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

15th UPDATE OF THE STABILITY AND GROWTH PROGRAMME OF THE GRAND-DUCHY OF LUXEMBOURG

2014-2018

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CONTENTS

I. OVERALL POLICY FRAMEWORK AND OBJECTIVES

The 15th update of the stability and growth programme (SGP) has been drawn up for the period 2014-2018, which corresponds to the term of office of the new government which came to power in December 2013. This update falls within a generally favourable macroeconomic context. Following a year of recession in 2013, the eurozone has returned to growth in 2014. In the context of this 15th update, we assume that this eurozone recovery will be sustained throughout the period 2015-2018, with an average real GDP growth rate of 1.7% per annum. Consequently this trajectory presupposes that the financial and sovereign debt crises in the eurozone have been brought under control. Nevertheless, the crisis will have significant ramifications for the functioning of our economies and, in particular, for the functioning of financial markets, the effects of which on long-term growth remain uncertain at this stage.

Under the influence of sustained recovery in the eurozone for the period 2015-2018, Luxembourg's average real GPD growth rate would be 3.5% . Even though this economic growth is below pre-crisis historical averages of 4.5% to 5%, it implies that the Luxembourg economy would see a cycle peak during the period, in a context in which the crisis has reduced the economy's growth potential by half. As for economic growth, the financial sector is likely to continue to be the driver for the Luxembourg economy's growth. Although the financial sector has proved highly resilient in the face of the crisis, structural adjustments made over the past few years will lead to the sector's contribution to economic growth and employment being somewhat diminished. Moreover, the forecast does not take account of additional adjustments, over and above those seen so far, resulting from decisions regarding the automatic exchange of information. Nevertheless, the numerous stabilisation measures undertaken since 2008 and the reforms of the international financial architecture will have further consequences for the development of the financial industry globally and hence for the Luxembourg financial sector, which consequently will have to continue to adapt to this new environment. In order to take account of these uncertainties and risks, this update includes a sensitivity analysis describing the impact of a major negative shock affecting the financial sector on growth, employment and public finances.

The situation of public finances has been affected by the economic and financial crisis: both the negative effect of the economic situation and the financing of a stimulus policy in 2009 and 2010 weighed heavily on public finances. Since 2011, budgetary policy has consisted of re-establishing the situation of the public finances: both successive consolidation plans (2011, 2013 and 2014) and improving macroeconomic circumstances have contributed to a gradual improvement in the state of the public finances, particularly during the years 2012-2014.

Indeed, for 2014, the general government budgetary balance is estimated at a surplus of €63 million, or 0.1% of GDP. The structural balance[1] is estimated at +1.3% of GDP. Luxembourg is thus forecast to meet its medium-term budgetary objective of a structural balance of +0.5% of GDP in 2014.

Admittedly, even in 2014 the situation of the public finances will not have returned to its full pre-crisis health: indeed, a substantial central government deficit of €608 million, or 1.2% of GDP, will persist. Moreover, from 2015 onwards, the trend towards stabilisation of the fiscal situation will be knocked off course by a change in the VAT regime on e-commerce coming into force. From 2015, VAT revenues from e-commerce will be assigned to member states' budgets based on the consumers' country of residence instead of on that of the service provider as previously. The negative impact of this change on public revenues is estimated at €800 million[2] (1.5% of GDP) compared with a no-policy change scenario. Furthermore, the switch to automatic exchange of information will also lead to a loss of revenue to the tune of €50 million or 0.1% of GDP from 2016 on.

Consequently, assuming an unchanged policy scenario, from 2015 the public finance situation will deviate significantly from the requirements of the preventive arm of the Stability and Growth Pact: the structural balance may well swing to a deficit of 0.8% of GDP, while the nominal balance of the general government in such a scenario is estimated at a deficit of €815 million or 1.6% of GDP – with the central government deficit being estimated at €1.57 billion or 3.0% of GDP. Under a no-policy change scenario, this situation of non-compliance with the rules of the preventive arm of the SGP would persist throughout the period 2015-2018.

It is for this reason that for the period 2015-2018 the government has set itself two main budgetary objectives in its governmental programme: i) to bring the structural balance back to the medium-term budgetary objective of a +0.5% of GDP in 2018, and ii) to stabilise gross public debt at below 30% of GDP.

To attain these budgetary objectives, the government intends to implement a consolidation strategy, as announced in the government programme. This strategy aims to ensure that the situation of the public finances remains sound in the medium term, particularly in view of the uncertainties surrounding growth prospects and the very high implicit commitments that the public finances will be faced with in the long term as a result of the costs associated with population ageing. Based on the lessons learnt over the past few years, the medium-term budgetary policy likewise consists in making better use of years of strong growth such as those foreseen in the planning period to rebuild budgetary room for

[1] Calculated in accordance with the Modux methodology of STATEC (the Luxembourg national statistics institute) for modelling growth potential and the output gap. The European Commission's latest publicly available estimate for the structural balance in 2014 was made in the context of the Commission's October 2013 study of Luxembourg's draft budgetary plan. This study, dated 15 November, assumes a structural balance of -0.4% of GDP. The large difference between this and the national estimates contained in this update is essentially due to the Commission having used macroeconomic and public finance forecasts for 2013 and 2014 that had not been updated.

[2] €700 million in budget terms.

manoeuvre in case a counter-cyclical budgetary policy needs to be financed in the event of another economic downturn.

The medium-term strategy is based in particular on the following actions:

- an effort to consolidate €1.04 billion or 1.7% of GDP structurally and permanently relative to the trajectory under an unchanged policy scenario over the period 2015-2018, so as to ensure that the structural balance converges appropriately, in accordance with the rules of the SGP, with the medium-term budgetary objective of +0.5% of GDP;

- a package of specific measures relating to VAT revenues: a 2% increase in the normal rate and intermediate rates is scheduled for 1 January 2015, with a budgetary impact on revenues of €350 million, or 0.7% of GDP. In order to soften the regressive nature of the package of measures, the government has decided to retain the special low rates on essential goods and services and has introduced a housing section in the package of measures. This last-named section contributes on the one hand to the progressiveness of the package of measures, and on the other hand represents a first step in the direction of an exit from the policy of subsidising the demand for housing that the government aims to implement in order to influence the dynamic of property prices in Luxembourg;

- an indicative trajectory of measures that the government will subsequently have to specify. For the purposes of this SGP update, this indicative trajectory is based on the assumption that efforts are concentrated exclusively on the expenditure side[3]. In this context, at the beginning of 2014 the government embarked upon a process of a general review of expenses (“spending review”), which must be completed for the preparatory work for the 2015 draft budget, this process will enable the government to decide on packages of consolidation measures while at the same time taking account of the impact of the measures on growth and social redistribution. One of the government's objectives, in the context of this process and beyond, is to improve the effectiveness and efficiency of public expenditure;

[3] The indicative trajectory in this update implies a downward revision of the average growth rate for the period 2015-2018 in public expenditure from 4.8% to 4.3%

- a review of the budgetary architecture and procedure: as regards the architecture, the introduction of a multi-year budget framework with fiscal rules aims to strengthen the budgeting process.

Consequently, this update presents an indicative trajectory, the definitive shape of which will be determined later by the government. It ensures in particular that:

- a deterioration in the situation of the public finances in 2015 is limited thanks to an adjustment envisaged as being 1% of GDP;

- a return of the structural balance to the medium-term budgetary objective from 2016 on;

- the structural balance being maintained in 2017-2018 at the medium-term budgetary objective, despite the improving economic situation, implying additional nominal adjustments.

In 2014, public debt will amount to €11.3 billion, or 23.3% of GDP. In 2015 it will increase to 24% of GDP, or €12.4 billion, before falling in GDP terms to 22.2% (€13.7 billion) by the end of the period as a result of economic growth and the consolidation strategy. In this context, we should remember that the new government intends to adhere to the in-principle decision announced by the former government in April 2013 to sell its holding in BGL BNP Paribas in the short to medium term if the terms were acceptable. We should also bear in mind that the Luxembourg State has stakes in commercial and non-commercial entities valued at approximately 10% of GDP. It should also be pointed out that the social security surpluses are transferred to a reserve fund which currently amounts to 26.9% of GDP.

Lastly, it should be noted that the reform of the pension system, which came into force on 1 January 2013, contributes to the viability of public finances by significantly reducing public expenditure relating to population ageing and hence also reducing implicit liabilities compared with a no-policy-change scenario. The new government will continue the efforts embarked upon by its predecessor in the field of pension systems.

In accordance with provisions deriving from EU legislation,[4] all member states in the eurozone have to present, each year, their medium-term fiscal plans in accordance with their medium-term budgetary

[4] Article 4, paragraph 1 of Regulation (EU) no. 473/2013 of the European Parliament and of the Council of 21 May 2013 establishing common provisions for monitoring and assessing draft budgetary plans and ensuring the correction of excessive deficits of member states in the eurozone.

framework. This SGP update contains all the information required in this context and thus meets all relevant EU requirements.

PUBLIC FINANCES	2013			2014			2015			2016			2017			2018		
	€ bn.	As % of GDP	% change YoY	€ bn.	As % of GDP	% change YoY	€ bn.	As % of GDP	% change YoY	€ bn.	As % of GDP	% change YoY	€ bn.	As % of GDP	% change YoY	€ bn.	As % of GDP	% change YoY
TOTAL REVENUES	**19.830**	**43.4**	**+5.1**	**20.593**	**42.2**	**+3.8**	**21.409**	**41.4**	**+4.0**	**22.666**	**41.2**	**+5.9**	**23.860**	**41.1**	**+5.3**	**25.270**	**41.0**	**+5.9**
of which:																		
Taxes on production and imports ("indirect" taxes)	6.006	13.1	+8.1	6.290	12.9	+4.7	6.174	11.9	-1.8	6.398	11.6	+3.6	6.615	11.4	+3.4	6.942	11.3	+4.9
of which : VAT e-commerce	0.952	2.1	+27.1	1.053	2.2	+10.6	0.361	0.7	-65.7	0.285	0.5	-21.1	0.191	0.3	-33.0	0.167	0.3	-12.6
Current taxes on income, wealth, etc ("direct" taxes)	6.617	14.5	+5.3	6.852	14.0	+3.6	7.374	14.3	+7.6	7.917	14.4	+7.4	8.453	14.6	+6.8	9.072	14.7	+7.3
Social contributions	5.570	12.2	+3.4	5.823	11.9	+4.5	6.138	11.9	+5.4	6.535	11.9	+6.5	6.910	11.9	+5.7	7.289	11.8	+5.5
TOTAL EXPENSES	**19.805**	**43.3**	**+5.1**	**20.530**	**42.1**	**+3.7**	**21.679**	**41.9**	**+5.6**	**22.537**	**41.0**	**+4.0**	**23.392**	**40.3**	**+3.8**	**24.332**	**39.5**	**+4.0**
of which:																		
Public investment	1.429	3.1	-6.2	1.506	3.1	+5.4	1.827	3.5	+21.3	1.773	3.2	-3.0	1.822	3.1	+2.8	1.921	3.1	+5.4
Social payments	9.548	20.9	+5.9	9.992	20.5	+4.7	10.356	20.0	+3.6	10.852	19.7	+4.8	11.307	19.5	+4.2	11.776	19.1	+4.1
Intermediate consumption	1.732	3.8	+5.6	1.761	3.6	+1.6	1.859	3.6	+5.6	1.957	3.6	+5.3	2.036	3.5	+4.1	2.124	3.4	+4.3
Compensation of employess	3.815	8.3	+6.0	4.001	8.2	+4.9	4.182	8.1	+4.5	4.344	7.9	+3.9	4.499	7.8	+3.6	4.656	7.6	+3.5
GENERAL GOVERNMENT BALANCE	**0.025**	**0.1**		**0.063**	**0.1**		**-0.270**	**-0.5**		**0.129**	**0.2**		**0.468**	**0.8**		**0.938**	**1.5**	
Central government balance	-0.742	-1.6		-0.608	-1.2		-1.055	-2.0		-0.749	-1.4		-0.475	-0.8		-0.089	-0.1	
Local government balance	0.070	0.2		0.032	0.1		0.109	0.2		0.136	0.2		0.137	0.2		0.178	0.3	
Social security fund	0.697	1.5		0.638	1.3		0.676	1.3		0.742	1.3		0.806	1.4		0.849	1.4	
STRUCTURAL BALANCE		**1.7**			**1.3**			**0.2**			**0.5**			**0.5**			**0.6**	
GROSS DEBT	**10.546**	**23.1**		**11.344**	**23.3**		**12.399**	**24.0**		**13.148**	**23.9**		**13.623**	**23.5**		**13.712**	**22.2**	

MAIN MACROECONOMIC INDICATORS	2013	2014	2015	2016	2017	2018
GROWTH						
Real GDP (in %)	2.2	3.2	3.2	3.5	3.6	3.7
Nominal GDP (in %)	6.5	6.7	6.0	6.4	5.4	6.3
Nominal GDP (level, in bln euros)	45.718	48.775	51.682	55.007	57.986	61.637
PRICE DEVELOPMENTS						
Inflation NICP (in %)	1.7	1.5	2.7	1.9	1.9	2.0
LABOUR MARKET DEVELOPMENTS						
Employment (growth, in %)	1.7	1.9	2.3	2.3	2.4	2.3
Unemployment rate (ADEM definition, in %)	6.9	7.3	7.3	7.2	6.9	6.6

II. ECONOMIC SITUATION AND MACROECONOMIC FORECASTS

II.1. The economic situation in 2014

After contracting by about 0.2% in 2012, Luxembourg's GDP returned to real growth of 2.2% in 2013, benefiting from the favourable macroeconomic environment, before attaining a level of 3.2% in 2014. This rate of growth remains well below the rates seen before the onset of the economic and financial crisis in 2008, when real growth rates averaged 4.5% to 5% per year. This forecast for 2014 is based on an assumed real growth rate of 1.3% in the eurozone for 2014.

The return to growth in Luxembourg in 2014 is in large part due to the sustained economic recovery of the eurozone.

The SGP's central scenario does not contain any additional negative shock to the finance sector relative to the adjustments made since the onset of the crisis. In particular, as regards the impact of the decision on the automatic exchange of information, the effects that have already materialised in 2013 and 2014 have been incorporated into the central forecast. However the forecast does not take account of any additional negative adjustments that might be required in light of recent developments observed in the financial sector, notably as regards deposits. Apart from this, in view of the effects of the crisis since 2008, a degree of attenuation, particularly as regards employment, has been included in the scenario, but we do not foresee a structural decline in the sector, which would ultimately lead to a decline in the growth rate of tax revenues.

Inflation (CPI) will slow further in 2014, falling from 1.7% in 2013 to 1.5% in 2014, due in particular to the dampening effect of the changes to the automatic wage indexation mechanism introduced in 2012 and moderation in regulated prices.

Still driven by a dynamic domestic financial sector (despite contrary trends elsewhere in Europe), job creation continues to show a positive trend, with a total domestic employment growth rate of 1.9% in 2014 following an increase of 1.7% in 2013. However, the unemployment rate continues to increase, rising from 5.8% in 2013 to 6.2% in 2014, according to the Eurostat harmonised definition. The rise in unemployment, despite relatively strong growth in domestic employment, suggests that the labour market is characterised, at least partially, by a mismatch between labour supply and demand.

II.2. Macroeconomic forecasts: international environment

This SGP update is based on the common external assumptions published in the European Commission's winter forecast of 25 February 2014. Thus in 2014, economic growth in the EU will reach 1.5%, while at the same time the eurozone economy will return to growth at 1.3%, after contracting by 0.4% in 2013. This positive trend will continue through 2015, both in the EU as a whole and in the eurozone, with growth of 2.0% and 1.7% respectively. As regards the end of the period 2015-2018, we assume that both the EU and the eurozone will reach the top of the cycle with growth rates of 2% and 1.7% respectively

Trends in the price of oil and the euro exchange rate are subject to a high level of uncertainty. For the purposes of the SGP, the following technical assumptions have been adopted: the price of oil is set at US$108.10 a barrel for Brent crude, and the euro/US dollar exchange rate at 1.35 throughout the period 2015-2018.

In view of the subdued macroeconomic situation and the limited risk of short-term inflation, interest rates will gradually increase only from 2015 onwards, with short-term interest rates reaching 2.0% in 2018 (from 0.2% in 2013-2014) and long-term rates reaching 4.0% in 2018 (from 3.0% in 2013-2014).

II.3. Medium-term macroeconomic forecasts 2015-2018

Taking account of international assumptions, growth in Luxembourg will gradually improve: 3.2% in 2015, 3.5% in 2016, 3.6% in 2017 and 3.7% in 2018. The corresponding nominal growth rate will reach 6.0% in 2015, 6.4% in 2016, 5.4% in 2017 and 6.3% in 2018.

This medium-term trend can be explained by a number of factors:

- Recovery of the global economy, thanks to considerable improvement in the growth of developed countries' economies, accompanied by a moderation in the dynamic of emerging markets.
- An assumed sustained economic recovery of the eurozone.
- Favourable stock exchange indices, with average growth of 6.5% in the eurozone index (STOXX 50) over the period 2015-2018.

The potential growth of the Luxembourg economy is estimated at 2.2% whereas at the turn of the century it was still estimated at 3.5%-4%. This, therefore, implies that the SGP is based on a scenario characterised, like the economy of the eurozone, by a return to a cycle peak at the end of the period (on the technical assumption of a rapid closing of the output gap). Growth will be fuelled by a strong recovery in exports (from 4.7% in 2015 to 6.6% in 2018) and by domestic, including public sector, consumption.

The employment market will lag behind the economic recovery somewhat: not until 2016 will unemployment start to fall slightly, after peaking in 2014 and 2015 at 7.3% of the active population as defined by the national employment administration ADEM, and declining to 6.6% in 2018. The labour market in turn will continue to show a certain dynamism, albeit less pronounced, with an average growth rate of 2.2% in total employment through to 2018.

The period is characterised by an environment of low inflation rising slightly as macroeconomic conditions improve. Taking account of the impact of an increase in VAT rates from 1 January 2015, the CPI will accelerate in 2015 to reach a rate of 2.7%. After this peak in 2015, the CPI will return to its initial trend, levelling out at 2% on average through to 2018.

As regards the automatic indexation of wages, the decision on the modification is due in October 2014, and according to the government statement, the normal wage indexation mechanism will resume from 2015. Consequently, the calendar for the index tranches for the period is: February 2015, January 2016 and April 2017.

III. BUDGET SITUATION AND PUBLIC DEBT

III.1. General budget policy framework

The economic and financial crisis has led to a deterioration of public finances in Luxembourg. Despite this deterioration, Luxembourg has maintained a budgetary safety margin in relation to the reference value of 3% of GDP provided in Article 126 of the Treaty on the functioning of the European Union, and it has also maintained its public debt at a relatively low level in absolute terms, and well below the maximum debt threshold of 60% of GDP provided by the Stability and Growth Pact.

In 2013 and 2014, the implementation of a series of budgetary consolidation measures has helped to stabilise the nominal general government deficit and to improve the underlying structural deficit. The impact of the measures adopted in 2013 amounts to 2.1% of GDP relative to a scenario of unchanged policies, while that of those proposed in 2014 amounts to 0.5% of GDP. Despite a slight deterioration in the structural balance in 2014, Luxembourg is expected to remain within its 2014 medium-term budgetary objective.

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

- the decrease in potential growth in the wake of the economic and financial crisis implies a structural reduction in the growth rate of public revenues;
- The financial sector, which is the main driver of economic growth, is exposed to a number of adjustments constituting risks to the country's economic growth;
- moreover, the high degree of openness of the Luxembourg economy and its specialisation in financial services implies that public revenues are subject to very high volatility;
- public expenditure is sticky downwards and a significant part of public expenditure is characterised by “autonomous” growth irrespective of the business cycle;
- despite the implementation of a significant reform of the pension system, ageing of the population will cause strong upward pressure on public expenditure, and the resulting implicit liabilities remain high in terms of absolute value and by international comparison.

In addition to these structural factors, Luxembourg’s public finances will be negatively affected from 2015 onwards by a change in the VAT regime applied to e-commerce and the loss of revenues associated with the automatic exchange of information.

Despite the VAT increase effective from 1 January 2015, as already announced by the Government, this implies that from 2015 Luxembourg will deviate from its medium-term budgetary objective and will consequently have to specify additional budgetary consolidation measures that will allow it to return to an adjustment path so that its medium-term budget objective can be achieved by 2018 at the latest.

In order to specify the other measures, particularly those relating to expenditure, the government embarked on a public expenditure review process at the beginning of 2014 with the aim of being able to finalise packages of consolidation measures on the expenditure side for the draft 2015 budget in the autumn of 2014. The expenditure review is supposed to lead to measures that can be implemented from 2015 in the framework of a multi-year expenditure strategy. The strategy's multi-year dimension is in line with the introduction of a significant innovation in budgetary policy from 2015, namely multi-year programming.

As far as the sustainability of the public finances is concerned, in addition to the positive effects of the pension reform which came into force on 1 January 2013, it should be noted that gross public debt remains at a low level in absolute terms by international comparison and that the State and the social security system hold financial assets valued at more than 35% of GDP.

III.2. Medium-term budgetary 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 varying degrees of budgetary risk in terms of the sustainability of public finances, while also taking account of foreseeable demographic changes.

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

Following the reform of the pension system, which came into force on 1 January 2013, public expenditure linked to demographic ageing will increase less strongly from 2020, and the impact of the reform will significantly reduce the implicit liabilities linked to demographic ageing. Nevertheless, the issue of the long-term financing of the implicit liabilities is not definitively resolved by the reform and, consequently, in determining the medium-term objective, an ambitious budgetary balance will continue to be necessary in order to pre-finance the future budgetary commitments that remain despite the reform.

Thus, achieving the medium-term budgetary 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 until 2040.

Following the new economic governance rules coming into force at the end of 2011, in particular those referred to as the “six-pack”, medium-term objectives will be revised every three years.

The last review took place in 2013 on the occasion of the 14th update of the SGP, when Luxembourg decided to maintain its medium-term budgetary objective at a surplus of 0.5% of GDP.

- In this context, it should be recalled that the reasons for maintaining the medium-term objective at the same level were: the EU Council, as noted in its opinion of June 2012on the 13th SGP update, found the medium-term objective of a surplus of 0.5% of GDP as set prior to the reform insufficiently ambitious. The medium-term objective set by Luxembourg was indeed below the minimum that the European Commission had established for Luxembourg, namely a surplus of 0.75% of GDP in structural terms;
- The taking into account of the impact of the reform of the pension system led the European Commission to revise the required minimum surplus of GDP downwards from 0.75% to 0.5%.

For the purposes of this 15th update of the SGP, covering the period 2014-2018, the medium-term budgetary objective is held at 0.5% throughout the period, without prejudice to any possible revisions which would normally be expected at the time of the 17th SGP update, in 2016.

III.3. Budgetary situation in 2013 and 2014

On 1 April 2014, Luxembourg informed the European Commission of a general government surplus of €25 million, or 0.1% of GDP for 2013 and €63 million, or 0.1% of GDP for 2014.

In 2013, the general government balance was in surplus by €25 million, or 0.1% of GDP, following a balance of €20 million in 2012. This situation is the result of contrasting developments in the balances of the government sub-sectors. The social security balance deteriorated, from a surplus of €809 million, or 1.9% of GDP, to €697 million, or 1.5% of GDP, while the central government balance moved in the opposite direction, with the deficit shrinking from €1,016 million, or 2.4% of GDP, to €742 million, or 1.6% of GDP. This improvement of 0.8% of GDP is due largely to the consolidation policy put in place by the government in 2013. As a reminder, the government approved the following package of consolidation measures as part of the budget for 2013:

EXPENDITURE	*Share in total effort*
Operating expenses	6%
Capital expenditure	30%
Reduced growth in total civil service payroll	7%
Grants and allowances	1%
Social benefits (adjustment, childcare and education benefits)	11%
Measures relating to the Employment Fund	2%
Total expenditure	**57%**
REVENUES	
Corporate income tax	
- Soparfi	5%
- Reduction of investment tax grant (+€20million from 2014)	
- Introduction of minimum tax on businesses	5%
Personal income tax	
- Introduction of new 40% bracket	2%
- Change in tax treatment of stock options	5%
- Reduced deductibility of interest in consumer loans	1%
- Elimination of flat deduction for the first four kilometres commute	4%
Tax on motor vehicles	1%
Solidarity tax	
- 2% increase (households and businesses)	11%
- Additional 1% increase (households)	5%
VAT on housing (reduction of the maximum reimbursable amount)	2%
Excise tax on tobacco and diesel	4%
Total revenues	**43%**
OVERALL EFFECT ON THE GENERAL GOVERNMENT BALANCE FOR 2013 (€ millions)	953

Total general government revenue amounted to €19,830 million (43.4% of GDP), up by 5.1% on the previous year. Total expenditure amounted to €19,805 million (43.3% of GDP), up by 5.1% on the previous year.

The budgetary situation for 2014 is a special one, due to the early elections held in October 2013: because of these early elections, no budget proposal was submitted in October 2013, and at the end of 2013 the Chamber of Deputies voted a sort of "technical budget" based on the principle of the monthly forecasts for the first four months of 2014. The principles used to draw it up were as follows: i) technical update of macroeconomic assumptions, ii) constant policy without new measures being announced.[5] Once the new government was in place, a new budget bill for the whole year 2014, including the first four months, was drawn up and submitted on 6 March to the Chamber of Deputies.

[5] Without being able to quantify the effects, it is possible that the technical budget based on monthly forecasts may have a braking effect on public expenditure in the early part of 2014.

The bill passed by the Chamber of Deputies on 24 April 2014 assumes that the general government surplus will be maintained at €63 million, or 0.1% of GDP. As regards the various sub-sectors of government, the trends seen in 2012-2013 will continue in 2013-2014, in other words the central government balance will continue to improve, with the deficit falling from €742 million, or 1.6% of GDP in 2013, to €608 million or 1.2% of GDP in 2014, and the social security surplus further deteriorating from €697 million or 1.5% of GDP in 2013 to €638 million or 1.3% of GDP in 2014.

The improvement in the central government balance is largely due to the government's cost-saving measures in its draft budget for 2014 which amount to 0.5% of GDP, the details of which are summarised in the following table.

EXPENDITURE	*Share in total effort*
Capital expenditure	60%
Operating expenses	21%
Reduction in new civil service commitments	4%
Overhaul of student grants system	15%
Total expenditure	**100%**

Total general government revenue amounts to €20,593 million (42.2% of GDP), up by 3.8% on the previous year. Despite the improved macroeconomic situation in 2014, the growth rate of revenues, at 3.8% in 2014, is still below that of 2013 (5.1%), mainly because of less favourable trends in current taxation.[6] Total expenditure amounts to €20,530 million (42.1% of GDP), up by 3.7% on the previous year, mainly due to the government's discretionary policy.

As for compliance with the budgetary rules of the preventive arm of the SGP for the period 2013-2014, it should be pointed out that:

[6] Current taxation includes tax revenues from crisis years, which are likely to yield lower revenues.

- in 2013: the structural balance improved from a surplus of 1.2% in 2012 to a surplus of 1.7% in 2013, which is in line with the medium-term budgetary objective of a surplus of 0.5% of GDP; as for the rule on expenditure, the real growth rate of adjusted expenditure is below the 1.76% reference growth rate.

- in 2014: the structural balance, which moves from 1.7% in 2013 to 1.3% in 2014, remains compatible with the medium-term budgetary objective; as for the expense rule, the real growth rate of adjusted expenses, at 0.72%, is below the 1.1% reference rate.

The fact that the situation of the public finances complies with the rules of the preventive arm of the SGP, largely thanks to the government's discretionary budget policy, shows the government's determination to ensure that the situation of the public finances is fairly solid in preparation for a phase of deterioration starting in 2015 as a result of the loss of revenues linked to e-commerce.

III.4. Budgetary situation of general government in 2015-2018

With effect from 1 January 2015, the medium-term development of public finances is strongly marked by the change in the VAT regime as it applies to e-commerce. From 1 January 2015, VAT revenue on e-commerce will no longer be assigned to public budgets based on the service provider's country of residence, but on that of the consumer. This change will have a considerable impact on public revenues, such that, beyond the general situation of the general government balance prior to this change, it raises specific issues in terms of fiscal policy.

In a scenario assuming no change of policy (see table 2b), balances at general overnment level and at the level of the various sub-sectors of government will develop as follows during the period 2015-2018.

NOMINAL BALANCE	2015		2016		2017		2018	
	in mln euros	*in % of GDP*	*in mln euros*	*in % of GDP*	*in mln euros*	*in % of GDP*	*in mln euros*	*in % of GDP*
1. General government	-815	-1.6%	-513	-0.9%	-353	-0.6%	-85	-0.1%
2. Central government	-1,567	-3.0%	-1,375	-2.5%	-1,287	-2.2%	-1118	-1.8%
3. Local government	74	0.1%	110	0.2%	111	0.2%	148	0.2%
4. Social security fund	678	1.3%	752	1.4%	822	1.4%	885	1.4%
5. Structural balance		**-0.8%**		**-0.7%**		**-1.0%**		**-1.2%**
6. Gross debt	**12,844**	25.0%	**14,144**	25.8%	**15,344**	26.6%	**16,344**	26.6%

As can be seen, with a sustained macroeconomic recovery and real GDP growth in the order of 3.5% until 2018, combined with a slight change in the public expenditure dynamic and assuming no change of policy relative to that of the past decades, a large part of the general government deficit is absorbed. This absorption goes hand in hand with a persistent and substantial deficit of more than €1 billion or 1.8% of GDP in 2018 at central government level, an increase in the social security surplus to €885 million and stabilisation at 1.4% of GDP.

Thus, based on these forecasts assuming no change of policy, Luxembourg is likely to remain over the planning period, and despite the loss of revenues from e-commerce, in the preventive arm of the SGP, since its general government deficit will remain below the limit of 3% of GDP.

On the other hand, from 2015, assuming no change of policy, the situation of the public finances will be in "significant deviation" relative to the rules of the preventive arm of the SGP. Indeed, the structural balance (and the output gap), calculated in accordance with STATEC's methodology for calculating potential growth, will deteriorate sharply over the period:

- the significant deterioration will take place in 2015, when the structural balance will deviate from the medium-term budgetary objective by more than 0.6%, moving from 1.4% to -0.8% of GDP;
- from 2016, unchanged policy does not allow the general government balance in structural terms to get on track for the minimum 0.5% of GDP annual improvement needed to regain the medium-term budgetary objective.

Similarly, for the expense rule, for the period 2015-2018 the adjusted real growth rate of public expenditure will not conform to the reference growth rate.[7]

One of the main reasons for this deterioration is the change in the VAT regime as it applies to e-commerce, which will have a structural negative effect on revenues from 2015. The SGP forecast is based on a central assumption, namely that a majority of the companies active in the e-commerce sector will use Luxembourg's "single window" option in the period 2015-2019. Thus the negative impact assumed for 2015 is that of a so-called "economic" loss of resources in the amount of 1.5% of GDP (€800 million). The economic loss is calculated by reference to a fictitious scenario based notably on the assumption that the current taxation regime is maintained and on continuous growth in the e-commerce sector. We should point out that the budgetary loss for 2015 is estimated at €700 million.

[7] Note that this reference growth rate is reduced if the general government balance in structural terms is not in line with the medium-term budgetary objective, as will be the case for the period 2015-2018 assuming no change in policy.

Methodological insert No. 1:
VAT regime applicable to e-commerce

Article 58 of Directive 2006/112/EC as amended by Directive 2008/8/EC provides that from 1 January 2015, the place of supply of services provided electronically to a non-taxable person is the place where that person has his permanent address or usually resides.

Electronically supplied services notably include the supply of digital products (music, videos, games, etc.) and services consisting in providing or supporting businesses' presence in an electronic network such as a website or internet page. The fact that an order for goods is placed and/or processed electronically does not in itself constitute the supply of an electronic service.

Article 5 of the "place of supply" Directive 2008/8 contains the operating rules for the optional "single window" ("MOSS" or "mini one-stop shop"). Thus, from 1 October 2014, companies providing electronic services from Luxembourg will be able to register for the Luxembourg "single window", providing they do not have a registered office or permanent establishment in another EU member state. These companies will thus be able to have all their declaration and payment obligations handled by the competent Luxembourg tax administration. As regards the payments that have to be transferred to the member state where consumption takes place in accordance with the special regime provided by Directive 2006/112/EC, the member state in which the subject is identified for VAT purposes retains:

- from 1 January 2015 to 31 December 2016: 30%;
- from 1 January 2017 to 31 December 2018: 15%;
- from 1 January 2019: 0%.

Consequently, if a company providing electronic services from Luxembourg chooses the Luxembourg "single window", Luxembourg will be able to retain 30% of the VAT revenue generated in this context in 2015 and 2016. For fiscal years 2017 and 2018 the retention rate falls to 15%. Note that the last payment under the "single window" system is in Q1 2019.

Fiscal revenues thus depend, from 2015, on the number and size of taxable companies providing electronic services and opting to sign up to the Luxembourg "single window". The forecast used in this SGP is based on the assumption that the majority of the companies concerned will remain registered in Luxembourg for all their services. In this context, we should stress that this registration with the single window is not definitive, in other words the company concerned may decide to leave, or may be forced to leave if it breaches applicable EU provisions.

We should also point out that the revenues that Luxembourg can retain will be calculated not at the VAT rate applicable in Luxembourg, but at those applying in the various member states in which the e-commerce providers supply their services. Accordingly, the revenues retained by Luxembourg will be calculated using a European weighted average, which is currently 21.3%.

Bearing in mind the foregoing explanations, the current SGP is based on an assumed cumulative budgetary loss of €886 million, of which €691 million are assumed to relate to fiscal 2015.

Based on these forecasts, which assume no change of policy, and on the central assumption regarding revenues from e-commerce, and also taking account of the structural balance estimates for the period, a structural adjustment to public finances of about €1,040 million, or 1.7% of GDP at the end of the period in 2018, is needed relative to the no-change-of-policy scenario in order to ensure that the general government structural balance attains the medium-term budgetary objective of a surplus of 0.5% of GDP over the period 2015-2018 and remains within it in 2018, as set as an objective in the governmental programme. In nominal terms, this means that the nominal budget balance must improve by €1,040 million or 1.7% relative to the no-change-of-policy scenario. In other words, taking account of the development of the balances of the various government sub-sectors, the return to and adherence to the medium-term budgetary objective at the end of the planning period corresponds to an objective of re-establishing the balance of the central government's nominal balance, which indeed will be in deficit by €1.1 billion or 1.8% of GDP in 2018 assuming no change of policy.

Since not all the budgetary objectives established in the governmental programme can be achieved without changes in policy, the government has decided to draw up a medium-term budget strategy based on the following indicative action points:[8]

- as regards objectives for the budget and for adjustment paths, to ensure a return to the medium-term budgetary objective by 2018 at the latest, which implies a structural adjustment requirement of €1,040 million at the end of the period based on an adjustment path compatible with the rules of the preventive arm of the SGP, namely an improvement in the structural balance of at least 0.5% of GDP a year;

[8] The action points are indicative in that they may change in line with updated estimates or political decisions.

- as regards the distribution of effort between revenues and expenditure, the government has decided, in accordance with its programme, to raise part of the compensatory financing for the loss of revenue linked to e-commerce from 2015 by means of a VAT measure, and to cover the remaining requirements for adjustment by means of complementary measures, with a focus on public expenditure, as per the governmental programme;
- while the VAT measure is specified in the path of this SGP update, in accordance with the announcement made by the Prime Minister in his State of the Nation address, the other measures, notably those relating to expenditure, are not yet specified, either as regards the implementation schedule or as regards their exact nature, i.e. the precise categories of expenditure they concern. The government will specify the parameters during 2014 as part of the general expenditure review;
- as for the quantification of the strategy, in particular the discretionary measures already specified, the following will apply:

    - the VAT measure implies a number of changes in VAT rates from 1 January 2015: i) the normal rate increases by two percentage points, from 15% to 17%; ii) the intermediate 6% and 12% rates also increase by two percentage points, to 8% and 14% respectively; iii) the extra-low rate of 3% is maintained; iv) for investment in housing, the normal (17%) rate is extended to all investments except those for the purchase of a primary residence; as for budgetary quantification, the measure will bring in €350 million a year, or 0.7% of GDP *ex ante*; taking account of induced effects, notably on the moving scale of salaries, which has an accelerator effect on public expenditure, the budgetary impact on the nominal balance, after taking account of macroeconomic effects, amounts to €300 million a year, or 0.6% of GDP in 2015;[9] note that this measure allows 44% of the loss of revenue linked to e-commerce in 2015 in the central scenario to be offset;
    - With regard to the other measures, including those relating to expenditure, in view of the absence of additional specifications, this SGP update is based, for purposes of illustration, on an adjustment path for expenditure over the period 2015-2018: thus, the path assuming a change of policy as shown in table 2a in the appendix includes the following annual and structural adjustments: €200 million in 2015, €145 million in 2016, €165 million in 2017 and €190 million in 2018, which means that the cumulative impact at the end of the period amounts to €700 million, or 1.1% of GDP.[10] This is an indicative trajectory which will be specified later by the government.

[9] This benefit grows over the period, reaching €340 million in 2018.
[10] It is an *ex ante* estimate without taking account of macroeconomic factors. This means that, to achieve an improvement of €200 million a year in the nominal balance, measures with a bigger *ex ante* impact will no doubt have to be taken, given the existence of budgetary multipliers. Depending on the measures decided upon, these multipliers, and therefore the difference between the *ex ante* and *ex post* impacts may be greater or smaller.

In summary, the indicative trajectory contains the following adjustments (in € million):

	2015	2016	2017	2018
VAT measures from 2015	***300***	*310*	*320*	*340*
Additional measures from 2015	***200***	*200*	*200*	*200*
Additional measures from 2016		***145***	*145*	*145*
Additional measures from 2017			***165***	*165*
Additional measures from 2018				***190***
TOTAL	**500**	**655**	**830**	**1040**

In terms of the development of public finances, the situation presents as follows:

NOMINAL BALANCE	2015		2016		2017		2018	
	in mln euros	*in % of GDP*	*in mln euros*	*in % of GDP*	*in mln euros*	*in % of GDP*	*in mln euros*	*in % of GDP*
1. General government	-270	-0.5%	129	0.2%	468	0.8%	938	1.6%
2. Central government	-1,055	-2.0%	-749	-1.4%	-475	-0.8%	-89	-0.1%
3. Local government	109	0.2%	136	0.2%	137	0.2%	178	0.3%
4. Social security fund	676	1.3%	742	1.3%	806	1.4%	849	1.4%
5. Structural balance		**0.2%**		**0.5%**		**0.5%**		**0.6%**
6. Gross debt	**12,399**	24.0%	**13,148**	23.9%	**13,623**	23.5%	**13,712**	22.2%

Two more observations on methodology need to be made to explain the construction of the adjustment path:

i) Table 2a also contains a trajectory of the main components of public expenditure. In order to spread the illustrative linear expenditure trajectory over the various components of public expenditure, the following technical assumption has been used so as not to prejudge the government's final decisions on public expenditure as part of the spending review process: the annual and structural impacts of the adjustments have been distributed pro-rata over the various component parts.

ii) As for the impact of the discretionary measures on the balances of the sub-sectors, the following principles have been applied in this update: the annual and structural expenditure adjustments have all been assigned to the central government balance, in the interests of simplification. Once the public expenditure measures have been specified, a more detailed recalculation will be necessary.

To confront the financial challenges of the kind facing Luxembourg in the short and medium term, the government has embarked upon an ambitious expenditure review process. The programme's objective is to make substantial gains between now and 2018 for public expenditure as a whole – State, local authorities and social security – while at the same time improving the quality and effectiveness of public policies.

The expenditure review process is managed by the Minister of Finance and assisted by the *Inspection Générale des Finances* (IGF). The programme consists of four phases, namely:

- Design phase: from February to March;
- Preparation phase: from March to June;
- Decision and consultation phase: from June to September;
- Implementation phase: from September onwards.

The second phase was started at the end of March by sending assignment letters to the heads of the working groups. The letters, signed by the Prime Minister and the Minister of Finance, contain the budgetary and economic context and the *modus operandi* of the programme.

In all, 20 working groups are invited to propose savings initiatives whose structural gains represent savings relative to 2018 expenditure in the "no-change-of-policy" scenario. The cost saving proposals thus drawn up will be submitted to the government in June. The government will then study the proposals received and decide which measures to adopt, after consulting with the social partners.

In October 2014 at the latest, when the budget bill is submitted, the economic measures selected by the government will be presented. Their implementation will begin immediately.

The proposals drawn up by the working groups must exceed the savings required for budgetary consolidation, so as to leave the government a margin for manoeuvre when choosing the measures to adopt in the decision phase. In this way the process of drawing up cost-saving strategies in the working groups becomes a technical exercise, without political constraints. Politics will come into play in the third phase, that of decision and consultation.

We should point out that this is the first time Luxembourg has carried out an expenditure review exercise on this scale. This structured approach will make it possible to avoid *ad hoc*, across-the-board cuts. On the contrary, this systematic approach will make it possible to:

i) root out financial waste in a technical manner. By dispensing with unwarranted or obsolete expenditure, the effectiveness of the government system can be increased;
ii) reallocate public funds, complying with government allocations and objectives as they develop from time to time;
iii) store ideas for savings, keeping them available in case of need (e.g. systemic shocks). This store of quickly executable ideas serves to counter any downside risks.

This medium-term strategy allows public finances to develop as follows over the period 2015-2018:

In 2015, the general government balance will deteriorate, from a surplus of 0.1% of GDP or €63 million in 2014 to a deficit of 0.5% of GDP or €270 million. This development is the result of several factors:

- on the revenue side, the maintaining of the dynamic, with a growth rate of 4.0%, comparable to that of 2014 (3.8%), is attributable to a number of factors:

    - continuing positive macroeconomic conditions ensure that certain large revenue categories, apart from VAT revenues, continue to show a positive dynamic;
    - the VAT measure scheduled for 2015 will allow the assumed loss of €800 million[11] on e-commerce in that year to be partly (44% or 350/800) offset.

- on the expenditure side, 2015 is characterised by an acceleration in public expenditure relative to 2014, with the growth rate rising from 3.7% to 5.6%. An essential determining factor of this growth is the development of public investment, which is forecast to surge by more than 21%. The reasons for this are the launching of new projects (construction of the tramway, installation of a digital radio protection system for the police) and the continuation of major projects such as that of the University. Note that this dynamic is slightly dampened by taking account of a discretionary impact of €200 million.

[11] Which means a loss of €700 million in budgetary terms relative to the previous year.

In terms of balances at the sub-sector level, the deterioration of the nominal balance at central government level remains significant, in spite of the measures: it rose from €608 million, or 1.2% of GDP, to €1,055 million, or 2.0% of GDP. This deficit is accompanied by a small surplus in the local authorities and social security balance that increases in amount but remains steady as a percentage of GDP.

After 2015, which is characterised by the shock from the loss of revenue from e-commerce and the compensatory financing measures envisaged by the government, the period 2016-2018 is characterised by the gradual re-establishment of the situation of the public finances. Thus, in terms of nominal balances, the government is back in surplus from 2016, with 0.2% of GDP, improving to 1.5% of GDP in 2018. In parallel with this, and in line with the assumptions used for the adjustment path,[12] whereby the structural adjustments to expenditure are all allocated to the central government balance, the central government balance sees gradual and significant improvement during the period, going from a deficit of €749 million or 1.4% of GDP in 2016 to €475 million or 0.8% of GDP in 2017 and €89 million or 0.1% of GDP in 2018. At the same time, the balance of local authorities sees a surplus growing slightly from €136 million or 0.2% of GDP in 2016 to €178 million or 0.3% of GDP in 2018. Lastly, the social security sector sees a similar trend: its surplus rising from €742 million or 1.3% of GDP in 2016 to €849 million or 1.4% of GDP in 2018.

The improvement in the situation of the public finances over this period is the result of a number of decisive factors:

- a sustained revenue dynamic thanks to continuing favourable macroeconomic conditions throughout the period: even though the ratio of revenues to GDP falls, revenues continue to show sustained growth at a nominal average rate of 5.3% for the period;

- a significant slowdown in public expenditure: with an average growth rate of 4.3%, the public expenditure dynamic is sharply reduced compared with previous years. This slowdown is the result of two factors:

    - the trajectory is based on an unchanged policy scenario that contains a somewhat reduced public expenditure dynamic compared with the past few decades: thus, the average growth rate over the period is 4.8%;
    - the trajectory also contains structural and annual adjustments with a cumulative impact to the end of the period of €700 million, or 1.1% of GDP. This adjustment of public expenditure thus makes it possible to lower the trajectory of public expenditure, making the growth rate in public expenditure fall from 4.8% in the no-change-in-policy scenario to 4.3% a year.

[12] see remarks on preceding pages.

As for the rules of the preventive arm of the SGP, the trajectory described produces the following results:

- concerning the structural balance, in 2015 there will be a deviation, since the balance goes from 1.3% of GDP in 2013 to 0.2% of GDP in 2015, which is no longer compatible with the medium-term budgetary objective of a surplus of 0.5% of GDP. Note that the structural balance, under an unchange policy scenario, goes to a deficit of 0.8% of GDP in 2015. Concerning the rule on public expenditure, the adjusted real growth rate in expenditure would be in excess of the reference growth rate, but without there being any significant deviation;
- in 2016, the structural balance would go into surplus at 0.5%, which corresponds to the medium-term budgetary objective and is compatible with the adjustment trajectory envisaged by the rules of the SGP, which provide for a convergence of the structural balance of 0.5% of GDP a year towards the medium-term budgetary objective whenever the structural balance is not in line with the medium-term budgetary objective;
- in 2017-2018: the trajectory described ensures that the structural balance continues to conform to the medium-term budgetary objective of 0.5%, remaining at 0.5% in 2017 and increasing to 0.6% in 2018. However, we see that the envisaged adjustments of €165 million in 2017 and €190 million in 2018 (giving a cumulative effect of €355 million in 2018 on the nominal balance) do not lead to any substantial improvement in the structural balance. This attenuation of the impact of the adjustments on the structural balance is explained by the fact that, bearing in mind the macroeconomic forecasts, the economic situation is at a high point of the cycle during these years, which implies that the positive contribution of the economic cycle to the budgetary situation increases.[13] This positive contribution has a negative impact on the development of the structural balance, implying that during strong growth phases, for the structural balance to stabilise, additional budgetary adjustments are necessary. This putting into operation of the budgetary rule on the structural balance in the preventive arm of the SGP highlights one of the main objectives of the reform of European economic governance that was embarked upon several years ago, namely to ensure that governments commit to taking advantage of years of strong economic growth to improve their budgetary situation and so avoid an overly pro-cyclical budget policy.

Since the concept of the structural balance is becoming ever more important in budgetary management, below is a methodological insert on the structural balance.

[13] Which translates into a positive output gap.

Methodological insert No. 2:
Structural balance and estimates of the output gap

The basic equation for converting the nominal balance to the structural balance is written as follows:

Structural balance = nominal balance – 0.44 x (output gap)

The output gap measures the difference between the actual state of the economy and a theoretical state in which an economy would be making the best possible use of its factors of production (without strains on prices and wages). The formula for determining the output gap is:

Output gap =
(actual GDP-potential GDP)/ (potential GDP)

In this formula for the output gap, the potential level represents a level of output of an economy when it is in a "normal" state, i.e. making the best use of the factors of production (labour and capital). One of the major difficulties with the methodology consists in the fact that potential growth, and therefore output gap, are two variables that cannot be observed and therefore have to be estimated using statistical and econometric methods.

In view of the volatility of economic growth in a small country such as Luxembourg and the *ex-post* revisions of the national accounts, estimates of potential growth and the output gap are subject to great uncertainty. For that reason it may be advisable to use more than one method to estimate them. The very concept of potential growth raises formidable difficulties in any economy, and even more so in open economies which, at least in theory, can mobilise human, financial and technological resources well beyond their borders.

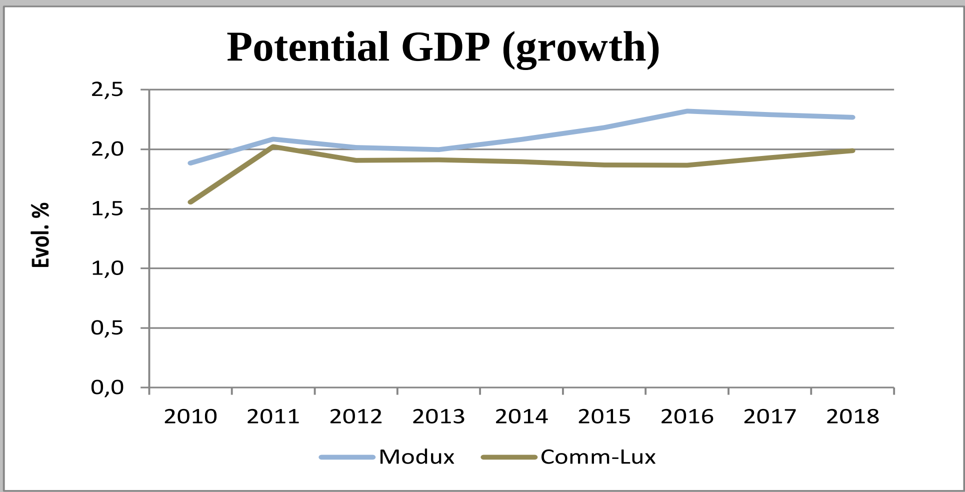
Thus for the purposes of this programming, we have carried out simulations based on two methods:[14]

- A simulation of potential growth based on Modux, STATEC's macro-econometric model, which in turn is based on a Cobb-Douglas production function ($Y = c \times L^{a} \times C^{(1-a)}$)[15] and uses Hodrick-Prescott (HP) filters.[16] The output gap is the result of the estimate of potential growth and the real growth forecast used in the national macroeconomic scenario (SGP);

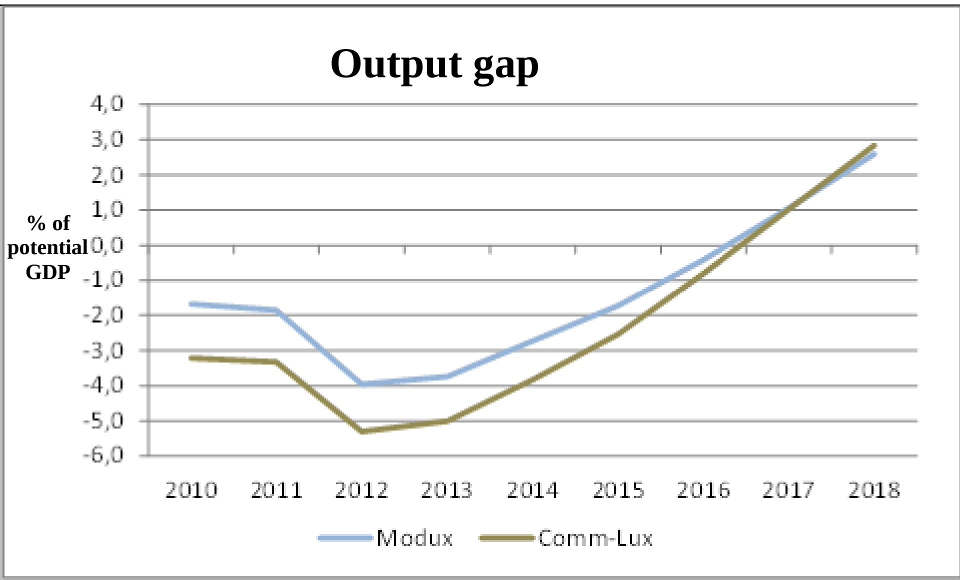
[14] See STATEC working document at: http://www.statistiques.public.lu/en/publications/series/economie-statistiques/2014/72-2014/index.html
[15] Where Y is output, L is labour and C is capital employed.
[16] A technique for dissociating short-term economic cycles and the long-term trend when analysing time series.

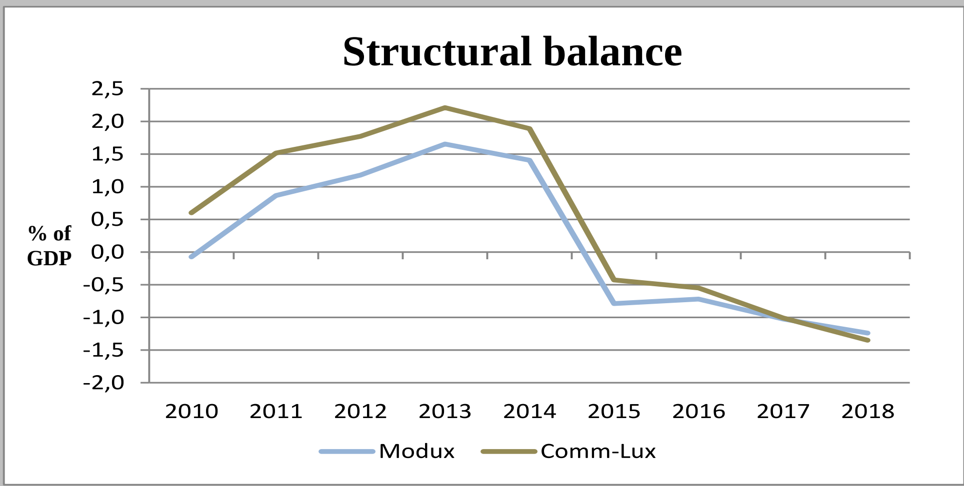
- A simulation of potential growth based on the common methodology developed by the European Commission (output gap working group), with certain national particularities. The Commission's methodology, which is more sophisticated from the technical point of view, uses a Cobb-Douglas type production function with a Kalman filter[17] to calculate the trend in total productivity of the factors. The particularities used by STATEC in applying this method basically relate to taking cross-border commuters into account for the purposes of supply of labour (thus differing from the Commission's definition), the use of national data for the stock of capital, and parametrisation adapted to the Luxembourg economy (e.g. wage share). The output gap is obtained by combining estimated potential growth in accordance with this methodology with the forecast real growth in the national macroeconomic scenario (COMM-LUX in the graphs).

In terms of results, there is a strong convergence, as shown by the following tables: the output gap would close between 2016 and 2017 and move into positive territory in 2017-2018. This is a consequence of the cycle peak at which the economy is supposed to be in the medium-term forecast, which implies that an extra effort will be needed to consolidate the nominal balance in order to avoid deterioration in the structural balance.



[17] A particular smoothing technique.





- Because of the numerous variables involved in calculating the various estimates and the differences in methodologies, it will be important to conduct regular reviews of the national estimates of potential growth and of the output gap, and to use an even greater number of methods for estimates.

III.5. Public debt

At the end of 2013, gross public debt amounted to €10.5 billion or 23.1% of GDP. Luxembourg's public debt thus continues to be well below the reference value of 60% of GDP. Thus Luxembourg ranks among those member states with the lowest level of debt in the eurozone.

Name of Security	Instrument	Issue date	Maturity	Amount (€ millions)
GRAND-DUCHE 3.75%	Retail bond	DEC-08	DEC-13	2,000
GRAND-DUCHE 3.375%	Bond issue	MAY-10	MAY-20	2,000
GRAND-DUCHE 2.25%	Bond issue	MAR-12	MAR-22	1,000
GRAND-DUCHE 2.25%	Bond issue	MAR-13	MAR-28	750
GRAND-DUCHE 2.125%	Bond issue	JUL-13	JUL-23	2,000
GRAND-DUCHE 2.75%	Private placement	AUG-13	AUG-43	300

Outstandings bond borrowings are summarised in the above table. For the period 2014-2018, recurring central government deficits are expected to be financed by new bond issues and/or bank borrowings to the tune of €608 million in 2014, €1,055 million in 2015, €749 million in 2016, €475 million in 2017 and €89 million in 2018. Moreover, in this scenario the central government will likely refinance all debt falling due in the period 2014-2018.

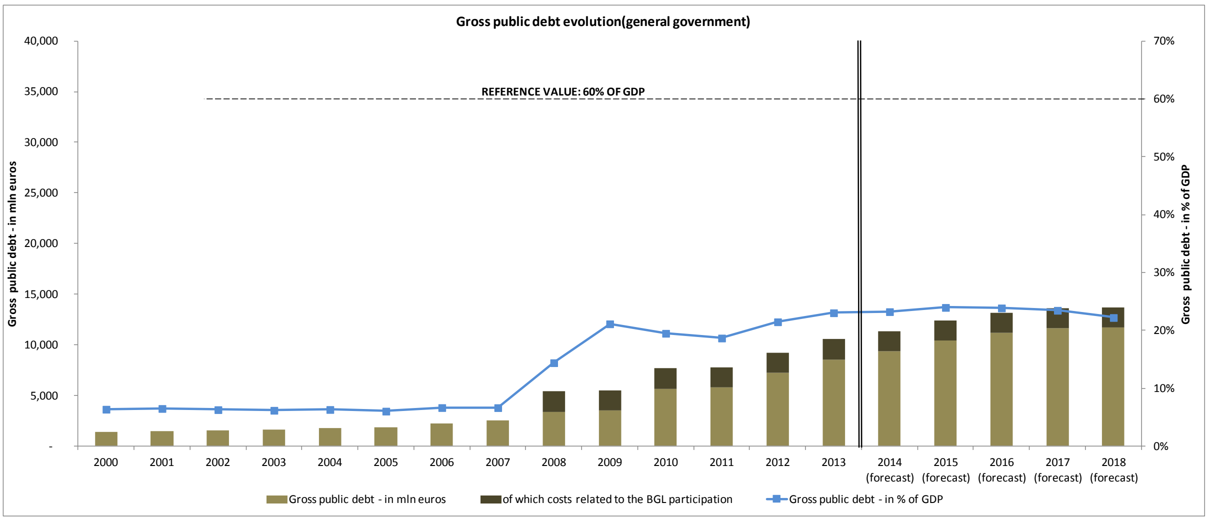
The dynamics of public debt are determined almost exclusively by the dynamics of central government net borrowing requirements (and to a limited extent by the net borrowing requirements of local governments, which are however heavily constrained by law).

On this basis, the general government consolidated debt will increase from €10.5 billion in 2013 to €13.7 billion in 2018. The ratio of indebtedness to GDP would thus peak at 24.0% in 2015 before ending the period at 22.2% in 2018. The cost of servicing public debt (i.e. the interest charge) remains stable at 0.5% of GDP thanks to its AAA sovereign credit rating, which allows Luxembourg to finance itself at relatively low rates of interest.

The strategy of consolidation (see above) that the government aims to implement from 2015 allows the upward trend in public debt to be reversed during its tenure. This strategy thus leads to a fall in the ratio of indebtedness to GDP from 2016, ending up with a debt-to-GDP ratio of 22.2% at the end of 2018. This downward trend in the rate of indebtedness is also supported by the strong nominal growth in GDP.

It should be noted that public debt is principally composed of central government debt and local government debt. Social security shows a structural surplus for the period considered in this SGP update. These surpluses are allocated to a reserve called the "compensation fund", which was established by the amended law of 6 May 2004 in order to cover the financing of future benefits, particularly pensions. As at 31 December 2013, this general reserve amounted to €13.1 billion, or 26.9% of GDP. The pension reserve alone has thus surpassed the general government debt ratio.

In order to better evaluate Luxembourg's financial position, it should also be recalled that, in addition to the pension reserve, Luxembourg has a number of stakes in commercial and non-commercial companies, valued at approximately 10% of GDP, which means that altogether it holds assets worth 37% of GDP, which is more than the government's total liabilities.



It should also be noted that the consolidated public debt includes the debt of public institutions, as well as guarantees granted by the government in the context of PPP contracts, which, in accordance with a Eurostat decision, are recorded as loans in the general government accounts. Over the course of the 2013-2018 period, the impact of this classification on the ratio between gross debt and GDP will vary between 1.5% and 2.0% per annum.

In addition, the public debt level also reflects Eurostat's decision to include loans granted by the European Financial Stability Facility (EFSF) in the computation of public debt of member states. This impact increases the level of gross public debt by 1% of GDP, but has no impact on the government's borrowing requirements or debt servicing costs.

III.6. Sensitivity analysis

The sensitivity analysis is based on a negative shock of 1% on the real GDP growth rate in 2014 and 2015.

The alternative scenario resulting from this negative shock implies real growth in Luxembourg falling from 3.2% to 2.2% in 2014 and 2015. The growth rate for the remainder of the period 2016-2018 corresponds to that of the central scenario (i.e. 3.5% in 2015, 3.6% in 2017 and 3.7% in 2018). In nominal terms, this negative shock to real growth applies to the whole forecast period. For the first two years, nominal GDP falls on average by 1.5%, before gradually returning to its initial trajectory with growth of 6% in 2018, compared with 6.3% in the central scenario.

The fall in real growth rate also has a knock-on effect on the employment market, which reacts by lagging the central scenario growth rate by 0.3%. After a 0.1% slowdown in 2016, domestic employment returns to its initial trajectory. As a result of this weak growth in employment, the unemployment rate is higher from 2014 onwards: +0.1% in 2014, +0.2% in 2015/2016, +0.1% in 2017, before finally converging with the unemployment rate of the central scenario, 6.6%, in 2018.

This negative shock also affects public finances and gross public debt throughout the period. For 2014 the general government balance in this alternative scenario is only marginally affected relative to the central scenario. The main impact of this lower growth in 2014 and 2015 will be felt in 2015, more particularly in public revenues, which will fall by €200 million relative to the central scenario. Consequently the general government deficit will increase from –0.5% of GDP in the previous year to –0.9% of GDP. The snowball effect of this negative shock implies that for the past three years the general government balance has deteriorated by about €180 million a year. Luxembourg would then be at risk, in the event of an external negative shock to growth, of approaching a potential deficit situation in 2016, with a balance of –0.1% of GDP, which is still a far cry from an excessive deficit of –3% of GDP.

At central government level, this shock to real GDP growth implies that the central government deficit increased year on year compared with the central scenario. By analogy, since the central government deficit is financed by public debt, then public debt will increase by an average of 0.3% a year from 2015, eventually representing 22.6% of GDP in 2018, compared with 22.2% in the central scenario.

	2014		2015		2016		2017		2018	
	shock	central	shock	central	shock	central	shock	central	shock	central
Main exogenous variables										
Real GDP	+2.2	+3.2	+2.2	+3.2	+3.5	+3.5	+3.6	+3.6	+3.7	+3.7
Nominal GDP	+5.3	+6.7	+4.3	+6.0	+5.7	+6.4	+4.9	+5.4	+6.0	+6.3
Employment	+2.0	+2.0	+2.3	+2.6	+2.6	+2.7	+2.8	+2.8	+2.6	+2.6
Unemployment rate	+7.4	+7.3	+7.5	+7.3	+7.4	+7.2	+7.0	+6.9	+6.6	+6.6
Public finances										
General government										
Total expenses	+20,519	+20,530	+21,670	+21,679	+22,367	+22,537	+23,057	+23,392	+23,883	+24,332
Total revenues	+20,529	+20,593	+21,207	+21,409	+22,301	+22,666	+23,368	+23,860	+24,658	+25,270
General government balance (level)	+10	+63	-463	-270	-66	+129	+311	+468	+775	+938
General government balance (in % of GDP)	+0.0	+0.1	-0.9	-0.5	-0.1	+0.2	+0.5	+0.8	+1.3	+1.5
Central government										
Central government balance (level)	-638	-608	-1,146	-1,055	-791	-749	-512	-475	-158	-89
Central government balance (in % of GDP)	-1.3	-1.2	-2.2	-2.0	-1.4	-1.4	-0.9	-0.8	-0.3	-0.1
Gross public debt										
Gross public debt (level)	+11,344	+11,344	+12,490	+12,399	+13,281	+13,148	+13,793	+13,623	+13,951	+13,712
Gross public debt (in % of GDP)	+23.3	+23.3	+24.2	+24.0	+24.1	+23.9	+23.8	+23.5	+22.6	+22.2

III.7. Comparison with previous stability programme

The forecasts of macroeconomic conditions in recession for the eurozone, with a negative growth rate of 0.4% of GDP are confirmed in the 15th update for 2014.

The Luxembourg economy's real GDP growth has not been affected by these recessive macroeconomic conditions in the eurozone, and has gone from 1.0% to 2.2%. Moreover, from 2014 Luxembourg benefits from the sustained economic recovery of the eurozone, which accounts for the more pronounced growth in Luxembourg. The rate of inflation (CPI) falls on average by 0.2% over the period, as does the unemployment rate.

This upward revision of macroeconomic conditions affects public finances: the 15th SGP update, based on the notification of April 2014, assumes a general government balance of +0.1% of GDP, which represents an improvement on the –1.5% of the 14th update. This improvement is due to a number of factors: (i) nominal growth in 2013 that was much more significant than anticipated, namely 6.5% instead of 3.2%, which has an impact in particular on revenue dynamics, (ii) employment growth rate sustained at 1.7%.

For 2014, the 15th update also foresees an improvement in public finances in comparison with the 14th update: the general government balance is thus expected to improve to +0.1% of GDP instead of –0.6% of GDP. This development is the result of several factors:

- on the one hand, favourable and constant macroeconomic conditions, which have a positive effect on the development of public finances: thus the eurozone comes out of recession with a growth rate of +1.3%; the main macroeconomic variables (real and nominal GDP growth rates) of the national economy are thus revised upwards, as is employment, the growth rate of which is revised upwards to 1.9% as opposed to 1.3%;
- on the other hand, the situation of public finances is improved by several specific factors: i) the positive base effect of 2013, and ii) the improvement of the European stock index, the growth rate of which is revised upwards from 4.7% to 9.6%, resulting in a positive impact on certain revenue categories that heavily depend on it.

For the 2015-2016 period, the principal macroeconomic variables are revised between the two SGP updates: the growth rate of the eurozone is thus revised downwards from 2.0% to 1.7% in 2015 and from 1.6% to 1.7% in 2016. This revision results in stronger national economic growth for 2015 and equivalent for 2016: the real and nominal growth rates are revised upwards by 1.5% and 2.5% respectively in 2015 and by +0.1% and +2.0% respectively in 2016. The employment picture follows that of economic growth with a slight lag: thus the employment rate remains constant in 2015 at 2.3%, before once again embarking on a stronger dynamic in 2016, with 2.3% compared with 1.9% at the time of the 14th SGP update. Note in particular that the rate of inflation is revised slightly downwards in 2015 (–0.1%) and 2016 (–0.2%). For 2015-2016, the situation of public finances will improve as follows:

- 2015: the general government deficit will decrease from –1.3% of GDP to –0.5% of GDP.
- 2016: the general government balance will swing from a deficit of 1.3% of GDP to a surplus of 0.2% of GDP.

This revision takes account on the one hand of a more positive than expected base effect, and on the other of the steps set out by the government to clean up the public finances, which will have an effect on revenues from 2015 (VAT increase: €300 million) and spending review (+/-€175 million a year).

This favourable development of public finances has an appreciable impact on gross public debt, which decreases by 4% in 2016 to 23.9% of GDP, as opposed to the 27.9% announced in the 14th SGP update.

Table 6. Divergence from previous update

	ESA Code	Year 2013	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018
Real GDP growth (%)							
Previous update		1.0	2.2	1.7	3.4	…	…
Current update		2.2	3.2	3.2	3.5	3.6	3.7
Difference		*1.2*	*1.0*	*1.5*	*0.1*	…	…
Nominal GDP growth (%)							
Previous update		3.2	4.4	3.5	4.4	…	…
Current update		6.5	6.7	6.0	6.4	5.4	6.3
Difference		*3.3*	*2.3*	*2.5*	*2.0*	…	…
General government net lending (% of GDP)	EDP B.9						
Previous update		-0.7	-0.6	-1.3	-1.3	…	…
Current update		0.1	0.1	-0.5	0.2	0.8	1.5
Difference		*0.8*	*0.7*	*0.8*	*1.6*	…	…
General government gross debt (% of GDP)							
Previous update		23.8	25.9	27.1	27.9	…	…
Current update		23.1	23.3	24.0	23.9	23.5	22.2
Difference		*-0.7*	*-2.7*	*-3.1*	*-4.0*	...	...

IV. QUALITY OF PUBLIC FINANCES

During the 2005-2008 period, the general government financing 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 went into deficit from 2009 (–1.1% of GDP). Since 2012, the general government's financing balance has again been in balance, thanks to the policy of consolidation and to improved macroeconomic conditions.

From 2015 on, as a result of the loss of revenues from e-commerce, the public finance situation will show significant structural deterioration. Nevertheless, to confront this impact, the government maintains its objective of restoring the general government budgetary balance to a path that ensures healthy and sustainable public finances in the medium and long term. This effort is particularly reflected in the strategy of adjustment that the government has set itself for the period 2015-2018.

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). Its strategy should even reverse the trend in debt over the planning period.

With regard to public expenditure, the government has succeeded and continues its efforts to favour a level and composition of expenditure that can sustain the long-term growth of Luxembourg's economy while at the same time ensuring social cohesion.

The quality of public expenditure can thus be analysed via the following elements:

- with regard to the level of public expenditure in relation to GDP, it can be noted that, despite the increase of the expenditure proportion of GDP, in particular since the outbreak of the financial and economic crisis in 2008, Luxembourg still remains below the European average: thus, the public expenditure proportion in relation to GDP amounted to 42% in 2011, compared with 49.5% on average in the eurozone;
- in terms of structure, public expenditure in Luxembourg can be characterised by the following points:

    - with regard to public investment, the public investment proportion in relation to total expenditure is twice as high in Luxembourg as the average in the eurozone: on average, over the 1995-2011 period, this proportion amounted to 10% in Luxembourg, compared with 5.3% in the eurozone. This concern for a high level of investment reflects the continued effort by the government to invest in the economic growth potential;

- with regards to operating expenses, i.e. expenditure on intermediate consumption and civil servants' pay, these amounted to 9% of total public expenditure in Luxembourg, compared with 11.1% on average in the eurozone in 2011;
- with regard to social transfers, which are often represented as expenses reflecting the redistribution efforts in a society, the crisis has led to an increase in the proportion of these expenses in Luxembourg and in Europe in general: with a proportion of 47.3% of total public expenditure in 2011, Luxembourg was above the eurozone average, which amounted to 46.8%;
- with regard to property income on the expenditure side, this relates to states' debt servicing costs: Luxembourg's debt servicing costs are well below those of the eurozone average: in 2011, debt servicing costs represented 1.1% of total expenditure in Luxembourg, compared with 6.1% on average in the eurozone.

In the context of its strategy of consolidation for the period 2015-2018, the government will ensure that any expenditure-related measures it takes are compatible with an efficient composition and structure. The announcement of the package of VAT measures already shows the government's determination to take measures to promote growth while at the same time minimising negative effects on social redistribution.

All these elements allow the quality of public expenditure in Luxembourg to be measured in comparison with the eurozone. Nevertheless, the quality of public expenditure is measured not only in quantitative terms, i.e. the expenses incurred in a given area, but also in more qualitative terms. In this regard, Luxembourg envisages developing its budgetary framework so as to create more incentives for public expenditure managers to increase the quality of public expenditure.

V. LONG-TERM SUSTAINABILITY OF PUBLIC FINANCES

As explained in previous versions of the SGP, in 2012 Luxembourg carried out a reform of its pensions system (general and special regimes). The reform, which came into force on 1 January 2013, is based on three pillars, namely aligning the retirement age with changing life expectancies, adapting pensions to the budgetary situation of the pension scheme and allocating additional financial resources to ensure long-term financial balance.

In the 13th SGP update, the government presented some estimates of the financial impact of the reform. Thus, in relation to the last long-term forecasts of expenditure linked to ageing with unchanged policies, the budgetary impact estimated for the period considered up to 2060 amounts to an appreciable reduction in expenditure linked to ageing of the pension system amounting to approximately 7% of GDP, falling from 17.1% of GDP in 2060 in a scenario of unchanged policies to 10.5% of GDP in 2060 in a scenario of changed policies that include the proposed reform. In the 14th SGP update, the estimated budgetary impact of the reform remained unchanged at approximately 7% of GDP in 2060. By way of reminder, in issuing its opinion on the government's draft budget for revenue and expenditure for 2013, the BCL (Luxembourg's central bank) presented some simulations of the financial impact of the pension reform, and noted that: *"The adjustment to real wages would be entirely eliminated (…). This removal, however, would have no impact on the initial pension of each retiree, regardless of the year of retirement, the initial pension being fully adjusted to real wage developments. This scenario enables the scale of the fiscal challenge to be approximately cut in half in comparison with a scenario with no reform".*[18]

As of now, the adaptation of pensions is conditioned by the revenues of the scheme’s contributions. If the latter prove insufficient, and if the pension scheme reserves need to be accessed, the adaptation of the pensions of the general scheme and the special schemes to wage developments (wage indexation) will be reduced, either partially or fully, and will be restricted to living cost developments (COLA). The general scheme currently has financial reserves amounting to 26.9% of GDP (€13.10 billion). With contribution rates unchanged, this financial reserve will be available in the event of contribution revenues becoming insufficient to cover benefits.

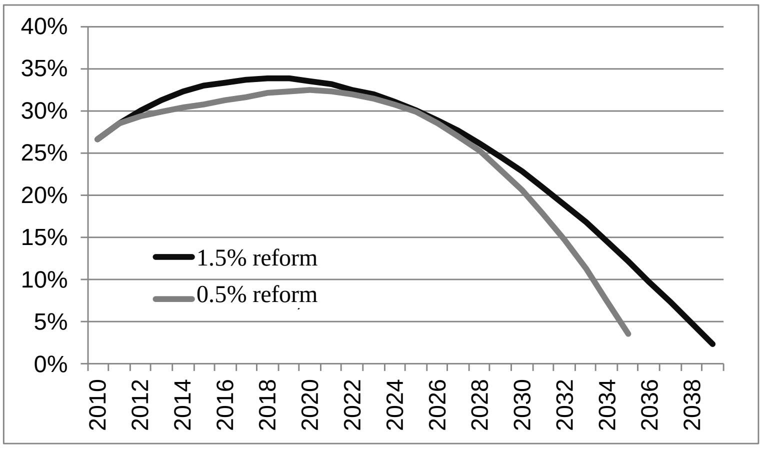
Independent of the chosen growth scenario, the reform enables benefits to be financed on the basis of accumulated funds in the pension scheme reserves, even without an increase in contributions, beyond the 2030 horizon (see graph below).

The reform, which came into force on 1 January 2013, provides that, every five years, by means of an actuarial study, the monitoring institution, i.e. the social security service (IGSS), will verify the

[18] For more details (page 35):
http://www.bcl.lu/fr/publications/avis/Avis_de_la_BCL_sur_le_projet_de_Budget_2013__web1.pdf

consistency between the assumptions underlying the reform and the updated financial trajectory of the scheme. In the event of significant deviations from the equilibrium trajectory, several expenditure alignment measures are foreseen in the context of the new provisions.

Development of the general pension scheme reserve, with unchanged contribution rate, according to the employment growth scenario



The reform offsets an increase in life expectancy of three years over the 2013-2053 period. In the event of a rapid increase in longevity, the related parameters can be consequently adapted. The Government thus plans the implementation of a specific “Pensions Group”, as seen in other member states of the EU, composed of the main stakeholders, which would be mandated to verify, every five years, on the basis of the actuarial opinion issued by the IGSS, the consistency of the corresponding provisions with the developments observed in terms of life expectancy and to present, if applicable, corresponding adaptations.

VI. INSTITUTIONAL FEATURES OF PUBLIC FINANCES

As indicated in the governmental programme of December 2013, the legal framework of the institutional aspects of the public finances will undergo some changes, which will enable governance of the public finances to be improved. Some of these important measures are in the process of being introduced in the legislature, while others are being implemented or are still in the preparatory phase:

- the transposition of the "fiscal compact" into Luxembourg law (bill no. 6597),[19] implementing the provisions of the *Treaty on Stability, Coordination and Governance (TSCG)*. The bill also introduces other EU provisions in the area of public finances, deriving *inter alia* from the "six-pack" and the "two-pack". In particular, the following will be transposed into national law:
    - the rule requiring the budgetary situation of states that are signatories to the TSCG to be in balance or in surplus;
    - the setting of a medium-term budgetary objective and the relevant adjustment path;
    - a credible and effective medium-term budgetary framework comprising a budgetary programming of at least three years;
    - a corrective mechanism automatically triggered in the event of deviation from the medium-term budgetary objective or the adjustment path;
    - a budgetary procedure implemented if the government budget is not approved by Parliament;
    - a procedure obliging all government entities to provide information.[20]
- the establishment of a "National Fiscal Council" charged with independently verifying compliance with budgetary rules and the application of the automatic correction mechanism.[21]
- the institutionalisation and strengthening of the "Comité de prévision", under the authority of the Minister of the Economy and the Minister of Finance. The committee will be charged in particular with establishing, preparing and coordinating the work aimed at drawing up the national reform programme, the stability and growth programme (SGP), the draft budgetary plan and the framework design of the draft state budget. Among other things the committee

[19] Filed 22 July 2013, amended 11 March 2014.
[20] Concerning tax expenditure in particular, contingent commitments (guarantees, etc.), and the taking of equity stakes in private or public companies.
[21] The National Fiscal Council is composed of the following members:
– two members proposed by the Chamber of Deputies from among persons from the private sector, recognised for their financial and economic skills;
– one member proposed by the Court of Auditors;
– one member proposed by the Chamber of Commerce, the Chamber of Trades and the Chamber of Agriculture;
– one member proposed by the Chamber of Civil Servants and Public Employees and by the Chamber of Employees;
– two members proposed by the government.

will propose to the government a general calendar for the work to be done in the framework of the EU semester.

- the introduction of a multi-year budget process, i.e. putting in place a medium-term budgetary framework. This measure will be introduced for the first time in the 2015 budget. This will 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.
- implementation of a public expenditure review (see section III.4). The review's objective is to make substantial gains between now and 2018 for public expenditure as a whole – state, local authorities and social security – while at the same time improving the quality and effectiveness of public policies. In view of the government's efforts on budgetary reform, the inclusion of the expenditure review as an integral part is being considered. This will introduce flexibility as regards expenditure, and will allow the government to control and even adjust expenditure at any time, reducing any economic risks.

Over the past few years, other changes of an essentially informal nature have been made to the procedures and practices associated with budgetary and public finance policy. Notably:

- the reinforced involvement of the Chamber of Deputies earlier in the annual budgetary procedure as a result of the European semester: the organisation of policy debates and regular communication between the Minister of Finance and the parliamentary commission on finances and the budget;
- the search for a coherent and integrated approach between the two processes with regard to monitoring budgetary policies (SGP) and structural reform policies (national reform programme).

Moreover, other projects are envisaged and form part of the reform of governance of public finances. A specific task will be carried out to implement the following aspects, some of which are already under way:

- study of the methodology to be used to establish the structural balance as required by the "Fiscal Compact". It should be noted that the structural balance is not observable but must be estimated on the basis of the "nominal" budgetary balance (observed/measured) and the output gap, with the output gap also being a non-observable input. Thus, the transition from the "nominal" balance to the "structural" balance is dependent on the methodology used for calculating the output gap (see insert no. 2, section III.4).

In general, and bearing in mind the manifesto of 2013, the government intends to reform the process for establishing and executing the budget, drawing partly on the OECD's 2011 report.[22] In fact, merely as an indication, the government is considering the following:[23]

- the introduction of a budget by objectives: objectives will be set for each ministry, enabling citizens to know not only the envisaged expenditure but also the purpose of the expenditure;
- simplification of the budgetary architecture by reducing the number of budgetary articles;
- reform of the accounting rules in order to strengthen the effectiveness of public expenditure;
- setting a ceiling for aggregate expenditure at central government level;
- taking more accurate account of future operating and administrative expense in investment decisions, by carrying out systematic sensitivity analyses measuring the impact on the budget of deviations from key assumptions;
- the introduction of a "zero base budgeting" approach incorporating the examination of each budget disbursement and item;
- introduction of an annual discipline consisting in a reduction in expenditure (excluding capital expenditure and investments) by Ministry by a certain percentage which the government will establish each year, and the introduction of a rule to the effect that growth in expenditure must be less than that in revenues;
- significant strengthening of financial information, internal audit and evaluation of expenditure;
- analysis of government estates and properties with a view to identifying ways of making more efficient use of and deriving better value from them;
- more effective integration of the financing of municipalities and the regulated sector into the budgetary process, through an "internal stability pact" between the State, local authorities, public institutions and the regulated sector.

[22] Working Party of Senior Budget Officials: Budgeting in Luxembourg, Analysis and recommendations, OECD, 2011.
[23] Non-priority list and non-exhaustive list.

STATISTICAL APPENDIX

Table 1a. Macroeconomic prospects

	ESA Code	Year 2013	Year 2013	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018
		Level	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change
1. Real GDP	B1*g	34,032	2.2	3.2	3.2	3.5	3.6	3.7
2. Nominal GDP	B1*g	45,718	6.5	6.7	6.0	6.4	5.4	6.3
Components of real GDP								
3. Private consumption expenditure	P.3	12,154	2.0	1.7	3.0	4.0	4.3	3.3
4. Government consumption expenditure	P.3	6,223	2.8	1.0	2.6	3.2	3.0	3.1
5. Gross fixed capital formation	P.51	7,694	2.6	2.2	-3.2	-1.7	1.3	3.1
6. Changes in inventories and net acquisition of valuables (% of GDP)	P.52 + P.53		4.8	4.7	4.5	4.4	4.2	4.1
7. Exports of goods and services	P.6	60,199	2.2	4.9	4.7	6.3	6.4	6.6
8. Imports of goods and services	P.7	53,883	2.7	4.2	3.8	5.9	6.5	6.7
Contributions to real GDP growth								
9. Final domestic demand		-	1.8	1.3	0.8	1.6	2.3	2.3
10. Changes in inventories and net acquisition of valuables	P.52 + P.53	-	0.8	0.0	0.0	0.0	0.0	0.0
11. External balance of goods and services	B.11	-	-0.4	1.9	2.4	1.9	1.3	1.3

Table 1b. Price developments

	ESA Code	Year 2013	Year 2013	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018
		Level	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change
1. GDP deflator		1.34	4.2	3.3	2.7	2.8	1.7	2.6
2. Private consumption deflator		1.18	1.7	1.5	2.5	1.8	1.9	1.9
3a. HICP		122.80	1.7	1.0	2.7	1.8	1.8	1.9
3b. NICP		120.40	1.7	1.5	2.7	1.9	1.9	2.0
4. Public consumption deflator		1.28	3.7	3.0	2.5	2.0	1.6	1.4
5. Investment deflator		1.12	1.1	1.4	1.1	0.9	1.0	1.1
6. Export price deflator (goods and services)		1.33	2.9	6.7	5.8	5.8	4.2	4.3
7. Import price deflator (goods and services)		1.23	1.4	6.4	6.7	6.3	5.0	5.0

Table 1c. Labour market developments

	ESA Code	Year 2013	Year 2013	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018
		Level	rate of change	rate of change	rate of change	rate of change	rate of change	rate of change
1. Employment, persons[1]		383.5	1.7	1.9	2.3	2.3	2.4	2.3
2. Employment, hours worked[2]		368.6	1.1	1.8	1.9	2.0	2.2	2.0
3. Unemployment rate (%)[3]		…	5.8	6.2	6.3	6.2	5.9	5.6
4. Labour productivity, persons[4]		…	0.6	1.2	0.7	1.1	1.0	1.1
5. Labour productivity, hours worked[5]		…	1.2	1.5	0.9	1.3	1.3	1.4
6. Compensation of employees	D.1	…	4.7	4.1	5.3	6.0	5.7	5.5
7. Compensation per employee		…	3.0	2.1	2.9	3.6	3.1	3.0

[1]Occupied population, domestic concept national accounts definition.

[2]National accounts definition.

[3]Harmonised definition, Eurostat; levels.

[4]Real GDP per person employed.

[5]Real GDP per hour worked.

Table 1d. Sectoral balances

% of GDP	ESA Code	Year 2013	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018
1. Net lending/borrowing vis-à-vis the rest of the world	B.9	-	-	-	-	-	
of which :							
- Balance on goods and services							
- Balance of primary incomes and transfers							
- Capital account							
2. Net lending/borrowing of the private sector	B.9						
3. Net lending/borrowing of general government	EDP B.9	0.1	0.1	-0.5	0.2	0.8	1.5
4. Statistical discrepancy		-	-	-	-	-	

Table 2a. General government budgetary prospects

	ESA Code	Year 2013	Year 2013	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018
		Level	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP
Net lending (EDP B.9) by sub-sector								
1. General government	S.13	25	0.1	0.1	-0.5	0.2	0.8	1.5
2. Central government	S.1311	-742	-1.6	-1.2	-2.0	-1.4	-0.8	-0.1
3. State government	S.1312	...	...	...	...	...	...	...
4. Local government	S.1313	70	0.2	0.1	0.2	0.2	0.2	0.3
5. Social security fund	S.1314	697	1.5	1.3	1.3	1.3	1.4	1.4
General government (S13)								
6. Total revenue	TR	19,830	43.4	42.2	41.4	41.2	41.1	41.0
7. Total expenditure	TE[1]	19,805	43.3	42.1	41.9	41.0	40.3	39.5
8. Net lending/borrowing	EDP B.9	25	0.1	0.1	-0.5	0.2	0.8	1.5
9. Interest expenditure	EDP D.41	228	0.5	0.5	0.4	0.5	0.5	0.5
10. Primary balance[2]		253	0.6	0.6	-0.1	0.7	1.3	2.0
11. One-off and other temporary measures[3]		...	...	...	...	...	...	...
Selected components of revenue								
12. Total taxes (12=12a+12b+12c)		12,695	27.8	27.1	26.3	26.1	26.1	26.1
12a. Taxes on production and imports	D.2	6,006	13.1	12.9	11.9	11.6	11.4	11.3
12b. Current taxes on income, wealth, etc	D.5	6,617	14.5	14.0	14.3	14.4	14.6	14.7
12c. Capital taxes	D.91	72	0.2	0.1	0.1	0.1	0.1	0.1
13. Social contributions	D.61	5,570	12.2	11.9	11.9	11.9	11.9	11.8
14. Property income	D.4	613	1.3	1.3	1.3	1.3	1.4	1.3
15. Other[4]		952	2.1	1.9	1.9	1.9	1.8	1.8
16=6. Total revenue	TR	19,830	43.4	42.2	41.4	41.2	41.1	41.0
p.m.: Tax burden (D.2+D.5+D.61+D.91-D.995)[5]		18,265	40.0	39.0	38.2	38.0	38.0	37.9
Selected components of expenditure								
17. Compensation of employees + intermediate consumption	D.1+P.2	5,547	16.7	16.4	16.2	15.8	15.5	15.1
17a. Compensation of employees	D.1	3,815	8.3	8.2	8.1	7.9	7.8	7.6
17b. Intermediate consumption	P.2	1,732	3.8	3.6	3.6	3.6	3.5	3.4
18. Social payments (18=18a+18b)		9,548	20.9	20.5	20.0	19.7	19.5	19.1
***of which* Unemployment benefits[6]**		476	1.0	1.0	1.0	0.9	0.9	0.0
18a. Social transfers in kind supplied via market producers	D.6311, D.63121, D.63131	2,307	5.0	4.9	4.8	4.7	4.7	4.7
18b. Social transfers other than in kind	D.62	7,241	15.8	15.6	15.3	15.0	14.8	14.4
19=9. Interest expenditure	EDP D.41	228	0.5	0.5	0.4	0.5	0.5	0.5
20. Subsidies	D.3	812	1.8	1.7	1.7	1.6	1.6	1.6
21. Gross fixed capital formation	P.51	1,429	3.1	3.1	3.5	3.2	3.1	3.1
22. Capital transfers	D.9	514	1.1	1.1	1.2	1.1	1.1	1.1
23. Other[7]		1,727	3.8	3.4	3.4	3.3	3.2	3.1
24=7. Total expenditure	TE[1]	19,805	43.3	42.1	41.9	41.0	40.3	39.5
p.m.: Government consumption (nominal)	P.3	7994	17.5	17.0	16.9	16.7	16.6	16.3

[1]Adjusted for the net flow of swap-related flows, so that TR-TE=EDP B.9.

[2]The primary balance is calculated as (EDP B.9, item 8) plus (EDP D.41, item 9).

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

[4] P.11+P.12+P.131+D.39+D.7+D.9 (other than D.91).

[5]Including those collected by the EU and including an adjustment for uncollected taxes and social contributions (D.995), if appropriate.

[6] Includes cash benefits (D.621 and D.624) and in kind benefits (D.631) related to unemployment benefits.

[7] D.29+D4 (other than D.41) + D.5+D.7+P.52+P.53+K.2+D.8.

Table 2b. No-policy change projections

		Year 2013	Year 2013	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018
		Level	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP
1. Total revenue at unchanged policies		19,830	43.4	42.2	40.7	40.3	40.2	40.1
2. Total expenditure at unchanged policies		19,805	43.3	42.1	42.3	41.2	40.8	40.2
3. General government balance		25	0.1	0.1	-1.6	-0.9	-0.6	-0.1
3.a. Central government balance		-742	-1.6	-1.2	-3.0	-2.5	-2.2	-1.8
3.b. Local government balance		70	0.2	0.1	0.1	0.2	0.2	0.2
3.c. Social security fund		697	1.5	1.3	1.3	1.4	1.4	1.4

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

		Year 2013	Year 2013	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018
		Level	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP
1. Expenditure on EU programmes fully matched by EU funds revenue		72	0.2	0.1	0.1	0.1	0.1	0.1
2. Cyclical unemployment benefit expenditure[1]		476	1.0	1.0	1.0	0.9	0.9	0.8
3. Effect of discretionary revenue measures		414	0.9	0.0	0.7	0.0	0.0	0.0
4. Revenue increases mandated by law		...	...	...	...	...	...	...

[1]Absolute level of unemployment expenditure, based on COFOG 10.50

Table 3. General government expenditure by function

% of GDP	COFOG Code	Year 2012	Year 2017
1. General public services	1	4.7	
2. Defence	2	0.4	
3. Public order and safety	3	1.0	
4. Economic affairs	4	4.2	
5. Environmental protection	5	1.1	
6. Housing and community amenities	6	0.8	
7. Health	7	4.8	
8. Recreation, culture and religion	8	1.7	
9. Education	9	5.0	
10. Social protection	10	18.1	
11. Total expenditure	TE	41.8	

Table 4. General government debt developments

% of GDP	ESA Code	Year 2013	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018
1. Gross debt[1]		23.1	23.3	24.0	23.9	23.5	22.2
2. Change in gross debt ratio		1.6	0.2	0.7	-0.1	-0.4	-1.2
Contributions to changes in gross debt							
3. Primary balance[2] **(General government)**		0.6	0.6	-0.1	0.7	1.3	2.0
3.a. Primary balance (Central government)		-1.6	-1.2	-2.0	-1.4	-0.8	-0.1
3.b. Primary balance (Local government)		0.2	0.1	0.2	0.2	0.2	0.3
3.c. Primary balance (Social security fund)		1.5	1.3	1.3	1.3	1.4	1.4
4. Interest expenditure[3]		0.5	0.5	0.4	0.5	0.5	0.5
5. Stock-flow adjustment		1.6	0.3	0.2	0.1	0.4	0.3
p.m.: Implicit interest rate on debt[4]		2.5	2.1	2.1	2.1	2.3	2.4

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

[2]Cf. item 10 in Table 2.

[3]Cf. item 9 in Table 2.

[4]Proxied by interest expenditure divided by the debt level of the previous year.

Table 5. Cyclical developments

% of GDP	ESA Code	Year 2013	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018
1. Real GDP growth (%)		2.2	3.2	3.2	3.5	3.6	3.7
2. Net lending of general government	EDP B.9	0.1	0.1	-0.5	0.2	0.8	1.5
3. Interest expenditure	EDP D.41	0.5	0.5	0.4	0.5	0.5	0.5
4. One-off and other temporary measures[1]		….	…	…	…	…	…
5. Potential GDP growth (%)		2	2.1	2.2	2.3	2.3	2.3
6. Output gap		-3.8	-2.7	-1.7	-0.6	0.7	2.1
7. Cyclical budgetary component		-1.7	-1.2	-0.7	-0.3	0.3	0.9
8. Cyclically-adjusted balance (2 - 7)		1.7	1.3	0.2	0.5	0.5	0.6
9. Cyclically-adjusted primary balance (8 + 3)		2.2	1.8	0.7	1.0	1.0	1.1
10. Structural balance (8 - 4)		1.7	1.3	0.2	0.5	0.5	0.6

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

Table 6. Divergence from previous update

	ESA Code	Year 2013	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018
Real GDP growth (%)							
Previous update		1.0	2.2	1.7	3.4	…	…
Current update		2.2	3.2	3.2	3.5	3.6	3.7
Difference		*1.2*	*1.0*	*1.5*	*0.1*	…	…
Nominal GDP growth (%)							
Previous update		3.2	4.4	3.5	4.4	…	…
Current update		6.5	6.7	6.0	6.4	5.4	6.3
Difference		*3.3*	*2.3*	*2.5*	*2.0*	…	…
General government net lending (% of GDP)	EDP B.9						
Previous update		-0.7	-0.6	-1.3	-1.3	…	…
Current update		0.1	0.1	-0.5	0.2	0.8	1.5
Difference		*0.8*	*0.7*	*0.8*	*1.6*	…	…
General government gross debt (% of GDP)							
Previous update		23.8	25.9	27.1	27.9	…	…
Current update		23.1	23.3	24.0	23.9	23.5	22.2
Difference		*-0.7*	*-2.7*	*-3.1*	*-4.0*	...	...

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
Age-related expenditures	**17.8**	**29.8**	**12.0**	**37.5**	**19.7**	**17.8**	**30.9**	**13.1**	**19.9**	**38**	**18.1**
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*	
Assumptions	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
***) 2012 Ageing report baseline scenario, excl. pension expenditure: reform
****) 2009 Ageing report baseline scenario, 2009 constant policy scenario

Table 7a. Contingent liabilities

% of GDP	Year 2013	Year 2014
Public guarantees	9.7	…
Of which: linked to the financial sector	4.9	…

Table 8. Basic assumptions

	Year 2013	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018
Short-term interest rate (annual average)	0.2	0.1	0.3	1.0	2.0	2.0
Long-term interest rate (annual average)	2.9	3.2	3.5	3.7	4.0	4.0
USD/€ exchange rate (annual average)	1.33	1.35	1.35	1.35	1.4	1.4
Euro area GDP growth	-0.4	1.3	1.7	1.7	1.7	1.7
EU GDP growth	0.1	1.5	2.0	2.0	2.0	2.0
Growth of relevant foreign markets	1.5	4.8	6.0	5.2	4.6	4.0
Oil prices (Brent, USD/barrel)	108.6	108.1	108.1	108.1	108.1	108.1