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**Assessment of the 2016 Stability Programme for  
Luxembourg**

*(Note prepared by DG ECFIN staff)*

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## **1. INTRODUCTION**

This document assesses the Luxembourg's April 2016 Stability Programme, which was submitted on 29 April and covers the period 2015-2020. 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 subject to the preventive arm of the the Stability and Growth Pact and should preserve a sound fiscal position which ensures compliance with the medium-term objective.

This document complements the Country Report published on 26 February 2016 and updates it with the information included in the Stability Programme.

Section 2 presents the macroeconomic outlook underlying the Stability Programme and provides an assessment based on the Commission 2016 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 and the quality of public finances. Section 7 provides a summary.

## **2. MACROECONOMIC DEVELOPMENTS**

After an initial slow-down in 2016, the Stability Programme foresees an economic acceleration in 2017 and 2018, followed by lower growth at the end of the programme period in 2020. Real GDP growth is projected to slow down to 2.9% in 2016 (from 4.8% in the previous year), before accelerating to 4.5% and 4.9% in 2017 and 2018, respectively. Subsequently, GDP growth is forecast to decelerate gradually and reach 2.3% by 2020.

Concerning 2016, the programme projects a lower real GDP growth compared to the 2016 Draft Budgetary Plan (DBP) submitted in October 2015, which foresaw growth to reach 3.4% in 2016. In the DBP net exports was the main factor driving economic growth. By contrast, according to the programme, growth in 2016 is expected to be completely driven by domestic demand. Lower oil prices, easier financing conditions and faster employment growth are expected to support consumption and investment. At the same time, net exports are projected to contribute negatively to growth by 0.5 pp. instead of supporting it by 3.5 pps. as foreseen in the DBP. Weaker export of financial services, mostly owed to a projected less favourable evolution of financial markets explains this shift.

The macroeconomic scenario in the programme implies an initial widening of the negative output gap with real GDP growth in 2016 being below potential (estimated at 3.6% on average between 2016 and 2020). Output growth rate is then projected to peak at 4.9% in 2018 contributing to the rapid closing of the output gap. In the following two years covered by the programme, a slowdown in GDP growth is foreseen with economic output in 2020 significantly lower than potential. The output gap, as recalculated by the Commission based on the information in the programme following the commonly agreed methodology, is set to widen from -0.8% of GDP in 2015 to -1.5% in 2016, before narrowing to -0.6% in 2017 and

turning positive in 2018 and 2019, when it is expected to reach 0.6% and 0.4%, respectively, and then fall to -1.0% in 2020.

This compares to smaller output gaps of -0.1%, -1.0% and -0.3% in 2015, 2016 and 2017, respectively, as calculated on the basis of the Commission spring forecast, mainly due to a lower estimation for potential growth, which in turn mostly results from lower contribution from capital accumulation.

**Table 1: Comparison of macroeconomic developments and forecasts**

	2015		2016		2017		2018	2019	2020
	COM	SP	COM	SP	COM	SP	SP	SP	SP
Real GDP (% change)	4.8	4.8	3.3	2.9	3.9	4.5	4.9	3.5	2.3
Private consumption (% change)	0.1	0.1	2.2	3.5	2.8	3.2	4.0	2.7	0.6
Gross fixed capital formation (% change)	-2.9	-2.8	1.9	13.9	3.4	3.9	6.5	2.7	2.1
Exports of goods and services (% change)	7.0	7.1	4.3	4.9	4.9	6.9	6.4	6.1	5.2
Imports of goods and services (% change)	6.5	6.0	4.1	6.2	4.8	6.8	6.3	6.1	5.3
<i>Contributions to real GDP growth:</i>									
- Final domestic demand	0.0	0.0	1.4	3.4	1.8	2.2	2.7	1.6	0.8
- Change in inventories	1.7	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Net exports	3.2	3.8	1.9	-0.5	2.1	2.3	2.2	1.9	1.4
Output gap <sup>1</sup>	-1.1	-0.8	-1.0	-1.5	-0.3	-0.6	0.6	0.4	-1.0
Employment (% change)	2.5	2.5	2.6	2.9	2.5	2.4	3.3	3.2	2.2
Unemployment rate (%)	6.4	6.4	6.2	6.0	6.2	6.2	5.7	5.7	6.4
Labour productivity (% change)	2.3	2.5	0.7	-0.1	1.3	2.0	1.6	0.3	-0.1
HICP inflation (%)	0.1	0.1	-0.1	-0.2	1.8	1.3	1.6	1.8	1.8
GDP deflator (% change)	1.6	1.6	0.9	1.6	1.9	2.2	1.8	2.3	2.2
Comp. of employees (per head, % change)	0.8	0.9	0.3	0.5	2.6	2.9	1.5	2.3	2.6
Net lending/borrowing vis-à-vis the rest of the world (% of GDP)	4.4	n.a.	5.8	n.a.	5.3	n.a.	n.a.	n.a.	n.a.
<i>Note:</i>									
<sup>1</sup> In % of potential GDP, with potential GDP growth recalculated by Commission services on the basis of the programme scenario using the commonly agreed methodology.									
<i>Source:</i>									
Commission 2016 spring forecast (COM); Stability Programme (SP).									

For 2016, real GDP growth forecast in the programme is 0.4 pp. weaker than in the Commission 2016 spring forecast, whereas for 2017, the programme foresees a 0.6 pp. higher real GDP growth rate than the Commission. The composition of growth is very similar in the two projections for 2017, whereas for 2016 the programme is based on stronger domestic demand, in particular private consumption and gross fixed capital formation, compared to the Commission forecast. In particular, the strong increase in investment projected in the programme foresees is plausibly linked to the purchases of large assets (planes and/or satellites). This is then reflected in parallel stronger, compared to the Commission forecast, increase in imports, and explains the negative contribution to growth by net exports, which remains positive in the Commission 2016 spring forecasts. Stronger domestic demand helps explaining why employment growth is somewhat higher in the programme than in the Commission forecast, in particular in 2016. However, due to higher GDP deflator, the programme foresees slightly higher nominal GDP growth in 2016 than in the Commission

forecast (4.5% in the programme compared with 4.2% in the Commission 2016 spring forecast).

The projected real growth seems plausible, even somewhat cautious, for 2016. In 2017 and 2018 the projected real growth appears favourable, as both domestic demand and net exports contributions to real growth appear favourable. Specifically, the strong pick-up projected for the external sector, mostly in 2018, appears rather vigorous, given the uncertainty surrounding the impact of the recent and forthcoming wave of regulations in the financial sector. For the later years covered by the programme the underlying macro-scenario seems plausible.

### **3. RECENT AND PLANNED BUDGETARY DEVELOPMENTS**

#### **3.1. Deficit developments in 2015**

The general government balance recorded a surplus of 1.2%<sup>1</sup> of GDP in 2015<sup>2</sup>, after a surplus of 1.7% of GDP in 2014. It reflects a deficit of the central government (-0.4% of GDP) that is more than compensated by the surplus of the local government sector (+0.2% of GDP) and the social security sector (+1.5% of GDP).

This position also represents a sizeable upward revision compared to the general government surplus of 0.1% of GDP projected in the Draft Budgetary Plan. Apart from a positive base effect from an upward revision of the general government surplus in 2014 from 1.4% to 1.7% of GDP, the better-than-expected outcome is explained by developments in both the revenue and the expenditure side. On the revenue side, the 2 pps. increase in VAT rates resulted in a revenue collection 0.2% of GDP above the budget projection. In addition, the elasticity of taxes on current income on households and corporations was higher than expected and proceeds have surpassed the 2016 budget estimation. On the expenditure side, the impact on the public wage bill of the EU presidency in the second half of the year has been revised downward. In addition, while public investment recorded a strong growth, it was less than budgeted, following the postponement of some investment projects by the local governments.

#### **3.2. Medium-term strategy and targets**

The Stability Programme outlines the national medium-term budgetary plan covering the period up to 2020. The purpose of the medium-term budgetary strategy is to ensure compliance with the medium-term objective (MTO) throughout the period. Nevertheless, it is worth noting that the authorities have decided to set the MTO to a structural deficit of 0.5% of GDP as from 2017, compared with the current MTO of a structural surplus of 0.5% of GDP. The new MTO chosen by the authorities is in line with the new minimum MTO set for the period 2017-2019 of a deficit of 1% of GDP and with the provisions of the Fiscal compact setting a deficit of 0.5% of GDP as a general minimum MTO requirement. In this regard, the new MTO reflects the objectives of the Pact.

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<sup>1</sup> Eurostat press release of 21 April 2016, available at:  
<http://ec.europa.eu/eurostat/documents/2995521/7235991/2-21042016-AP-EN.pdf/50171b56-3358-4df6-bb53-a23175d4e2de>

<sup>2</sup> In the Stability Programme the general government surplus is set at 1.3% of GDP, compared to 1.2% of GDP in the EDP notification. The difference is explained by certain amount of current taxes on income and wealth that has been allocated to 2015 on the basis of information not available at the time of the EDP notification.

The (recalculated) structural balance is projected to register a surplus of 1.6% of GDP in 2016, well above the country specific MTO of a surplus of 0.5% of GDP. The structural balance is projected to decrease to a surplus of 0.3% of GDP in 2017 and to hover then around a balanced budget in 2018 and 2019 before returning to a higher level in 2020, when a surplus of 0.9% of GDP is planned (see Table 2).

The outlined budgetary trajectory confirms the intention of the government to pursue a budgetary policy that is more ambitious than the one needed to simply ensure the compliance with the requirements of the Stability and Growth Pact.

In 2016, the headline surplus is expected to decline to 0.8% of GDP (from 1.2% of GDP in the previous year), partly as a result of a less favourable macro-economic scenario. The drop is also due to a further strong acceleration of public investment expenditure, related to the execution of large infrastructure projects. Both direct and indirect (as measured by capital transfers) investment outlays are projected to increase sharply in 2016. In line with its historical high correlation with public investment also intermediate consumption is expected to experience a large increase. In 2017 the surplus is expected to further drop to a balanced budget as for the impact of the taxation reform that is to take effect in 2017. From 2018 to the end of the period covered by the programme, the headline balance is planned to gradually improve and to post a surplus of 0.4% of GDP in 2020. The planned 0.8% of GDP surplus for 2016 compares with the 0.5% of GDP surplus target set out in the 2016 Draft Budgetary Plan (DBP). The substantial positive base effect from the higher than budgeted outcome in 2015 is only partially offset by the impact on the budget of an underlying weaker economic scenario and explain the revision.

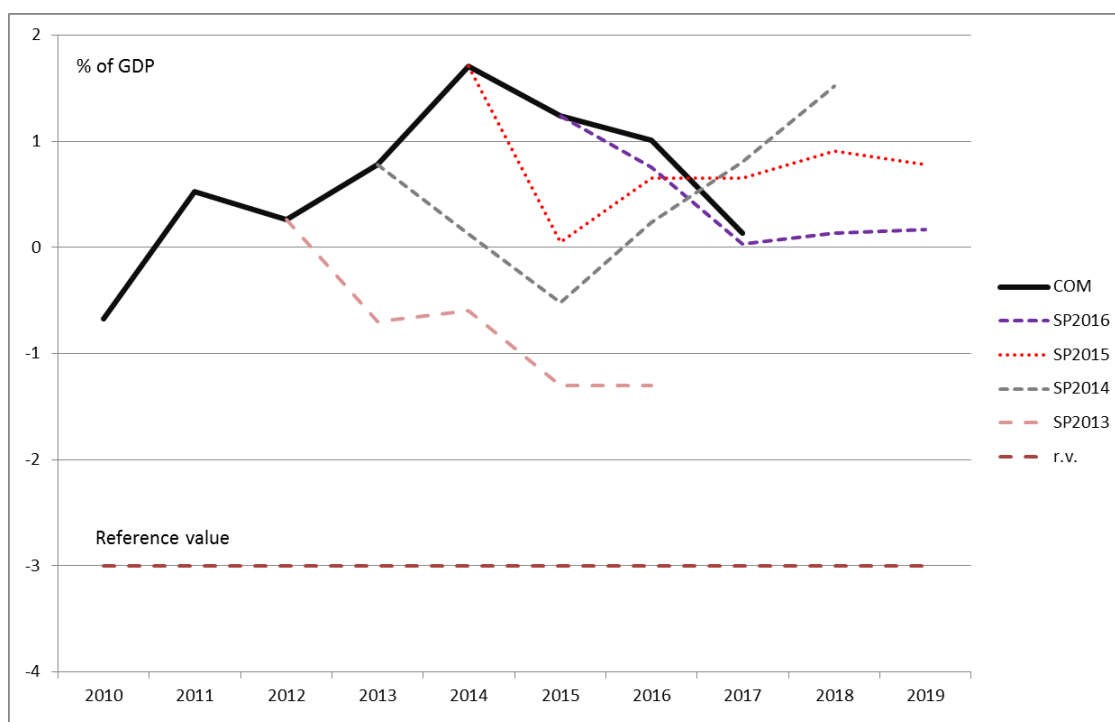
Compared to the fiscal plans outlined in the Multi annual financing law, the above-mentioned budgetary trajectory incorporates the impact of the taxation reform announced by the government at the beginning of 2016 and that will take effect in 2017. The government has decided to use the available fiscal space to implement a reform of the tax system, while ensuring the MTO remains adhered to. The impact of the reform is reflected in the drop of the general government balance, in nominal terms, from a surplus of 0.8% of GDP in 2016 to a balanced budget in 2017 and compares with the surplus of 0.7% of GDP that would be recorded under a no-policy change scenario, according to the information provided in the programme.

The Commission 2016 spring forecast projects a higher surplus of 1.0% of GDP in 2016. Compared with the authorities, the Commission expects revenues from indirect taxes to be higher due to a higher elasticity to private consumption (even if in the programme private consumption is expected to bounce back more sharply than in the Commission spring forecast). The positive base effect from 2016 contributes to explain the slightly better budget outcome in 2017 when the Commission projects a surplus of 0.1% of GDP compared to a balanced budget in the programme.

**Table 2: Composition of the budgetary adjustment**

(% of GDP)	2015	2016		2017		2018	2019	2020	Change: 2015-2020
	COM	COM	SP	COM	SP	SP	SP	SP	SP
<b>Revenue</b>	<b>42.8</b>	<b>42.5</b>	<b>42.3</b>	<b>41.0</b>	<b>40.6</b>	<b>39.6</b>	<b>39.0</b>	<b>39.2</b>	<b>-3.6</b>
<i>of which:</i>									
- Taxes on production and imports	11.9	11.8	11.6	11.2	10.9	10.4	9.9	9.7	-2.2
- Current taxes on income, wealth, etc.	14.3	14.4	14.6	13.7	13.8	13.5	13.6	14.0	-0.3
- Social contributions	12.0	11.8	11.8	11.7	11.7	11.5	11.4	11.5	-0.5
- Other (residual)	4.6	4.5	4.3	4.4	4.2	4.1	4.1	4.1	-0.5
<b>Expenditure</b>	<b>41.5</b>	<b>41.5</b>	<b>41.6</b>	<b>40.9</b>	<b>40.6</b>	<b>39.4</b>	<b>38.8</b>	<b>38.8</b>	<b>-2.8</b>
<i>of which:</i>									
- Primary expenditure	41.2	41.2	41.2	40.5	40.3	39.2	38.6	38.5	-2.7
<i>of which:</i>									
Compensation of employees	8.7	8.7	8.6	8.6	8.4	8.2	8.1	8.1	-0.7
Intermediate consumption	3.6	3.6	3.7	3.6	3.6	3.5	3.4	3.5	-0.1
Social payments	19.8	19.5	19.5	19.1	19.2	18.7	18.5	18.6	-1.2
Subsidies	1.4	1.3	1.3	1.3	1.2	1.1	1.1	1.0	-0.4
Gross fixed capital formation	3.8	4.2	4.2	4.1	3.9	3.7	3.6	3.4	-0.4
Other (residual)	3.8	3.9	3.8	3.8	3.9	3.9	3.9	3.9	-0.8
- Interest expenditure	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	-0.1
<b>General government balance (GGB)</b>	<b>1.2</b>	<b>1.0</b>	<b>0.8</b>	<b>0.1</b>	<b>0.0</b>	<b>0.1</b>	<b>0.2</b>	<b>0.4</b>	<b>-0.8</b>
<b>Primary balance</b>	<b>1.6</b>	<b>1.4</b>	<b>1.1</b>	<b>0.5</b>	<b>0.3</b>	<b>0.4</b>	<b>0.4</b>	<b>0.7</b>	<b>-0.9</b>
One-off and other temporary measures	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>GGB excl. one-offs</b>	<b>1.2</b>	<b>1.0</b>	<b>0.8</b>	<b>0.1</b>	<b>0.0</b>	<b>0.1</b>	<b>0.2</b>	<b>0.4</b>	<b>-0.8</b>
Output gap <sup>1</sup>	-1.1	-1.0	-1.5	-0.3	-0.6	0.6	0.4	-1.0	0.1
Cyclically-adjusted balance <sup>1</sup>	1.7	1.4	1.4	0.3	0.3	-0.1	0.0	0.9	-0.9
<b>Structural balance<sup>2</sup></b>	<b>1.7</b>	<b>1.4</b>	<b>1.4</b>	<b>0.3</b>	<b>0.3</b>	<b>-0.1</b>	<b>0.0</b>	<b>0.9</b>	<b>-0.9</b>
Structural primary balance <sup>2</sup>	2.1	1.8	1.8	0.6	0.6	0.2	0.3	1.1	-1.0
<i>Notes:</i>									
<sup>1</sup> 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.									
<sup>2</sup> Structural (primary) balance = cyclically-adjusted (primary) balance excluding one-off and other temporary measures.									
<i>Source :</i>									
Stability Programme (SP); Commission 2016 spring forecasts (COM); Commission calculations.									

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



– Source: Commission 2016 spring forecast. Stability or convergence programmes.

### 3.3. Measures underpinning the programme

The budgetary strategy outlined in the programme incorporates the incremental impact of the consolidation package already adopted by the 2015 budget, including the saving measures in the Zukunftspak and the 2 pps. increase in VAT rates. The incremental impact in 2016, estimated at 0.4% of GDP, is expected to partially offset that of the projected economic slowdown on the headline surplus, that is estimated to decline to 0.8% of GDP in 2016.

In 2017 and the following years covered by the programme the budgetary trajectory envisaged by the government caters for the implementation of a tax reform. The authorities plan is to use part of the available fiscal space and to reduce the tax burden both for households and corporations. This should have an adverse impact on the headline balance of about 0.7% of GDP in 2017. The impact of the reform is expected to become larger in the following years and to reduce revenues for about 0.9% of GDP on average over the period 2018-2020.

#### Main budgetary measures

Revenue	Expenditure
<b>2017</b>	
<ul style="list-style-type: none"> <li>• PIT (-0.5% of GDP)</li> <li>• CIT (-0.1% of GDP)</li> <li>• Abolition of Temporary Budgetary levy (-0.2% of GDP)</li> <li>• Increase of wealth tax (+0.1% of GDP)</li> </ul>	



<b>2018</b>	
<ul style="list-style-type: none"> <li>• PIT (-0.6% of GDP)</li> <li>• CIT (-0.2% of GDP)</li> <li>• Abolition of Temporary Budgetary levy (-0.2% of GDP)</li> <li>• Increase of wealth tax (+0.1% of GDP)</li> <li>• Tax amnesty (+0.1% of GDP)</li> </ul>	
<b>2019</b>	
<ul style="list-style-type: none"> <li>• PIT (-0.6% of GDP)</li> <li>• CIT (-0.2% of GDP)</li> <li>• Abolition of Temporary Budgetary levy (-0.2% of GDP)</li> <li>• Increase of wealth tax (+0.1% of GDP)</li> <li>• Tax amnesty (+0.1% of GDP)</li> </ul>	
<b>2020</b>	
<ul style="list-style-type: none"> <li>• PIT (-0.6% of GDP)</li> <li>• CIT (-0.2% of GDP)</li> <li>• Abolition of Temporary Budgetary levy (-0.2% of GDP)</li> <li>• Increase of wealth tax (+0.1% of GDP)</li> <li>• Tax amnesty (+0.1% of GDP)</li> </ul>	
<p><u>Note:</u> The budgetary impact in the table is the impact reported in the programme, i.e. by the national authorities. A positive sign implies that revenue / expenditure increases as a consequence of this measure.</p>	

### **3.4. Debt developments**

Mostly due to the financing of support operations to the financial sector, the general government debt increased from 7.8% of GDP in 2007 to 23.3% of GDP in 2013. Debt stabilised at 21.4% of GDP in 2015, but according to the programme, it is expected to return to an increasing path and reach a new peak at 23.5% of GDP in 2020 (see Table 3 and Figure 2). The Commission 2016 spring forecast projects a rather similar public debt trajectory. In spite of a positive primary balance, public debt is projected to increase in 2016 and 2017. This is due to the fact that the primary surplus stems from a comfortable position of the social security sector, while the central government is projected to post continuous deficits. As the social security surplus is earmarked to feed the reserves of the pension fund, the central government deficits need to be financed through new debt issuances.

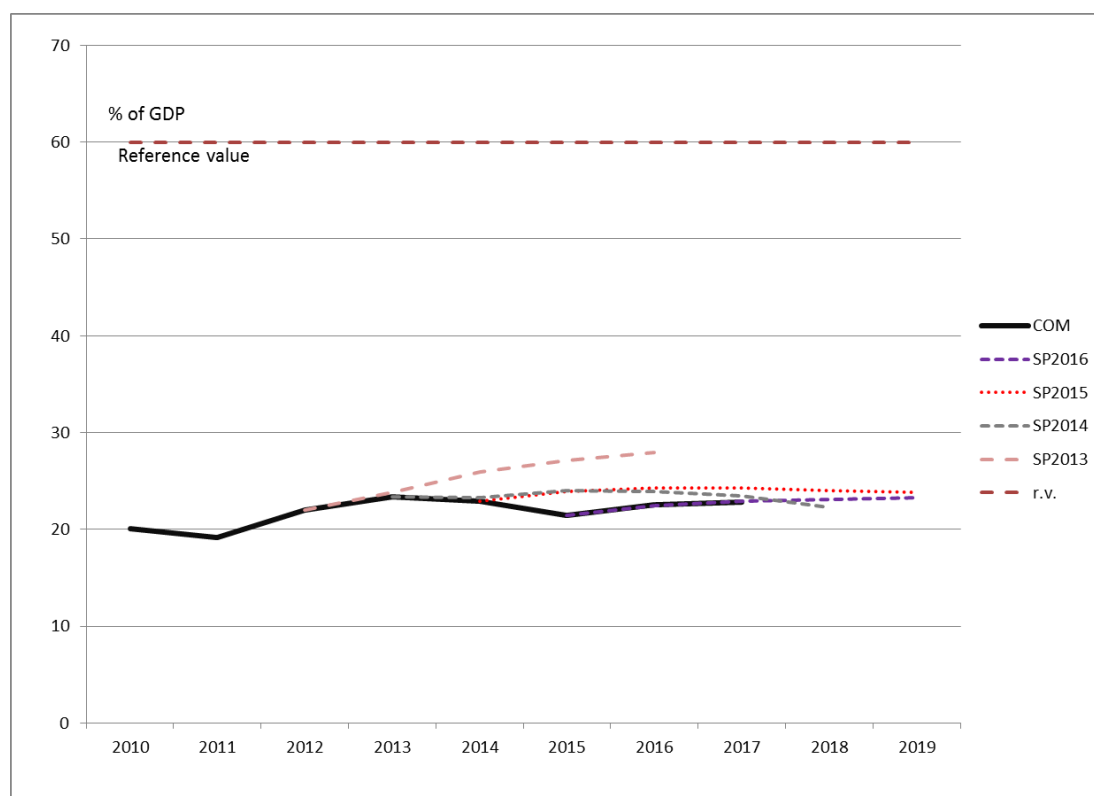
**Table 3: Debt developments**

(% of GDP)	Average 2010-2014	2015	2016		2017		2018	2019	2020
			COM	SP	COM	SP	SP	SP	SP
<b>Gross debt ratio<sup>1</sup></b>	<b>21.5</b>	<b>21.4</b>	<b>22.5</b>	<b>22.4</b>	<b>22.8</b>	<b>22.9</b>	<b>23.1</b>	<b>23.3</b>	<b>23.5</b>
Change in the ratio	1.4	-1.5	1.1	1.0	0.3	0.5	0.2	0.2	0.2
<i>Contributions<sup>2</sup>:</i>									
<b>1. Primary balance</b>	<b>-1.0</b>	<b>-1.6</b>	<b>-1.4</b>	<b>-1.1</b>	<b>-0.5</b>	<b>-0.3</b>	<b>-0.4</b>	<b>-0.4</b>	<b>-0.7</b>
<b>2. “Snow-ball” effect</b>	<b>-0.7</b>	<b>-1.0</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.9</b>	<b>-1.1</b>	<b>-1.2</b>	<b>-1.0</b>	<b>-0.7</b>
<i>Of which:</i>									
Interest expenditure	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3
Growth effect	-0.6	-1.0	-0.7	-0.6	-0.8	-0.9	-1.1	-0.8	-0.5
Inflation effect	-0.5	-0.4	-0.2	-0.3	-0.4	-0.5	-0.4	-0.5	-0.5
<b>3. Stock-flow adjustment</b>	<b>3.0</b>	<b>1.2</b>	<b>2.9</b>	<b>2.7</b>	<b>1.7</b>	<b>1.9</b>	<b>1.8</b>	<b>1.6</b>	<b>1.6</b>
<b>Notes:</b>									
<sup>1</sup> End of period.									
<sup>2</sup> 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.									
<i>Source:</i>									
<i>Commission 2016 spring forecast (COM); Stability Programme (SP), Commission calculations.</i>									

According to the programme, future deficits of the central government for the years between 2016 and 2020 will be financed by issuing new debt for an amount equivalent to about Eur 3.4 billion (6.3% of GDP).

It is worth noting that, apart from the reserves of the pension fund, equivalent to EUR 16 billion (29.4% of GDP) at the end of 2015, the government owns stakes in commercial and non-commercial companies, valued at approximately around 10% of GDP. All in all, the value of financial assets owned by Luxembourg is higher than the gross debt itself.

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



Source: Commission 2016 spring forecast. Stability or convergence programmes

### 3.5. Risk assessment

Overall, the Stability Programme's targets in terms of headline balance, structural balance and public debt are in line with the Commission 2016 spring forecast and appear plausible.

Risks to the above budgetary plans mainly stem from the high specialization of the country in the financial sector, in spite of its increasing diversification of products. Regulatory and external risks remain and could adversely impact growth perspectives. Nevertheless, these risk factors are dependent on the external environment, on which the national authorities have limited possibilities to exert an influence.

The achievement of the budgetary targets as outlined in the programme is based on the assumption of full implementation of the measures in the consolidation package adopted with the 2015 budget, the impact of which is expected to increase by the end of the programme period. As highlighted in the previous update of the Stability Programme<sup>3</sup>, a partial implementation of those measures could lead to a larger deterioration of the general government balance compared to the trajectory outlined in the current programme.

Finally, the programme provides the results of a sensitivity analysis carried out on the basis of a negative shock to the EA growth rate. According to the analysis, in the case of EA growth being at least 0.5 pp. lower than in the baseline scenario, a deterioration of more than half of point of GDP in the headline balance by 2020 could materialise, with public debt peaking at almost 25% of GDP in 2020, still well below the national target of 30% of GDP.

<sup>3</sup> 2015 Stability Programme of the Grand Duchy of Luxembourg covering the period 2015-2019.

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

Luxembourg is subject to the preventive arm of the Stability and Growth Pact. The general government balance posted a surplus of 1.2% of GDP in 2015 and it is planned to remain in balance or in surplus throughout the programme period. This is confirmed by the Commission 2016 spring forecast for the years 2016 and 2017. The general government debt decreased to 21.5% of GDP in 2015 and it is planned to gradually increase to 23.5% of GDP by 2020, i.e. to remain well below the 60% of GDP threshold from the Pact.

Luxembourg's structural balance stood at a surplus of 1.7% of GDP in 2015, and thus above its medium-term objective (MTO) of a structural surplus of 0.5% of GDP. According to the information provided in the programme, Luxembourg is expected to continue to remain above its MTO also in 2016, with the (recalculated) structural surplus standing at 1.4% of GDP in 2016, which is confirmed by the Commission 2016 spring forecast. In 2017, the recalculated structural balance is projected to drop to 0.3% of GDP, below the level of the current MTO. Nevertheless, in line with the revision of the minimum MTO, Luxembourg has revised its medium-term objective to a deficit of 0.5% of GDP in structural terms as from 2017. Consequently, the structural balance will continue to be above the MTO in 2017 (see Table 4).

**Table 4: Compliance with the requirements under the preventive arm**

(% of GDP)	2015	2016		2017	
<b>Initial position<sup>1</sup></b>					
Medium-term objective (MTO)	0.5	0.5		-0.5	
Structural balance <sup>2</sup> (COM)	1.7	1.4		0.3	
Structural balance based on freezing (COM)	1.7	1.4		-	
<b>Position vis-a-vis the MTO<sup>3</sup></b>	At or above the MTO	At or above the MTO		At or above the MTO	
(% of GDP)	<b>2015</b>	<b>2016</b>		<b>2017</b>	
	<b>COM</b>	<b>SP</b>	<b>COM</b>	<b>SP</b>	<b>COM</b>
<b>Structural balance pillar</b>					
Required adjustment <sup>4</sup>	0.0	0.0		0.0	
Required adjustment corrected <sup>5</sup>	-2.3	-1.2		-1.9	
Change in structural balance <sup>6</sup>	-1.1	-0.2	-0.3	-1.1	-1.1
<i>One-year deviation from the required adjustment<sup>7</sup></i>	Compliant				
<i>Two-year average deviation from the required adjustment<sup>7</sup></i>					
<b>Expenditure benchmark pillar</b>					
Applicable reference rate <sup>8</sup>	6.4	5.0		7.7	
<i>One-year deviation<sup>9</sup></i>	Compliant				
<i>Two-year average deviation<sup>9</sup></i>					
<b>Conclusion</b>					
Conclusion over one year	Compliance				
Conclusion over two years					
Notes					
<sup>1</sup> 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.					
<sup>2</sup> Structural balance = cyclically-adjusted government balance excluding one-off measures.					
<sup>3</sup> Based on the relevant structural balance at year t-1.					
<sup>4</sup> 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.).					
<sup>5</sup> Required adjustment corrected for the clauses, the possible margin to the MTO and the allowed deviation in case of overachievers.					
<sup>6</sup> Change in the structural balance compared to year t-1. Ex post assessment (for 2014) is carried out on the basis of Commission 2015 spring forecast.					
<sup>7</sup> The difference of the change in the structural balance and the corrected required adjustment.					
<sup>8</sup> 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.					
<sup>9</sup> 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.					
<u>Source:</u> Stability Programme (SP); Commission 2016 spring forecast (COM); Commission calculations.					

## 5. FISCAL SUSTAINABILITY

Given the general government debt at 21.5% of GDP in 2015, Luxembourg does not appear to face fiscal sustainability risks in the short run. Moreover, based on the Commission 2016 spring forecasts and a no-fiscal policy change scenario beyond forecasts, the government debt is estimated to have peaked already in 2013 at more than 23.3% of GDP and is expected to decrease to 15.9% in 2026, thus remaining well below the 60% of GDP Treaty threshold. This highlights low risks for the country from debt sustainability analysis also in the medium term. The full implementation of the Stability Programme would lead to an even slightly lower level of debt by 2026, thus well below the 60% of GDP reference.

The medium-term fiscal sustainability risk indicator S1 is at -4.2 pps. of GDP (see Table 5), primarily related to the low level of government debt and to the favourable initial budgetary position; thus it indicates low risks in the medium term. The full implementation of the Stability Programme would put the sustainability risk indicator S1 at -5.8 pps. of GDP, leading to even lower 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.

In contrast, the long-term fiscal sustainability risk indicator S2 (which shows the adjustment effort needed to ensure that the debt-to-GDP ratio is not on an ever-increasing path) is at 4.6 pps. of GDP. In the long-term, Luxembourg therefore appears to face medium fiscal sustainability risks, primarily related to the projected ageing costs (contributing with 4.8 pp. of GDP, largely driven by pension and long-term care expenditures). Full implementation of the programme would reduce the S2 indicator at 3.8 pps. of GDP, however still signalling medium fiscal sustainability risks in the long-term.

It is still worth underscoring that the above conclusions are based on the most recent projections for the age-related expenditure as from the 2015 Ageing report. Compared to the 2012 vintage, the 2015 Ageing report factors in for Luxembourg a more favourable macro-economic scenario, which includes a significant higher than previously projected increase in employment and potential growth. As a consequence, the expected increase in the pension expenditure has been revised substantially downwards compared to the 2012 exercise, mostly due to these more favourable underlying assumptions and in the absence of further reforms.

**Table 5: Sustainability indicators**

<i>Time horizon</i>	<b>No-policy Change Scenario</b>		<b>Stability / Convergence Programme Scenario</b>	
<b>Short Term</b>	<b>LOW risk</b>			
<b>S0 indicator</b> <sup>[1]</sup>	0.2			
Fiscal subindex (2015)	0.0	LOW risk		
Financial & competitiveness subindex (2015)	0.3	LOW risk		
<b>Medium Term</b>	<b>LOW risk</b>			
<b>DSA</b> <sup>[2]</sup>	LOW risk			
<b>S1 indicator</b> <sup>[3]</sup>	-4.2	LOW risk	-5.8	LOW risk
<i>of which</i>				
IBP	-1.8		-2.7	
Debt Requirement	-3.5		-4.0	
CoA	1.1		0.8	
<b>Long Term</b>	<b>MEDIUM risk</b>		<b>MEDIUM risk</b>	
<b>S2 indicator</b> <sup>[4]</sup>	4.6		3.8	
<i>of which</i>				
IBP	-0.1		-0.6	
CoA	4.8		4.4	
<i>of which</i>				
Pensions	2.9		2.5	
HC	0.4		0.4	
LTC	1.3		1.3	
Other	0.1		0.2	

Source: Commission services; 2016 stability/convergence programme.

Note: the 'no-policy-change' scenario depicts the sustainability gap under the assumption that the structural primary balance position evolves according to the Commissions' spring 2016 forecast until 2017. 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 2015 Ageing Report.

[1] The S0 indicator reflects up to date evidence on the role played by fiscal and financial-competitiveness variables in creating potential fiscal risks. It should be stressed that the methodology for the S0 indicator is fundamentally different from the S1 and S2 indicators. S0 is not a quantification of the required fiscal adjustment effort like the S1 and S2 indicators, but a composite indicator which estimates the extent to which there might be a risk for fiscal stress in the short-term. The critical threshold for the overall S0 indicator is 0.43. For the fiscal and the financial-competitiveness sub-indexes, thresholds are respectively at 0.35 and 0.45.

[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. See Fiscal Sustainability Report 2015.

[3] The medium-term sustainability gap (S1) indicator shows the upfront adjustment effort required, in terms of a steady adjustment in the structural primary balance to be introduced over the five years after the forecast horizon, and then sustained, to bring debt ratios to 60% of GDP in 2030, including financing for any additional expenditure until the target date, arising from an ageing population. The following thresholds were used to assess the scale of the sustainability challenge: (i) if the S1 value is less than zero, the country is assigned low risk; (ii) if a structural adjustment in the primary balance of up to 0.5 p.p. of GDP per year for five years after the last year covered by the spring 2015 forecast (year 2017) is required (indicating an cumulated adjustment of 2.5 pp.), it is assigned medium risk; and, (iii) if it is greater than 2.5 (meaning a structural adjustment of more than 0.5 p.p. of GDP per year is necessary), it is assigned high risk.

[4] The long-term sustainability gap (S2) indicator shows the immediate and permanent adjustment required to satisfy an inter-temporal budgetary constraint, including the costs of ageing. The S2 indicator has two components: i) the initial budgetary position (IBP) which gives the gap to the debt stabilising primary balance; and ii) the additional adjustment required due to the costs of ageing. The main assumption used in the derivation of S2 is that in an infinite horizon, the growth in the debt ratio is bounded by the interest rate differential (i.e. the difference between the nominal interest and the real growth rates); thereby not necessarily implying that the debt ratio will fall below the EU Treaty 60% debt threshold. The following thresholds for the S2 indicator were used: (i) if the value of S2 is lower than 2, the country is assigned low risk; (ii) if it is between 2 and 6, it is assigned medium risk; and, (iii) if it is greater than 6, it is assigned high risk.

## 6. FISCAL FRAMEWORK

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 programme, the past, planned and forecast development of the structural balance and of the general government debt appears to comply with the requirements of the applicable national numerical fiscal rules. In particular, the general government debt will peak in 2020 at 23.5% of GDP, well below the threshold fixed by the government. As to the structural balance, it is expected to deteriorate gradually throughout the programme period, to a balanced budget in both 2018 and 2019. It is important to underscore that compliance with the MTO is ensured due to the recent government decision to lower the country's MTO as from 2017 to a deficit, in structural terms, of 0.5% of GDP compared to the current surplus of 0.5% of GDP (see also section 3.2).

In its analysis<sup>4</sup> the Fiscal Council has confirmed that outcomes for years 2015 and 2016 ensure compliance with the national rules. Nevertheless, it has pointed out that the choice to set the new MTO at a deficit of 0.5% of GDP is not in line with the commitment to keep the debt-to-GDP ratio under the 30% of GDP threshold. According to the simulations carried out by the Council, in order to ensure that the general government debt will remain under the threshold of 30% of GDP, the new MTO could not be set at a level lower than a surplus of 0.25% of GDP.<sup>5</sup>

In accordance with the provisions of article 4.1 of the Two-Pack Regulation, the programme clearly states, that the budgetary trajectory outlined in the document is to 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 public investment projects that have a significant budgetary impact, which is also a requirement from Two-Pack Regulation 473/2013.

The macroeconomic forecasts 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.<sup>6</sup>

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<sup>4</sup> Available at <http://www.cnfp.lu/fr/actualites/2016/04/02-constat/index.html>

<sup>5</sup> The analysis carried out by the Fiscal Council is available at: <http://www.cnfp.lu/fr/actualites/2016/04/01-OMT/index.html>

<sup>6</sup> 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 2012, 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. Thereby, its statutes contain provisions supporting the independence of the institution as a body producing macroeconomic forecasts.



## **7. CONCLUSIONS**

In 2015, Luxembourg recorded a government surplus of 1.2% of GDP and its structural balance stood at 1.7% of GDP, well above its medium-term objective of a surplus, in structural terms, of 0.5% of GDP. According to both the information provided in the Stability Programme and the Commission 2016 spring forecast Luxembourg' structural balance will continue to remain above its MTO in 2016 and above its revised MTO set for 2017.

## 8. ANNEX

### Table I. Macroeconomic indicators

	1998-2002	2003-2007	2008-2012	2013	2014	2015	2016	2017
<b>Core indicators</b>								
GDP growth rate	5.8	4.5	0.2	4.3	4.1	4.8	3.3	3.9
Output gap <sup>1</sup>	3.1	1.1	-3.0	-3.7	-2.9	-1.1	-1.0	-0.3
HICP (annual % change)	2.0	3.0	2.7	1.7	0.7	0.1	-0.1	1.8
Domestic demand (annual % change) <sup>2</sup>	4.5	3.5	2.1	0.5	5.6	2.4	2.2	2.9
Unemployment rate (% of labour force) <sup>3</sup>	2.4	4.4	4.9	5.9	6.0	6.4	6.2	6.2
Gross fixed capital formation (% of GDP)	21.6	20.6	19.9	17.6	18.6	17.4	17.1	17.1
Gross national saving (% of GDP)	32.1	31.2	26.5	24.0	24.8	23.3	22.9	22.2
<b>General Government (% of GDP)</b>								
<b>Net lending (+) or net borrowing (-)</b>	<b>4.2</b>	<b>1.0</b>	<b>0.6</b>	<b>0.8</b>	<b>1.7</b>	<b>1.2</b>	<b>1.0</b>	<b>0.1</b>
<b>Gross debt</b>	<b>6.8</b>	<b>7.5</b>	<b>18.5</b>	<b>23.3</b>	<b>22.9</b>	<b>21.4</b>	<b>22.5</b>	<b>22.8</b>
<b>Net financial assets</b>	<b>57.9</b>	<b>54.5</b>	<b>51.6</b>	<b>48.0</b>	<b>46.2</b>	<b>n.a</b>	<b>n.a</b>	<b>n.a</b>
Total revenue	43.9	43.2	44.3	44.0	44.1	42.8	42.5	41.0
Total expenditure	39.7	42.1	43.8	43.2	42.4	41.5	41.5	40.9
<i>of which: Interest</i>	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.3
<b>Corporations (% of GDP)</b>								
<b>Net lending (+) or net borrowing (-)</b>	<b>n.a</b>	<b>1.9</b>	<b>-7.0</b>	<b>-6.7</b>	<b>-7.2</b>	<b>-2.4</b>	<b>-1.0</b>	<b>0.7</b>
<b>Net financial assets; non-financial corporations</b>	<b>-174.1</b>	<b>-103.4</b>	<b>-164.8</b>	<b>-174.7</b>	<b>-183.4</b>	<b>n.a</b>	<b>n.a</b>	<b>n.a</b>
<b>Net financial assets; financial corporations</b>	<b>41.8</b>	<b>30.8</b>	<b>45.2</b>	<b>37.6</b>	<b>35.0</b>	<b>n.a</b>	<b>n.a</b>	<b>n.a</b>
Gross capital formation	n.a	13.2	11.0	9.9	10.8	8.6	7.8	7.6
Gross operating surplus	25.8	31.6	29.1	27.9	27.4	29.6	30.1	30.7
<b>Households and NPISH (% of GDP)</b>								
<b>Net lending (+) or net borrowing (-)</b>	<b>3.0</b>	<b>0.7</b>	<b>2.6</b>	<b>0.2</b>	<b>-0.5</b>	<b>-0.3</b>	<b>-2.3</b>	<b>-3.9</b>
<b>Net financial assets</b>	<b>64.1</b>	<b>69.9</b>	<b>77.0</b>	<b>74.5</b>	<b>78.1</b>	<b>n.a</b>	<b>n.a</b>	<b>n.a</b>
Gross wages and salaries	29.3	27.5	26.6	27.9	27.8	26.6	26.1	26.0
Net property income	n.a	1.2	1.4	-1.7	-2.1	-2.1	-3.4	-5.2
Current transfers received	n.a	12.9	15.2	15.9	15.8	15.2	15.0	14.8
Gross saving	n.a	3.9	7.4	5.3	4.7	5.3	3.6	2.2
<b>Rest of the world (% of GDP)</b>								
<b>Net lending (+) or net borrowing (-)</b>	<b>9.7</b>	<b>9.8</b>	<b>6.1</b>	<b>4.0</b>	<b>3.5</b>	<b>4.4</b>	<b>5.8</b>	<b>5.3</b>
<b>Net financial assets</b>	<b>10.3</b>	<b>-51.8</b>	<b>-8.9</b>	<b>14.6</b>	<b>24.2</b>	<b>n.a</b>	<b>n.a</b>	<b>n.a</b>
Net exports of goods and services	21.7	26.7	30.6	33.7	32.4	36.2	36.9	37.4
Net primary income from the rest of the world	-15.2	-22.4	-28.8	-34.2	-33.1	-34.1	-35.5	-37.0
Net capital transactions	-0.4	-0.1	-0.7	-1.6	-2.0	-1.1	0.5	0.5
Tradable sector	33.5	29.9	28.2	27.3	26.8	26.5	n.a	n.a
Non tradable sector	56.6	59.7	61.8	62.3	62.5	64.0	n.a	n.a
<i>of which: Building and construction sector</i>	5.6	5.3	5.1	4.9	5.2	5.0	n.a	n.a
Real effective exchange rate (index, 2000=100)	83.0	90.8	101.1	104.1	104.9	100.1	99.2	98.8
Terms of trade goods and services (index, 2000=100)	97.3	97.7	100.1	101.4	101.0	101.6	101.8	101.7
Market performance of exports (index, 2000=100)	85.5	93.5	101.2	104.9	108.3	110.3	110.4	110.4
<b>Notes:</b>								
<sup>1</sup> The output gap constitutes the gap between the actual and potential gross domestic product at 2005 market prices.								
<sup>2</sup> The indicator on domestic demand includes stocks.								
<sup>3</sup> 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.								
<b>Source:</b> AMECO data, Commission 2016 spring forecast								