, the most recent macroeconomic forecasts, which have been produced independently by STATEC. Certainly, the forecasts will be subject to subsequent revisions based on the observed data.

For the purposes of the SGP 2020, the budget forecasts will be based on the baseline macroeconomic scenario as produced by STATEC. The baseline scenario by STATEC appears to take into account the progressive deconfinement strategy that is currently being implemented by the Government, without prejudging the Government's future decision-making.

[1] "Working Paper- Economie et statistiques N°111/2020- Projections économiques à moyen terme 2020-2024", STATEC, March 2020.

II.1 The European and international macroeconomic environment

For the macroeconomic estimates of the external environment in 2020 and 2021, STATEC uses the macroeconomic scenario of Oxford Economics dated April 8, 2020. This scenario assumes that containment measures will affect the euro area economy for at least 6-8 weeks, with their largest impact during the months of March and April.

While the euro area's growth rate stood at 1.8% in 2018, 2019 recorded a more moderate growth of 1.2%. The European economy has thus experienced a shortness of breath and appeared to have reached the end of an extended growth cycle already prior to the onset of the COVID-19 crisis.

It goes without saying that the economy of the euro zone will strongly be affected by the outbreak of COVID-19 in 2020 and likely beyond. The euro area real GDP for 2020 is assumed to display a decline of 5.1%.

Household consumer spending in the first semester of the year may delay into the second half of the year or could even be at risk of being lost for the entire year. The impact of the crisis could be just as harmful for investments. Indeed, the negative impact on investments seems to be confirmed by the confidence indicators that have been in freefall since the outbreak of the crisis.

Moreover, exports are estimated to contract sharply this year, due to the downward trends in world trade in goods and services. The severe restrictions on free movement will primarily affect tourism activities.

Financial markets have experienced major corrections resulting from the pandemic's impact on economic activity and corporate profits. The Eurostoxx50, for instance, recorded losses of up to 35% at the early outset of the crisis before rebounding in March and April. Over the year 2020, the baseline scenario predicts a decline of 14.6%.

The macroeconomic baseline scenario assumes that first half of the year, marked by strict containment measures, will be followed by a gradual recovery of activities in the second half of 2020. The recovery trend is expected to carry on into 2021 with the euro area GDP returning to 4.6%.

The repeal of the containment measures and the resumption of day-to-day activities will underpin the rebound effect for 2021. In conjunction with the appeasement of the macroeconomic impact of the crisis, the monetary and fiscal stimulus measures will support and protect the productive base of the Eurozone.

Nevertheless, it is important to asses these estimates with prudence. The speed of the recovery and the state of the production apparatus at the exit of the crisis remain highly uncertain.

II.2 The macroeconomic situation in Luxembourg

2020

In response to the sheer magnitude of the COVID-19 crisis, STATEC- the independent body responsible for the production of the macroeconomic forecasts- has updated its forecasts, initially drawn up on March 12, 2020. In order to mitigate the current lack of observed short-term data, STATEC had to rely on innovative methods and sources of information to produce its forecast. STATEC carried out a "bottom-up" calculation based on detailed sectorial data to quantify the loss of activity caused by the containment measures. They find that activities would decrease by around 25.8% during an acute containment phase (see methodological box).

STATEC's baseline scenario assumes that the severe containment phase covers the period from 23 March to 17 April 2020 and will be followed by a gradual lifting of restrictions until July 2020.[2] The decline in economic activity is spread in varying degrees over the above-assumed period in order to calibrate the output of the normal projection model. The updated forecast does also include the very important measures taken by the Government that aim to stabilise economic activity.

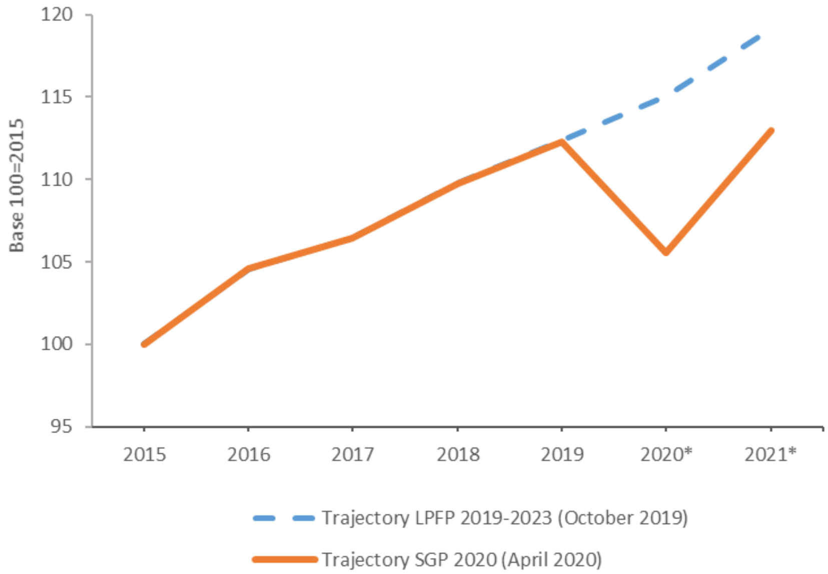
Similar to other European Member States, economic activity is expected to deteriorate significantly under these conditions and real GDP is expected to fall by an unprecedented 6.0% in 2020. The impact of the current crisis is therefore estimated to be more severe than the one of the financial crisis in 2009, when the decline of GDP reached 4.4%. Chart 1 illustrates the abrupt interruption of Luxembourg's growth and shows the extent to which the new projections would deviate from the multiannual budgetary plan 2019-2023, published in October 2019.

A more granular analysis indicates that all major components of growth contribute to the decline of GDP. Constrained by the containment measures, private consumer spending is expected to decline by 1.6%, after having grown by 2.8 % in 2019. The important measures for employees and self-employed, as adopted by the Government, intend to support household purchasing power in these times of crisis. Moreover, the significant expenses with regards to the short-time working scheme and the aid schemes for micro-companies and the self-employed will lessen the shock on purchasing power and help to render the economy more resilient.

While the collapse of economic activities in the first half of 2020 will certainly have an impact on investment, the decline in the growth rate of gross capital formation from 4.0 % in 2019 to 2.7 % in 2020 remains limited. This stability reflects the Government's continued commitment to promote investment at all levels.

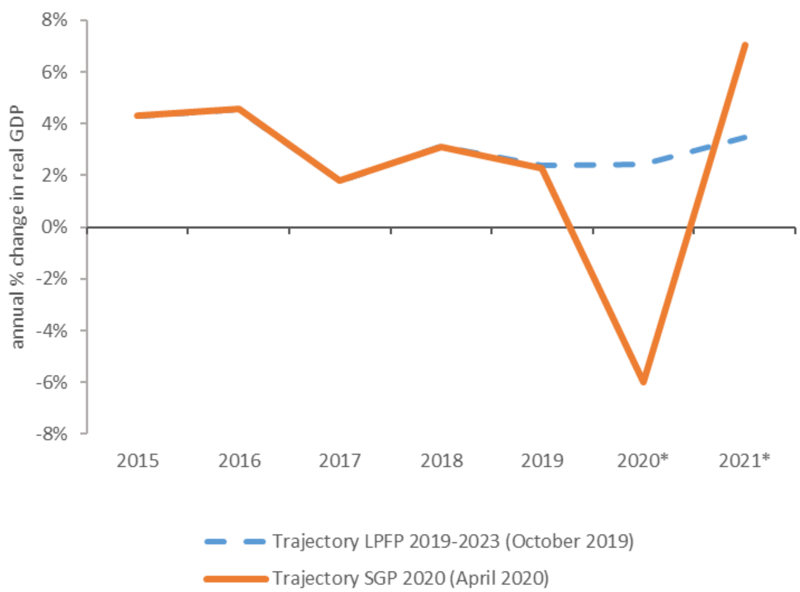
[2] The assumptions made by STATEC with regard to the lifting of restrictions do not prejudge the Government's actual exit strategy, which will seek the right balance between public health imperatives and psychosocial and economic aspects.

Chart 1: Evolution of real GDP (base 100= 2015)



Source: STATEC, Ministry of Finance.

Chart 2: Real GDP growth (2015-2021)



Source: STATEC, Ministry of Finance.

Methodological box: Estimating the impact of the COVID-19 crisis on economic activity in Luxembourg

Luxembourg's economic activity is strongly affected by the containment measures. The usual data for estimating the level of activity is not yet available at this stage and STATEC therefore used alternative methodologies to assess the economic situation.

Several elements have been taken into account, some of which are outside the scope of official statistics or are collected, directly from companies or through employers' associations. Other information, such as the number of applications for short-time working scheme and high-frequency indicators –such as credit card payments, electricity imports and road traffic- were used to assess the impact on economic activity by industry.

Table A: Impact on gross added value (by sector) on an annual basis

	Share in value added [GVA] in %	Impact	
		in %	in % points of GVA
Agriculture	0.2	-10	0.0
Manufacturing	7.6	-47	-3.6
Construction	5.6	-90	-5.0
Trade	8.1	-39	-3.2
Transport and storage	5.4	-60	-3.2
Hotel and catering	1.5	-90	-1.4
Info. and communication	10.4	-20	-2.1
Financial activities	23.9	-10	-2.4
Real estate activities	8.4	-17	-1.4
Business services	12.5	-21	-2.6
Non-market-dominated services	17.8	-5	-0.9
Total economy	100	-	-25.8

Source: STATEC.

On the basis of the collected information, total added value during the strict confinement phase is estimated to drop by 25.8%. The sectors most affected would be construction (-90%), the restaurant and hotel business (-90%), transport and storage industry (-60%) and manufacturing (-47%). Given that these industries have a relatively low weight in the creation of Luxembourg's wealth compared to its neighbouring countries and as the reduction in financial activity is assumed less severe, the decline in economic activity in Luxembourg would not reach the levels of our neighbouring countries.

By means of this "bottom up" estimate, GDP in 2020 would fall around 2 points for each month of strict containment measures (25.8% divided by 12 months). For economic forecasting, the assumption on the extent and duration of containment measures is therefore of paramount importance.

Being an international oriented economy, Luxembourg's external activities would particularly be affected by barriers to global trade that could ensue from containment measures by other countries. The export of goods and services could see a reduction of 7.6%, while imports could decline by 4.9%.

The near-total halt of economic activity is also constraining the expansion of the labour market. After showing resilience in a tense international economic climate in 2019, the employment growth rate would fall from 3.6% to 0.7% in 2020. The unemployment rate, according to the definition as by ADEM, would rise from 5.4% in 2019 to 6.7 % in 2020.

Aware of the social consequences of a sudden increase in permanent unemployment numbers, the Government has acted with due vigour by simplifying the administrative procedure relating to the short-time working scheme, including through advance disbursements, and by extending the scope of the scheme to all companies affected by COVID-19. Entitlement to unemployment benefits was also extended during the state of emergency to protect the most vulnerable. According to STATEC, all these measures taken by Luxembourg's Government would cushion the shock on the labour market and support household purchasing power throughout the year.

Inflation trends in Luxembourg are likely to fluctuate significantly, in particular due to the important developments in oil prices as already witnessed during the past months. Oil price is factored into the model on basis of the hypothesis that the average price of a barrel of Brent is set at 30 dollars for 2020. This hypothesis is equivalent to a 50% drop in price compared to the previous year. Inflation, as measured by the NICP, would therefore fall from 1.7 % in 2019 to 0.6% in 2020. In January of this year and subsequent to the automatic indexation system for wages, pensions and salaries, the remuneration was revised upwards by 2.5%.

2021

As mentioned above, the macroeconomic forecasting for the year 2020 presents a considerable challenge within the current context, in particular due to the prevailing uncertainty about a large number of elements that are crucial for the development of reliable projections.[3] Indeed, this exercise is even more complicated for the year 2021.

While the magnitude of the economic impact of COVID-19 in 2020 is indeed difficult to quantify, a deep economic recession is now undeniable. The real effects on the economy will depend above all on the duration and the extent of the containment measures at the international level, the existence or not of additional waves of infections and the effectiveness of the responses to the current crisis.

In the baseline scenario underlying this SGP 2020, STATEC assumes that containment measures will reach their maximum effects in the second quarter of 2020, with gradual lifting of containment measures until July 2020. This assumption would result in a mechanical rebound in GDP of 7 % in 2021.

[3] The methodological box provides a brief overview of the methods used by STATEC to carry out this exercise to their best.

Chart 2 shows that Luxembourg's economy will be characterised by a "V-shaped" recovery. Accordingly, the COVID-19 crisis would plunge the economy into an immediate recession in 2020, before rebounding sharply in 2021.

The economic stabilisation measures introduced by the Government during the confinement period should help to mitigate the financial damage experienced by companies. These governmental decisions are at the root of the economy's ability to resume growth levels at the end of containment measures.

Under the hypotheses assumed by STATEC in its baseline scenario, private consumption should grow by 2.3%, after shrinking by 1.6% in 2020. In past years, domestic demand has in fact been a guarantor of sustained growth in Luxembourg's economy, in the face of an international environment that has been marked by pronounced uncertainties.

However, it is Luxembourg's international outlook that will enable its economy to take full advantage of the progressive deconfinement. According to Oxford Economics, the majority of activities would find their way back to normality and the disruptions in global value chains would gradually disappear. On the basis of these observations, the contribution of foreign trade to GDP growth would amount to 5.5% in 2021.

Carried along by the dynamism of the economy, inflation (NICP) would regain momentum and reach a rate of 1.6% in 2021. Under the current circumstances, STATEC forecasts that wage development will remain constant in 2021 and that the next indexation of wages will therefore not be triggered until 2022.

However, this upward trend will not be observed in the labour market, which will undergo a difficult recovery throughout 2021. Employment is expected to grow only by 1%, while unemployment is expected to rise to 7.2%. The severe economic contraction, similar to the experience of the financial crisis in 2009, foreshadows a continuous delayed increase of unemployment in the wake of recovery.

In the same vein, unemployment resulting from the COVID-19 crisis is presumed to be fully absorbed in the medium-term. Indeed, the measures introduced by the Government to curb the crisis will play a key role in containing adverse effects on the labour market and will allow mitigating a potential deterioration of human capital.

II.3 Risks and uncertainties

The macroeconomic forecasts need to be assessed with due prudence due to the significant uncertainties surrounding the current situation. The potential materialisation of a longer period of containment or a second wave of infections or various economic and financial risks, both nationally and internationally, may at any time call into question the baseline economic scenario, described above.

Taking into account these risks and uncertainties, STATEC[4] also established a negative scenario based on a 12.4% collapse in real GDP for the euro area in 2020, followed by a timid recovery of 1% for 2021. This

[4] According to STATEC, the assumptions underlying the baseline scenario seem to be in line with the gradual deconfinement strategies that are currently being implemented. Depending on future health developments, the negative scenario could very well materialize.

theoretical scenario is characterised by a prolonged confinement and a synchronised severe global depression, of which the magnitude and speed would be unparalleled.

In such a scenario, the growth rate for Luxembourg would also be at -12.4%, according to STATEC. The employment growth rate would fall by 1.3% in 2020 and by 2.1% in 2021, with the unemployment rate therefore approaching 10% in 2021.

Chart 3: Real GDP growth – Euro Area

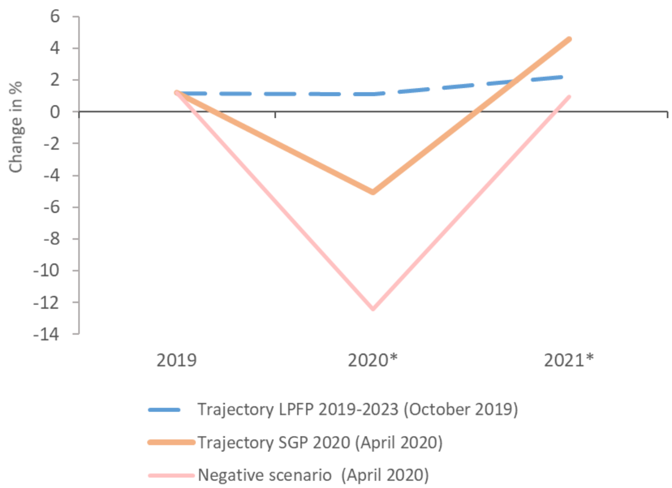


Chart 4: Real GDP growth – Luxembourg

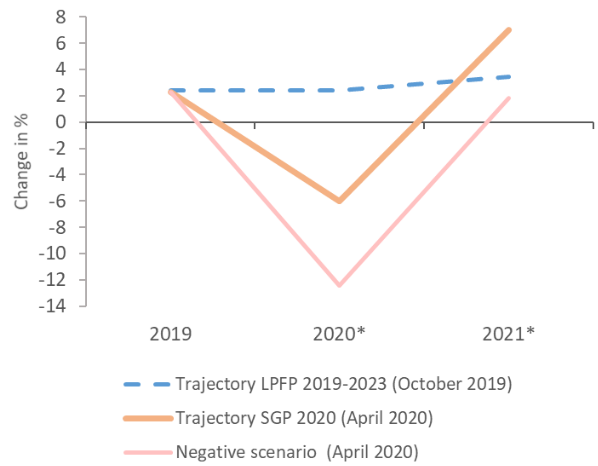


Chart 5: Employment – Luxembourg

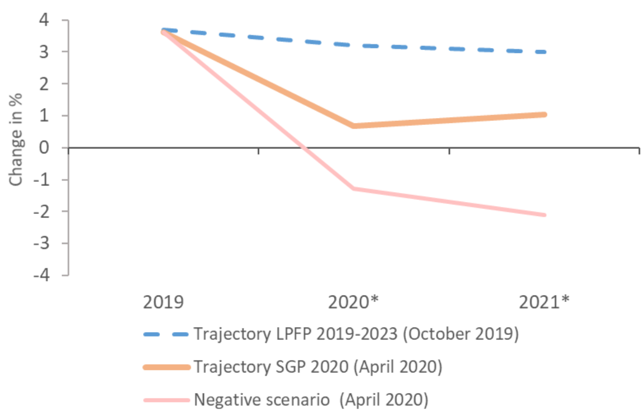
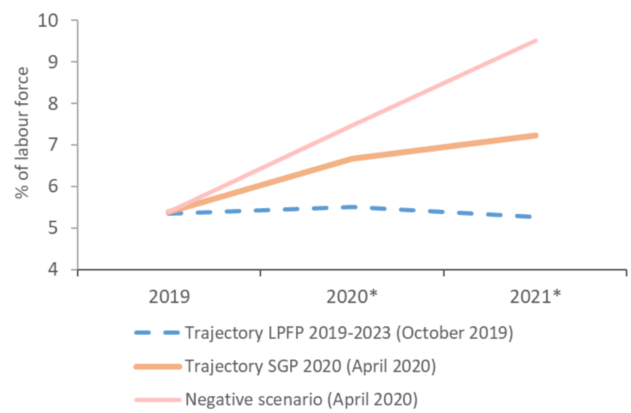


Chart 6: Unemployment rate (def. by ADEM) –Luxembourg



Source: STATEC, Ministry of Finance.

III. BUDGETARY POSITION AND PUBLIC DEBT

Luxembourg's SGP 2020 follows the guidelines issued by the European Commission on 6 April 2020 regarding the form and content in this exceptional year.

Contrary to previous SGPs, the SGP 2020 focuses solely on the years 2020 and 2021 and puts emphasis on the health, economic and social measures that have been introduced during this period of crisis.

The overall package of the economic and health measures decided by the Government reaches to date 10.4 billion euros or 17.5% of GDP.

The budgetary situation described in this chapter is the result of preparatory work over several weeks, initially based on the global recession scenario published by STATEC on March, 12 2020 that has been updated multiple times in order to take account of the gradual deterioration of the economic situation in Luxembourg and elsewhere in the world.

Due to the worsening of the situation related to COVID-19 and the consequent containment measures decided by the Government, STATEC updated its macroeconomic projections in April to better quantify the consequences of the crisis for the Luxembourg economy.

The forecasts for public finances have in turn been adapted to take account of the most recent available information. Figures, at this moment in time, are very preliminary and approximate.

The figures for the largest categories of public revenue have been updated according to the latest information available at the time of finalizing the SGP 2020 and public expenditure, apart from the effect of the measures decided in the context of the fight against COVID-19, is largely maintained at the levels foreseen in the Budget 2020, adopted in December 2019.

In the absence of accurate data in the midst of this unprecedented crisis, the budgetary situation in 2020 and 2021 is largely dependent on forecasts estimated in the broadest possible sense, and commits to a prudent estimation of total public revenue and expenditure.

The unprecedented worsening of the budgetary situation in Luxembourg needs to be assessed in the context of the activation of the general escape clause of the SGP.

This general derogatory clause, which will be applied to at least the year 2020, has been activated for the first time in the history of the Pact. Luxembourg, together with all the other Member States of the European Union, supported unanimously its activation.

Given the scale of the crisis, the clause allows for the effective suspension of the EU budgetary requirement (i) to reach or to converge towards the medium-term budgetary objective ("MTO") and (ii) to respect the Maastricht deficit threshold. Luxembourg will consequently be able to make use of all the fiscal space under the Stability and Growth Pact to mobilise the necessary resources required to offset the effects of the crisis.

III.1 Budgetary situation in 2020

Initial position

Luxembourg has a favourable starting position in financial and budgetary terms. The Stability and Growth Pact has been respected without interruption since the end of the last crisis and Luxembourg is among the few countries with an 'AAA' rating from all rating agencies, given its exemplary low level of public debt and sound public finances.

At the end of 2019, the general government, encompassing central and local government as well as social security funds, displayed a surplus of 1.4 billion euros or 2.2 % of GDP. With regard to the sub-sectors, central government showed a healthy budget balance. The balances of local government and social security funds recorded surpluses of 0.4% and respectively 1.8% of GDP.

The favourable starting position underlines, once again, that the Government's financial and fiscal policies in recent years that focused on qualitative growth and balanced public finances have borne fruit. Past Government policies allow today to generate the margins needed to face the effects of the health and economic crisis linked to COVID-19 in a confident manner. The Government was able to build upon this solid baseline and to respond in a strong, rapid and decisive manner to the consequences of the COVID-19 crisis.

The scale of response amounts to date to 10.4 billion euros or 17.5% of GDP, of which 3.3 billion or 5.5 % of GDP has a direct impact on the general government balance in 2020.

Government action has first and foremost been focused on addressing the health aspects of the crisis. This consisted of slowing down the spread of the virus, protecting the most vulnerable and equipping the health sector adequately in order to stifle any risk of saturation of the health care system.

In parallel, unprecedented measures were taken to respond to the difficulties that many businesses face due to COVID-19. Another objective pursued by Government was the protection of the skills and the safeguarding of employment.

The measures introduced by Government are described in further detail in Chapter IV of this SGP 2020.

Macroeconomic deterioration and impact of COVID-19 measures

In the particular context caused by COVID-19, public finances are forecasted to deteriorate significantly. The degradation is explained by the impact of two intrinsically linked factors:

- The deterioration of the macroeconomic context, characterised by a historic fall in the GDP growth rate of -6%, a drop in the rate of new job creation to 0.7% and a sharp increase in the unemployment rate to 6.7%;
- The sanitary and economic stabilisation measures, that aim to counteract the adverse effects of the COVID-19 crisis and to support the economy, amount to a total of 17.5% of GDP.

First estimate of the general government balance

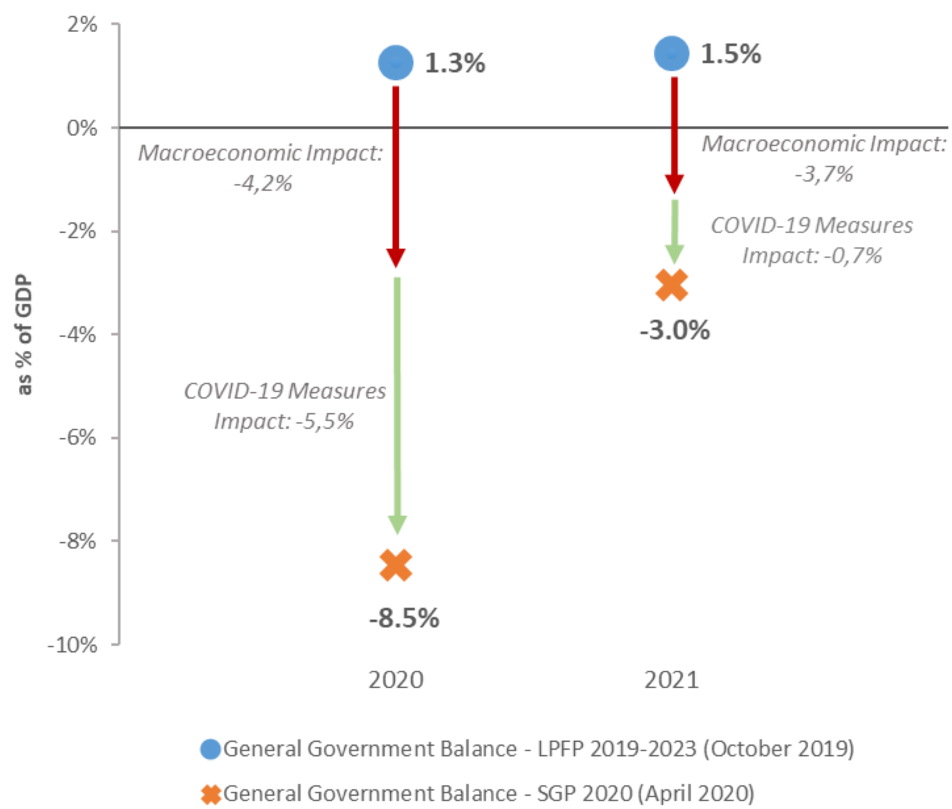
The combination of the above-mentioned factors leads to a historic fall of the general government balance. The balance would thus move from a surplus of 1.4 billion euros (2.2% of GDP) in 2019 to a deficit of 5 billion euros (-8.5 % of GDP) in 2020.

Public spending would see a substantial jump of 15%. In terms of percentage of GDP, the share of public expenditure would thus increase from 42.7% in 2019 to 52.6% in 2020.

Public revenues would fall by 8.2 % and their share in GDP would be reduced from 44.9% in 2019 to 44.1% in 2020.

Chart 7: General Government Balance in 2020 and 2021-

Impact of the worsening macroeconomic context & impact of COVID-19 measures



Source: Ministry of Finance.

Macroeconomic Impact

The sudden worsening of the macroeconomic context and the base effects[5] lead to a deterioration of public finances by 2.5 billion euros (4.2% of GDP).

The deterioration would primarily result from the decline in public revenue, given the less favourable macroeconomic forecasts (for GDP, employment, etc.). The categories of "taxes on production and imports" and "current taxes on income, wealth, etc." would each be revised downwards by around 1 billion euro and social contributions would undergo a downward correction of around 0.4 billion euros compared to 2019 autumn estimates.

On the public expenditure side, the macroeconomic impact is mainly reflected in the increase in expenditure related to the unemployment insurance scheme (excluding the short-time working scheme). The cost would increase by at least 100 million euros compared to the budgeted amounts. The unemployment scheme will thus fully play its role as an automatic stabiliser to cushion the shock during these times of crisis.

The economic effects in other public expenditure categories are difficult to quantify at this point of time. Generally speaking, public expenditure (excluding COVID-19 measures) is thus largely maintained at the levels foreseen in the 2020 Budget adopted in December 2019.

Impact related to the discretionary measures decided in the context of the fight against COVID-19

See detailed description in Chapter IV

The direct budgetary and accounting impact of the sanitary and economic measures is estimated at 3.284 million or 5.5% of GDP.

The measures relating to the deferral of payments (with exception of direct taxes) and the agreed guarantees do not have an impact on the general government balance and represent about 12% of GDP.

As regards public expenditure, the additional public investment of 194 million euros, implemented as part of the fight against COVID-19, encompasses the purchase of equipment and the increase in the capacity of the health infrastructure.

The category with the largest progression in expenditures are the social security benefits in cash. This category increases by 13% compared to the amounts foreseen in the Budget 2020, and thus reflects the estimated additional budgetary cost for expenditure related to the financing of the short-time working scheme, the special leave for family reasons and the coverage of the costs of sickness leave payments.

On the government revenue side, deferrals related to the payment of indirect taxes and social contributions are neutral from an accounting point of view, while deferral measures related to taxes (CIT

[5] Linked to the inclusion of the figures from the excessive deficit procedure notification of end March 2020.

and ICC) are partially reflected in the 2020 forecast in order to factor in the potential shortfall in revenue collections.

Fiscal developments of the general government sub-sectors

The sharp deterioration of the general government balance originates mainly from the budgetary costs bore by central government. As a result of the crisis and the discretionary measures, the central government balance would fall to -4.933 million euro or -8.3% of GDP in 2020.

The substantial deterioration is explained by the fact that the majority of discretionary measures with a budgetary impact fall within the scope of central government. Losses in government revenue as well as major measures affecting government expenditure- such as the short-time working scheme- affect the central government balance.

If COVID-19 measures are not factored in, the categories of expenditure, such as intermediate consumption, remuneration and public investment, are estimated to follow the same trend as described in the Budget 2020.

As for the other general government sub-sectors, the local government balance is also assumed to deteriorate considerably, ending the year 2020 with an aggregate negative balance of 372 million euros or -0.6% of GDP. This deterioration stems mainly from the downward revisions of tax revenues that may result from the gloomy economic outlook and delayed payments.

The social security surplus is estimated to drop to 281 million euros (0.5% of GDP) in 2020. Measures such as extraordinary leave for family reasons as well as the coverage of the sickness benefits would put a strain on expenditure, while the marked weakening of the labour market would put a considerable burden on the collection of social contributions.

III.2 Budgetary situation in 2021

Despite the fact that the European Commission's guidelines for stability programmes in the current context offer the option of omitting precise figures for 2021, Luxembourg has chosen- for the sake of transparency- to also provide an initial illustration of the budgetary situation for 2021.

However, the 2021 forecast is based on a no-policy change assumption and is to be assessed with the utmost prudence, given the many unknowns surrounding the COVID-19 crisis.

The revenue projections draw on a severely deteriorated 2020 baseline, while public spending, and namely public investment, is largely maintained at the levels of the multi-annual budget adopted last December.

Nonetheless, the budgetary situation in 2021 is expected to improve significantly compared to 2020. This improvement is explained by the simple fact that the COVID-19 related measures and their budgetary cost will almost have completely faded in 2021.

The macroeconomic context underlying the budget forecasts for 2021 is one of gradual recovery of economic activities from the second half of 2020 onwards. This recovery would be underpinned by the vast array of measures that the Government had adopted under its economic stabilisation package.

Thus, after a year 2020 marked by a historic downturn, the general government balance would see a significant improvement from -5.024 million euros or -8.5 % of GDP in 2020 to -1.966 million euros or -3.0% of GDP in 2021.

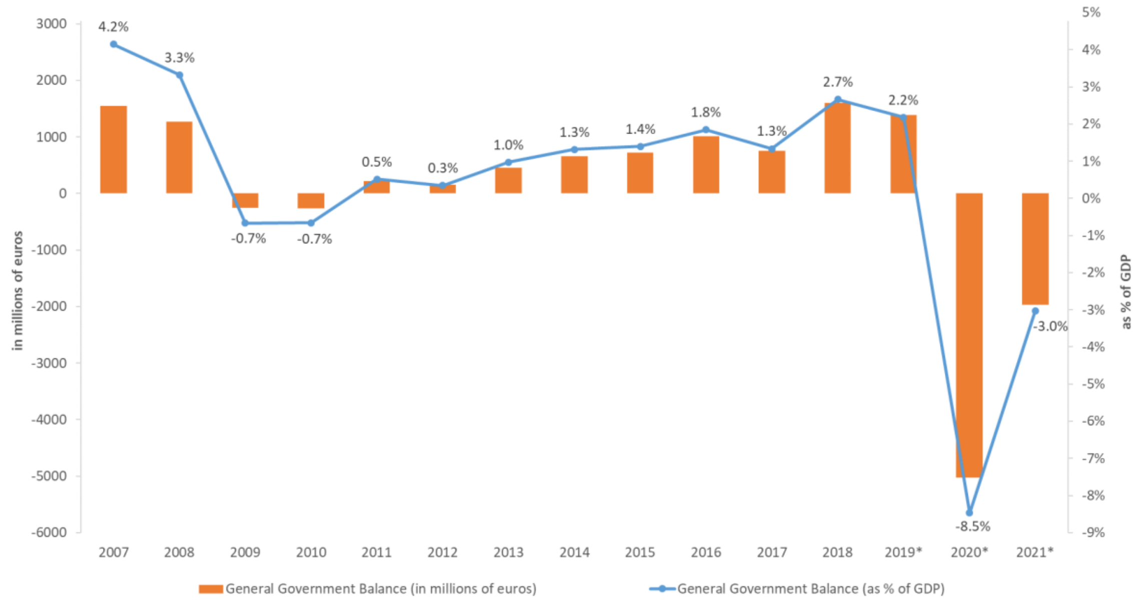
Compared to the 1.5% of GDP estimated in the multi-annual budget framework adopted in December 2020, the nominal general government balance for 2021 is revised downwards by 4.4 GDP points, mainly in consequence of the deteriorated macroeconomic context. The estimated impact of the macroeconomic context on the general government balance is at 3.7 points of GDP in 2021 (Chart 7 above).

Direct and indirect taxes are expected to rise at a rate of 10% under the assumption of economic rebound and given the deteriorated baseline of 2020. In total, government revenue is expected to increase by around 7.8% and amounts to 28.2 billion euros in 2021. Despite their significant increase, they will not return to the level of 2019, where total revenues amounted to 28.5 billion euros.

Public expenditure would fall by 3.3% compared to 2020, with the fading of the impact of the discretionary measures that have been decided. The reduction in public spending would mainly be reflected in social benefits, which would fall by 5%. In line with the Government's objective to ensure a return to qualitative growth, public investment is maintained at a high level and would even increase by 6.3% compared to 2020.

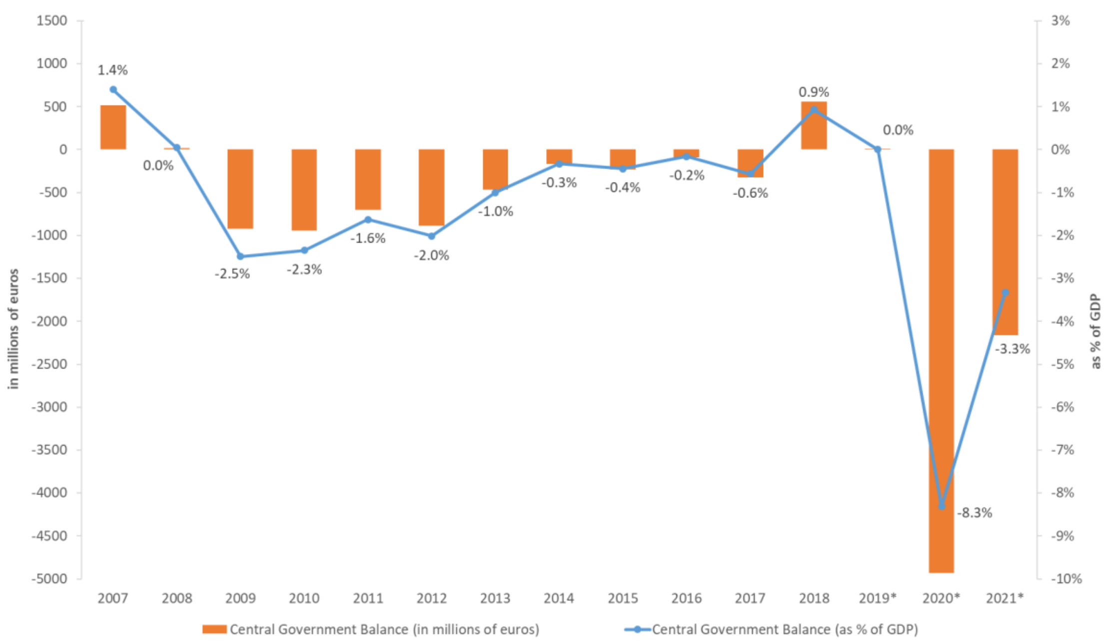
As for the general government sub-sector, central government would see an improvement in its balance, rising from -4.933 million euros or -8.3% of GDP to -2.159 million euros or -3.3% of GDP. As for the local government balance, the deficit would decrease to a level of 150 million euros or -0.2% of GDP. The social security balance would remain positive and reach a surplus of 342 million euros or 0.5% of GDP in 2021.

Chart 8: Trend of the nominal general government balance 2007-2021



Source: National Accounts (2000-2018). IGF, Ministry of Finance.

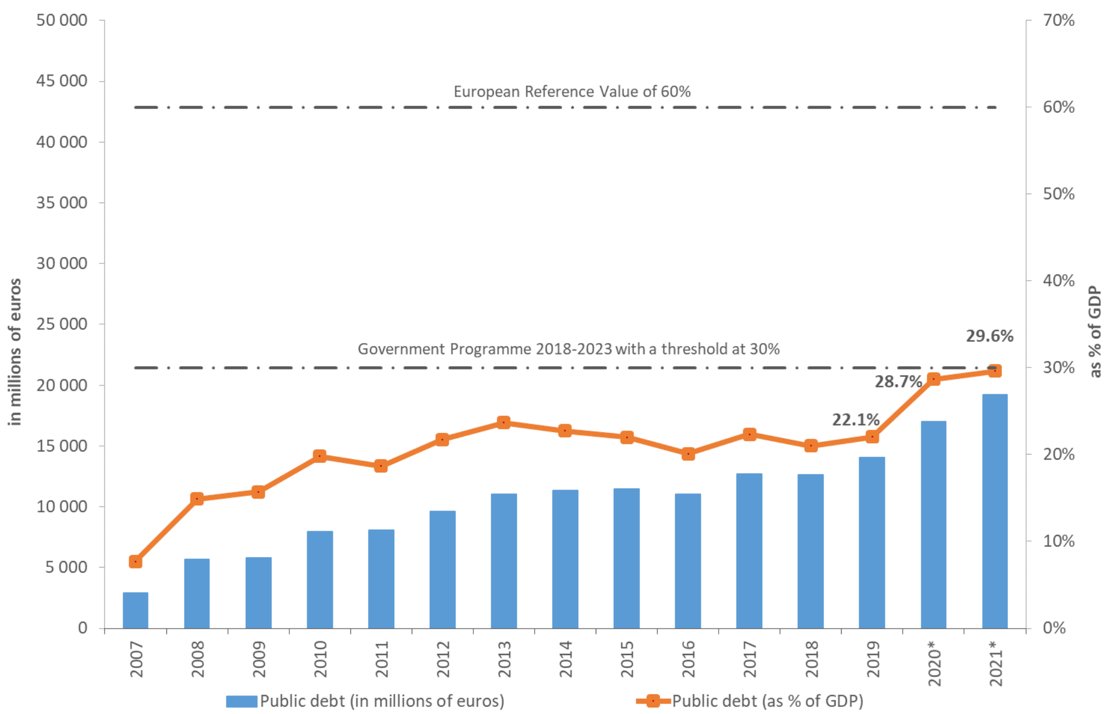
Chart 9: Trend in the nominal balance of central government 2007-2021



Source: National Accounts (2000-2018). IGF, Ministry of Finance.

III.3 Public debt in 2020 and 2021

Chart 10: Development public debt 2007-2021



Source: National Accounts (2000-2018), Ministry of Finance.

On the basis of the budgetary estimates for 2020 and 2021, Luxembourg's public debt is assumed to increase mechanically to 28.7% of GDP in 2020. In 2021, public debt would rise to a level of 19.2 billion euros or 29.6% of GDP.

The increase in public debt forecasted for the full year 2020 results from the assumption that the full deficit of the central government is to be financed through new debt issuance, while taking into account the prefinancing of a 2 billion euro bond maturing in May 2020.

Given that the central government would continue to record a deficit in 2021, public debt would continue to rise as result in the same year.

An increase of local government debt of around 50 million per year is assumed, taking into account the impact of the crisis on local government finances.

III.4 Medium-term forecast

As for the medium term, public finances could eventually return to a balanced budget, provided that health challenges are addressed and that the economic environment at the national and international levels return to normality.

The Government will ensure that the foundations are paved for qualitative and job-creating growth, in line with its environmental and climate objectives, in particular by pursuing an ambitious investment policy.

The nature and scale of the current crisis linked to COVID-19 calls in any case for increased vigilance and Luxembourg reiterates, through this SGP 2020, its commitment to ensure sound and balanced public finances in the long term, by ensuring that the 'AAA' credit rating is maintained.

IV. DISCRETIONARY MEASURES ADOPTED IN RESPONSE TO THE COVID-19 OUTBREAK

The exceptional situation triggered by the spread of COVID-19 at the global stage has forced many governments to put in place unprecedented measures to stem the pandemic and to protect the economy.

Following the proclamation of the state of crisis on March 18, 2020, the government used its extraordinary decision-making powers to put in place a broad set of urgent measures to deal with the harmful consequences of COVID-19[6].

The government is pursuing a comprehensive strategy that revolves around two pillars: the first pillar focuses on protecting the health of the population, while the second pillar is about easing the economic impact of the crisis on the business community. The total volume of the measures amounts to 10.4 billion euros, or 17.5% of GDP.

The total volume of measures taken by the Government is in the same order of magnitude as the overall volume decided on a European scale. Direct spending measures decided across the EU amount to 3% of GDP, compared to 3.8% of GDP in the case of Luxembourg, while liquidity support measures (tax deferrals and guarantees) amount to 16% of GDP in Europe, compared to 13.7% of GDP in Luxembourg.

In response to the health crisis, the measures taken aimed at slowing the spread of COVID-19 and sustaining the swift recovery of patients. To this end, the Government has made sure that the necessary tools are quickly made available to healthcare personnel in order to guarantee effective and safe treatment of patients. The acquisition and transport of medical equipment, medicines and materials necessary for large scale testing were organized urgently at a total cost of around 50 million euros.

Being confronted with a rising number of cases, the Government had to deal quickly with acute capacity constraints. Additional capacity had to be created in order to facilitate the management, treatment and quarantine of all patients. Among these, can be cited the transformation of the rehabilitation center at Colpach Castle at a cost of 14.5 million euros or the setting up of a temporary military tent for 2 million euros.

In Luxembourg, the cross-border workforce plays an essential role in the functioning of the economy, especially in the healthcare sector. At the start of the pandemic, some member states of the European Union unilaterally closed their borders. Such a closure by its French and German neighbours would have had catastrophic consequences for Luxembourg in the midst of a health crisis. In a perspective to limit the repercussions, the Government made available free accommodation to cross-border workers active in the hospital sector at a cost of 2 million euros. In addition, following requests from officials addressed to our neighbouring countries, the complete closure of the borders was avoided, the checks reduced and the number of crossing points increased.

Aware of the importance of this cross-border cooperation, especially during the state of crisis, and in the spirit of European solidarity, Luxembourg subsequently took charge of a certain number of infected

[6] The grand-ducal regulation of 18 March 2020 introducing a series of measures in the fight against COVID-19. The state of crisis has been declared on the national territory, according to article 32, paragraph 4, of the Constitution. The grand-ducal regulation can be consulted under the following link : http://www.legilux.lu/eli/etat/leg/rgd/2020/03/18/a165/jo.

patients from the neighbouring countries. To ensure that the country has the necessary skills in sufficient numbers, centralized coordination of the health reserve and management of volunteers has been put in place.

The acquisition of medical equipment and the establishment of treatment centres mentioned above constitute the main part of the expenses related to crisis management (150 million euros). Expenditure on health crisis management, which totals 194 million euros, is allocated to the High Commission for National Protection (HCPN), which has the primary task of ensuring constantly and in all circumstances the protection of the nation against possible threats which could jeopardize the safety of the population.

In addition to the Government's efforts relating to the medical treatment of infected patients or the protection of vulnerable people, precautionary measures have been implemented to limit the spread of the virus to a wider section of the population.

Like other European countries, Luxembourg imposed, by grand-ducal regulation of 18 March 2020 strict confinement instructions affecting society in a broad sense, namely: (i) movement restrictions for the general public; (ii) maintenance of essential activities; (iii) extensive use of home office; (iv) limitation of professional activities that are directly in touch with the public (with the exception of speakers offering essential products); and (v) the cancellation of all non-essential activities.

The impact of sanitary and containment measures was closely monitored by the Government during the months of March and April. One of the first positive results was the downward trend in new infections, reflecting the effect sought by containment measures.

This prompted the government to present on April 15, 2020 first guidelines for a comprehensive strategy to lift restrictions and prohibitions[7].

Regarding the economic component of the Government's strategy, Chapter II which deals with the impact of the COVID-19 crisis on the economy paints a rather grim picture. Luxembourg will therefore enter into recession in 2020 with negative real GDP growth of 6.0% and a significant narrowing of the labour market conditions.

In view of the magnitude of the shock, the Government is resolutely committed to support economic actors in these difficult times. The objective of state economic support was twofold: (i) to minimize the economic damage inflicted on the country's productive apparatus in the short and medium term; and (ii) to prepare the ground for a rapid recovery of economic growth at the end of the crisis.

The Government's support strategy is expressed through the stabilisation package, presented on March 25, 2020. This programme has been extended over the weeks with additional measures in order to make all of the initiatives more coherent and increase its impact intensity. These measures lay the groundwork to create a supportive environment for businesses, maintain employment in these times of crisis and aim to lay the foundations for a rapid, qualitative and sustainable recovery.

As clearly highlighted in Chapter III, the above measures will have a significant impact on public finances in 2020 and beyond. The activation of the general escape clause of the Stability and Growth Pact, a clause under which all the measures described in this chapter must be considered, effectively gave free rein to

[7] Exit strategy – a scenario for the gradual lifting of the containment measures introduced in the context of the COVID-19 pandemic: https://gouvernement.lu/fr/actualites/toutes_actualites/communiques/2020/04-avril/20-strategie-sortie.html

the Member States and the necessary fiscal space to Luxembourg to take all the necessary and urgent measures to remedy the COVID-19 crisis without having consequences in terms compliance with the European budgetary rules.

Considering that the measures included in the economic stabilisation package are of unparalleled scope, they are extensively described in the following lines.

In order to allow the reader to have a global view of the actions put in place by the Government, the measures taken within the framework of the fight against COVID-19, covering both economic and health aspects, are listed in Table 1 on the next page.

Table 1: Discretionary measures adopted/ announced in response to COVID-19 outbreak

List of measures	Description	ESA Code (Expenditure/ Revenue component)	Adoption Status	Budgetary Impact in 2020	
				in millions EUR	% of GDP
Additional Expenditure / Loss in Revenue					
Health crisis management expenditure	Procurement of medical tools and infrastructure in the fight against the spread of COVID-19.	P.5. Gross capital formation	Additional budgetary appropriation	194	0.3%
Other expenditure affecting intermediate consumption	Other expenses related to the management of the COVID-19 crisis affecting intermediate consumption	P.2. Intermediate consumption	Additional budgetary appropriation	47	<0,1%
Aid scheme for businesses	Capital grant in the form of repayable advances of up to a maximum of 500 000 EUR	D.9. Capital transfers	Law adopted 3 April 2020	400	0.7%
Aid for micro-businesses and self-employed	Financial and immediate non-refundable aid of 5 000 EUR to companies < 10 employees, obliged to cease their business activity An additional certified emergency compensation of 5000 EUR for micro-companies. Financial and immediate grant of 12 500 EUR for companies employing between 10 and 20 employees. Emergency allowance of 2 500 EUR for the self-employed.	D.9. Capital transfers	GDR adopted 25 March 2020 (Mirco-companies<10) GDR adopted 8 April 2020 (Allowance for the self-employed) GDR adopted by the governmental council on 24 April 2020 (Additional allowance for micro-companies)	250	0.4%
Research & Development aid; Investment aid; Support for Start-ups	Aid for research and development projects linked to the fight against COVID-19. Aid for investment to support the production of articles relevant for the fight against COVID-19. Support for Start-ups	D.3.Subsidies D.9.Capital transfers	GDR adopted 8 April 2020	34	0.1%
Aid for the cultural sector	Financial support measures for professionals from the cultural sector	D.62. Social contributions and benefits	GDR adopted 3 April 2020	2	<0,1%
Short-time working scheme « cas de force majeure / COVID-19 »	Expansion of short-time working scheme to all economic sectors, with 80% of employee's salary being reimbursed through the "Fonds pour l'emploi", floored at minimum wage (max. 250% of minimum wage)	D.62. Social contributions and benefits	In force	989	1.7%
Extension of unemployment benefits for 3 months	Extension of unemployment benefits by the duration of the state of emergency	D.62. Social contributions and benefits	GDR adopted 27 March 2020 (fixing of the rate of compensation for the unemployed)	10	<0,1%
Special leave for family reasons Leave for family support	Special leave for family reasons due to school closures and family support leave to care for disabled and elderly people	D.62. Social contributions and benefits	GDR adopted 27 March 2020 (Special family leave) GDR adopted 3 April 2020 (Family Support Leave)	226	0.4%
Sickness leave payments	Neutralisation of the calculation method for long-term sick leave (78 weeks under normal conditions) during the state of emergency. As of 1 April, health insurance covers 100% of sickness leave payments from the first day of leave to provide liquidity support for employers and avoid income loss for employees.	D.62. Social contributions and benefits	GDR adopted 3 April 2020	106	0.2%
Subtotal				**2257**	3.8%
Deferral of payments					
Direct Taxes	Cancellation of Q1 and Q2 2020 and deferral of payments without payment penalties	D.5. Current taxes on income, wealth, etc.	In force	1250	2.1%
Indirect Taxes	Administrative tolerance for VAT, TABO, inheritance and notarial and bailiff declarations, and reimbursement of outstanding VAT credit balances <10,000 EUR	D.2. Taxes on production and imports	In force	300	0.5%
Social contributions	Temporary waiver on late payment fees and social contributions, without having to fear administrative sanctions or interests for late payments	D.61. Social contributions	In force	3000	5.1%
Subtotal				**4550**	7.7%
Total				**6807**	11.5%

***GDR: Grand-Ducal regulation**

Sources: Ministry of Finance, IGF, various.

Direct aid to businesses of all sizes

Containment measures have led to a forced closure of certain sectors or a slowdown in economic activity that affected most of the companies established in Luxembourg. In order to respond to the consequences of the crisis on businesses, the Government has put in place a multitude of measures that allow large businesses, SMEs and the self-employed to meet their liquidity needs.

An aid scheme for companies in temporary financial difficulty linked to the occurrence of an exceptional event of national or international scope was established by the law of 3 April 2020[8]. The company that can take advantage of this measure in the form of repayable advances must demonstrate, among other things, a direct causal link with the unforeseeable event and the related impact on a certain type of economic activity during a specific time period (March 15, 2020 to May 15, 2020). The eligible costs for the calculation of the aid are the personnel costs and the rent charges of the company for the months which fall within the period of the unforeseeable event. The maximum aid intensity may reach up to 50% of the eligible costs and the total aid may not exceed the maximum aid amount of 500,000 euros per single company. While the total budgetary impact of this measure is estimated at 300 million euros, an additional envelope of 100 million euros is included in the projections to respond to possible needs in the future.

In response to the needs of micro-companies, which had to cease their activity following the modified Grand-Ducal regulation of 18 March 2020[9], a tax-free lump sum grant of 5,000 euros can be allocated to companies with less than 10 employees and having annual turnover of 15,000 euros or more. Based on the assumption that 10,000 companies could apply for this measure, the budgetary impact would amount to 50 million euros.

In addition, a further extension of the aid of 5,000 euros for micro-companies with less than 10 employees has been granted. This would generate an estimated spending of 75 million euros. In addition, a one-off payment of 12,500 euros to the benefit of companies employing between 10 and 20 employees – with a total budget envelope estimated at 30 million euros - has been enacted.

In a similar way, financial support is provided in the form of a tax-free and non-refundable emergency lump-sum grant of 2,500 euros[10], with an estimated budgetary impact of 27.5 million euros.

Finally, Luxembourg supports the ecosystem of start-ups and has taken measures to enable young companies to overcome this crisis. Thus, a call for innovative projects was launched – labelled as "*StartupVsCovid 19*"- pursuing the intention to mitigate the economic, health or societal effects of the COVID-19 crisis. The budgetary impact of this initiative, which would provide 20 projects with financial support up to 150,000 euros per company, is estimated at 3 million euros. In addition, in order to support start-ups, the maximum co-financing rate of 50% has been raised to at least 70% for any new aid granted to young innovative companies.

[8] Law of 3 April 2020 relating to the establishment of an aid scheme for companies in temporary financial difficulty and amending the amended law of 19 December 2014 relating to 1) social measures for the benefit of independent professional artists and temporary workers 2) to the promotion of artistic creation. Memorial A - n ° 230.

[9] Grand-Ducal regulation of 18 March 2020 introducing a series of measures to combat COVID-19. Memorial A - n ° 165.

[10] Grand-ducal regulation of 8 April having as its object the establishment of a certified emergency allowance for the self-employed in the context of the COVID-19 pandemic. Memorial A – n° 261.

The overall amount of aid for micro-companies, the self-employed and start-ups has been increased to take account of possible additional measures. The total aid foreseen amounts to 250 million euros.

Encouraging research and investments in response to COVID-19

In addition to direct aid aimed at supporting companies, the Government has also set up an aid scheme intended to encourage companies to carry out research projects, or even to produce products which are highly relevant for the fight against COVID-19. Two types of aid are foreseen: one promoting research and development projects, and the other supporting companies which modified their production line to make relevant products (e.g. protective masks or hydro-alcoholic gels).

The aid for research and development projects has a budgetary impact of 20 million euros and will be financed through the Innovation Fund. Investment aid for the production of relevant products is estimated at 10 million euros.

Employment and social security measures

In order to avoid layoffs in these special circumstances, Luxembourg labour law foresees that companies can use, under certain conditions, different short-time working schemes, depending on the nature of the difficulties encountered.

Given the magnitude of the COVID-19 threat and the tangible repercussions on businesses and their employees, the Government has implemented by government decision an accelerated procedure for businesses that are directly affected. The focus is on companies that had to stop – either completely or partially- their activities due to the containment measures. From the effective date of their total or partial closure, those companies are exceptionally directly eligible for support provided by the short-term working scheme. As for companies which still continue with their activities, but which nevertheless suffer the negative impact of COVID-19, a short-time working schemes for cases of *force majeure* has been put in place.

The short-time working schemes are financed through the *Fonds pour l'emploi which* covers of up to 80% of the wage level. Reimbursement is limited to 250% of the legal minimum wage for unskilled workers aged 18 or over. The Government further decided that the compensation may not be less than the amount of the minimum wage and that any difference between the amount of the compensation and the minimum wage would be paid by the *Fonds pour l'emploi.*

The financing cost related to the short-time working schemes during the current crisis has been estimated at 1 billion euros and has so far, the most significant impact on the general government balance in 2020.

A number of additional measures have been implemented to support job seekers. Thus, it was notably decided that the right to unemployment benefits for jobseekers receiving benefits is extended for the duration of the state of crisis. The additional cost of this measure is provisionally estimated at 10 million euros for the year 2020.

As part of the measures, the government has announced that all schools and child care facilities will be closed for an extended period of time. In order to allow parents to take care of their children, they can exercise their right to request for special leave for family reasons. The budgeted amount, depending on the period of closure of the educational institutions, is currently estimated at 222 million euros.

In the same vein, the Government has set up a paid leave for family support. This new scheme allows employees and self-employed workers who are forced to look after disabled and elderly people in need of care during the state of emergency. The budgetary impact in 2020 amounts to 4 million euros.

The Government also adopted, after consulting the social partners, a series of measures aimed at mitigating certain effects due to the COVID-19 pandemic on people who are not able to work due to sickness. Thus, the Government decided to neutralize the days of the inability to work due to sickness in the calculation of the limit of 78 weeks during the state of crisis. This measure is expected to have a budgetary impact of around 2 million euros. In the same context, it was decided that from April 1, 2020 and until the last day of the month in which the state of crisis ends, every work day lost due to sickness or gradual work recovery are directly covered by the sickness and maternity insurance. Thus, the *Caisse national de la santé* covers sick leave from the 1st day, from April 1, 2020. The total charge is estimated at around one hundred million euros for a period of 2 months.

Finally, many cross-border workers are required to do home office for extended periods. Luxembourg has thus managed to agree with the Belgian, French and German authorities on more flexible taxation arrangements during the pandemic. This flexibility allows cross-border workers to work from their home without being taxed in their country of residence.

Deferral of taxes and social security payments

In order to strengthen the liquidity situation of companies, several measures have been put in place to reduce the tax burden for individuals and corporations in these times of crisis.

With regard to direct taxes, individuals and corporations who make a commercial profit, an agricultural and forestry profit or a profit from the exercise of a liberal profession may request the cancellation of their quarterly advances from the income tax (corporate) and municipal business tax for the 1st and 2nd quarter 2020 as well as a deferred payment deadline for income tax (corporate), municipal commercial tax and wealth tax.

Requests for cancellation of advances and payment periods are automatically accepted for eligible taxpayers who actually have advances to pay, respectively tax ratings due. From the moment the advances are cancelled, they will no longer be due and, therefore, no interest payment will be and cannot be considered. In the absence of a request for cancellation of advances, interest will be calculated according to the applicable provisions. In addition, the deadline for submitting tax returns has been extended to June 30, 2020. This decision is applicable to individuals and corporations, as well as to taxpayers wishing to request, modify or revoke their choice of individual taxation.

The maximum amount of this flexibility regarding direct taxes could amount to 1.25 billion euros. Under the applicable ESA 2010 accounting rules, direct taxes are accounted based on the time-adjusted cash principle. The general government balance in 2020 and 2021 therefore partially takes account of any possible losses in revenues, without presenting a precise estimate which will only be possible based on the data to be observed over the coming months.

As for indirect taxes, no sanctions are imposed for exceeding the deadline for filing VAT returns. This administrative tolerance will apply until otherwise indicated by the competent administration. In addition, to meet liquidity needs, an early repayment of outstanding VAT credit balances below 10,000 euros was made in March. In the event that the deadline for filing the 1st quarter subscription tax declarations is exceeded; the fines will not apply if the missed deadline is due to the exceptional circumstances of the COVID-19 pandemic. The above measures are neutral from an accounting point of view for the calculation of the ESA 2010 budget balance for 2020 and 2021 as they are based on the accrual method.

For social security contributions, a series of measures have been taken to offer more flexibility to businesses and the self-employed with regards to the payment of social security contributions. From April 1, 2020 and until further notice, the *Centre Commun de la Sécurité sociale* (CCSS) has therefore implemented the following temporary measures: (i) suspension of the calculation of default interest for late payments; (ii) suspension of the procedure for forced collection of contributions; (iii) suspension of the execution of restraints by a judicial officer; (iv) suspension of fines to be pronounced against employers who show delays in reporting to the CCSS. While the volume of this temporary relief can be up to 3 billion euros, it has no impact on the general government balance in 2020 and 2021 since social security contributions are accounted along the accrual principle.

Guarantees (cf. table 2 below)

State guarantee scheme for new bank loans over a maximum period of 6 years

Under this new regime, which was announced on March 25, 2020 as part of the economic stabilisation programme and established by the law of April 18, 2020, the State will guarantee bank loans granted to businesses up to 2.5 Billion euros. Overall, participating banks will be able to grant secured loans to companies affected by the crisis of up to 2.94 billion euros (85% x 2.94 = 2.5 billion euros). Companies can apply to any participating bank to take out a loan valued up to 25% of their turnover, and which will benefit from a state guarantee of up to 85%. The loans will be guaranteed at 15% by the participating banks. They are understood as a subsidiary tool, where possible, to the schemes of the *Société nationale de crédit et d'investissement* (SNCI), the Office du Ducroire or the European Investment Bank in particular.

Other establishments falling within the scope of general government

SNCI - which is a public law bank specializing in medium and long-term financing for Luxembourg companies - has extended its support instruments beyond its existing toolbox. SNCI has therefore created a "Special Anti Crisis Financing - FSAC" for a budget of up to 400 million euros, corresponding to a total leverage effect of almost 700 million euros (bank financing included). The financing is done indirectly through the customer's usual bank - SNCI financing up to 60% of the need - on condition that the bank finances 40%. The amount of the FSAC (SNCI part) can vary between 12,500 euros and 10 million euros. SNCI's disbursement is made without further formality at the request of the customer's bank. The maximum duration of the FSAC is 5 years with an initial grace period on the repayment of the capital of maximum 2 years. The FSAC constitutes a paradigm shift for SNCI in the sense that it covers short-term financing needs which have arisen in direct relation to the current crisis. Finally, subject to the agreement of the regulator, a "SME guarantee" scheme will be put in place with partner banks for 200 million euros, corresponding to a total leverage of more than 250 million euros.

In addition to the above measures, the Office du Ducroire Luxembourg (ODL) - which acts as a public credit insurer in the field of export, import and international investments - has implemented a number of measures to strengthen its support to Luxembourg companies. Thus, the ODL increased its guaranteed quota of limits and contracts issued for export insurance and the percentage of insurance for the banks of Luxembourg exporters during the state of crisis. The total guarantees could amount to up to 500 million euros.

European initiatives

Luxembourg will also be called upon to contribute to the new guarantee schemes set up at European level. The European Investment Bank (EIB) has extended its support to European companies that have been especially hit hard by the COVID-19 pandemic and its economic consequences, and is currently working on setting up a pan-European guarantee fund. In addition, the SURE[11] scheme proposed by the European Commission, which will primarily support the funding of short-time working schemes in EU member states, is currently being developed.

Table 2: Guarantees/loans adopted/ announced in response to COVID-19 outbreak

List of measures	Description	Adoption Status	Maximum amount of contingent liability	
			mio EUR	% of GDP
State-Guarantee scheme for new bank loans	Guarantee on new credit lines granted by selected banks between 18 March and 31 December 2020.	Law adopted 8 April 2020	2500	4.2%
SNCI - Special anti-crises financial instrument	"Financement Spécial Anti Crises-FSAC" for an envelope of up to 400 million EUR corresponding to a total leverage effect of nearly 700 million EUR	In force	400	0.7%
SNCI - SME guarantees	Implementation of an "SME guarantee" facility with the *Société Nationale de Crédit et d'Investissement* (SNCI) for a total envelope of 200 million EUR	In progress	200	0.3%
SNCI - SME mutual fund	Allow mutual funds managed by professional chambers to extend their guarantees to SMEs	In progress	*	*
Office du Ducroire	Provide more support to companies that export internationally, including to markets affected by COVID-19.	Law tabled to parliament 18 April 2020	500	0.8%
BEI - Luxembourg contribution	New guarantee fund to provide liquidity to businesses	In progress	*	*
SURE -Luxembourg contribution	Temporary financial aid to support the Member States' short-time working schemes.	In progress	*	*
Total			3600	6.1%

Sources: Ministry of Finance, IGF, various.

[11] Instrument for temporary **S**upport to mitigate **U**nemployment **R**isks in an **E**mergency.

V. STATISTICAL APPENDIX

Table 1a. Macroeconomic prospects

	ESA Code	Year 2019	Year 2019	Year 2020	Year 2021
		Level	rate of change	rate of change	rate of change
1. Real GDP	B1*g	51983	2.3	-6.0	7.0
2. Nominal GDP	B1*g	63516	5.8	-6.6	9.3
Components of real GDP					
3. Private consumption expenditure	P.3	16374	2.8	-1.6	3.2
4. Government consumption expenditure	P.3	8854	4.8	4.3	1.8
5. Gross fixed capital formation	P.51	9439	4.0	2.7	0.7
6. Changes in inventories and net acquisition of valuables (% of GDP)	P.52 + P.53		0.7	0.7	0.7
7. Exports of goods and services	P.6	100685	0.8	-7.6	11.9
8. Imports of goods and services	P.7	83845	0.9	-4.9	10.4
Contributions to real GDP growth					
9. Final domestic demand		-	2.4	0.7	1.5
10. Changes in inventories and net acquisition of valuables	P.52 + P.53	-	-0.2	0.1	0.0
11. External balance of goods and services	B.11	-	0.2	-6.8	5.5

Table 1b. Price developments

	ESA Code	Year 2019	Year 2019	Year 2020	Year 2021
		Level	rate of change	rate of change	rate of change
1. GDP deflator		1.22	3.4	-0.6	2.2
2a. HICP		105.93	1.7	-0.5	1.9
2b. NICP		105.39	1.7	0.6	1.6

Table 1c. Labour market developments

	ESA Code	Year 2019	Year 2019	Year 2020	Year 2021
		Level	rate of change	rate of change	rate of change
1. Employment, persons[1]		465.0	3.6	0.7	1.0
2a. Unemployment rate (%) (harmonised definition, Eurostat)		-	5.6	6.7	7.3
2b. Unemployment rate (%) (ADEM definition)		-	5.4	6.7	7.2

[1]Employed labour force, in thousands. National Accounts.

Table 2a. General Government budgetary prospects

	ESA Code	Year 2019	Year 2019	Year 2020	Year 2021
		Level	% of GDP	% of GDP	% of GDP
Net lending (EDP B.9) by sub-sector					
1. General government	S.13	1 385	2.2	-8.5	-3.0
2. Central government	S.1311	0	0.0	-8.3	-3.3
3. State government	S.1312	…	…	…	…
4. Local government	S.1313	246	0.4	-0.6	-0.2
5. Social security funds	S.1314	1138	1.8	0.5	0.5
General government (S13)					
6. Total revenue	TR	28 506	44.9	44.1	43.5
7. Total expenditure	TE[1]	27 121	42.7	52.6	46.5
8. Net lending/borrowing	EDP B.9	1 385	2.2	-8.5	-3.0
9. Interest expenditure	EDP D.41	155	0.2	0.2	0.1
10. Primary balance[2]		1 539	2.4	-8.2	-2.9
11. One-off and other temporary measures[3]		…	…	…	…
Selected components of revenue					
12. Total taxes (12=12a+12b+12c)		18 060	28.4	26.4	26.6
12a. Taxes on production and imports	D.2	7 349	11.6	11.0	11.1
12b. Current taxes on income, wealth, etc.	D.5	10 510	16.5	15.0	15.2
12c. Capital taxes	D.91	200	0.3	0.4	0.4
13. Social contributions	D.61	7 714	12.1	13.1	12.3
14. Property income	D.4	759	1.2	1.1	1.2
15. Other[4]		1 973	3.1	3.4	3.3
16=6. Total revenue	TR	28 506	44.9	44.1	43.5
p.m.: Tax burden (D.2+D.5+D.61+D.91-D.995)[5]		25 773	40.6	39.5	38.9
Selected components of expenditure					
17. Compensation of employees and intermediate consumption	D.1+P.2	9 039	14.2	16.4	15.6
17a. Compensation of employees	D.1	6 400	10.1	11.6	11.1
17b. Intermediate consumtpion	P.2	2 639	4.2	4.8	4.5
18. Social payments (18=18a+18b)		11 557	18.2	22.7	19.7
***of which* Unemployment benefits[6]**		448	0.7	2.6	1.0
18a. Social transfers in kind supplied via market producers	D.6311, D.63121, D.63131	2 038	3.2	3.6	3.5
18b. Social transfers other than in kind	D.62	9 519	15.0	19.1	16.2
19=9. Interest expenditure	EDP D.41	155	0.2	0.2	0.1
20. Subsidies	D.3	723	1.1	1.3	1.2
21. Gross fixed capital formation	P.51	2 731	4.3	5.5	4.7
22. Capital transfers	D.9	603	0.9	2.3	1.2
23. Other[7]		2 315	3.6	4.2	3.9
24=7. Total expenditure	TE[1]	27 121	42.7	52.6	46.5

[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 3. General Government debt developments

% of GDP	ESA Code	Year 2019	Year 2020	Year 2021
1. Gross debt[1]		22.1	28.7	29.6
2. Change in gross debt ratio		1.1	6.6	1.0
Contributions to the development of the gross debt ratio				
3. Central government balance effect		0.0	7.8	3.6
4. Denominator effect		-1.1	1.6	-2.5
5. Other		2.2	-2.7	-0.2
p.m.: Implicit interest rate on debt[2]		1.2	1.0	0.5

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

[2]Valued as the quotient of the gross interest expense for year X by the outstanding gross debt on December 31 of the previous year.