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Assessment of the 2018 Stability Programme for Luxembourg

(Note prepared by DG ECFIN staff)

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1. INTRODUCTION

On 27 April 2018, Luxembourg submitted its 2018 Stability Programme (hereafter called Stability Programme), covering the period 2017-2022. It was approved by the government and underwent an inclusive consultation process involving the national parliament. The Stability Programme provides an update of the medium-term budgetary projections as foreseen by regulation 473/2013.

Luxembourg is currently subject to the preventive arm of the the Stability and Growth Pact (SGP) and should preserve a sound fiscal position which ensures compliance with the Medium-Term Budgetary Objective (MTO).

This document complements the Country Report published on 7 March 2018 and updates it with the information included in the Stability Programme.

Section 2 presents the macroeconomic outlook underlying the Stability Programme and provides for its assessment based on the Commission 2018 spring forecast. The following section presents the recent and planned budgetary developments, according to the Stability Programme. In particular, it includes an overview on the medium term budgetary plans, an assessment of the measures underpinning the Stability Programme and a risk analysis of the budgetary plans based on Commission forecast. Section 4 assesses compliance with the rules of the SGP, including on the basis of the Commission forecast. Section 5 provides an overview on long-term sustainability risks and Section 6 on recent developments and plans regarding the fiscal framework. Section 7 provides a summary.

2. MACROECONOMIC DEVELOPMENTS

Real GDP growth slowed to 2.3% in 2017, undermined by a reduced activity in the financial services sector, which was in marked contrast with the upward trends observed in economic indicators and should be taken with caution, given the frequent and substantial revisions to Luxembourg's national accounts-data. Private consumption also grew below expectations, amidst a remarkably dynamic labour market, improved disposable incomes and supportive monetary conditions. Finally, public investment fell short of the amounts announced in the 2017 Stability Programme and the Draft Budgetary Law.

The macroeconomic scenario underlying the budgetary projections of the programme is founded on an improved external environment, supporting a strong expansion of the financial sector and stirring domestic demand into higher consumption and investment. GDP is forecast to bounce up and grow by 4.6% both in 2018 and 2019 before gently slowing and reach 2.9% in 2022. Exports and imports of goods and services are projected to surge in 2018 and keep the high momentum thereafter, although their net contribution to growth is forecast to be lower than that of domestic demand, with private consumption growth reaching high records and investment set at double digit growth. The strong growth momentum underlying the labour market expansion, including further declines in unemployment, is projected to stabilise throughout the projection period, with the output gap narrowing to 0.8%, as recalculated by the Commission based on the information in the programme following the commonly agreed methodology, while inflation is set to stabilise at below 2%.

The Stability Programme outlook appears slightly more optimistic compared with the macroeconomic scenario underlying the 2018 Draft Budgetary Law, submitted in October 2017, as regards the projected expansion in 2018. In particular, the Stability Programme forecasts a slightly stronger GDP growth, which stems from a stronger growth in all components, especially in investment. Besides, it entails a relatively more substantial

contribution of domestic demand, while in the Draft Budgetary Law growth was more evenly spread between domestic and external demand.

In the Commission 2018 spring forecast scenario economic activity is projected to grow by 3.7% in 2018 and then to slow to 3.5% in 2019. Thus, the Commission scenario shows a similar growth trend, although less far-reaching than the one embedded in the Stability Programme scenario. The Commission projections of the external sector show relatively less dynamic components and a stronger net contribution to growth. They broadly reflect a less salient upturn in the financial sector, compared with the Programme scenario, coupled with lower import growth, mainly of investment goods from the aircraft industry, which generate irregular lump-sum import entries and have no impact on GDP, as they are equally recorded as equipment investment. Private consumption growth is projected to strengthen only moderately. Recent weaker developments amidst a sustained favourable environment suggest that other factors might be affecting consumption decisions. This is reflected in the latest consumers' surveys, which nonetheless remain at high levels. From the supply-side perspective, the stronger economic outlook underlying the Stability Programme scenario appears almost exclusively due to a larger improvement in labour productivity both in 2018 and 2019, compared with the Commission forecasts. Even if the projected improvement is accompanied by an increase in capital intensity, its contribution to growth looks set rather stable. Labour contribution is estimated to remain unchanged, while second round effects are not expected to feed into higher growth, especially in 2018, since the estimated contribution from capital decreased, on average, in the past three years to 2017.

Table 1: Comparison of macroeconomic developments and forecasts

	2017		2018		2019		2020	2021	2022
	COM	SP	COM	SP	COM	SP	SP	SP	SP
Real GDP (% change)	2.3	2.3	3.7	4.6	3.5	4.6	4.2	3.6	2.9
Private consumption (% change)	2.7	2.7	2.7	3.5	2.3	3.8	3.4	3.0	3.0
Gross fixed capital formation (% change)	1.9	1.9	2.4	10.9	2.2	9.7	6.7	3.8	2.7
Exports of goods and services (% change)	3.9	3.9	4.1	8.6	3.7	8.3	7.9	7.1	6.5
Imports of goods and services (% change)	3.9	3.9	3.8	9.5	3.5	9.1	8.4	7.4	7.1
Contributions to real GDP growth:									
- Final domestic demand	1.5	1.4	1.8	3.4	1.6	3.5	2.8	2.1	2.0
- Change in inventories	-0.5	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Net exports	1.4	1.4	2.0	1.2	1.8	1.2	1.3	1.5	1.0
Output gap[1]	-0.7	-1.1	0.3	0.3	0.9	1.3	1.8	1.6	0.8
Employment (% change)	3.3	3.3	3.6	3.5	3.1	3.4	3.2	3.1	2.6
Unemployment rate (%)	5.6	5.9	5.3	5.5	5.2	5.3	5.2	5.0	5.3
Labour productivity (% change)	-1.0	-1.0	0.1	0.9	0.4	0.9	0.7	0.2	-0.1
HICP inflation (%)	2.1	1.7	1.5	1.5	1.7	1.7	1.8	1.7	1.7
GDP deflator (% change)	2.1	2.1	1.4	1.0	1.5	1.5	1.1	1.5	1.8
Comp. of employees (per head, % change)	2.8	2.9	2.6	1.6	2.2	2.6	2.8	2.0	2.1
Net lending/borrowing vis-à-vis the rest of the world (% of GDP)	3.5		3.7		3.4				

Note:

[1]In % of potential GDP, with potential GDP growth recalculated by Commission services on the basis of the programme scenario using the commonly agreed methodology.

Source :

Commission 2018 spring forecast (COM); Stability Programme (SP).

Overall, compared with the Commission 2018 spring forecast, the macroeconomic scenario underlying the Stability Programme seems favourable in the first three forecast years; with the estimated output gaps widening to reach 1.8% in 2020 and plausible thereafter (see Table 1).

3. RECENT AND PLANNED BUDGETARY DEVELOPMENTS

- **DEFICIT DEVELOPMENTS IN 2017AND 2018**

In 2017, the general government balance recorded a surplus of 1.5% of GDP compared to a surplus of 1.6% of GDP in 2016. Total revenues increased by 6.0% in 2017 and amounted to 44.4% of GDP compared to 43.7% of GDP in 2016. The decomposition of total revenues reveals that the relative share of current taxes on income increased as a percentage of GDP to 15.1%, compared to 14.8% of GDP the year before. This is a rather noticeable development given that the implementation of the tax reform at the start of 2017 is estimated to have cut revenues to the equivalent of 0.8% of GDP. By contrast, the share of revenues from taxes on production and imports remained unchanged at 11.9% of GDP increasing by 4.1% year-on-year, while social contribution increased by 7.0% year-on-year to set at, as percentage of GDP, 12.5% compared to 12.2% in 2016.

Total expenditure increased by 6.3% in 2017 and stood at 42.9% of GDP, compared to 42.1% of GDP in the previous year. The decomposition of current expenditure reveals that the share of its most significant components, notably intermediate consumption, compensation of employees and social payments, has increased for the latter two, while it has slightly decreased for intermediate consumption compared to the previous year. Public investment further increased to 4.0% of GDP compared to 3.9% in 2016.

This outcome represents a substantial upward revision compared to the surplus of 0.6% of GDP expected in the Draft Budgetary Plan (DBP). The better-than-expected balance is explained by developments in both the revenue and the expenditure side. On the revenue side, windfall revenues are estimated, on the basis of the standard elasticity, to have significantly contributed to the 2017 outcome. Notably, revenues from direct taxation surprised on the upside; corporate income taxes over performed by 0.5 percentage point of GDP compared to the outcome expected in the DBP. Personal income taxes collection was also buoyant in spite of the tax reform enacted at the start of 2017 and estimated to have shaved revenues for around EUR 400 million (0.7% of GDP). In addition, the loss of EUR 300 million (0.5% of GDP) of VAT on e-commerce related transactions[1] was completely absorbed and overall VAT revenues remained broadly unchanged compared to the previous year on the back of robust private consumption. On the expenditure side, while public investment continued to increase, its growth was less than budgeted, following the postponement of some investment projects. In addition, some savings on intermediate consumption were realised as it decreased by 0.1 percentage point of GDP compared to 2016.

In 2018, the national authorities expect the general government surplus to decrease from 1.5% of GDP to 1.1% of GDP. While expenditure is to remain broadly unchanged as a percentage of GDP compared to the previous year, a drop in revenues is projected. The latter is explained by the delayed impact of the implementation of the tax reform and from the fading out of part of the windfall gains from the corporate income tax revenues. Furthermore, investment spending is projected to remain robust as a reduction in the existing investment backlog is

[1] In 2017 the share of VAT revenues related to e-commerce transactions, retained by Luxembourg, moved from 30% to 15% with an impact estimated at EUR 300 million (equivalent to 0.5% of GDP).

planned. The projected outcome represents a substantial improvement compared to the 0.6% of GDP surplus expected in the Draft Budgetary Plan and it is broadly in line with the Commission 2018 spring forecast of a surplus of 0.9% of GDP.

- **MEDIUM-TERM STRATEGY AND TARGETS**

The Stability Programme outlines the national medium-term budgetary plan covering the period up to 2022. According to the medium-term budgetary strategy compliance with the MTO is ensured throughout the program period. With the 2016 Stability Programme the national authorities decided to set; for the period 2017-2019, the country specific MTO to a deficit (in structural terms) of 0.5% of GDP, compared with the MTO of a surplus of 0.5% of GDP into force up to 2016. The current MTO respects the minimum MTO set for the period 2017-2019 of a deficit of 1% of GDP and is in line with the provisions of the Fiscal Compact setting a deficit of 0.5% of GDP as a general minimum MTO requirement for euro-area countries. In this regard, the MTO reflects the objectives of the Pact.

Table 2: Composition of the budgetary adjustment

(% of GDP)	2017	2018		2019		2020	2021	2022	Change: 2017-2022
	COM	COM	SP	COM	SP	SP	SP	SP	SP
Revenue	**44.4**	**44.0**	**43.9**	**43.9**	**43.6**	**43.8**	**43.9**	**43.7**	**-0.5**
of which:									
- Taxes on production and imports	11.9	11.8	11.9	11.7	11.7	11.7	11.5	11.4	-0.5
- Current taxes on income, wealth, etc.	15.4	15.0	15.3	15.1	15.3	15.5	15.8	16.0	0.6
- Social contributions	12.5	12.5	12.4	12.5	12.4	12.5	12.5	12.5	0.0
- Other (residual)	4.6	4.6	4.3	4.6	4.2	4.1	4.1	3.8	-0.6
Expenditure	**42.9**	**43.1**	**42.8**	**43.3**	**42.3**	**42.2**	**41.4**	**41.3**	**-1.3**
of which:									
- Primary expenditure	42.5	42.7	42.5	42.9	42.0	41.9	41.2	41.1	-1.2
of which:									
Compensation of employees	9.1	9.1	9.0	9.0	8.9	8.9	8.9	8.9	-0.2
Intermediate consumption	3.6	3.7	3.6	3.7	3.5	3.4	3.4	3.3	-0.3
Social payments	20.1	20.1	20.1	20.1	19.7	19.7	19.6	19.5	-0.6
Subsidies	1.3	1.3	1.4	1.4	1.3	1.3	1.2	1.2	-0.1
Gross fixed capital formation	4.0	4.0	4.1	4.1	4.0	4.1	3.7	3.8	-0.2
Other (residual)	4.4	4.5	4.4	4.6	4.5	4.5	4.4	4.5	0.4
- Interest expenditure	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	-0.1
General government balance (GGB)	**1.5**	**0.9**	**1.1**	**0.7**	**1.4**	**1.6**	**2.5**	**2.4**	**0.9**
Primary balance	**1.9**	**1.3**	**1.4**	**1.0**	**1.6**	**1.9**	**2.7**	**2.6**	**0.7**
One-off and other temporary measures	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GGB excl. one-offs	**1.5**	**0.9**	**1.1**	**0.7**	**1.4**	**1.6**	**2.5**	**2.4**	**0.9**
Output gap[1]	-0.7	0.3	0.3	0.9	1.3	1.8	1.6	0.8	1.9
Cyclically-adjusted balance[1]	1.8	0.8	1.0	0.3	0.8	0.8	1.8	2.0	0.1
Structural balance[2]	**1.8**	**0.8**	**1.0**	**0.3**	**0.8**	**0.8**	**1.8**	**2.0**	**0.1**
Structural primary balance[2]	2.2	1.1	1.3	0.6	1.1	1.1	2.0	2.2	**-0.1**

Notes:

[1]Output gap (in % of potential GDP) and cyclically-adjusted balance according to the programme as recalculated by Commission on the basis of the programme scenario using the commonly agreed methodology.

[2]Structural (primary) balance = cyclically-adjusted (primary) balance excluding one-off and other temporary measures.

Source:

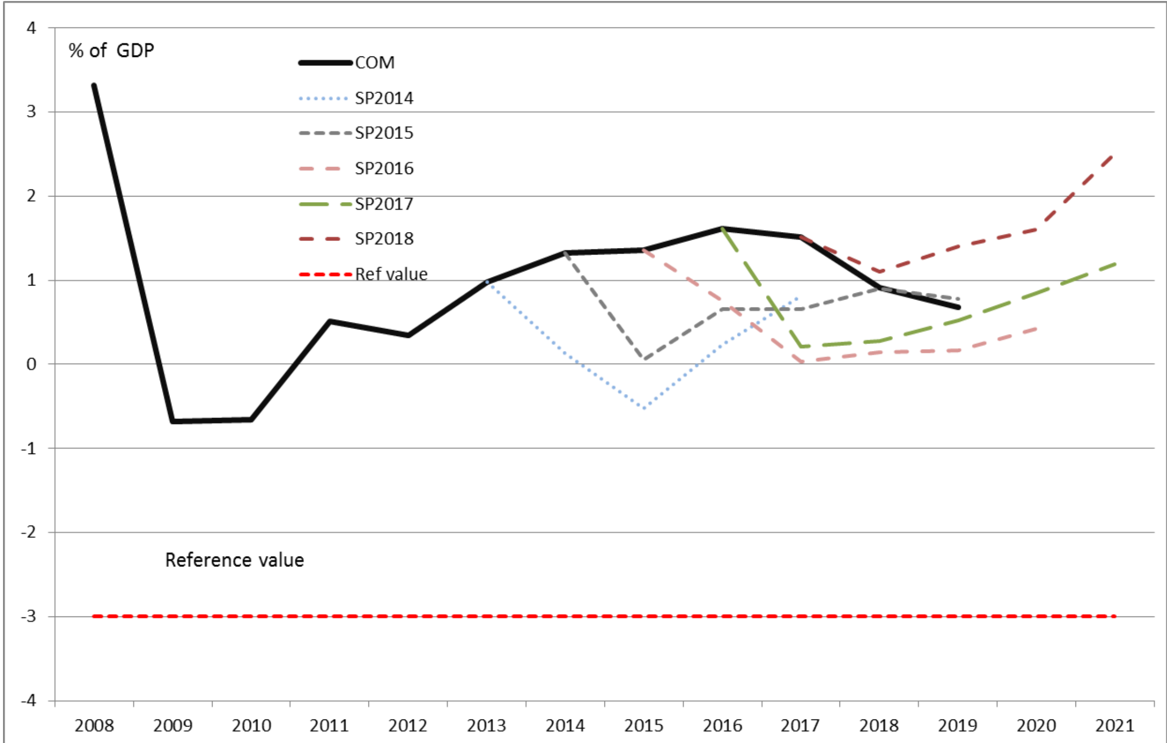
Stability Programme (SP); Commission 2018 spring forecasts (COM); Commission calculations.

The general government balance is expected to bottom out in 2018 at a surplus of 1.1% of GDP. Since then an almost steady improvement of the budgetary position is projected over period covered by the program. The general government balance is thus estimated to increase from a surplus of 1.1% of GDP in 2018 to a surplus of 2.5% of GDP in 2021. In 2022 the surplus is projected to decline to 2.4% of GDP.

The surplus of the recalculated structural balance, mirroring the drop in the headline balance, is expected to decline to 1.0% of GDP in 2018 from a surplus of 1.8% of GDP in 2017. The structural balance is then expected to bottom out in 2019 and 2020 at a surplus of 0.8% of GDP. Since then a gradual improvement is expected leading to a surplus, in structural terms, of 2.0% of GDP in 2022 (see Table 2).

The above defined budgetary strategy represents a significant upside revision compared to the trajectory outlined in the multi annual financing law (MAFL) adopted with the 2018 Budget law and covering the period up to 2021. It reflects; to a large extent, the better than expected budgetary outcome for 2017 (a surplus of 1.5% of GDP compared to the expected surplus of 0.6% of GDP). The improvement occurred mostly at the level of the central government, which in 2017 recorded a deficit of 0.4% of GDP compared to an expected deficit of 1.5% of GDP in the MAFL. For the last two years covered by the programme it also reflects the upward revision of the underlying macro-economic scenario.

Figure 1: Government balance projections in successive programmes (% of GDP)



– Source: Commission 2018 spring forecast; Stability Programmes

- **MEASURES UNDERPINNING THE PROGRAMME**

The budgetary strategy outlined in the programme caters for the long-term impact of measures that have been adopted in the recent years. In particular, it factors in the impact of the tax reform that took effect at the start of 2017. The reform introduced changes mostly in the area of direct taxation, both for individuals and corporations, aiming at a gradual reduction in the

corporate income tax rate (with the aim of increasing competitiveness) and increased progressivity of the personal income tax (with the aim to increase fairness). It is estimated to have cut off revenues for an equivalent of 0.7% of GDP in 2017. Its impact is projected to become larger in the following years reducing revenues annually for about 0.8% of GDP on average over the period 2018-2022.

The programme also incorporates the impact of the change in VAT legislation[2] with regard to the place of taxation for activities related to e-commerce. A transition rule covering the period from 2015-2019 was put in place. Accordingly, Luxembourg has been able to retain 30% of VAT revenues generated by those activities between 2015 and 2016. The loss of e-VAT revenues between 2015 and 2016 has been estimated at around EUR 600 million (equivalent to 1.2% of GDP). This loss was partially compensated by the increase, which took effect at the start of 2015, by 2 percentage points of all VAT rates, excluding the super-reduced rate of 3%. The retained share of e-VAT is then reduced to 15% for the period 2017-2018. In 2017 a loss of around EUR 300 million (0.5% of GDP) was recorded. The rate is finally reduced to 0% from 2019 onward. The potential loss in 2019 is estimated at around EUR 90 million (0.1% of GDP).

Finally, the budgetary strategy includes the impact of the saving measures adopted with the ZukunftPak[3] in 2015, the impact of which is expected to be distributed up to 2021.

- **DEBT DEVELOPMENTS**

In spite of the significant primary surplus the debt-to-GDP ratio increased to 23.0% of GDP in 2017 from 20.8% of GDP in 2016. This is mostly explained by the fact that the primary surplus stems from the comfortable position of the social security sector, while the central government position is in deficit. As the surplus of the social security sector is earmarked to feed the reserve of the pension fund, the central government deficit need to be financed through new debt issuances. The increase of around EUR 1.7 billion in the general government debt is mostly explained by the issuance at the beginning of 2017 of a new bond for an amount of EUR 2 billion. The remaining difference is explained by bank borrowing operations.

According to the Stability Programme, public debt is expected to decrease steadily over the covered period to 18.8% of GDP in 2022 (see Table 3). The trajectory is based on the assumption that the future central government deficit will be entirely financed by new debt and that the expected surplus of the central government in 2021 and 2022 will be used to decrease the general government debt. These developments are broadly in line with the Commission 2018 spring forecast (see Figure 2 and Table 3) that foresees a decline in the debt–to–GDP ratio by 2019.

While the gross government debt is expected to decrease, its amount is largely outweighed by the assets owned by the government. Apart from the reserves of the pension fund, equivalent to EUR 18.1 billion (32.7% of GDP) at the end of 2017, the government owns stakes in commercial and non-commercial companies, valued at approximately around 10% of GDP.

[2] From 1 January 2015, telecommunications, broadcasting and electronic services will always be taxed in the country where the customer belongs – regardless of whether the customer is a business or consumer – regardless of whether the supplier is based in the EU or outside.

[3] The ZukunftPak has been adopted with the 2015 budget and contains a list of 258 measures, of different size, to reduce expenditure with an incremental impact over the period 2015-2021.

Finally, since 2015 it has been established an Intergenerational Sovereign Fund, the assets of which amounted at EUR 240 million (0.4% of GDP) at the end of April 2018.

Table 3: Debt developments

(% of GDP)	Average 2012-2016	2017	2018		2019		2020	2021	2022
			COM	SP	COM	SP	SP	SP	SP
Gross debt ratio[1]	**22.2**	**23.0**	**22.6**	**22.7**	**22.5**	**22.1**	**21.3**	**20.0**	**18.8**
Change in the ratio	0.4	2.2	-0.3	-0.3	-0.1	-0.6	-0.8	-1.3	-1.2
Contributions[2] *:*									
1. Primary balance	**-1.6**	**-1.9**	**-1.3**	**-1.4**	**-1.0**	**-1.6**	**-1.9**	**-2.7**	**-2.6**
2. "Snow-ball" effect	**-0.5**	**-0.5**	**-0.8**	**-0.9**	**-0.7**	**-1.1**	**-0.8**	**-0.8**	**-0.7**
Of which:									
Interest expenditure	0.4	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2
Growth effect	-0.7	-0.5	-0.8	-1.0	-0.7	-1.0	-0.9	-0.7	-0.6
Inflation effect	-0.2	-0.4	-0.3	-0.2	-0.3	-0.3	-0.2	-0.3	-0.4
3. Stock-flow adjustment	**2.4**	**4.6**	**1.7**	**2.1**	**1.6**	**2.1**	**1.9**	**2.3**	**2.1**

Notes:

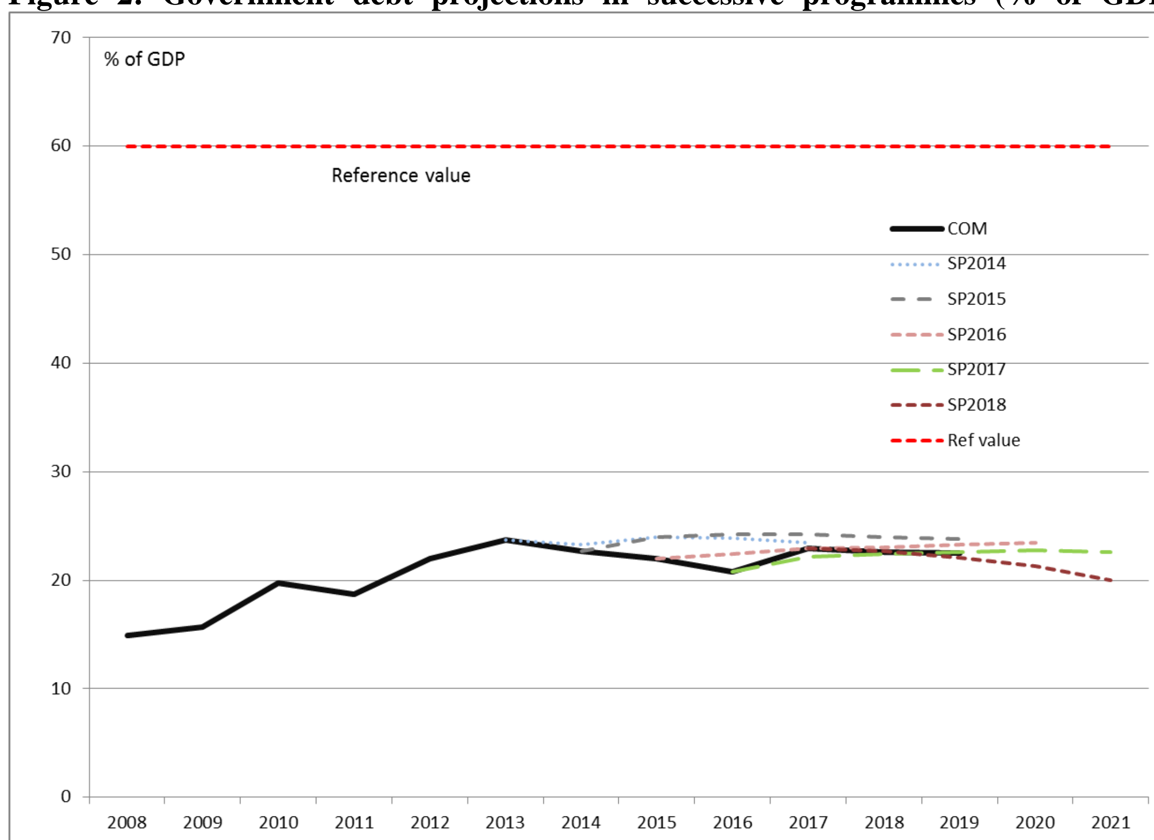
[1] End of period.

[2] The snow-ball effect captures the impact of interest expenditure on accumulated debt, as well as the impact of real GDP growth and inflation on the debt ratio (through the denominator). The stock-flow adjustment includes differences in cash and accrual accounting, accumulation of financial assets and valuation and other residual effects.

Source :

Commission 2018 spring forecast (COM); Stability Programme (SP), Commission calculations.

Figure 2: Government debt projections in successive programmes (% of GDP)



Source: Commission 2018 spring forecast; Stability Programmes

- **RISK ASSESSMENT**

Overall, the Stability Programme's targets in terms of headline balance, structural balance and public debt appear to be more favourable than in the Commission 2018 spring forecast. In particular in 2019, when according to the Commission forecast the surplus of the public finances continues to shrink while in the national authorities' scenario it returns to expand.

The Stability Programme states that the outlined budgetary trajectory does not factor in the impact, positive or negative, of the materialisation of any of the potential risks pending on the national economy. In particular and despite the efforts of the national authorities to diversify the economy by developing selected sectors, including the ICT industry and the space sector, the economy remains dependent to a large extent from the financial sector. In this regard, risks stem from changes to the regulatory environment that could adversely impact the financial sector perspectives. In a similar way, international discussion on the harmonisation of the taxation of multinational could impact the decision on headquarters location by multinationals, which Luxembourg hosts in larger number. These risk factors are however dependent on the external environment, on which the national authorities have limited possibilities to exert an influence.

The programme provides with the results of a sensitivity analysis carried out on the basis of a shock, positive and negative, to the euro area growth rate and to a positive shock on the interest rates. According to the analysis, in the case of a euro-area growth rate 0.5 percentage points lower than in the baseline scenario, economic growth in Luxembourg would be 0.7 percentage points lower on average for the whole period 2017-2022 with a significant impact of on the public finances. In this case public debt would be expected to reach 23.6% of GDP at the end of the programme period compared to 18.8% of the GDP in the baseline scenario. The analysis carried out by the national authorities points to a limited sensitivity of the economy and eventually of the public finances to the case of a positive shock on interest rate.

4. COMPLIANCE WITH THE PROVISIONS OF THE STABILITY AND GROWTH PACT

Luxembourg is subject to the preventive arm of the Stability and Growth Pact. In the context of the 2017 European Semester, Luxembourg was not addressed a recommendation in the area of public finances since the Council was of the opinion that Luxembourg complies with the Stability and Growth Pact.

The general government balance posted a surplus of 1.5% of GDP in 2017 and it is planned to remain in surplus throughout the programme period. This is confirmed by the Commission 2018 spring forecast for the years 2018 and 2019. The general government debt stood at 23.0% of GDP at the end of 2017 and it is planned to gradually decrease and reach 18.8% of GDP at the end of the program period, i.e. to remain well below the 60% of GDP threshold from the Pact.

Based on outturn data, Luxembourg's structural balance stood at a surplus of 1.8% of GDP in 2017 and thus the country remained well above its medium-term objective (MTO) of a structural deficit of 0.5% of GDP, confirming compliance with the SGP. In this regard, it is worth to note that windfall revenues are estimated, on the basis of the standard elasticity, to have significantly contributed to the 2017 outcome. Notably, revenues from direct taxation surprised on the upside; i.e., corporate income taxes over performed by 0.5 percentage points of GDP compared to the outcome expected in the DBP.

According to the information in the Stability Programme, Luxembourg is expected to continue to remain above its MTO also in 2018, when the recalculated structural surplus is projected at 1.0% of GDP, which is broadly in line with the Commission 2018 spring forecast.

Table 4: Compliance with the requirements under the preventive arm

(% of GDP)	2017	2018		2019	
Initial position[1]					
Medium-term objective (MTO)	-0.5	-0.5		-0.5	
Structural balance[2] (COM)	1.8	0.8		0.3	
Structural balance based on freezing (COM)	0.6	0.8		-	
Position vis-a -vis the MTO[3]	At or above the MTO	At or above the MTO		At or above the MTO	
(% of GDP)	**2017**	**2018**		**2019**	
	COM	**SP**	**COM**	**SP**	**COM**
Structural balance pillar					
Required adjustment[4]	Compliance				
Required adjustment corrected[5]					
Change in structural balance[6]					
One-year deviation from the required adjustment [7]					
Two-year average deviation from the required adjustment [7]					
Expenditure benchmark pillar					
Applicable reference rate[8]					
One-year deviation adjusted for one-offs[9]					
Two-year deviation adjusted for one-offs[9]					
PER MEMORIAM: One-year deviation [10]					
PER MEMORIAM: Two-year average deviation [10]					

Notes

[1] The most favourable level of the structural balance, measured as a percentage of GDP reached at the end of year t-1, between spring forecast (t-1) and the latest forecast, determines whether there is a need to adjust towards the MTO or not in year t. A margin of 0.25 percentage points (p.p.) is allowed in order to be evaluated as having reached the MTO.

[2] Structural balance = cyclically-adjusted government balance excluding one-off measures.

[3] Based on the relevant structural balance at year t-1.

[4] Based on the position vis-à-vis the MTO, the cyclical position and the debt level (See European Commission: Vade mecum on the Stability and Growth Pact, page 38.).

[5] Required adjustment corrected for the clauses, the possible margin to the MTO and the allowed deviation in case of overachievers.

[6] Change in the structural balance compared to year t-1. Ex post assessment (for 2017) is carried out on the basis of Commission 2018 spring forecast.

[7] The difference of the change in the structural balance and the corrected required adjustment.

[8] Reference medium-term rate of potential GDP growth. The (standard) reference rate applies from year t+1, if the country has reached its MTO in year t. A corrected rate applies as long as the country is adjusting towards its MTO, including in year t.

[9] Deviation of the growth rate of public expenditure net of discretionary revenue measures, revenue increases mandated by law and one-offs from the applicable reference rate in terms of the effect on the structural balance. The expenditure aggregate used for the expenditure benchmark is obtained following the commonly agreed methodology. A negative sign implies that expenditure growth exceeds the applicable reference rate.

[10] Deviation of the growth rate of public expenditure net of discretionary revenue measures and revenue increases mandated by law from the applicable reference rate in terms of the effect on the structural balance. The expenditure aggregate used for the expenditure benchmark is obtained following the commonly agreed methodology. A negative sign implies that expenditure growth exceeds the applicable reference rate.

Source :

Stability Programme (SP); Commission 2018 spring forecast (COM); Commission calculations.

In 2019, the recalculated structural balance is projected to decline to a surplus of 0.8% of GDP, still above the level of the country specific MTO. This compares with a surplus of 0.3% of GDP in the Commission forecast (see Table 2 and Table 4).

Luxembourg is therefore projected to be compliant with the requirements of the preventive arm of the Pact in both 2018 and 2019. Beyond 2019, the programme indicates that the structural balance is set to improve and to remain above the MTO over the programme period, with a margin to the limit value.

5. FISCAL SUSTAINABILITY

Luxembourg does not appear to face fiscal sustainability risks in the short run.[4]

Based on Commission 2018 spring forecasts and a no-fiscal policy change scenario beyond the forecast horizon, government debt, at 23.0% of GDP in 2017, is expected to decrease to 11.8% of GDP in 2028, thus remaining below the 60% of GDP Treaty threshold. Over this horizon, government debt peaks in 2017. Sensitivity analysis shows similar risks.[5] Overall, this highlights low risks for the country from debt sustainability analysis in the medium term. The full implementation of the Stability Programme would put debt on an even steeper decreasing path by 2028, reaching 4.7% of GDP in 2028.

The medium-term fiscal sustainability risk indicator S1[6] is at -4.4 percentage points of GDP, primarily related to the initial low level of government debt and the favourable budgetary position, which compensate for the projected ageing costs (contributing with 0.6 percentage points of GDP), thus indicate low risks in the medium term. The full implementation of the Stability Programme would put the sustainability risk indicator S1 at -7.6 percentage points of GDP, leading to similar medium-term risk. Overall, risks to fiscal sustainability over the medium-term are, therefore, low. Fully implementing the fiscal plans in the Stability Programme would decrease those risks.

The long-term fiscal sustainability risk indicator S2 is at 8.5 percentage points of GDP. In the long term, Luxembourg therefore appears to face high fiscal sustainability risks, primarily related to the projected increase in age-related costs, contributing with 8.7 percentage points of GDP. Full implementation of the programme would put the S2 indicator at 7.4 percentage points of GDP, leading to a similar long-term risk.[7]

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[4] This conclusion is based on the short-term fiscal sustainability risk indicator S0. See the note to Table 5 for a definition of the indicator.

[5] Sensitivity analysis includes several deterministic debt projections, as well as stochastic projections (see Debt Sustainability Monitor 2017 for more details).

[6] See the note to Table 5 for a definition of the indicator.

[7] The projected costs of ageing used to compute the debt projections and the fiscal sustainability indicators S1 and S2 are based on the updated projections, endorsed by the EPC on 30 January 2018, and to be published in the forthcoming Ageing Report 2018.

Table 4: Sustainability indicators

Time horizon			Commission Scenario		Stability / Convergence Programme Scenario	
Short Term			**LOW risk**			
S0 indicator [1]			0.1			
	Fiscal subindex		0.0	LOW risk		
	Financial & competitiveness subindex		0.1	LOW risk		
Medium Term			**LOW risk**			
DSA [2]			LOW risk			
S1 indicator [3]			-4.4	LOW risk	-7.6	LOW risk
of which						
	Initial Budgetary Position		-1.9		-4.2	
	Debt Requirement		-3.0		-4.3	
	Cost of Ageing		0.6		0.8	
	of which					
		Pensions	0.6		0.7	
		Health-care	0.0		0.1	
		Long-term care	0.1		0.1	
		Other	-0.2		0.0	
Long Term			**HIGH risk**		**HIGH risk**	
S2 indicator [4]			8.5		7.4	
of which						
	Initial Budgetary Position		-0.1		-1.6	
	Cost of Ageing		8.7		9.0	
	of which					
		Pensions	5.7		5.8	
		Health-care	0.8		0.8	
		Long-term care	2.1		2.1	
		Other	0.1		0.3	

Source: Commission services; 2018 stability/convergence programme.

Note: the 'Commission' scenario depicts the sustainability gap under the assumption that the structural primary balance position evolves according to the Commissions' spring 2018 forecast covering until 2019 included. The 'stability/convergence programme' scenario depicts the sustainability gap under the assumption that the budgetary plans in the programme are fully implemented over the period covered by the programme. Age-related expenditure as given in the 2018 Ageing Report.

[1] The S0 indicator of short term fiscal challenges informs the early detection of fiscal stress associated to fiscal risks within a one-year horizon. To estimate these risks S0 uses a set of fiscal, financial and competitiveness indicators selected and weighted according to their signalling power. S0 is therefore a composite indicator whose methodology is fundamentally different from the S1 and S2 indicators, which quantify fiscal adjustment efforts. The critical threshold for the overall S0 indicator is 0.46. For the fiscal and the financial-competitiveness sub-indexes, thresholds are respectively at 0.36 and 0.49*.

[2] Debt Sustainability Analysis (DSA) is performed around the no fiscal policy change scenario in a manner that tests the response of this scenario to different shocks presented as sensitivity tests and stochastic projections*.

[3] The S1 indicator is a medium-term sustainability gap; it measures the upfront fiscal adjustment effort required to bring the debt-to-GDP ratio to 60 % by 2032. This adjustment effort corresponds to a cumulated improvement in the structural primary balance over the 5 years following the forecast horizon (i.e. from 2020 for Commission scenario and from last available year for the SCP scenario); it must be then sustained, including financing for any additional expenditure until the target date, arising from an ageing population. The critical thresholds for S1 are 0 and 2.5, between which S1 indicates medium risk. If S1 is below 0 or above 2.5, it indicates low or high risk, respectively*.

[4] The S2 indicator is a long-term sustainability gap; it shows the upfront and permanent fiscal adjustment required to stabilise the debt-to-GDP ratio over the infinite horizon, including the costs of ageing. The critical thresholds for S2 are 2 and 6, between which S2 indicates medium risk. If S2 is below 2 or above 6, it indicates low or high risk, respectively*.

* For more information see Fiscal Sustainability Report 2015 and Debt Sustainability Monitor 2017.

6. FISCAL FRAMEWORK

The design of Luxembourg's national fiscal framework improved with the adoption of the Law of 12 July 2014, which transposed the requirements of the 2011 Council Directive on budgetary framework and the Fiscal Compact. The main numerical rule of Luxembourg covers the structural balance: the government, when setting its budgetary strategy, needs to ensure compliance with the medium-term objective (MTO). Moreover, the government has committed, at the outset of its term, to keep the debt-to-GDP ratio below the 30% of GDP threshold.

Based on the information provided in the Stability Programme, the past, planned and forecast evolution of both the structural balance and the general government debt appear to comply with the requirements of the applicable national numerical fiscal rules and in particular with regard to the MTO. In 2016 the national Fiscal Council pointed out that the choice to set the new MTO, for the period 2017-2019, at a deficit of 0.5% of GDP, compared to a surplus of 0.5% of GDP up to 2016, was not in line with the government's commitment to keep the debt-to-GDP ratio under the 30% of GDP threshold. According to their simulations, in order to ensure that the general government debt will remain under the threshold of 30% of GDP, the new MTO should not be set at a level lower than a surplus of 0.25% of GDP. In this regard, the government, in the Stability Programme, expects the structural balance, to remain above the minimum MTO needed to keep the debt below the threshold of 30% of GDP. According to the Stability Programme, the recalculated structural balance stood at a surplus of 1.8% of GDP in 2017. It will bottom out at a surplus of 0.8% of GDP in both 2019 and 2020 before returning to improve to a surplus of 2.0% of GDP in 2022.

As to the general government debt, according to the Stability Programme, it is expected to have peaked at 23.0% of GDP in 2017, and to start decreasing since reaching a low of 18.8% of GDP in 2022. It will therefore remain below the threshold fixed by the government.

The Stability Programme clearly states, in accordance with the provisions of article 4.1 of the Two-Pack Regulation that the budgetary trajectory outlined in the document should be considered as the national medium-term fiscal plan. However, neither the Stability Programme nor the National Reform Programme provide indications on the expected economic returns on non-defence public investment projects that have a significant budgetary impact, which is also a requirement of the Two-Pack Regulation 473/2013.

The macroeconomic forecast underlying the Stability Programme have been prepared by the Direction "Etudes, prévisions et recherche" of the national statistical office STATEC, which also provided the methodology for the calculation of the output gap. STATEC is an autonomous entity placed under the authority of the Ministry of Economy.

Its mandate and organisation were revised by the law of 10 July 2011[2], which explicitly highlights STATEC's scientific and administrative independence, its ability to access to appropriate information to carry out its mandate and its capacity to communicate freely. Its director is appointed by the Grand-Duke. Its statutes contain provisions supporting independence of the institution as a body producing macroeconomic forecasts.

7. SUMMARY

In 2017, Luxembourg recorded a government surplus of 1.5% of GDP and its structural balance stood at 1.8% of GDP, above its medium-term objective of a deficit, in structural terms, of 0.5% of GDP.

According to both the information provided in the Stability Programme and the Commission 2018 spring forecast, Luxembourg is expected to remain above its MTO both in 2018 and 2019 continuing therefore to meet the requirements under the preventive arm of the Stability and Growth Pact.

8. ANNEXES

Table I. Macroeconomic indicators

	2000-2004	2005-2009	2010-2014	2015	2016	2017	2018	2019
Core indicators								
GDP growth rate	4.0	2.2	3.3	2.9	3.1	2.3	3.7	3.5
Output gap [1]	2.4	-0.1	-3.1	-0.9	-0.5	-0.7	0.3	0.9
HICP (annual % change)	2.8	2.7	2.4	0.1	0.0	2.1	1.5	1.7
Domestic demand (annual % change) [2]	3.0	1.5	3.7	1.4	1.6	1.4	2.7	2.6
Unemployment rate (% of labour force) [3]	3.1	4.7	5.3	6.5	6.3	5.6	5.3	5.2
Gross fixed capital formation (% of GDP)	20.7	18.8	19.1	17.3	17.2	17.0	16.8	16.6
Gross national saving (% of GDP)	27.5	23.8	19.6	20.6	21.4	20.0	20.1	19.6
General Government (% of GDP)								
Net lending (+) or net borrowing (-)	**2.6**	**1.8**	**0.5**	**1.4**	**1.6**	**1.5**	**0.9**	**0.7**
Gross debt	**7.2**	**10.7**	**21.4**	**22.0**	**20.8**	**23.0**	**22.6**	**22.5**
Net financial assets	**52.6**	**52.5**	**48.2**	**48.6**	**50.9**	**n.a**	**n.a**	**n.a**
Total revenue	43.6	42.9	43.6	42.9	43.7	44.4	44.0	43.9
Total expenditure	40.9	41.2	43.1	41.5	42.1	42.9	43.1	43.3
of which: Interest	0.3	0.3	0.5	0.4	0.3	0.3	0.3	0.3
Corporations (% of GDP)								
Net lending (+) or net borrowing (-)	**-0.2**	**-0.6**	**-4.4**	**-3.9**	**-5.1**	**-2.2**	**-1.1**	**-1.0**
Net financial assets; non-financial corporations	**-94.7**	**-78.9**	**-102.9**	**-181.5**	**-217.1**	**n.a**	**n.a**	**n.a**
Net financial assets; financial corporations	**46.1**	**15.0**	**-17.9**	**-25.1**	**-15.0**	**n.a**	**n.a**	**n.a**
Gross capital formation	12.1	10.2	10.8	10.5	9.9	8.9	8.5	8.1
Gross operating surplus	26.3	28.2	29.0	30.6	28.7	28.1	27.8	27.7
Households and NPISH (% of GDP)								
Net lending (+) or net borrowing (-)	**3.5**	**2.4**	**3.9**	**3.6**	**3.6**	**3.5**	**3.3**	**3.1**
Net financial assets	**86.5**	**94.9**	**98.6**	**107.5**	**105.2**	**n.a**	**n.a**	**n.a**
Gross wages and salaries	30.2	27.8	27.2	26.9	27.6	28.2	28.3	28.3
Net property income	1.9	1.6	1.5	1.2	1.0	0.6	0.3	0.2
Current transfers received	14.6	14.3	15.1	14.7	14.8	15.0	15.0	15.1
Gross saving	7.7	7.2	7.9	7.6	7.8	7.8	7.8	7.8
Rest of the world (% of GDP)								
Net lending (+) or net borrowing (-)	**6.1**	**3.6**	**0.0**	**1.1**	**0.5**	**3.5**	**3.7**	**3.4**
Net financial assets	**-90.4**	**-83.4**	**-25.8**	**50.7**	**76.2**	**n.a**	**n.a**	**n.a**
Net exports of goods and services	24.4	30.7	32.5	35.2	35.1	36.0	36.5	37.1
Net primary income from the rest of the world	-17.8	-26.2	-31.6	-33.7	-32.0	-33.6	-33.6	-34.2
Net capital transactions	-0.4	-1.0	-0.7	-1.3	-3.0	0.8	0.6	0.5
Tradable sector	32.3	28.4	28.3	28.0	27.1	28.0	n.a	n.a
Non tradable sector	57.2	61.1	61.2	62.5	63.5	62.7	n.a	n.a
of which: Building and construction sector	5.5	5.1	4.7	4.9	5.1	5.0	n.a	n.a
Real effective exchange rate (index, 2000=100)	85.8	95.6	101.7	101.8	102.1	105.7	108.0	108.6
Terms of trade goods and services (index, 2000=100)	95.3	97.3	100.4	100.1	99.6	99.3	98.9	98.8
Market performance of exports (index, 2000=100)	87.7	96.5	103.9	116.3	114.1	113.5	112.5	111.7

Notes:

[1] The output gap constitutes the gap between the actual and potential gross domestic product at 2005 market prices.

[2] The indicator on domestic demand includes stocks.

[3] Unemployed persons are all persons who were not employed, had actively sought work and were ready to begin working immediately or within two weeks. The labour force is the total number of people employed and unemployed. The unemployment rate covers the age group 15-74.

Source :
AMECO data, Commission 2018 spring forecast