



LE GOUVERNEMENT  
DU GRAND-DUCHÉ DE LUXEMBOURG  
Ministère des Finances

# **13<sup>th</sup> UPDATE OF THE LUXEMBOURG STABILITY AND GROWTH PROGRAMME 2012-2015**

Luxembourg, 27 April 2012



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## I. OVERALL POLICY FRAMEWORK AND OBJECTIVES

The 13<sup>th</sup> update of the stability programme (SGP) has been drawn up for the 2012-2015 period in the context of the “European semester”, which has a twofold purpose, namely to allow a better integration on a national level of fiscal policy - as presented in the stability programme - and structural policies - as presented in the National Reform Programme (NRP) - and to reinforce on a European level the monitoring and coordination of fiscal policies through an improved integration of the national budgetary procedure and the framework of European economic governance. The framework of European economic governance has moreover been reinforced by the entry into force on 13 December 2011 of the new rules of economic governance known as the “six pack” endorsing a reform of the Stability and Growth Pact and introducing a new procedure aimed at preventing and effectively addressing the emergence of macroeconomic imbalances within the EU and the eurozone.

The present stability programme update is thus the first to have been drawn up in the context of new European economic governance.

The economic and financial crisis has led to a deterioration of public finances in Luxembourg. Despite this recent deterioration, Luxembourg has maintained its relatively low level of public debt (under 20% of GDP) and, in terms of public deficit, it has maintained a budgetary safety margin in relation to the reference value of 3% of GDP foreseen in Article 126 of the TFEU.

Nevertheless, the crisis has weakened the state of public finances and Luxembourg is thus facing a series of challenges of a structural nature:

- the decrease in potential output that occurred in the wake of the economic and financial crisis implies a structural reduction in the growth rate of public revenues;
- moreover, the high degree of openness of the Luxembourg economy and its specialisation in financial services implies that public revenues are subject to a very high volatility;
- public expenditure is sticky downwards and a significant part of public expenditure is characterised by an “autonomous” growth independent of the stage of the business cycle.

In addition to these structural challenges, the Government, since the beginning of the economic and financial crisis, has implemented a counter-cyclical fiscal policy in order to limit the negative effects of the crisis for households and businesses. The implementation of this policy has, however, led to a gradual erosion of the budgetary safety margin in relation to the reference value of 3% of GDP for the public deficit.

In light of the state of public finances and taking into account the above-mentioned structural challenges, the Government adopted the broad guidelines of a medium-term budgetary strategy in April 2012. The objective of this strategy is to implement a series of budgetary consolidation measures in order to reduce the public deficit and thus to create a greater budgetary margin of manoeuvre to absorb possible negative shocks, while endeavouring to limit the negative effects of such a policy on the economic recovery. Thus, the consolidation measures adopted by the Government respond to the concern of striking the right balance between on the one hand the necessity of budgetary consolidation in the context of a sovereign debt crisis and on the other hand the stabilising effect of fiscal policy in a highly uncertain economic environment associated with significant downside risks.

The budgetary consolidation measures have an impact of 1.2% of GDP per annum compared to a scenario based on unchanged policies. 2/3 of savings come from reductions in public expenditure and 1/3 involves tax increases.

Despite the implementation of this budgetary consolidation policy and the deficit reduction in 2013 and in 2014, the present programme forecasts that Luxembourg will not reach its medium-term fiscal objective within the programme's projection horizon. In 2015, a structural change affecting the revenue side of the budget will even result, with "changed" policies, in an increase of the public deficit.

In addition, the programme reveals that the development of public finances is very sensitive to the development of the economic and financial context, and the realisation of the macroeconomic scenario underlying this programme is subject to significant positive and negative risks. In the event of a materialisation of positive risks, the convergence towards the fiscal objective of a medium-term budgetary balance or a budget surplus will be more rapid. However, in the event of a materialisation of negative risks, Luxembourg will deviate more from its adjustment path towards the medium-term objective. In the absence of adequate measures offsetting the loss of tax revenues stemming from e-commerce, Luxembourg will in any case deviate from this adjustment path. Besides the offsetting measures which, all things being equal, must in any case be specified to correct the anticipated deterioration of the public finances in 2015, additional budgetary consolidation measures will be taken if necessary in order to put Luxembourg back on the adjustment path towards its medium-term objective.

In terms of long-term sustainability of public finances, it should be pointed out that public debt remains at a relatively low level during the entire forecast period of the present programme and that the Government has presented a reform bill aiming to guarantee the long-term financial viability of the pension system. It is foreseen that this draft law will be adopted over the course of 2012 and that the reform will enter into force in 2013. In addition, the Minister of Finance is currently in the process of drawing up a structural reform of the budgetary framework. A gradual implementation of this reform is foreseen from 2013 onwards.

A. PUBLIC FINANCES	2011			2012			2013			2014			2015		
	bln euros	% of GDP	rate of change, %	bln euros	% of GDP	rate of change, %	bln euros	% of GDP	rate of change, %	bln euros	% of GDP	rate of change, %	bln euros	% of GDP	rate of change, %
<b>Total revenues</b>	<b>17,734</b>	<b>41,4</b>	<b>5,9</b>	<b>18,454</b>	<b>41,8</b>	<b>4,1</b>	<b>19,257</b>	<b>42,1</b>	<b>4,4</b>	<b>20,324</b>	<b>42,1</b>	<b>5,5</b>	<b>20,853</b>	<b>40,5</b>	<b>2,6</b>
of which:															
<i>Taxes on production and imports ("indirect" taxes)</i>	5,081	11,9	7,0	5,377	12,2	5,8	5,648	12,3	5,0	5,995	12,4	6,1	5,742	11,2	-4,2
<i>Current taxes on income, wealth, etc ("direct" taxes)</i>	5,982	14,0	4,2	6,237	14,1	4,3	6,555	14,3	5,1	6,929	14,3	5,7	7,341	14,3	6,0
<i>Social contributions</i>	5,099	11,9	7,5	5,320	12,0	4,3	5,532	12,1	4,0	5,798	12,0	4,8	6,086	11,8	5,0
<b>Total expenses</b>	<b>17,988</b>	<b>42,0</b>	<b>5,3</b>	<b>19,134</b>	<b>43,3</b>	<b>6,4</b>	<b>19,826</b>	<b>43,3</b>	<b>3,6</b>	<b>20,747</b>	<b>42,9</b>	<b>4,6</b>	<b>21,786</b>	<b>42,3</b>	<b>5,0</b>
of which:															
<i>Public investment</i>	1,726	4,0	6,6	1,711	3,9	-0,9	1,708	3,7	-0,2	1,734	3,6	1,5	1,767	3,4	1,9
<i>Social payments</i>	8,480	19,8	3,5	8,999	20,4	6,1	9,408	20,5	4,5	9,906	20,5	5,3	10,445	20,3	5,4
<i>Intermediate consumption</i>	1,556	3,6	8,1	1,639	3,7	5,3	1,637	3,6	-0,1	1,711	3,5	4,6	1,818	3,5	6,3
<i>Compensation of employees</i>	3,390	7,9	5,4	3,584	8,1	5,7	3,751	8,2	4,7	3,939	8,2	5,0	4,118	8,0	4,5
<b>General government balance</b>	<b>-0,253</b>	<b>-0,6</b>		<b>-0,680</b>	<b>-1,5</b>		<b>-0,570</b>	<b>-1,2</b>		<b>-0,424</b>	<b>-0,9</b>		<b>-0,932</b>	<b>-1,8</b>	
Central government balance	-1,044	-2,4		-1,376	-3,1		-1,057	-2,3		-0,808	-1,7		-1,236	-2,4	
Local government balance	0,050	0,1		0,023	0,1		-0,026	-0,1		-0,034	-0,1		-0,068	-0,1	
Social security balance	0,740	1,7		0,672	1,5		0,513	1,1		0,418	0,9		0,372	0,7	
<b>Gross debt</b>	<b>7,786</b>	<b>18,2</b>		<b>9,249</b>	<b>20,9</b>		<b>10,814</b>	<b>23,6</b>		<b>11,805</b>	<b>24,4</b>		<b>13,305</b>	<b>25,9</b>	
<b>B. MAIN MACROECONOMIC INDICATORS</b>	<b>2011</b>			<b>2012</b>			<b>2013</b>			<b>2014</b>			<b>2015</b>		
<b>Growth</b>															
Real GDP (in %)	1,6			1,0			2,1			3,3			4,1		
Nominal GDP (en %)	6,3			3,2			3,7			5,5			6,5		
Nominal GDP (level, in bln euros)	42,822			44,177			45,794			48,318			51,448		
<b>Price developments</b>															
Inflation NICP (in %)	3,4			2,6			2,0			2,0			2,2		
<b>Labour market developments</b>															
Employment (growth, in %)	2,8			2,1			1,4			1,6			2,1		
Unemployment rate (new ADEM definition, en %)	5,7			6,1			6,5			6,7			6,6		

## II. ECONOMIC OUTLOOK AND MACROECONOMIC FORECASTS

### II.1. The economic outlook in 2012

Following a real GDP growth rate amounting to 1.6% in 2011, economic growth has continued to slow down since 2010 (3.5% of GDP in 2010) with a forecast real GDP growth rate of 1.0% in 2012. The persistence of this weakness in growth is due primarily to the following factors:

- less dynamic global economic growth;
- uncertainties surrounding growth in Europe (the European Commission is foreseeing a recession of -0.3% in the eurozone in 2012);
- persistence of structural problems in financial services;
- uncertainties linked to the resolution of the sovereign debt crisis;
- waning of the “counter-cyclical” budgetary policy effects as a result of the disappearance of the budgetary margins of manoeuvre in most countries.

Thus, except domestic demand, foreign trade and a continuing negative change in inventories contribute negatively to the growth rate in 2012.

Furthermore, the central scenario of the present update of the stability and growth programme is that of an orderly resolution of the sovereign debt crisis, i.e. that the EL, PT and IRL programmes will remain “on track” and that there will be no additional financial assistance programmes.

Inflation (“national” price index, NICP) has levelled off in 2012, dropping from 3.4% in 2011 to 2.6% in 2012. This decline in inflation can be attributed mainly to two factors:

- the deterioration of the business cycle, which reduces inflationary pressures;
- a dampening effect due to the modification of the automatic indexation mechanism. In December 2011, the Government indeed decided to adapt the automatic wage indexation for the 2012-2014 period: from 1 January 2012 onwards, there can only be one index adjustment over any twelve-month period. The adjustment of wages will only be carried out in October of the same year. For 2012, the application of the next living cost adjustment is thus deferred from February to October.

These two factors currently offset the upward revision of the oil prices (USD 125.7/barrel for Brentcrude).

Despite the continuous drop in real GDP growth since 2010, the labour market has so far resisted relatively well, mainly due to the time delay before the labour market reacts to the cyclical developments. Thus, thanks to a relatively high growth rate of domestic employment in 2011 (2.8%), the progression of the unemployment rate remains contained, going from 4.4% in 2010 to 4.5% in 2011. In 2012, the situation is a little more paradoxical, to the extent that the

growth rate of domestic employment, a little lower in 2012 (2.1%) than in 2011, is accompanied by a fairly significant deterioration of the unemployment rate (according to the Eurostat definition) in 2012, with an increase of +0.5% to 5%.

## II.2. Macroeconomic forecasts: international environment

In accordance with the European Commission's external assumptions for the SGPs, the present SGP update is based on an assumption of growth for the EU of 0.1% in 2012 and 1.4% in 2013 and an assumption of economic growth for the eurozone of -0.3% in 2012 and 1.3% in 2013. Furthermore, it is assumed that at the end of the period, 2014-2015, the eurozone will peak with growth rates of 2.1% in 2013 and 2.4% in 2015.

Furthermore, the SGP is based on the assumption that financial markets stabilize, which will continue on a positive path in accordance with the assumption of reaching the peak of the business cycle at the end of the period.

Oil price and euro/US dollar exchange rate developments are subject to a high level of uncertainty. For the purposes of the stability programme, the following technical assumptions have been adopted: oil prices have been fixed at USD 125.7/barrel for "Brent" and the euro/US dollar exchange rate has been fixed at 1.29 for the 2013-2015 period.

It is also foreseen that short-term interest rates will gradually increase during the 2013-2015 period to reach 2.6% in 2015 (from 1.5% in 2012). Long-term interest rates will also gradually increase (from 4.6% in 2012 to 5.3% in 2015).

## II.3. Medium-term macroeconomic forecasts 2013-2015

The Luxembourg economy, impacted by the ongoing crisis, experienced highly volatile economic growth: after emerging from the recession in 2009 with a relatively strong growth rate in 2010 (3.5%), the growth rate once again dropped significantly in 2011 (1.6%) and in 2012 (1.0%).

For the 2013-2015 period, the stability programme is based on a scenario characterised mainly by two elements:

- the Luxembourg economy, following the example of the economy of the eurozone, will reach the top of the cycle at the end of the period on the technical assumption of a rapid closing of the output gap over the programme period;
- taking into account the macroeconomic effects of budgetary consolidation measures in a changed policies scenario (see infra for more details).

Consequently, the growth rate will increase progressively over the course of the considered period, going from 2.1% in 2013 to 3.3% in 2014, to reach 4.1% in 2015. With an average of

3.2% over the period, the growth rate is admittedly higher than the average historical growth rate of the eurozone and the EU, but lower than the long-term growth rate of the Luxembourg economy (4.6% for the 1985-2011 period) and well below the growth rates of previous peaks (+/-6%). It should be noted that potential output is estimated at 1.6%-1.8% over the course of this period, i.e. the 2013-2015 period is to be seen as a time of cycle high.

The factors contributing to the medium-term growth are domestic demand (private consumption and general government consumption), as well as net exports. Public investment will develop at a less dynamic rhythm than its long-term average: it will increase by an average of 1.1% over 2013-2015. This drop in growth rate is in particular attributable to the consolidation measures.

Following the decrease in inflation in 2012, general price levels will increase by 2% per annum over the course of the 2013-2015 period. It should be noted that this projection relies heavily on the assumption on oil prices, which are assumed to remain constant (USD 125.7/barrel in 2012-2015).

Pursuant to the legal provisions in force and in accordance with the Government decision of December 2011, the next living cost adjustments will be applied in October 2013 and in October 2014. Furthermore, according to projection, a further living cost adjustment will also fall due in 2015.

Domestic employment will follow the gradual improvement of the macroeconomic conditions with a certain time delay in relation to the economic cycle: thus, despite the moderate recovery of the economic growth rate in 2013, the employment growth rate will continue to drop in 2013 (from 2.1% in 2012 to 1.4% in 2013) before steadily increasing to 2.1% in 2015.

The unemployment rate (according to the Eurostat definition) will gradually increase and reach a maximum of 5.5% in 2014, before dropping slightly in 2015 (5.4%).

It must be noted that the medium-term macroeconomic forecasts are based on the assumption that the economic and financial crisis does not imply a specific additional negative shock for Luxembourg financial sector. On the other hand, the average growth rate, assumed for the added value of the financial sector on the forecast period, is less than half the historical rate observed over the previous 20 years (excluding the impact of the 2008/2009 crisis). This corresponds to an accumulated loss of 2% in employment in this sector.

### III. GENERAL GOVERNMENT BALANCE AND DEBT

#### III.1. Policy strategy

The economic and financial crisis has led to a deterioration of public finances in Luxembourg. Despite this recent deterioration, Luxembourg has maintained its relatively low level of public

debt (under 20% of GDP) and, in terms of public deficit, it has maintained a budgetary safety margin in relation to the reference value of 3% of GDP foreseen in Article 126 of the TFEU.

Nevertheless, the crisis has weakened the state of public finances and Luxembourg is thus facing a series of challenges of a structural nature:

- the decrease in potential output that occurred in the wake of the economic and financial crisis implies a structural reduction in the growth rate of public revenues;
- moreover, the high degree of openness of the Luxembourg economy and its specialisation in financial services implies that public revenues are subject to a very high volatility;
- public expenditure is sticky downwards and a significant part of public expenditure is characterised by an “autonomous” growth independent of the stage of the business cycle.

Since the beginning of the economic and financial crisis, the Government has implemented a counter-cyclical fiscal policy in order to counter the negative effects of the crisis for households and businesses. The implementation of this policy has, however, led to a gradual erosion of the budgetary safety margin in relation to the reference value of 3% of GDP for the public deficit.

In light of the state of public finances and taking into account the above-mentioned structural challenges, the Government adopted the broad guidelines of a medium-term budgetary strategy in April 2012. The objective of this strategy is to implement a series of budgetary consolidation measures in order to reduce the public deficit and thus to create a greater budgetary margin of manoeuvre to absorb possible negative shocks, while endeavouring to limit the negative effects of such a policy on the economic recovery. Thus, the consolidation measures adopted by the Government respond to the concern of striking the right balance between on the one hand the necessity of budgetary consolidation in the context of a sovereign debt crisis and on the other hand the stabilising effect of fiscal policy in a highly uncertain economic environment associated with significant downside risks.

Despite the implementation of this budgetary consolidation policy and the deficit reduction in 2013 and in 2014, the present programme foresees that Luxembourg will not reach its medium-term fiscal objective within the programme’s projection horizon. In 2015, a structural change affecting the revenue side of the budget will even result, with “changed policies”, in an increase of the public deficit. If in 2015, Luxembourg has not achieved – as it is foreseen in this programme – its medium-term objective, new compensatory measures will be specified in order to bring Luxembourg back on the adjustment path towards its medium-term fiscal objective.

In terms of long-term sustainability of public finances, it should be pointed out that public debt remains at a relatively low level during the entire forecast period of the present programme and that the Government has presented a reform bill aiming to guarantee the long-term financial

viability of the pension system. It is foreseen that this draft law is adopted over the course of 2012 and that the reform will enter into force in 2013. In addition, the Minister of Finance is currently in the process of drawing up a structural reform of the budgetary framework. A gradual implementation of this reform is foreseen from 2013 onwards.

### III.2. Medium-term objective

In accordance with the conclusions of the European Council of March 2005, the medium-term objective is differentiated according to Member States so as to take into account the differences in economic and budgetary positions and developments as well as the various degrees of budgetary risk in terms of the sustainability of public finances, while also considering foreseeable demographic changes.

The criteria and methods for taking into account foreseeable demographic changes were approved by the Ecofin Council in July 2009.

With unchanged policies, public expenditure related to demographic ageing will increase considerably from 2020 onwards and the implicit liabilities for Luxembourg are thus substantially higher than the “explicit” liabilities expressed by gross public debt.

Consequently, the inclusion of these implicit liabilities in the determination of the medium-term objective implies an ambitious budgetary balance in order to prefinance these future budgetary commitments.

Thus, in the case of Luxembourg, achieving a medium-term objective of +0.5% of GDP in structural terms and using the ensuing budget surpluses to build up reserves should allow the additional expenditure caused by demographic ageing to be covered by 2040.

Following the entry into force at the end of 2011 of the rules of new economic governance, in particular the rules known collectively as the “six pack”, the medium-term fiscal objectives will be revised every three years. The last revision having taken place in 2009, a revision procedure of medium-term objectives will be launched in 2012 on the basis of the new long-term projections, which will be endorsed by the Ecofin Council in May 2012. The new medium-term fiscal objectives will thus enter into force from 2013 onwards. Since the reform of the pension system will have entered into force by then, the impact of this reform on the implicit liabilities will be reflected appropriately in determining the medium-term fiscal objective.

### III.3. Budgetary situation in 2011 and in 2012

On 1 April 2012, Luxembourg notified the European Commission of a general government deficit of 0.9% of GDP in 2010, 0.6% of GDP in 2011 and 1.8% of GDP in 2012. The projection drawn up in the context of the present programme foresees a deficit of 1.5% of GDP in 2012.

The reduction in deficit from 0.9% of GDP in 2010 to 0.6% of GDP in 2011 can be attributed to two developments moving in opposite directions:

On the one hand, the ratio between public revenues and GDP dropped from 41.6% to 41.4%, owing in particular to a reduction of 0.3 percentage points in direct tax revenues (current taxes on income and wealth). The nominal growth rate of public revenues has decreased from 6.1% in 2010 to 5.9% in 2011. In this context, it should also be noted that the combined effect of the maximum marginal income tax rate, the increase of the solidarity tax and the introduction of the crisis levy have produced additional revenues amounting to 0.4% of GDP.

On the other hand, the ratio between public expenditure and GDP experienced a further drop, from 42.4% to 42.0%. This decrease can be explained in particular by discretionary measures – including the adjustment of the automatic wage indexation mechanism – adopted by the Government in 2010 for the 2011-2012 period, which have had a dampening impact on the development of general government operating expenses, employees compensation, social transfers and public investment. Thus, the growth rate of public expenditure has been reduced from 6.3% in 2010 to 5.3% in 2011.

In 2012, the general government deficit will increase from 0.6% of GDP in the previous year to 1.5% of GDP. The increase in deficit in 2012 can be attributed primarily to the development of public expenditure. While the ratio between public revenue and GDP experienced an increase from 41.4% to 41.8% – owing in particular to a significant increase equivalent to 0.3% of GDP in indirect taxes (taxes on production and imports) and despite the abolition of the crisis levy – the ratio between public expenditure and GDP exhibits an increase of 1.3 percentage points, going from 42.0% in the previous year to 43.3% in 2012.

The increase in the ratio between public expenditure and GDP can be explained firstly by the increase in social transfers from 19.8% of GDP in 2011 to 20.4% of GDP in 2012, i.e. an increase of 6.1% in nominal terms. Furthermore, intermediate consumption and employee compensation have increased from 11.6% of GDP to 11.8% of GDP (+5.7% of nominal increase for consumption expenditure and +5.3% of nominal increase for the compensation of employees) and capital transfers have increased from 1.1% in 2011 to 1.4% in 2012. It should be noted that direct public investments (gross fixed capital formation) have decreased from 4% of GDP in 2011 to 3.9% in 2012.

All expenses combined, the nominal growth rate in 2012 amounts to 6.4% while public revenues increase by 4.1% in nominal terms. It should be noted that the dynamics of public expenditure have also been affected by the Government's decision to postpone the index adjustment that was due in February 2012 to October 2012.

### III.4. Budgetary situation of general government in 2013-2015

In April 2012, the Government approved a package of budgetary consolidation measures for the 2013-2015 fiscal years. These measures were adopted following a mid-term review in 2012 that the Government had foreseen during the adoption of a first package of measures in 2010 (measures for the 2011-2012 period).

The Government thus decided to adopt additional budgetary consolidation measures in light of the medium-term outlook for the economy and public finances and in view of the identification of the risk of exceeding the reference value of 3% of GDP for the public deficit in a scenario based on unchanged policies.

With a view to correcting the deterioration of the deficit in 2012, bringing the public finances back on their adjustment path towards their medium-term fiscal objective and creating new budgetary safety nets in order to be able to react in the event of negative economic and financial risks materialising, the Government has adopted a package of budgetary consolidation measures that will reduce the budgetary deficit by 1.2% of GDP (535 million euros) per annum compared to a scenario based on unchanged policies.

The table below summarises these measures and quantifies their budgetary impact for the first year in question. The impact of the measures in 2014 and 2015 is comparable to that in 2013.

#### **Budgetary consolidation measures for 2013-2015 and ex ante/gross effect on general government net lending in 2013**

	<i>in mln euros</i>	<i>in % of GDP</i>
<b><u>Expenses</u></b>		
1) Intermediate consumption (operating costs)	60	0,1%
2) Investment expenses	125	0,3%
3) Measures dampening the growth of employee compensation	55	0,1%
4) Subsidies (e.g. subsidies for eco-friendly cars)	10	0,0%
5) Social transfers in cash (e.g. subsidies/transfers to households, pensions)	100	0,2%
<b>Total expenses</b>	<b>350</b>	<b>0,8%</b>
<b><u>Revenues</u></b>		
1) Excise taxes: tobacco and petrol	35	0,1%
2) Solidarity tax ("Impôt de solidarité"): increase of 2% (households and companies)	100	0,2%
3) Introduction of a minimum tax for companies	50	0,1%
<b>Total revenues</b>	<b>185</b>	<b>0,4%</b>
<b>TOTAL EXPENSES AND REVENUES</b>	<b>535</b>	<b>1,2%</b>

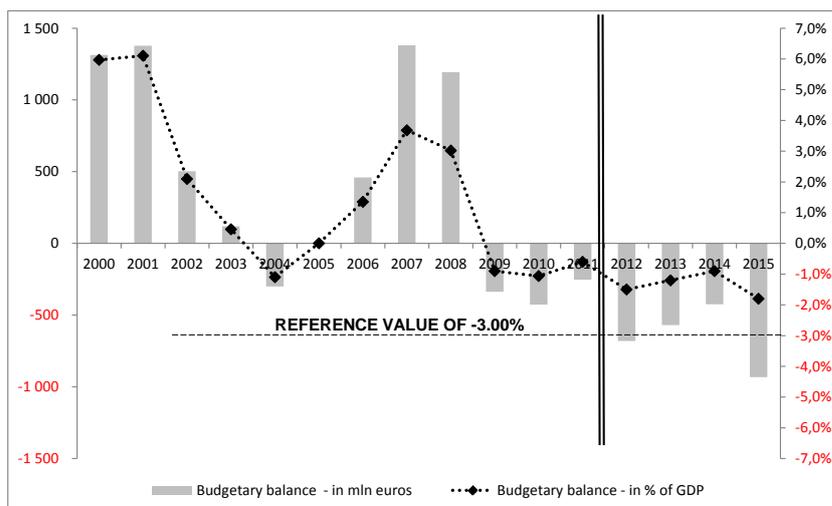
65% of the measures adopted will affect public expenditure and 35% will affect public revenues. The detailed arrangements concerning the implementation of the measures will be defined in the context of the preparatory work for the draft budget for the financial year 2013.

It should be noted that “second round” effects, which are not quantified in the table above, have been incorporated in macroeconomic and budgetary forecasts, the results of which can be found in the annex of the present programme.

It should also be noted that in 2013 and 2014, the dynamics of public expenditure were curbed by the Government decision of December 2011 to adjust the automatic wage indexation mechanism and to limit its application to the payment of only one living cost adjustment per annum in 2013 and in 2014. The medium-term budgetary forecasts show that over the course of the 2013-2014 period, as a result of a consistent improvement of the macroeconomic conditions and the implementation of the budgetary consolidation measures, the general government deficit will decrease from 1.5% of GDP in 2012 to 1.2% of GDP in 2013 and to 0.9% of GDP in 2014. In 2015, despite a macroeconomic context favouring budgetary consolidation, the general government balance will exhibit a new deterioration, dropping to -1.8% of GDP. This deterioration can be explained by a structural change regarding the revenue side of the budget, in this case the move— regarding VAT on the provision of e-commerce services - from a taxation principle based on the domicile of the service provider to a taxation principle based on the residence of the consumer. This change in regime will result in a reduction in fiscal income amounting to 1.2% of GDP (approximately € 600 million) from 2015 onwards.

At the level of the general government sub-sectors, the budget balances exhibit the following developments:

- The central government budgetary balance will continue to show a deficit over the course of the 2013-2015 period of 2% of GDP per annum or +/- € 1,000 million. It should be pointed out that owing to the institutional arrangements between the central government and social security, the social security surpluses cannot be used to offset the deficits at central government level and consequently it is the deficit of the central government that determines net borrowing and thus the dynamics of gross public debt.
- The local government budgetary balance exhibits a deficit of 0.1% of GDP on average over the period and thus remains close to balance over the entire 2013-2015 period.
- Social security shows a structural surplus over the course of the 2013-2015 period, but it is foreseen that the surplus will decrease from 1.1% of GDP (€ +513 million) in 2013 to 0.7% of GDP (€ +372 million) in 2015.

GENERAL GOVERNMENT BUDGETARY BALANCE, 2000-2015III.5. Public debt

At the end of 2011, Luxembourg's gross public debt amounted to € 7,786 million, i.e. 18.2% of GDP. Gross debt thus continues to be well below the reference value of 60% of GDP.

General government debt is made up of central government debt and local government debt. The sub-sector of social security shows a structural surplus and its surpluses are transferred to reserve fund ("fonds de compensation") in order to secure the future financing of social transfers. At the end of 2011, this reserve fund had reached approximately 27% of GDP, i.e. a global amount of € 12 billion. There is no debt at the level of social security.

It should be noted that, in addition to the debt issued by the Treasury, the central government debt includes the debt of public institutions ("établissement publics") as well as financial guarantees granted by the Government in the context of leasing contracts in view of the construction of certain public infrastructures (*Loi de garantie*). In accordance with the Eurostat decision of 11 February 2004 on the statistical treatment of public-private partnerships, these transactions are recorded as loans in the general government accounts. Over the course of 2011-2015, the impact of this decision on the ratio between gross debt and GDP will vary between 1.4% and 1.6% per annum.

In addition, the gross debt level also reflects the Eurostat decision to include debt issued by the European Financial Stability Facility (EFSF) into the computation of gross debt of those Member States providing a guarantee to EFSF. The exact amount that is to be included is calculated in accordance with the contribution key of respective Member States and increases the level of gross debt by about 1%, but has no impact on debt servicing costs for Luxembourg.

The Treasury bills issued by the Government are not actually reimbursable funds collected by the Government. Instead, they enact long-term commitments *vis-à-vis* international financial

institutions (EBRD, AsDF, IFAD, GEF, IDA, MIGA). These bills do not carry interest and they are paid if, and when, they are due. On 31 December 2011, outstanding bills totalled € 53.6 million. The payment of the Treasury bills is carried out via the public debt fund. According to currently known deadlines, the reimbursements of Treasury bills will amount to € 16.1 million in 2012, € 15.8 million in 2013 and € 13.9 million in 2014.

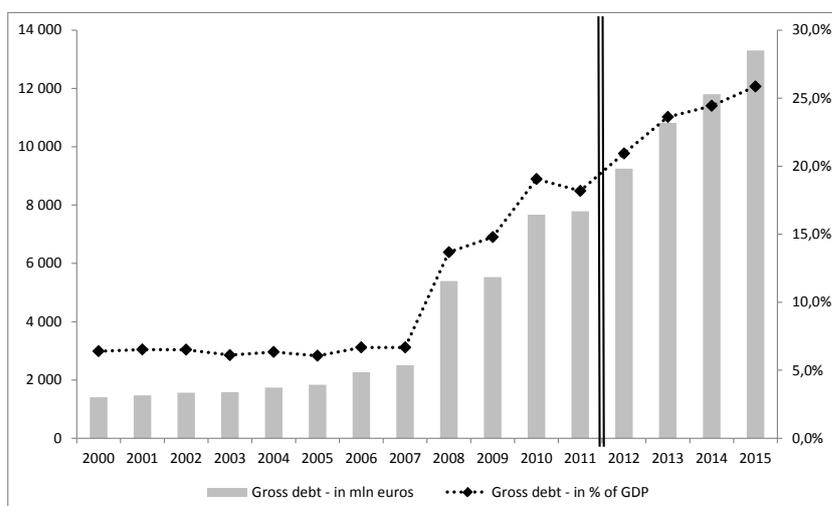
The Government did not issue new bonds during the fiscal years 1998 to 2005. On the contrary, it has in the meantime repaid the entire debt stock dating back to before 1998. In the context of the financial crisis, in December 2008 the Government issued a government bond of a notional amount of 2 billion euros. This bond matures on 4 December 2013 and the stability programme is based on the assumption of a complete refinancing of the bond via the issue of a new bond of a similar amount.

To cover central government net borrowing requirements throughout 2010 to 2012, the Government in May 2010 issued a bond amounting to 2 billion euros maturing on 18 May 2020, and in March 2012 it issued a bond amounting to 1 billion euros maturing on 21 March 2022.

For the purposes of the current stability programme update, it is assumed that the central government net borrowing requirements in 2013-2015 are covered by the issue of new bonds amounting to 1,000 million euros in 2013, 1,000 million euros in 2014 and 1,500 million euros in 2015.

It should be noted that the dynamics of public debt are determined exclusively by the development of central government net borrowing (and to a limited extent by the net borrowing requirements of local government which are heavily restricted by Luxembourg law).

#### DEVELOPMENT OF PUBLIC DEBT, 2000-2015



On this basis, the general government consolidated debt will gradually increase from 18.2% of GDP in 2011 to 25.9% of GDP in 2015 (13,305 million euros). The servicing of the public debt will go from 211 million euros in 2011 to 328 million euros in 2015 (0.6% of GDP).

### III.6. Sensitivity analysis

The sensitivity analysis is based on the simulation of two external symmetrical shocks on the level of the eurozone growth rate from 2012 onwards: a negative shock of -0.5% and a positive shock of +0.5%. The shocks thus introduced are in fact inferior to the common departures of the eurozone growth rate from their historical average: the typical deviation of the historical growth rate amounts to 1.1%.

#### *Negative shock on the eurozone growth rate*

The external shock has a significant negative impact on the growth rate during the projection period. While in the central scenario, economic growth amounts to 2.6% on average during the 2012-2015 period, the alternative scenario implies an annual growth rate of 2% during the 2012-2015 period.

This drop in economic growth is due primarily to three factors: a reduction in the positive contribution of foreign trade, a drop in the growth rate of investment levels owing to less favourable growth prospects and a less favourable development of the European stock index, which has a non-negligible impact on the dynamics of the Luxembourg economy.

In this alternative scenario, the inflation path edges down, falling below 2% per annum from 2013 onwards.

As a result in particular of a weaker growth in employment, the unemployment rate exhibits a higher level from 2013 onwards (+0.2% in 2014-2015).

As for public finances, the consequence of a negative shock on the level of growth in the eurozone is primarily reflected in a drop in public revenues in relation to the central scenario. The public deficit in 2012 amounts to 1.8% of GDP instead of 1.5% of GDP in the central scenario. Owing to the cumulative nature of this shock, the budget balance at the end of the period (2015) will amount to -2.9% of GDP against -1.8% of GDP in the central scenario, which means that Luxembourg risks finding itself in a situation of excessive deficit with a deficit around the reference value of -3% of GDP in 2015.

#### *Positive shock on the eurozone growth rate*

In the event of a positive shock at the level of growth in the eurozone, economic growth in Luxembourg is also higher and the macroeconomic context is generally more conducive to budgetary consolidation. The rate of economic growth thus amounts to 3.2% on average over the course of the 2012-2015 period, against 2.6% in the central scenario, and the employment growth rate amounts to 2.1% on average, against 1.8% in the central scenario. It should be noted that the dynamism of the economy is accompanied by increased inflation compared with the central scenario and the inflation rate is permanently above 2% over the course of the 2012-2015 period.

The positive growth shock in the eurozone has positive effects on the situation of public finances through a stronger growth in public revenues. The net effect on the general government budgetary balance is largely positive. The budgetary deficit in 2012 is thus revised downwards from -1.5% of GDP in the central scenario to -1.3% of GDP and, owing to the cumulative nature of the shock, the impulse from the economic growth is nevertheless not sufficiently strong for the general government budgetary balance to once again become positive: indeed, over the course of the period, the general government net borrowing recorded a deficit, admittedly weaker than in the central scenario, but nevertheless persistent: from -1.2% to -0.7% in 2013, from -0.9% to -0.1% in 2014 and from -1.8% to -0.7% in 2015. It must therefore be noted that a consistent improvement of the economic cycle owing to the very high nominal growth rates at the end of the considered period (+7.3% on average over 2014-2015) would, all things being equal elsewhere, allow the deficit to be absorbed at general government level in 2015, if there was to be no change in the e-commerce taxation system in the EU from 2015 onwards.

### C. Sensitivity analysis

	2011	2012			2013			2014			2015		
	central	low	central	high									
<b>Altered exogenous variables</b>													
Euro area GDP	1,5	-0,8	-0,3	0,3	0,8	1,3	1,8	1,5	2,0	2,5	1,9	2,4	2,9
World demand - goods	7,2	1,4	3,0	4,5	4,0	5,1	6,2	4,3	5,5	6,7	4,9	6,2	7,5
World demand - services	1,5	0,2	1,0	1,9	3,1	3,8	4,6	3,8	4,6	5,4	4,1	5,0	5,8
European stock index	-5,5	-7,3	-2,7	1,8	0,7	4,5	8,3	6,9	9,3	11,7	11,3	12,8	14,2
Unemployment rate - "Grande Région"	8,0	8,4	8,4	8,4	8,4	8,3	8,2	8,0	7,8	7,7	7,4	7,3	7,1
<b>Main endogenous variables</b>													
Nominal GDP	6,3	2,5	3,2	3,9	2,6	3,7	4,7	4,3	5,5	6,8	5,2	6,5	7,8
Real GDP	1,6	0,4	1,0	1,6	1,5	2,1	2,8	2,7	3,3	3,9	3,6	4,1	4,6
Employment	2,8	2,0	2,1	2,2	1,0	1,4	1,7	1,2	1,6	2,0	1,7	2,1	2,5
Unemployment rate	5,7	6,1	6,1	6,1	6,6	6,5	6,4	6,9	6,7	6,5	6,8	6,6	6,4
Inflation, NIPC	3,4	2,5	2,6	2,7	1,8	2,0	2,2	1,7	2,0	2,4	1,9	2,2	2,8
General government budgetary balance (% of GDP)	-0,6	-1,8	-1,5	-1,3	-1,8	-1,2	-0,7	-1,7	-0,9	-0,1	-2,9	-1,8	-0,7

### III.7. Comparison with previous stability programme

The development of the economic situation has been subject to the uncertainties linked to the sovereign debt crisis, which continues to persist in the eurozone. While in 2010, the recovery

was stronger than anticipated (real growth of 3.5% instead of 2.5%), the opposite situation occurred in 2011: the slowdown in real growth, as a result of the persistence of the sovereign debt crisis in the eurozone, was more pronounced than anticipated, recording 1.6% of GDP instead of 3.2% of GDP. This difference in macroeconomic conditions did not, however, translate into a deterioration of public finances in 2011: while the 12<sup>th</sup> update was counting on a deficit of -1.0% of GDP at general government level, the deficit finally amounted to -0.6% of GDP. This improvement in public finances is the consequence of a more significant growth in public revenues (5.9% instead of 5.4%) following a higher nominal growth in GDP (6.3% instead of 5.0%) and unexpected positive developments of certain public revenue categories.

Taking into account the weaker growth achieved in 2011 and the uncertain economic prospects in the eurozone, real growth is revised downwards in relation to the 12<sup>th</sup> SGP update (1.0% instead of 3.5% of GDP) and nominal growth from 5.6% to 3.2%. The impact of this deterioration of the macroeconomic conditions is softened by the positive base effect of 2011: the general government balance is thus expected to stabilise at -1.5% of GDP.

Over the course of the 2013-2014 period, real growth is revised downwards in relation to the 12<sup>th</sup> SGP update for two reasons: i) downwards revision of growth at the beginning of the period and ii) impact of the scenario "with changed policies" from 2013 onwards, while the 12<sup>th</sup> update included a scenario with unchanged policies. It is only in 2015 that real growth, as a result of the output gap being closed, once again achieves with 4.1% of GDP the level of real growth foreseen at the end of the period in the 12<sup>th</sup> update (4.0% of GDP).

In 2011, the inflation rate (NICP) was hardly different from the projections of the 12<sup>th</sup> update (3.4% instead of 3.5%). In contrast, the NICP is revised upwards from 2012 onwards, and this over the entire period, in response to higher oil prices: the NICP index thus goes from an average of 1.9% in 2012-2014 in the 12<sup>th</sup> update to an average of 2.2% over 2012-2015, in particular following a revision of the assumption of oil prices (USD 125.7/barrel for "Brent" instead of USD 114). Nevertheless, this increase is less strong than anticipated following the Government decision in December 2011 on the automatic wage indexation.

Thanks to a relatively robust development in employment in 2011-2012 with growth rates of 2.8% and 2.1% higher than the forecasts of the 12<sup>th</sup> update compared with a weaker real growth, the unemployment rate is expected to reach 5.0% in 2012 against 5.3% in the previous SGP. The persistence of the weakness in growth in 2013 will nevertheless result in the manifestation of a "classic" delay between the economic cycle and the labour market from 2013 onwards with the unemployment rate continuing to increase to 5.6% in 2014 before exhibiting a drop (5.5%) in 2015 as a result of the higher economic growth rates from 2014 onwards.

As far as public finances are concerned, from 2013 onwards the difference between the macroeconomic aggregates compared with their anticipated path will obviously have a negative impact on their development, which is nevertheless softened by the implementation of

consolidation measures: the budgetary balance, as a result of a weaker growth in 2013, will thus exhibit a profile similar to that of the 12<sup>th</sup> update. In 2015, the new year of the current programme, the deficit will widen in particular following an amendment to the e-commerce taxation system within the EU.

#### IV. QUALITY OF PUBLIC FINANCES

During the 2005-2008 period, the general government budget balance showed surpluses. Following the economic downturn of 2008-2009, the implementation of exceptional measures aimed at stabilising economic activity and employment and the relatively weak economic growth in 2010-2011, the general government budgetary situation reached a deficit in 2009 (-1.1 % of GDP). Thus, since 2009, the general government budget balance is in deficit and will remain so, despite changed policies, over the course of the period covered by the current programme.

While the Government took advantage of the period of favourable economic growth of 2005-2007 to consolidate public finances and to transfer the surpluses of 2005-2008 to reserves, which allow to build up fiscal space for the financing of counter-cyclical policies during economic downturns, it must nevertheless be stated that the persistence of deficits at general government level since 2009, and in particular of the higher deficits at central government level, has resulted in a reduction of reserves at central government level. This led the Government in May 2010 to call upon the financial markets for the first time in a long time by issuing a bond to finance its budget deficit, a move it repeated in March 2012. Henceforth Luxembourg will be obliged to call upon the financial markets at regular intervals to finance its deficits and will for the first time in a long time enter a debt rollover cycle through the issue of new bonds.

Nevertheless, the Government maintains its objective to restore general government budgetary balance on a path that guarantees healthy and sustainable public finances in the medium and long term. Thus, the first consolidation measures package decided in 2010 for the years 2011 and 2012 as well as the second consolidation measures package adopted in April 2012 bear witness to the will of the Government to achieve this objective. In this context, the Government also aims to ensure that the level of public debt remains as low as possible and well below the upper limit laid down by the Maastricht criteria (60% of GDP).

As regards public expenditure, the Government continues its efforts aimed at favouring expenditure most likely to have a positive impact on potential growth, in compliance with the objectives laid down in the national reform programmes within the context of the EU2020 strategy, in particular:

- maintaining public investment at a high level;
- developing the necessary infrastructure in order to improve the balance between work and family life ; additional increase of R&D and innovation budgets;
- creation and development of the University.

Finally, the Government in its governmental programme and in particular its consolidation programmes has also committed itself to working in favour of more social selectivity at public

expenditure level, one of the objectives of which is to allow public expenditure to better contribute to social justice.

In terms of revenue, the Government, in accordance with its governmental declaration, is committed to implementing a prudent fiscal policy, aiming to maintain a fiscal context that promotes employment, investment and household purchasing power over the course of the period. In this context, it should be pointed out that the Government's two consolidation measures packages are based rather on measures involving public expenditure than measures on public revenues.

Finally, the overall situation of Luxembourg's public finances cannot be correctly appreciated solely upon examining the net budgetary position or public debt without taking into account the existence of reserves at social security level. These reserves were built up during the years of high economic growth, which were in particular characterised by a strong increase in employment and wages. These reserves, which today amount to 27% of GDP, must be taken into account when assessing the long-term sustainability of public finances. With regard to the long-term sustainability of public finances, the governmental programme has announced the implementation of a reform of the pension system aimed at simultaneously ensuring financial viability, social viability, political viability and the legitimacy of the pension system.

## V. LONG-TERM SUSTAINABILITY OF PUBLIC FINANCES

The long-term sustainability of public finances is heavily dependent on the development of expenditures linked to demographic ageing. The most recent projections regarding expenditure linked to ageing were carried out over the course of 2011 by the Ageing Working Group (AWG) of the European Commission's Economic Policy Committee. The AWG projections include the general pension scheme and the special pension schemes. The work was carried out in close collaboration with the *Inspection générale de la sécurité sociale* (IGSS). For Luxembourg, the scenario used by the European Commission assumes an average growth in labour force of close to 0.5% between 2010 and 2060 and an average growth in productivity of 1.5%. Over the course of the same period, average economic growth will amount to 2.0% of GDP. Public expenditure linked to demographic ageing is projected to increase, with unchanged policies, from 17.8% of GDP in 2010 to 29.8% of GDP in 2060. 78% of this increase is primarily attributable to the development of the pension expenditure (all sectors combined), which will go from 9.2% of GDP in 2010 to 18.6% of GDP in 2060.

Admittedly, Luxembourg's starting position in face of this challenge is relatively favourable. It can claim a budgetary position that did not deteriorate too much (by international comparison) as a result of the economic crisis, and a low level of public debt. At the same time, the medium-term budgetary objective of +0.5% of GDP per annum, if achieved, will allow the future increase in public expenditure linked to demographic ageing to be at least partially pre-financed. Furthermore, the existence of the pension reserve, which will go from 27% of GDP in 2011 to 28% around 2020, will allow to absorb future higher expenditure to revenues.

The budget balance of the general pension system will become negative around 2020, which will consequently reduce the compensation reserve until its depletion around 2030. From the moment of depletion onwards and with unchanged legislation, the deficit will have to be covered by the issuing of public debt, implying that the public debt ratio will exceed the reference value of 60% of GDP around 2040 (and will subsequently continue to increase).

Irrespective of the underlying macroeconomic assumptions, whether an average of 2% of GDP or 3% of GDP is assumed for economic growth, all long-term projections confirm the assumption that, by the 2050 or 2060 horizon, the sustainability of public finances will not be assured.

From the mid-1980s onwards, the average growth rate of GDP reached a level never seen before in Luxembourg over such a long period, averaging more than 4% of GDP. The acceleration in growth implied an increased reliance on immigrant and cross-border workers, reflecting an average growth in domestic employment of more than 3%, in comparison with a growth in national employment of 1.5%. This volume effect will result in an increased growth

rate of expenditure of social transfers in the medium-term and, in addition to the resident labour force, the “first wave” of cross-border workers will also have the right to retire under the Luxembourg pension system, most of them upon having reached the age of 60. Thus it is to be expected that the financial situation of the pension system will deteriorate towards 2020, as soon as the former contributors to the system become retirement beneficiaries in large numbers.

Similarly, the system is confronted to a level effect. As a result of the economic development seen in Luxembourg from the '80s onwards, the qualifications required to enter the labour market have evolved to the extent that the time devoted to studies and qualifications has increased. It is thus to be expected that those who entered the pension system after 1980 will in general have contributed fewer than 40 years upon entering retirement. Despite the fact that future retirees will on average have a shorter career in comparison with current retirees, the system assures pension levels, in relation to accumulated wages, that by far exceed the levels hoped for in other Member States. Technical progress in the medical world and a general trend towards healthier lifestyles (alcohol abuse, tobacco addiction, prevention, etc.) result in future pensions being paid out for longer periods.

In the presence of these two major constraints, the case of the Luxembourg system, primarily based on a pay-as-you-go principle, requires uninterrupted growth ad infinitum in terms of labour force and economic growth in order to maintain the viability of the system. Each structural slowdown in employment growth will result in an acceleration of the system's maturity process, characterised inevitably in a lack of medium-term financial resources, a situation assumed in the context of the AWG projections, which foresee a reduction in half of long-term potential growth, from more than 4% over the 1985-2009 period to an average of 2% over the 2010-2060 period.

It is clear that if the level of social transfers is maintained in its current configuration, the contribution rates must continue to increase over the coming years to rates that exceed 40%. The macroeconomic conditions that would be necessary to maintain social transfers at the current contribution rate would require more than a million contributors by 2060.

In the context of the country's sustainable development, it is obvious that the viability of the pension system cannot be safeguarded without any realignment of the system. Two strategies can be adopted. In a first approach, no short-term programming is carried out and spontaneous measures will selectively adjust the pension level according to the economic situation and the general government borrowing requirements, and this on the basis of current provisions. This represents the scenario with unchanged policies as applied in the context of the AWG projections. It is thus assumed that the pension adjustment, as laid down in Article 225 of the Social Security Code, shall be applied only in half when expenditure exceeds revenues from contributions (a scenario with unchanged policies assuming full adjustments over the entire projection horizon would imply increases in pension expenditure of 26.3%).

A further strategy consists in programming the future development of the system from the present day with foresight. In this case, each insured person, according to his/her age and socioeconomic situation, will have an idea of the retirement he/she will benefit from. This of course assumes that the reforms envisaged are lasting and sustainable and are not constantly called into question by policy or economic changes. In this context, the draft reform bill of the pension system<sup>1</sup> adopted by the Government on 20 January 2012 foresees the following elements:

- link between the duration of working life and longevity to achieve a sustainable balance between the duration of professional life and the duration of retirement;
- limited adaptation of the current pensions to wage developments in case of insufficient financial resources;
- manageable increase in contributions.

The financial impact of the draft reform is comparable to the results presented in the context of the AWG projections, i.e. a reduction in expenditure linked to ageing amounting to 8 percentage points in the context of the chosen scenario. Therefore in terms of financial performance, the draft reform bill does not present any improvement in comparison with the results of the AWG projections. However, in terms of social performance, the current mechanism with its pension calculation as currently laid down in the Social Security Code, will result in a persistent reduction in the system's replacement rate, resulting in the risk of an inadequate medium-term and long-term pension level<sup>2</sup>. The objective of the draft reform bill is to address this inadequacy. Thus, in addition to the objective of making the pension system financially viable, the reform aims to safeguard adequate medium-term and long-term pensions, while avoiding poverty among pension recipients.

In terms of health care, the Government is in the process, on the basis of the Law voted on 17 December 2010, of launching a structural reform of the health care system. A certain number of measures already taken or still to be adopted will enable an increase in efficiency of the operating of the health system: new rules regarding the financing of the hospital sector, reorganisation of the hospital sector through the drawing up of a new hospital plan, introduction of primary care physicians and coordinating physicians within hospitals.

Finally, with regard to long-term care, the Government is in the process of evaluating the long-term care system with the objective of carrying out a structural reform in 2013, the aim being *inter alia*, to ensure the long-term financial viability of the system.

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<sup>1</sup> See Programme National de Réforme du Grand-Duché de Luxembourg (2012)

<sup>2</sup> See Rapport Social National du Grand-Duché de Luxembourg (2012)

All these measures will contribute to reducing the growth rate of expenditure linked to ageing in relation to a scenario with unchanged policies and thus to consolidating the long-term sustainability of public finances.

## VI. INSTITUTIONAL FEATURES OF PUBLIC FINANCES

The legal framework in relation to the institutional setup of public finances has not changed since the previous stability programme update. After the introduction of a few informal changes in 2011 (creation of a “comité de prévision” or “forecasting committee”<sup>3</sup>), 2012 is characterised by three elements: i) the continuing implementation of the “European semester” by all stakeholders in fiscal policy, ii) the entry into force of the “six pack” regarding public finances; iii) the preparation of a budgetary framework reform in Luxembourg.

Over the course of the second edition of the European Semester, several informal changes can be observed at a procedural level. They involve in particular the following elements: i) the reinforced inclusion of the multi-annual dimension of public finances, ii) the reinforced involvement of Parliament, iii) the search for a coherent and integrated approach between the two procedures with regard to monitoring budgetary policies (stability and growth programme) and structural reform policies (national reform programme).

Even if the budgetary framework in Luxembourg does not have a medium-term budgetary framework<sup>4</sup>, the medium-term multi-annual dimension of public finances has gained in significance in the discussions and preparatory work surrounding public finances. Indeed, the “comité de prévision” provides the Government with medium-term macroeconomic and budgetary forecasts based on the technical assumption of an “unchanged policy”. This projection must allow the Government to determine its budgetary orientations in terms of objectives and, if applicable, to take discretionary measures if the scenario of “unchanged policies” does not allow the fiscal objectives to be achieved. The projection and the policy directions resulting from these discussions will then serve as the basis for drawing up the stability programme in April. The public discussion on the medium-term dimension of public finances was reinforced in 2012 by the publication of said projection.

Furthermore, in the context of the “European semester”, on 29 March 2012, Parliament held a policy debate on public finances. This debate and regular communication, since the beginning of the year, between the Ministry of Finance and the parliamentary commission on finances and the budget have led to a reinforced involvement of Parliament.

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<sup>3</sup> Composed of representatives from the Ministry of Finance, the tax administrations, the Ministry of the Economy and Foreign Trade, Statec, the Ministry of the Interior and the Greater Region, the *Inspection générale de la Sécurité sociale* and the *Commission de Surveillance du Secteur financier*

<sup>4</sup> This statement was made in the “Peer review of national fiscal frameworks”, which was carried out during 2011

As for ensuring an alignment between the two procedures, i.e. the stability programmes and the national reform programmes, the following efforts have been made: i) synchronising the drawing up of the two programmes via a parallel adoption at government level on 27 April 2012 – the parallel streamlining enables in particular greater coherence, i.e. use of the same macroeconomic scenario, ii) joint discussion on 29 March in Parliament on the budgetary orientations and the priorities in structural policy matters. In order to increase the integration and coherence of the two procedures, two challenges need to be met: i) the medium-term budgetary impact of the envisaged structural policies, ii) the macroeconomic impact, and thus on the public finances, of the envisaged structural policies.

Finally, it should be noted that, contrary to the previous year when it was brought forward to April, the Prime Minister's State of the Nation address will take place in May.

The SGP thus includes the following elements: a scenario based on "changed policies" being constructed from an "unchanged policies" projection drawn up by "comité de prevision", the budgetary consolidation measures decided by the Government in April 2012, the "common external assumptions" transmitted by the European Commission (sent to Member States on 10 April 2012) and up-to-date statistical information (in particular the Excessive Deficit Procedure notified data of 1 April, national accounts and central government revenue and expenditure for the first quarter of the current financial year).

The reform of economic governance in Europe has important implications for the institutional features of public finances. On 13 December 2011, the "six pack" entered into force. Composed of 5 regulations and a directive, it includes the following changes: i) a revision of the Stability and Growth Pact, ii) the introduction of a new sanction regime linked to the Stability and Growth Pact for the eurozone, iii) the introduction of a new procedure on the prevention and correction of macroeconomic imbalances, iv) a new sanction regime linked to this new procedure for the eurozone, v) a directive on the requirements for national budgetary frameworks. In addition, the legal framework is reinforced by the intergovernmental treaty on stability and coordination ("Fiscal Compact") signed by 25 of the 27 EU Member States. This framework is also in the process of being completed by two new draft regulations of the European Commission of November 2011 ("two-pack"), which aim to strengthen budgetary surveillance within the EU and promote financial stability within the eurozone.

The directive, the "Fiscal Compact" and the "two pack" regulations, once the latter two have entered into force, will have the most significant consequences for the institutional setup of public finances. It should be mentioned that the principal objectives of these texts in terms of governance of public finances:

- establishment of a medium-term budgetary framework;

- adoption of fiscal rules of binding nature covering the scope of general government according to the ESA95, i.e. including the three sub-sectors of central government, local government and social security;
- creation of an authority in charge of monitoring compliance with fiscal rules.

Taking into account all these changes introduced by the reform of economic governance in the EU and in accordance with the governmental declaration in 2009 in which the Government stated its commitment to “examine the means to improve the procedure for the preparation, implementation and evaluation of the budget with the twofold intention of modernising the State and the effectiveness of public expenditure”, the Minister of Finance is currently preparing a reform of the budgetary procedure in Luxembourg. The reform bill must not only allow Luxembourg to meet the new requirements in matters of economic governance within the EU, but must also respond to the policy objectives determined by the Government at the beginning of its mandate in 2009.

The general principal guidelines of the reform are thus as follows:

- to adapt the existing instruments and to design new ones to give a more strategic direction to the budgetary procedure by placing more emphasis on the policy action priorities of the Government whilst still meeting the new obligations, which are being established at European Union level;
- to improve the control of the budget at general government level by reinforcing short-term, medium-term and long-term planning;
- to place greater significance on the quality of public expenditure through reinforcing the transparency and accountability of policy products and results, to simplify the structure of the budget and to focus more on policy evaluation.

Within the context of the preparatory work, the Minister of Finance has requested that the Organisation for Economic Cooperation and Development (OECD) carry out an analysis of the budgetary procedure in Luxembourg. This analysis, which was published on 27 November 2011<sup>5</sup>, also includes a chapter on the new requirements of economic governance, which are in the process of being implemented within the EU.

The envisaged reform will lead to a revision of the legal framework currently in force, which organises the institutional features of public finances, namely the law of 8 June 1999 on the State budget, accounts and treasury (“Loi du 8 juin 1999 sur le Budget, la Comptabilité et la Trésorerie de l’Etat”).

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<sup>5</sup> [http://www.mf.public.lu/actualites/2011/11/ocde\\_progr\\_budget\\_251111/index.html](http://www.mf.public.lu/actualites/2011/11/ocde_progr_budget_251111/index.html)

## STATISTICAL ANNEX

Table 1a. Macroeconomic prospects

	ESA Code	Year 2011	Year 2011	Year 2012	Year 2013	Year 2014	Year 2015
		Level	rate of change				
<b>1. Real GDP</b>	B1* <sub>g</sub>	29,14	1,6	1,0	2,1	3,3	4,1
<b>2. Nominal GDP</b>	B1* <sub>g</sub>	42,82	6,3	3,2	3,7	5,5	6,5
<b>Components of real GDP</b>							
<b>3. Private consumption expenditure</b>	P.3	11,29	1,8	2,0	1,4	2,1	3,1
<b>4. Government consumption expenditure</b>	P.3	4,86	2,5	2,9	1,2	2,1	2,8
<b>5. Gross fixed capital formation</b>	P.51	7,14	7,7	16,2	6,6	-1,3	1,6
<b>6. Changes in inventories and net acquisition of valuables (% of GDP)</b>	P.52 + P.53	1,3		1,3	...	...	...
<b>7. Exports of goods and services</b>	P.6	53,53	1,8	1,9	4,4	6,7	7,4
<b>8. Imports of goods and services</b>	P.7	46,86	3,4	4,1	5,0	5,8	7,0
<b>Contributions to real GDP growth</b>							
<b>9. Final domestic demand</b>		...	2,9	5,2	2,6	0,8	2,1
<b>10. Changes in inventories and net acquisition of valuables</b>	P.52 + P.53	...	0,8	-1,2	...	...	...
<b>11. External balance of goods and services</b>	B.11	...	-2,1	-3,1	-0,4	2,5	2,0

Table 1b. Price developments

	ESA Code	Year 2011	Year 2011	Year 2012	Year 2013	Year 2014	Year 2015
		Level	rate of change				
<b>1. GDP deflator</b>		1,46	4,7	2,2	1,5	2,2	2,3
<b>2. Private consumption deflator</b>		...	3,9	3,2	2,5	2,6	2,7
<b>3a. HICP</b>		...	2,8	3,3	2,5	2,6	2,7
<b>3b. NICP</b>		...	3,4	2,6	2,0	2,0	2,2
<b>4. Public consumption deflator</b>		1,45	3,1	3,4	3,0	3,0	2,5
<b>5. Investment deflator</b>		1,14	1,9	1,4	1,7	2,1	2,0
<b>6. Export price deflator (goods and services)</b>		1,35	4,3	1,7	2,2	3,1	3,7
<b>7. Import price deflator (goods and services)</b>		1,24	4,0	1,5	2,8	3,7	4,4

Table 1c. Labour market developments

	ESA Code	Year 2011	Year 2011	Year 2012	Year 2013	Year 2014	Year 2015
		Level	rate of change				
<b>1. Employment, persons<sup>1</sup></b>		368,525	2,8	2,1	1,4	1,6	2,1
<b>2. Employment, hours worked<sup>2</sup></b>		347,665	3,1	1,7	1,2	1,4	1,9
<b>3. Unemployment rate (%)<sup>3</sup></b>		...	4,5	5,0	5,4	5,6	5,5
<b>4. Labour productivity, persons<sup>4</sup></b>		...	-1,7	-0,7	0,8	1,8	2,2
<b>5. Labour productivity, hours worked<sup>5</sup></b>		...	-2,1	-0,3	1,0	1,9	2,4
<b>6. Compensation of employees</b>	D.1	19,487	4,9	5,6	4,9	4,8	4,9
<b>7. Compensation per employee</b>		56,188	2,2	3,4	3,5	3,1	2,7

<sup>1</sup> Occupied population, domestic concept national accounts definition.

<sup>2</sup> National accounts definition.

<sup>3</sup> Harmonised definition, Eurostat; levels.

<sup>4</sup> Real GDP per person employed.

<sup>5</sup> Real GDP per hour worked.

Table 1d. Sectoral balances

% of GDP	ESA Code	Year 2011	Year 2012	Year 2013	Year 2014	Year 2015
<b>1. Net lending/borrowing vis-à-vis the rest of the world</b>	B.9					
<i>of which:</i>						
- Balance on goods and services						
- Balance of primary incomes and transfers						
- Capital account						
<b>2. Net lending/borrowing of the private sector</b>	B.9					
<b>3. Net lending/borrowing of general government</b>	EDP B.9	-0,6	-1,5	-1,2	-0,9	-1,8
<b>4. Statistical discrepancy</b>						

Table 2a. General government budgetary prospects

	ESA Code	Year 2011	Year 2011	Year 2012	Year 2013	Year 2014	Year 2015
		Level	% of GDP				
<b>Net lending (EDP B.9) by sub-sector</b>							
<b>1. General government</b>	S.13	-0,253	-0,6	-1,5	-1,2	-0,9	-1,8
<b>2. Central government</b>	S.1311	-1,044	-2,4	-3,1	-2,3	-1,7	-2,4
<b>3. State government</b>	S.1312	...	...	...	...	...	...
<b>4. Local government</b>	S.1313	0,050	0,1	0,1	-0,1	-0,1	-0,1
<b>5. Social security funds</b>	S.1314	0,740	1,7	1,5	1,1	0,9	0,7
<b>General government (S13)</b>							
<b>6. Total revenue</b>	TR	17,734	41,4	41,8	42,1	42,1	40,5
<b>7. Total expenditure</b>	TE <sup>1</sup>	17,988	42,0	43,3	43,3	42,9	42,3
<b>8. Net lending/borrowing</b>	EDP B.9	-0,253	-0,6	-1,5	-1,2	-0,9	-1,8
<b>9. Interest expenditure</b>	EDP D.41	0,211	0,5	0,5	0,6	0,6	0,6
<b>10. Primary balance<sup>2</sup></b>		-0,042	-0,1	-1,0	-0,7	-0,3	-1,2
<b>11. One-off and other temporary measures<sup>3</sup></b>		...	...	...	...	...	...
<b>Selected components of revenue</b>							
<b>12. Total taxes (12=12a+12b+12c)</b>		11,107	25,9	26,4	26,8	26,9	25,5
<b>12a. Taxes on production and imports</b>	D.2	5,081	11,9	12,2	12,3	12,4	11,2
<b>12b. Current taxes on income, wealth, etc</b>	D.5	5,982	14,0	14,1	14,3	14,3	14,3
<b>12c. Capital taxes</b>	D.91	0,043	0,1	0,1	0,1	0,1	0,1
<b>13. Social contributions</b>	D.61	5,099	11,9	12,0	12,1	12,0	11,8
<b>14. Property income</b>	D.4	0,666	1,6	1,4	1,2	1,3	1,2
<b>15. Other<sup>4</sup></b>		0,863	2,0	2,0	2,0	1,9	1,9
<b>16=6. Total revenue</b>	TR	17,734	41,4	41,8	42,1	42,1	40,5
<b>p.m.: Tax burden (D.2+D.5+D.61+D.91-D.995)<sup>5</sup></b>		16,205	37,8	38,4	38,8	38,9	37,4
<b>Selected components of expenditure</b>							
<b>17. Compensation of employees + intermediate consumption</b>	D.1+P.2	4,946	11,6	11,8	11,8	11,7	11,5
17a. Compensation of employees	D.1	3,390	7,9	8,1	8,2	8,2	8,0
17b. Intermediate consumption	P.2	1,556	3,6	3,7	3,6	3,5	3,5
<b>18. Social payments (18=18a+18b)</b>		8,480	19,8	20,4	20,5	20,5	20,3
<i>of which Unemployment benefits<sup>6</sup></i>		0,213	0,5	0,6	0,6	0,6	0,6
18a. Social transfers in kind supplied via market producers	D.6311, D.63121, D.63131	2,049	4,8	4,9	5,0	5,1	5,0
18b. Social transfers other than in kind	D.62	6,431	15,0	15,4	15,5	15,4	15,3
<b>19=9. Interest expenditure</b>	EDP D.41	0,211	0,5	0,5	0,6	0,6	0,6
<b>20. Subsidies</b>	D.3	0,711	1,7	1,8	1,8	1,8	1,7
<b>21. Gross fixed capital formation</b>	P.51	1,726	4,0	3,9	3,7	3,6	3,4
<b>22. Capital transfers</b>	D.9	0,492	1,1	1,4	1,4	1,4	1,4
<b>23. Other<sup>7</sup></b>		1,421	3,3	3,5	3,4	3,3	3,3
<b>24=7. Total expenditure</b>	TE <sup>1</sup>	17,988	42,0	43,3	43,3	42,9	42,3
<b>p.m.: Government consumption (nominal)</b>	P.3	7,065	16,5	17,0	17,1	17,1	16,9

<sup>1</sup>Adjusted for the net flow of swap-related flows, so that TR-TE=EDP B.9.<sup>2</sup>The primary balance is calculated as (EDP B.9, item 8) plus (EDP D.41, item 9).<sup>3</sup>A plus sign means deficit-reducing one-off measures.<sup>4</sup>P.11+P.12+P.131+D.39+D.7+D.9 (other than D.91).<sup>5</sup>Including those collected by the EU and including an adjustment for uncollected taxes and social contributions (D.995), if appropriate.<sup>6</sup>Includes cash benefits (D.621 and D.624) and in kind benefits (D.631) related to unemployment benefits.<sup>7</sup>D.29+D4 (other than D.41)+ D.5+D.7+P.52+P.53+K.2+D.8.

Table 2b. Breakdown of revenue

		Year 2011	Year 2011	Year 2012	Year 2013	Year 2014	Year 2015
		Level	% of GDP				
<b>1. Total revenue at unchanged policies</b>		17,7	41,4	41,8	41,6	41,5	40,0
<b>2. Discretionary revenue measures</b>		...	...	...	0,5	0,6	0,5

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

		Year 2011	Year 2011	Year 2012	Year 2013	Year 2014	Year 2015
		Level	% of GDP				
<b>1. Expenditure on EU programmes fully matched by EU funds revenue</b>		0,09	0,2	0,2	...	...	...
<b>2. Expenditure fully matched by mandated revenue increases</b>		...	...	...	...	...	...
<b>3. Non-discretionary changes in unemployment benefit expenditure</b>		...	...	...	...	...	...

Table 3. General government expenditure by function

% of GDP	COFOG Code	Year 2010	Year 2015
1. General public services	1	4,6	
2. Defence	2	0,5	
3. Public order and safety	3	1,0	
4. Economic affairs	4	4,3	
5. Environmental protection	5	1,1	
6. Housing and community amenities	6	0,7	
7. Health	7	4,9	
8. Recreation, culture and religion	8	1,8	
9. Education	9	5,1	
10. Social protection	10	18,4	
11. Total expenditure	TE	42,4	

Table 4. General government debt developments

% of GDP	ESA Code	Year 2011	Year 2012	Year 2013	Year 2014	Year 2015
<b>1. Gross debt<sup>1</sup></b>		18,2	20,9	23,6	24,4	25,9
<b>2. Change in gross debt ratio</b>		-0,9	2,8	2,7	0,8	1,4
<b>Contributions to changes in gross debt</b>						
<b>3. Primary balance<sup>2</sup></b>		-0,1	-1,0	-0,7	-0,3	-1,2
<b>4. Interest expenditure<sup>3</sup></b>	EDP D.41	0,5	0,5	0,6	0,6	0,6
<b>5. Stock-flow adjustment</b>		-0,3	1,8	2,2	1,2	1,1
<b>p.m.: Implicit interest rate on debt<sup>4</sup></b>		2,8	3,0	2,9	2,7	2,8

<sup>1</sup> As defined in Regulation 3605/93 (not an ESA concept).<sup>2</sup> Cf. item 10 in Table 2<sup>3</sup> Cf. item 9 in Table 2.<sup>4</sup> Proxied by interest expenditure divided by the debt level of the previous year.

Table 5. Cyclical developments

% of GDP	ESA Code	Year 2011	Year 2012	Year 2013	Year 2014	Year 2015
<b>1. Real GDP growth (%)</b>		1,6	1,0	2,1	3,3	4,1
<b>2. Net lending of general government</b>	EDP B.9	-0,6	-1,5	-1,2	-0,9	-1,8
<b>3. Interest expenditure</b>	EDP D.41	0,5	0,5	0,6	0,6	0,6
<b>4. One-off and other temporary measures<sup>1</sup></b>		...	...	...	...	...
<b>5. Potential GDP growth (%)</b>		2,0	1,8	1,7	1,7	1,6
contributions:						
- labour						
- capital						
- total factor productivity						
<b>6. Output gap</b>		-2,4	-3,2	-2,8	-1,3	1,1
<b>7. Cyclical budgetary component</b>		-1,2	-1,6	-1,4	-0,6	0,6
<b>8. Cyclically-adjusted balance (2 - 7)</b>		0,6	0,0	0,1	-0,3	-2,4
<b>9. Cyclically-adjusted primary balance (8 + 3)</b>		1,1	0,6	0,7	0,4	-1,7
<b>10. Structural balance (8 - 4)</b>		0,6	0,0	0,1	-0,3	-2,4

<sup>1</sup>A plus sign means deficit-reducing one-off measures.

Table 6. Divergence from previous update

	ESA Code	Year 2011	Year 2012	Year 2013	Year 2014	Year 2015
<b>Real GDP growth (%)</b>						
<b>Previous update</b>		3,2	3,5	3,7	4,0	...
<b>Current update</b>		1,6	1,0	2,1	3,3	4,1
<b>Difference</b>		-1,6	-2,5	-1,6	-0,7	...
<b>Nominal GDP growth (%)</b>						
<b>Previous update</b>		5,0	5,6	6,4	6,5	...
<b>Current update</b>		6,3	3,2	3,7	5,5	6,5
<b>Difference</b>		1,3	-2,4	-2,7	-1,0	...
<b>General government net lending (% of GDP)</b>	EDP B.9					
<b>Previous update</b>		-1,0	-1,5	-1,2	-0,8	...
<b>Current update</b>		-0,6	-1,5	-1,2	-0,9	-1,8
<b>Difference</b>		0,4	0,0	0,0	-0,1	
<b>General government gross debt (% of GDP)</b>						
<b>Previous update</b>		17,5	19,8	21,4	22,7	...
<b>Current update</b>		18,2	20,9	23,6	24,4	25,9
<b>Difference</b>		0,7	1,1	2,2	1,7	...

Table 7. Long-term sustainability of public finances

% of GDP	AR 2012 *)					REFORM ***)			AR 2009 ****)		
	2010	2060	2060-2010	2060bis **)	2060bis-2010	2010	2060	2060-2010	2010	2060	2060-2010
<b>Age-related expenditures</b>	<b>17,8</b>	<b>29,8</b>	<b>12,0</b>	<b>37,5</b>	<b>19,7</b>	<b>17,8</b>	<b>30,9</b>	<b>13,1</b>	<b>19,9</b>	<b>38</b>	<b>18,1</b>
Pension expenditure	9,2	18,6	9,4	26,3	17,1	9,2	19,7	10,5	8,6	23,9	15,3
Health care expenditure	3,8	4,5	0,7	4,5	0,7	3,8	4,5	0,7	5,9	7	1,1
Long-term care expenditure	1,0	3,1	2,1	3,1	2,1	1,0	3,1	2,1	1,4	3,4	2
Education expenditure	3,2	3,1	-0,1	3,1	-0,1	3,2	3,1	-0,1	3,6	3,3	-0,3
Unemployment expenditure	0,6	0,5	-0,1	0,5	-0,1	0,6	0,5	-0,1	0,4	0,4	0
Reserve pension fund ("fonds de compensation")	25,4	0		0		25,4	0		28	0	
<b>Assumptions</b>	AR 2012 *)					REFORM ***)			AR 2009 ****)		
Labour productivity growth	2	1,5				2	1,5		1,4	1,7	
Real GDP growth	3,5	1,7				3,5	1,7		5	2	
Participation rates (men, aged 15-64)	75,6	71,6				75,6	71,6		74,4	72,1	
Participation rates (women, aged 15-64)	60	63,3				60	63,3		59,5	61,4	
Total participation rate (aged 15-64)	67,9	67,5				67,9	67,5		67	66,8	
Population (in million)	0,5	0,7				0,5	0,7		0,5	0,7	
Working-age population (15-64/total)	68,4	58,5				68,4	58,5		67,8	60,3	
Ratio non-active/active (65+/15-64)	20,4	45,2				20,4	45,2		21,1	39,1	
Ratio elderly active/active (55-64/15-64)	16	20				16	20		16,3	19,5	
Unemployment rate (15-64)	6	4,8				6	4,8		4,5	4,5	

Sources:

\*) 2012 Ageing report (AR) baseline scenario, 2012 constant policy scenario

\*\*\*) 2012 Ageing report baseline scenario, excl. pension expenditure: 2009 constant policy scenario

\*\*\*\*) 2012 Ageing report baseline scenario, excl. pension expenditure: reform scenario

\*\*\*\*\*) 2009 Ageing report baseline scenario, 2009 constant policy scenario

Table 7a. Contingent liabilities

% of GDP	Year	
	2011	2012
<b>Public guarantees</b>	5,4	6,9
<i>Of which: linked to the financial sector</i>	2,7	4,2

Table 8. Basic assumptions

	Année 2011	Année 2012	Année 2013	Année 2014	Année 2015
Short-term interest rate <sup>1</sup> (annual average)	1,3	1,0	1,5	2,0	2,6
Long-term interest rate (annual average)	4,6	4,6	4,9	5,1	5,3
USD/€ exchange rate (annual average)	1,4	1,3	1,3	1,3	1,3
Nominal effective exchange rate	0,2	0,6	0,4	0,3	0,3
Euro area GDP growth	1,5	-0,3	1,3	2,0	2,4
Growth of relevant foreign markets	4,4	2,0	4,5	5,1	5,6
Oil prices (Brent, USD/barrel)	111,3	123,9	125,7	125,7	125,7