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# 12th UPDATE OF THE LUXEMBOURG STABILITY AND GROWTH PROGRAMME, 2011-2014

Luxembourg, 29 April 2011

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# I. GENERAL ORIENTATIONS AND OBJECTIVES OF FISCAL POLICY

The present stability programme update has been drawn up for the 2011-2014 period. It thus covers the remaining Government term, following the parliamentary elections of 7 June 2009. It is presented in a new context, namely that of the "European semester". In fact, the European Council of June 2010 decided to implement a European semester from 2011 onwards as a cycle of economic and budgetary policy coordination at Community level. With this decision, the Heads of State and of Government set a double objective:

- A parallel streamlining of the fundamental structural economic and budgetary policy process cycles, by requesting that Member States submit their National Reform Programmes (NRP) and their Stability and Growth Programmes (SGP) at the same time, i.e. by the end of April at the latest. This streamlining is supposed to encourage Member States to develop strategies that take into account the interdependence of the two processes. Structural policies can thus have a double effect on public finances, by increasing public expenditure through financing the short-term and medium-term cost of structural policies or by increasing future revenue through increasing potential growth. Similarly, the budgetary strategy decreed by the Member States in the context of their stability and growth programmes must be able to be imposed as a budgetary constraint to structural policy at the risk of otherwise compromising the entire strategy.
- The reinforcement of economic governance in Europe by means of an improved monitoring and coordination of fiscal policies at Community level. The European semester thus ensures that monitoring and coordination become an *ex ante* exercise: Member States are called upon to submit their stability and growth programmes by the end of April at the latest to allow the Ecofin Council to issue its recommendations in June-July at the latest, thus giving Member States time to take said recommendations into consideration when drawing up their draft budget for the following year.

In order to implement the European semester, Luxembourg did not have to take any regulatory or legislative decision, but it did adapt the calendar of the annual budgetary procedure, in particular by moving the Prime Minister's State of the Nation address forward from early May to early April. This calendar adjustment allowed a better integration of the stability and growth programme preparation in the annual budgetary procedure and ensured a greater involvement by Parliament in the Government's budgetary and economic policy, by means of parliamentary debate.

In the State of the Nation address of April 2011, the Government reasserted its objective of maintaining sustainable public finances by restoring a balanced budgetary position at general government level by 2014 at the latest.

After maintaining a counter-cyclical fiscal policy until 2010, in compliance with the European recovery plans decided in December 2008, the Government assumed its responsibilities during 2010 to prepare its exit from the fiscal recovery policies and to launch a budgetary consolidation policy from 2011 onwards. Following talks with the social partners, the Government thus agreed on a package of consolidation measures for 2011 and 2012. Owing to the high degree of uncertainty surrounding the development of the economic cycle and thus public revenue, the Government also agreed on a "mid-term review", i.e. an assessment of the public finances situation in 2012 with, if necessary, the specification of additional budgetary consolidation measures with a view to fulfilling the stated objective of a return to structural balance at general government level in 2014.

A certain number of circumstances make it all the more necessary for Luxembourg to maintain solid public finances. Indeed, long-term solid and sustainable public finances play an important role in the general competitiveness of a small-scale, ultra-open economy such as Luxembourg, which is characterised in particular by a ratio of exports to GDP of approximately 180%. With regard to financial activities, the current crisis will have significant ramifications for the financial sector on a worldwide scale and thus also at national level. And yet financial activities account for between a quarter and a third of added value, employment and tax revenues. Furthermore, fiscal policy is confronted with a situation of high volatility in public revenue due to a high degree of openness as well as to the structure of the economy, whereas simultaneously, the structure and the level of public expenditure are relatively rigid in the short and medium term.

Besides the volatility of revenues, it must be noted that a change in potential growth represents a considerable downside risk. Indeed, prior to the crisis, potential growth was around 4 to 4.5% per annum. After the crisis, however, potential growth has decreased and is currently around 2.5 to 3% per annum, which will eventually have an effect on the development on employment and thus on the development of public revenues.

Short-term and medium-term budgetary consolidation contributes to the objective of sustainability of public finances. As a result of its demography and the structure of its labour market, however, Luxembourg is confronted with a sharp increase in public expenditure linked to demographic ageing. In order to ensure the sustainability of the social security system, the Government is committed to reform the pension system. The salient points of this reform were presented in March 2011 and are currently being discussed with the social partners.

Finally, the Government is anxious to avoid a substantial increase in public debt and the costs pertaining thereto. Indeed, the sovereign debt crisis in Europe highlights the importance of budgetary rectitude, whereas too high an increase in public debt and payable interest to service said debt limits the budgetary margin of manoeuvre.

# II. ECONOMIC SITUATION AND MACROECONOMIC FORECASTS

## II.1. The economic situation in 2011

Following a real growth amounting to 3.5% in 2010, in 2011 economic growth has slowed down slightly to 3.2%. This slowdown in growth in 2011 reflects a “base effect” due to a strong resumption of growth in 2010 following the deep recession of 2009 and a fiscal policy that was less expansive than in 2009 and 2010. In addition, foreign trade has contributed less to growth than in 2010. Finally, a negative change in inventories (destocking) has contributed negatively to the growth rate in 2011.

The destocking and resumption of private investment can be interpreted as encouraging signs for the solidity of economic recovery following the deep recession of 2009. Nevertheless, certain “external risks” prevail in 2011 and can have a negative impact on growth: this applies in particular to the “sovereign debt” crisis in Europe and the development of oil prices.

The inflation rate, having experienced a very low level in 2009, increased again in 2010 and is set to continue to increase in 2011, going from 2.3% to 3.5% (NICP). This increase in inflation rate can be explained by the improvement in cyclical conditions and the increase in energy product prices.

In a context of upwards revision of the inflationary expectations in the eurozone and of continuous pressure on the oil markets, due both to high international demand and geopolitical uncertainties, the inflation prospects for 2011 remain oriented upwards.

While the labour market resisted well to the economic downturn in 2008, the time delay before the labour market reacted to the cyclical developments materialised in 2009-2010 when the unemployment rate reached 4.4% in 2010 with a slight increase in domestic employment rates in 2009 (1%) and in 2010 (1.5%). In 2011, despite the recovery of the labour market with a growth rate of domestic employment of 1.9%, the unemployment rate continues to increase to reach 5.2%.

## II.2. Macroeconomic forecasts: international environment

In accordance with the European Commission's external assumptions for the stability and growth programmes, the Luxembourg stability programme is based on an assumption of economic growth of the eurozone by 1.8% in 2011 and by 1.7% in 2012. It is assumed that at the end of the period, 2013-2014, the eurozone will reach the mature stage of an economic expansion, with growth rates of 2.1% in 2013 and 2.3% in 2014.

Furthermore, the stability programme is based on the assumption that normal conditions will be maintained on the international financial markets, which will continue on a positive path in accordance with the assumption of a mature stage of the expansion at the end of the period.

Oil price and euro exchange rate developments are subject to a high level of uncertainty. For the purposes of the stability programme, the following technical assumptions have been adopted: oil prices have been fixed at USD113.9/barrel for "Brent" and the euro exchange rate has been fixed at 1.39 against the American dollar for the 2012-2014 period.

It is also foreseen that short-term interest rates will gradually increase during the 2012-2014 period to reach 2.4% in 2014 (from 1.5% in 2011). Long-term interest rates will also gradually increase (from 3.8% in 2011 to 4.9% in 2014).

## II.3. Medium-term macroeconomic forecasts 2012-2014

The Luxembourg economy came out of recession in 2009 with a relatively strong growth rate in 2010 (3.5%) and a slight slowdown in 2011 (3.2%).

For the 2012-2014 period, the stability programme is based on a scenario that foresees that the Luxembourg economy, following the example of the economy of the eurozone, will reach the mature stage of the economic expansion at the end of the period. Consequently, the growth rate will increase progressively over the course of the considered period, going from 3.5% in 2012 to 3.7% in 2013 to reach 4% in 2014. With an average of 3.5% over the period, the growth rate is higher than the average historical growth rate of the eurozone and the European Union, but lower than the long-term growth rate of the Luxembourg economy.

The factors contributing to the medium-term growth are domestic demand (private consumption and general government consumption), as well as net exports. Investment will develop at a less dynamic rhythm than its long-term average.

Following the acceleration in inflation in 2011, general price levels (NICP) will start to drop from 2012 (2.3%) to stabilise in 2013 and 2014 at 1.7-1.8%, i.e. an inflation rate lower than the rate of 2% considered by the ECB as the objective of price stability and which Luxembourg has systematically exceeded during the years before the crisis. This projection nevertheless remains conditional upon the assumed level of oil prices. The latter are, however, assumed to remain constant over the course of the 2012-2014 period.

The medium-term inflation path implies that the next living cost adjustments will fall due in May 2012 and in September 2013.

Domestic employment will develop at a growth rate of ≥ 2% per annum over the course of the 2012-2014 period and, in parallel, the unemployment rate will gradually drop from 5.3% in 2011 to 4.7% in 2014. It should be noted that the unemployment rate of 4.7% in 2014 is significantly higher than the historical average for the 1990-2009 period, which reached 3.3%. It should also be noted that the unemployment rate will start to drop only once a growth rate higher than 3.5% is achieved, underlining the fact that unemployment in Luxembourg has an important structural component.

The medium-term macroeconomic forecasts are based on the assumption that the economic and financial crisis does not imply a specific additional negative shock at the level of the Luxembourg financial sector. On the other hand, the average growth rate, assumed for the added value of the financial sector on the forecast period, is less than half the historical rate observed over the previous 20 years (excluding the impact of the 2008-2009 crisis).

The forecasts implicitly take into account possible "remanence" effects of the crisis, i.e. that the eurozone and international potential growth has decreased following the economic and financial crisis. This is also translated by a drop in Luxembourg's potential growth, which will amount to 2.6% over the period, a lower level thus than that pre-crisis (>4%).

# III. BUDGETARY SITUATION AND PUBLIC DEBT

## III.1. General orientations of fiscal policy

The year 2010 was characterised by the maintaining of a counter-cyclical fiscal policy, implemented in 2008-2009, in order to bring a policy response to the economic and financial crisis. At the same time, over the course of 2010, to prepare the phase of budgetary consolidation, the Government engaged in talks with the social partners in a bid to reach a

consensus regarding the objectives and measures to implement in matters of budgetary consolidation.

The Government continues to implement a prudent fiscal policy. The stated objective of this policy is to restore the budgetary balance at general government level by 2014 at the latest. To this effect, in 2010 the Government approved a package of budgetary consolidation measures for the years 2011 and 2012 and foresaw a “mid-term review” of fiscal policy in 2012. Taking into account the high level of uncertainty linked to the economic cycle and the significant volatility of public revenues, the mid-term review consists in an assessment of the public finances situation and, if necessary, in the specification of additional budgetary consolidation measures with a view to fulfilling the objective of a return to structural balance in 2014.

## III.2. Medium-term fiscal 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 budgetary and economic positions and developments as well as the various degrees of budgetary risk in terms of the sustainability of public finances, while also considering foreseeable demographic changes.

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

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

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

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

## III.3. Budgetary situation in 2009 and in 2010

On 1 April 2011, Luxembourg notified the European Commission of a general government deficit of -0.9% of GDP in 2009 and of -1.7% of GDP in 2010.

The economic and financial crisis implied a combined deterioration of the general government budget balance of 4.7% of GDP or € 1,882 million, from a surplus of 3% of GDP in 2008.

This deterioration can be explained by the development of both public revenues and public expenditure.

Indeed, the ratio between public revenues and GDP went from 39.8% in 2008 to 39.5% in 2010, i.e. a decrease of 0.3%. However, at the same time the ratio between public expenditure and GDP went from 36.9% in 2008 to 41.2% in 2010, i.e. an increase of 4.3%.

While the ratio between public revenues and GDP increased between 2008 and 2009, in particular due to the time delay that exists between the economic cycle and the development of certain revenue categories, the economic crisis started to have repercussions at revenue level from the 2010 fiscal year onwards, with a -0.8% decrease in ratio to GDP.

All the significant public revenue categories exhibited a drop: the ratio between indirect taxes and GDP went from 11.7% in 2009 to 11.4% in 2010, the ratio between direct taxes and GDP went from 13.8% to 13.3% and the ratio between social contributions and GDP went from 12.0% to 11.4%.

It should nevertheless be noted that, in absolute amounts, public revenues are higher than forecast in early 2010 in the previous stability programme update. This is above all linked to the improvement in general economic conditions, which has particularly translated into an upwards revision of the growth rate in volume of 1% (from 2.5% to 3.5%) and of the growth rate in value of 5.4% (from 3.9% to 9.3%).

While the ratio between public expenditure and GDP experienced an increase of 4.9% between 2008 and 2009, particularly from the play of automatic stabilisers implying an increase in social transfers, the ratio experienced a drop of 0.8% between 2009 and 2010. This is a lower drop than that of the public revenues and from a higher level, which explains the increased net borrowing. The drop in the ratio between public expenditure and GDP is essentially the result of two effects: on the one hand, a decline in social transfers from 20.6% in 2009 to 19.8% in 2010 and, on the other hand, an increase in public investment, from 3.7% in 2009 to 4.1% in 2010. While the development of social transfers reflects a labour market situation that is less negative than anticipated with automatic stabilisers taking on a

decreasing role in 2010, the development of public investment reflects the effort by the Government to maintain a counter-cyclical policy over the course of 2010, the objective of which is to both maintain the economic activity and contribute to the potential growth.

The improvement of the budget balance in 2010 in comparison with the budget for the 2010 fiscal year, which foresaw a deficit of -4.4% of GDP, and in comparison with the stability programme of January 2010, which foresaw a deficit of -3.9%, as well as in comparison with the October 2010 notification, which foresaw a deficit of -2.1%, can be explained in particular through the non-anticipated upswing of the economic cycle in 2010. The year 2010 is thus characterised in particular by a real and nominal growth rate that was higher than foreseen in the previous stability programme and a more dynamic development of domestic employment. In terms of public finances, this improvement in macroeconomic conditions has in particular had a positive impact on public revenues and a lesser impact on public expenditure, due in particular to less significant growth in social transfers linked to the situation of the labour market.

## III.4. Budget for 2011 fiscal year

On 5 October 2010, the Government presented the draft budget for the 2011 fiscal year to Parliament. This draft budget foresaw a deficit of -1.2% in GDP or € -520 million at general government level and of -3.4% or € -1,400 million at central government level.

The 12th stability and growth programme update foresees a deficit of 1.0% of GDP or € -437 million at general government level and a deficit of 2.5% of GDP or € -1,123 million at central government level.

This improvement in budgetary balance in comparison with the draft budget for the 2011 fiscal year is essentially attributable to the following factors:

- a positive base effect linked to a downwards revision of the public deficit for 2010;
- a revision of the macroeconomic scenario for 2011 in relation to the forecasts for 2011 adopted in the context of preparatory work for the draft budget having a positive impact on the public finances situation in 2011 (upwards revision of economic growth from 3% to 3.2% and of the employment growth rate from 1.1% to 1.5%);
- an upwards revision of public revenues based on developments over the course of the first trimester of 2011.

It should be noted that while the net borrowing of central government decreased by 0.9% of GDP in relation to the budget for the 2011 fiscal year, the general government balance

witnessed only a noticeably lesser improvement, i.e. 0.2% of GDP. This is due to a revision of the balance of the social security sector linked to the statistical treatment of property income of the *Fonds de compensation*, responsible for managing the reserves of the pension system. Following this statistical revision, the budget balance of social security has been reduced from the 2.1% of GDP foreseen in the budget for the 2011 fiscal year to 1.4% of GDP in the stability programme.

The development of public finances in 2011 is dependent both on the improvement of the macroeconomic conditions as described previously and on the fiscal policy implemented by the Government with the objective of restoring budgetary balance at general government level by 2014 at the latest.

To this effect, the Government has adopted a package of budgetary consolidation measures:

| *Budgetary consolidation measures and their effect on the general government budget balance in 2011* | | |
|---|---|---|
| | *€ million* | *in % of GDP* |
| **Expenditure** | | |
| 1) Central government operating costs | 34 | 0.1 |
| 2) Reorganisation of state support in favour of students | 33 | 0.1 |
| 3) Pension adjustments to general living standard development | 37 | 0.1 |
| 4) Transfers of capital, including capital subsidies to businesses | 17 | 0.05 |
| 5) Investment expenditure | 361 | 0.8 |
| **Total** | **482** | **1.1** |
| **Revenue** | | |
| 1) Increase of maximum marginal income tax rate | 27 | 0.1 |
| 2) Increase of solidarity tax | 66 | 0.2 |
| 3) Introduction of a crisis levy | 73 | 0.2 |
| **Total** | **166** | **0.4** |
| ***Overall effect on the general government budget balance*** | ***648*** | ***1.5*** |

For the 2011 fiscal year, the overall effect of the consolidation measures package amounted to € 648 million or 1.5% of GDP with regard to a scenario based on unchanged policies. The budgetary consolidation effort is distributed among public expenditure at 75% and public revenue at 25%.

Furthermore, the Government and the social partners have agreed to delay the automatic wage indexation mechanism between 1 October 2010 and 30 September 2011, which means that any living cost adjustment falling due over the course of this period is delayed until 1 October 2011.

## III.5. Budgetary situation of general government in 2012-2014

The Government has approved a package of consolidation measures for the 2011 and 2012 fiscal years. A mid-term review of the public finances situation is foreseen for 2012. If necessary, i.e. if the Government deems that the convergence towards the objective of a budgetary balance in 2014 is progressing at an insufficient pace, additional budgetary consolidation measures shall be specified during this mid-term review.

The budgetary consolidation measures approved in 2010 will continue to produce effects in 2012:

***Budgetary consolidation measures and their effect on the general government budget balance in 2012***

| | *€ million* | *en % of GDP* |
|---|---|---|
| **Expenditure** | | |
| 1) Central government operating costs | 34 | 0.1 |
| 2) Reorganisation of state support in favour of students | 33 | 0.1 |
| 3) Pension adjustments to general living standard development | 4 | 0.0 |
| 4 Transfers of capital, including capital subsidies to businesses | 17 | 0.05 |
| 5) Investment expenditure | 392 | 0.8 |
| **Total** | **480** | **1.0** |
| **Revenue** | | |
| 1) Increase of maximum marginal income tax rate | 39 | 0.1 |
| 2) Increase of solidarity tax | 69 | 0.1 |
| 3) Introduction of a crisis levy | 90 | 0.2 |
| **Total** | **198** | **0.4** |
| ***Overall effect on the general government budget balance*** | ***678*** | ***1.4*** |

Despite the implementation of these consolidation measures, it is foreseen that the general government deficit will go from 1% of GDP in 2011 to 1.5% of GDP in 2012. The drop in ratio between public revenue and GDP from 39.7% in 2011 to 39.5% in 2012 reflects the fact that certain tax categories – in particular direct taxes imposed on business profits – react with a certain time delay to the economic cycle. Despite the implementation of measures aiming to control the development of public expenditure, the ratio between public expenditure and GDP will increase from 40.7% in 2011 to 40.9% in 2012 as a result in particular of the increase in expenditure in public sector wages and social transfers.

It should be noted that in the Prime Minister's State of the Nation address in April 2011, a number of measures having an impact (positive or negative) on the State budget were announced without it being however possible at this stage to quantify their budgetary impact or to specify a timeframe for their implementation. They concern above all measures in the following fields of activities:

- indirect aid to vulnerable population groups (for instances a school for “problem” children, measures in favour of the homeless, creation of “street worker” type jobs, amenities for asylum seekers);
- promotion of energy efficiency and construction according to ecological criteria (for instance financial support to e-mobility, renovation of buildings according to energy criteria, construction subsidies according to ecological criteria);
- promotion of an improved reconciliation between professional life and family life by creating 8,000 additional positions in crèches or day-care centres;
- civil service reforms (for instance introduction of a performance assessment, measures resulting in a control of the State wage bill).

For the post-2012 period, the stability programme is based on the assumption of “unchanged policies”, while awaiting the implementation of the mid-term review foreseen in 2012.

At public expenditure level, this assumption implies that historical growth rates over a long period (1990-2010) have been used as a reference for the forecast of certain expenditure aggregates (intermediate consumption, subsidies or current transfers) while for other categories, assumptions on the factors determining expenditure development have been retained (employee compensation). For the development of public investments, the multi-annual capital spending programme is used as a reference.

At public revenue level, this technical assumption implies that the tax laws currently in force, with the exception of the crisis contribution, remain applicable in 2013 and 2014 and that there will be no new taxes or levies.

On this basis, it is foreseen that the general government deficit will gradually be absorbed in 2013 and 2014, going from 1.5% of GDP in 2012 to 0.8% of GDP in 2014.

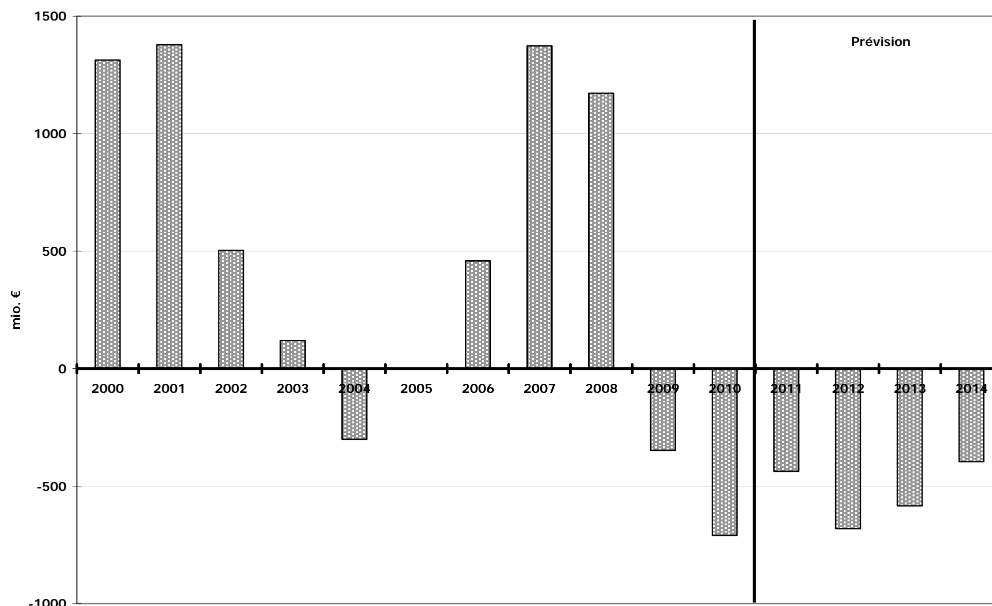
In 2014, the general government budgetary deficit will amount to € 397 million and the central government will experience a net borrowing of € 1,227 million. The structural balance will also remain in deficit (> -1% of GDP).

Consequently, the Government’s stated objective of restoring budget balance at general government level in 2014 is not achieved and the budget balance of general government does not converge towards the medium-term fiscal objective of a structural balance of +0.5% of GDP within the projection horizon of the current stability programme.

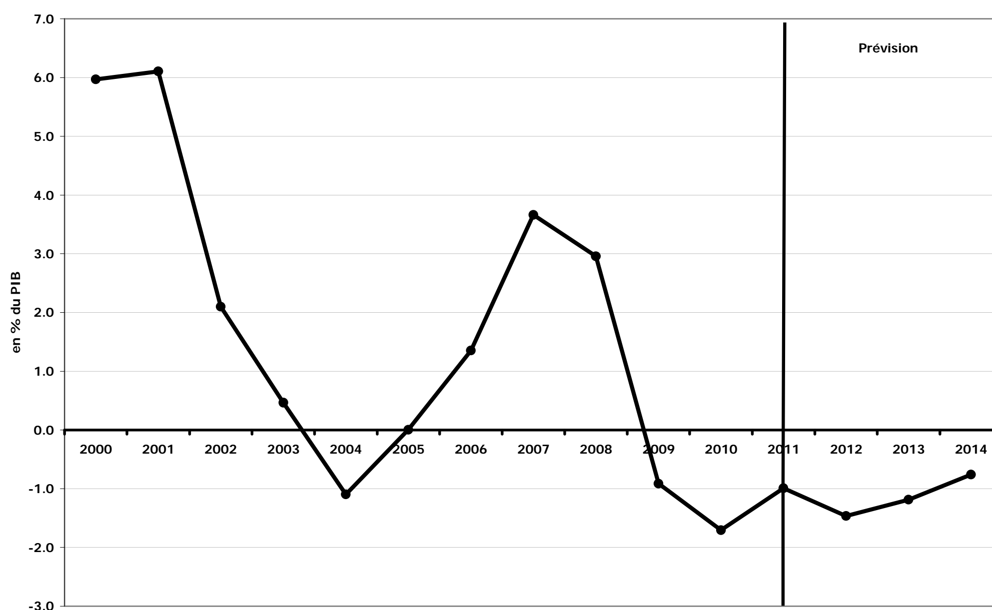
This preliminary conclusion, however, is dependent on two important considerations: the realisation of the macroeconomic scenario presented in this programme and the assumption of an unchanged policy over the course of the 2013-2014 period. These two considerations shall be the subject of political debate during the mid-term fiscal policy review in 2012.

Chart 1: Development of general government budget balance, 2000-2014

*a. in € million*




*b. in percentage of GDP*



## III.6. Public debt

In 2010, Luxembourg's public debt amounted to € 7,661 million, i.e. 18.4% of GDP. General government debt thus continues to be well below the reference value of 60% of GDP.

General government debt is made up of the central government debt and the local government debt. The subsector of social security shows a structural surplus and its surpluses are transferred to a compensation reserve for the financing of future social transfers. At the end of 2010, this compensation reserve had reached 24.4% of GDP, i.e. a global amount of € 10.2 billion. The social security debt is non-existent.

It should be noted that, in addition to the debt incurred by the Treasury, the central government debt includes the debt of public institutions as well as financial guarantees granted by the Government to property developers in view of the construction of certain public infrastructures (*Loi de Garantie*). In accordance with the Eurostat decision of 11 February 2004 on the statistical treatment of public-private partnerships, these transactions are recorded as imputed loans in the general government accounts. Over the course of the 2010-2014 time period, the impact of this decision on the ratio between gross debt and GDP will vary between 1.5%-1.7% per annum.

The Treasury bills issued by the Government are not actually reimbursable funds collected by the Government. Instead, these bills enact long-term commitments *vis-à-vis* international financial institutions (EBRD, AsDF, IFAD, GEF, IDA, MIGA). These bills do not carry interest and they are paid if, and when, they are due. On 31 December 2010, outstanding bills totalled € 66.3 million. The payment of the Treasury bills is carried out via the public debt fund. According to currently known deadlines, the reimbursements of Treasury bills will amount to € 15.0 million in 2011, € 12.3 million in 2012 and € 9.5 million in 2013.

The Government did not issue new bonds during the fiscal years 1998 to 2005. On the contrary, it has in the meantime repaid the entire existing debt dating back to before 1998.

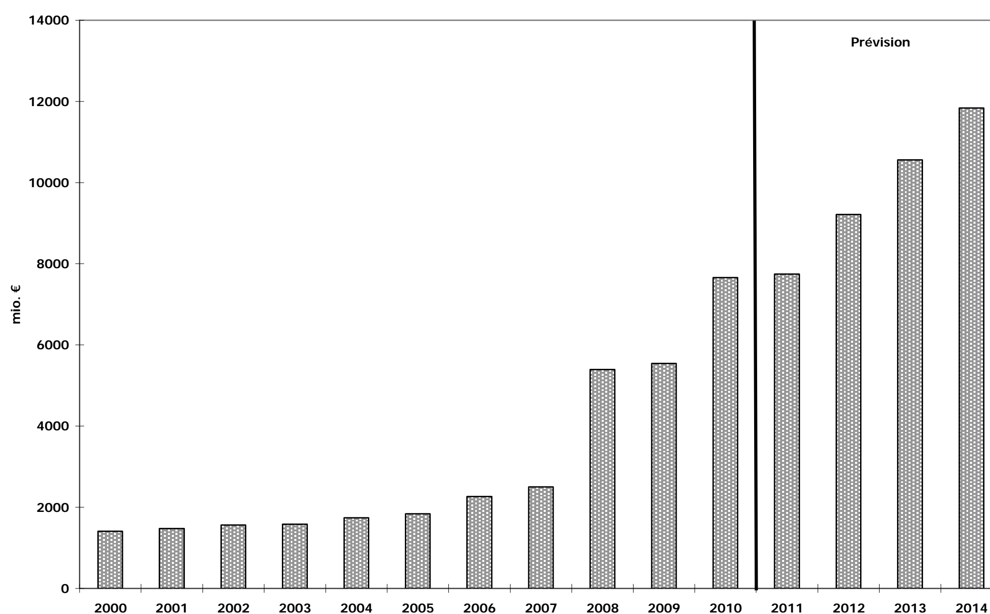
In the context of the financial crisis, in December 2008 the Government also issued a government bond of € 2 billion. This bond falls due on 4 December 2013 and the stability programme is based on the assumption of an integral refinancing of the bond via the issue of a new bond of a similar amount.

To cover central government net borrowing requirements in 2010 and 2011, the Government in May 2010 issued a bond amounting to € 2 billion, falling due on 18 May 2020.

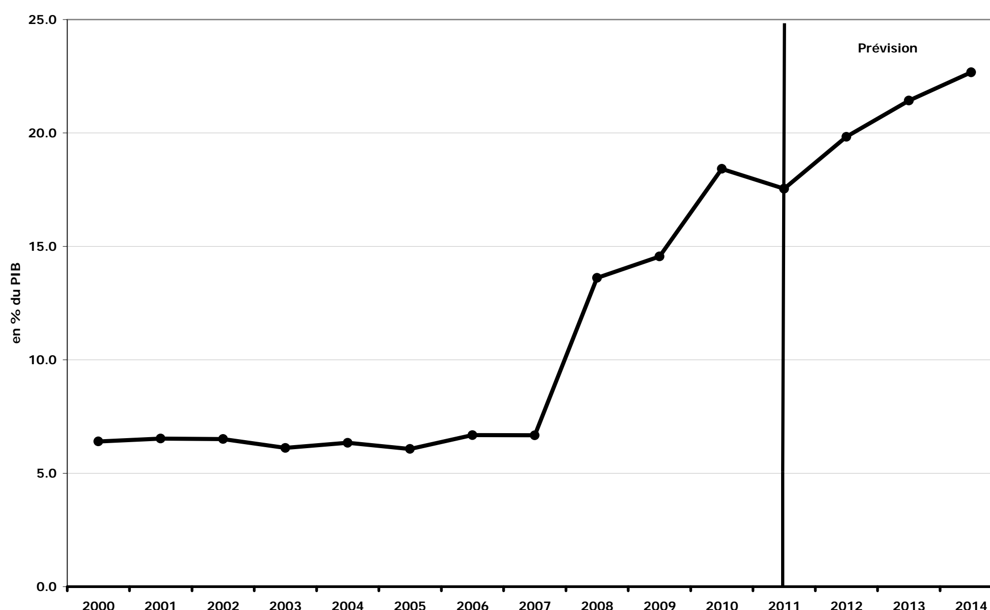
For the requirements of the current stability programme update, it is assumed that the central government net borrowing requirements in 2012-2014 are covered by the issue of new bonds amounting to € 1,500 million in 2012, € 1,300 million in 2013 and € 1,250 million in 2014.

Chart 2: Development of public debt, 2000-2014

*a. in € million*




*b. in percentage of GDP*



It should be noted that the dynamics of public debt is determined exclusively by the development of central government net borrowing (and secondarily by the net borrowing of local government, which is nevertheless strictly controlled by law).

The development of public debt over the course of the 2011-2014 period also takes into account the effect of the Eurostat decision of 27 January 2011 regarding the statistical recording of operations undertaken by the European Financial Stability Facility (EFSF) and the implementation from 2013 onwards of the European Stability Mechanism (ESM).

On this basis, the general government consolidated debt will gradually increase from 18.4% of GDP in 2010 to 22.7% of GDP in 2014 (€ 11,836 million). The servicing of the public debt will go from € 171 million in 2010 to € 255 million in 2014 (0.5% of GDP).

It should be noted that, despite the restoring of nominal balance at general government level in 2014, the central government budget balance will remain negative in 2014 and beyond, implying the existence of a need for gross financing and thus the increase of the general government debt in 2014 and beyond.

## III.7. Sensitivity analysis

The sensitivity analysis is based on the simulation of two external shocks on the level of the eurozone growth rate from 2011 onwards: a negative shock of -0.5% and a positive shock of +0.5%.

The external shock has a significant negative impact on the growth rate during the projection period. While in the central scenario, economic growth amounts to 3.6% on average during the 2011-2014 period, the alternative scenario implies an annual growth rate of about 3% during the 2011-2014 period.

This drop in economic growth is due primarily to a reduction of the positive contribution of foreign trade to general growth and to a stronger fall in investment levels due to less favourable growth prospects.

In this alternative scenario, the inflation path is hardly affected until 2012, but beyond 2013 the inflation rate amounts to just under 2% per annum.

The impact on the unemployment rate is relatively limited, but the growth of domestic employment is weaker (+/- 1% during the 2011-2014 period).

At the level of public finances, the consequence of a negative shock on the level of growth in the eurozone is primarily reflected in a drop in public revenues in relation to the central

scenario. As a result of this theoretical shock, the revenue growth rate in 2011 falls to 5.9%, against 6.5% in the central scenario, while the growth rate of public expenditure falls to 4.5%, against 4.7% in the central scenario. In short, the negative shock on the level of growth implies general government budget deficits that are higher than foreseen in the central scenario. The public deficit thus amounts to 1.2% of GDP in 2011 instead of 1.0% of GDP in the central scenario. Owing to the cumulative nature of this shock, the budget balance at the end of the period (2014) will amount to -1.8% of GDP, against -0.8% of GDP in the central scenario.

In the event of a positive shock at the level of growth in the eurozone, economic growth in Luxembourg is also higher and the macroeconomic context is generally more conducive to budgetary consolidation. The rate of economic growth thus amounts to 4.2% on average over the course of the 2011-2014 period, against 3.6% in the central scenario, and the employment growth rate amounts to 2.5% on average, against 2.2% in the central scenario. It should be noted that the dynamism of the economy is accompanied by an increased inflation compared with the central scenario and the inflation rate is permanently situated > 2% over the course of the 2011-2014 period.

The positive growth shock has positive effects on the situation of public finances through a greater dynamism of public revenues. Thus, for 2011, the occurrence of this theoretical shock implies an upwards revision of the revenue growth rate from 6.5% in the central scenario to 7.2%. Nevertheless, the increase in inflation compared with the central scenario softens this effect by an increase in public expenditure, given that a significant part of public expenditure is directly or indirectly linked to the development of the general price level. Thus, in 2011, the growth rate of public expenditure goes from 4.7% in the central scenario to 4.8%. The net effect on the general government budgetary balance is nevertheless largely positive. The budgetary deficit in 2011 is thus revised downwards from 1% of GDP in the central scenario to 0.8% of GDP and, owing to the cumulative nature of the shock, the impulse from the economic growth is sufficiently strong for the general government budgetary balance to once again become positive in 2014 (+0.3% of GDP, against -0.8% of GDP in the central scenario).

## III.8. Comparison with previous stability programme

The development of the economic situation has been much more favourable in 2010 compared with the forecast of the 11th stability programme update. In fact, after the 2009 crisis year, of a magnitude without precedent since 1945, economic prospects were marked by great uncertainties. Admittedly, Luxembourg came out of the recession during the last quarter of 2009, but considering the persistent risks, it was difficult in early 2010 to anticipate

that the recovery would be quite so strong. In fact, while the 11th update foresaw a growth rate of 2.5% for 2010, the effective growth rate amounted to 3.5%. The upwards correction is even more significant for the nominal growth rate of GDP: 3.9% in the 11th stability programme update against 9.3% in the current update.

Considering this positive base effect of 2010 on the following years and considering the confirmation of the economic recovery in the eurozone and therefore in Luxembourg, the 12th update includes an upwards revision of the growth assumptions for all the remaining years of the period. It is thus in particular at the end of the period when the great differences in growth terms will manifest themselves with a difference of 0.9% of GDP.

The stronger growth and the significant increase in oil prices have contributed to higher inflation rates in 2010 (2.3% instead of 0%) and continue to contribute to this in 2011 (3.5% instead of 2.1%), and even 2012 (2.3% instead of 1.8%). Only at the end of the period will the inflation rates once again converge to a level below 2% as foreseen in the 11th update also.

As for the labour market, the unemployment rate has followed the path indicated in the forecasts. Similarly, the date of the change in the unemployment rate trend in the macroeconomic scenario for the period has not changed from one programme to the next: it is still the year 2013. At the same time, as a consequence of improved economic conditions, employment has increased in 2010 by 1.5% whereas the forecasts of the 11th update foresaw a negative employment growth rate (-0.5%).

The deviation of the macroeconomic aggregates with respect to their anticipated path obviously did not remain without consequences for the level of public finances (deficit and public debt). Thus, the general government borrowing requirements in 2010 and 2011 were distinctly lower than estimated in the 11th stability programme update: in 2010, net borrowing amounted to 1.7% of GDP instead of 3.9% foreseen in the previous programme. In 2011, net borrowing amounted to 1% of GDP instead of 5% of GDP. These deviations are thus significant. They can be explained on the one hand by the substantial improvement of the macroeconomic conditions in 2010 and in 2011. On the other hand, the impact of the budgetary consolidation measures on the general government budgetary balances in 2011 and 2012 should be pointed out. In total, the combined net borrowing over the course of the 2010-2014 period has been revised downwards to 14.7% of GDP in comparison with the previous stability programme update and consequently, the public debt forecasts have been revised downwards by the same order of magnitude.

# IV. QUALITY OF PUBLIC FINANCES

During the 2005-2008 period, the general government budget balance showed surpluses. Following the economic downturn of 2008-2009 and the implementation of exceptional measures aimed at stabilising the economic activity and employment, the general government budgetary situation reached a deficit in 2009 (-0.9% of GDP). Moreover, it will remain in deficit during 2010-2012 and, with unchanged policies, over the course of all the remaining years of the period covered by the current programme.

While the Government took advantage of the period of favourable economic growth in 2005-2007 to consolidate public finances and to transfer the budget surpluses of 2005-2008 to the reserves, which enabled budgetary margins of manoeuvre to be created for the financing of a counter-cyclical policy during the economic downturn, it must nevertheless be stated that the persistence since 2009 of the deficits at general government level, and in particular of the higher deficits at central government level, has resulted in a reduction in reserves at central government level. This led the Government in May 2010 to call upon the financial markets for the first time in a long time and issue a bond to cover its net borrowing. Henceforth Luxembourg will be obliged to call upon the financial markets at regular intervals to finance its deficits.

Nevertheless, the stated objective of the Government to restore general government budgetary balance testifies to its will to keep public finances healthy and sustainable in the medium and long term. The first consolidation measures package decided in 2010 for 2011-2012 bears witness to the will of the Government to achieve this objective. An additional objective of this budgetary strategy of the Government also aims to ensure that the level of public debt remains as low as possible and well below the upper limit laid down by the Maastricht criteria (60% of GDP).

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

- maintaining public investment at a high level;
- developing infrastructure in favour of the compatibility of professional and family life; growing increase of R&D and innovation budgets;
- creation and development of the University.

Finally, the Government in its governmental programme has also committed to working in favour of more social selectivity at public expenditure level, one of the objectives of which is to allow public expenditure to better contribute to social justice.

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

Finally, the global situation of Luxembourg's public finances cannot be correctly appreciated solely upon examining the net budgetary position or public debt and without taking into account the existence of reserves at social security level. These reserves were built up during the years of high economic growth, which were in particular characterised by a strong increase in the wage bill. These reserves, which today amount to 24.4% of GDP, must be taken into account when assessing the long-term sustainability of public finances. With regard to the long-term sustainability of public finances, the governmental programme has announced the implementation of a reform of the pension system aimed at simultaneously ensuring financial viability, social viability, political viability and the legitimacy of the pension system.

# V. LONG-TERM SUSTAINABILITY OF PUBLIC FINANCES

The financial sustainability of the pension system is guaranteed in the medium term, owing to a relatively young population of people of working age and a robust growth in domestic employment, namely an average annual growth of 3% during the last 10 years.

Nevertheless, in the long term, there is a real challenge to ensure the sustainability of the social security systems due to the growing economic and budgetary cost linked to demographic ageing.

In fact, public expenditure linked to demographic ageing is projected to increase, with unchanged policies, from 20% of GDP in 2010 to 38% of GDP in 2060, according to the long-term projections of the *Inspection générale de la sécurité sociale*.

85% of this increase will be primarily attributable to an increase in pension expenditure (all sectors combined), which will go from 8.6% of GDP in 2010 to 23.9% of GDP in 2060.

Admittedly, Luxembourg's starting position in face of this challenge is relatively favourable. It can claim a budgetary position that did not deteriorate too much (by international comparison) as a result of the economic crisis, and a low level of public debt. At the same time, the medium-term fiscal objective of +0.5% of GDP per annum, if achieved, will allow the future increase in public expenditure linked to demographic ageing to be partially pre-financed. Furthermore, the existence of the pension reserve, which will go from 24.4% of GDP in 2010 to more than 40% in 2020, will allow future deficits to be absorbed.

However, irrespective of the underlying macroeconomic assumptions, all the long-term projections confirm the assumption that, by the 2050 or 2060 horizon, the sustainability of public finances is not assured.

The social security budget balance will thus become negative from 2025 onwards, which will consequently reduce the reserve until its depletion around 2035. From the moment of the depletion of the compensation reserve, the social security deficit will have to be covered by the issuing of public debt, implying that the public debt ratio will exceed the reference value of 60% of GDP around 2040 (and will subsequently continue to increase).

Beyond the basically unsustainable nature of this scenario, it should in addition be noted that it is based on assumptions, which have yet to materialise in the future, i.e.: a level of potential growth of 4% until 2015, which will then drop to 2.2%; a constant unemployment rate of 4.2%; an increase in the participation rate in general and, more particularly, in that of older workers from 32% to 42% in 2040-2050.

In order to ensure the long-term sustainability of the systems of social security and public finances, the Government, in its governmental declaration of 2009, stated its commitment to approach these issues during the first half of the legislative period.

In accordance with this commitment, the Government presented in March 2011 the principal guidelines of a structural reform of the pension system.

The guiding principles of the reform are as follows:

- to link the duration of working life to longevity;
- to ensure equity between the available income of workers and pensioners;
- to guarantee an adequate pension level;
- to avoid poverty among pension recipients;
- to provide suitable and strong governance.

The reform retains the current model of a "pay-as-you-go" pension system and carries out "parametric" adjustments. For instance, it foresees a reduction in pension replacement rates and an increase in the effective retirement age, in particular through the introduction of

financial incentives in the pension calculating formula to extend working life and thus discourage early retirement.

The effects of the reform of the pension system will unfold only gradually, as and when the reformed system gradually applies to an increasing part of the workforce.

In 2030 thus, the impact of the reform will reduce the pension public expenditure by 1.6% of GDP with regard to the central scenario. However, the lower expenditure with regard to the central scenario amounts to 3.8% of GDP in 2040, 6.2% of GDP in 2050 and 7.3% of GDP in 2060.

# VI. INSTITUTIONAL FEATURES OF PUBLIC FINANCES

The legal framework of the institutional features of public finances has not changed since the previous stability programme update. Nevertheless, a certain number of adjustments have been made in 2011 in order to facilitate the implementation of the new “European semester” cycle on a national level. Two informal changes in particular have been introduced:

- The establishment of a forecasting committee consisting of representatives from the Ministry of Finance, the tax administrations, the Ministry of the Economy and Foreign Trade, Statec, the *Inspection générale de la sécurité sociale* and the *Commission de surveillance du secteur financier*, the main mission of which consists in providing the Government with medium-term economic and budgetary forecasts;
- The date of the Prime Minister’s State of the Nation address has been brought forward by one month, from May to April, in order for it to include the Government’s broad fiscal and economic policy guidelines and to involve Parliament by means of parliamentary debate.

Prior to the Prime Minister’s State of the Nation address, the forecasting committee draws up a medium-term macroeconomic and budgetary forecast by adopting the technical assumption of “unchanged policies”. This forecast is then used as a basis upon which the stability and growth programme is drawn up, taking into account the policy directives resulting from the State of the Nation address, the transmission by the European Commission of the “common external assumptions” for the stability and growth programmes (sent to Member States on 11 April 2011) and updated statistical information (in particular the notification of the deficits on 1 April, national accounts and the central government revenue and expenditure for the first quarter of the current fiscal year).

Eventually, the reform of economic governance in Europe, in particular the entry into force of the directive of the Council and the European Parliament on the requirements for budgetary

frameworks of Member States, will have important implications for the institutional features of public finances.

The legal framework of the institutional features of public finances is laid down by the Law of 8 June 1999 on the State Budget, Accounts and Treasury.

Within the context of the multi-annual fiscal policy guidelines outlined in the governmental declaration of July 2009 before Parliament, the Government committed to “examine the means to improve the procedure for the preparation, implementation and evaluation of the budget with the twofold intention of modernising the State and the effectiveness of public expenditure.” This objective forms an integral part of the Government’s budgetary strategy “sustainably to reduce the trend of growth of public expenditure in order to avoid the resurgence of a structural deficit of public finances.”

In the past, the governmental programme of August 2004 foresaw additional adaptations at the level of budgetary procedure: “Given that the annual procedure of preparing the State budget constitutes an essential factor in the control of public finances, the Government shall, from the 2005 fiscal year onwards, proceed with an overhaul of the current budgetary procedure, which will translate in particular to the adjournment of the approval of the draft budget at governmental level from the month of August to the month of October. By thus bringing the adoption of the draft budget closer to the year that it relates to, the quality of budgetary forecasts will be able to be further improved as a result of being able to take into account the economic forecasts of the international and national statistics bodies of the second semester in the budgetary work context. Suppressing the budgetary amendment procedure will furthermore allow a greater concentration of available resources on the exhaustive analysis of budget provision requests and on the multi-annual planning of State investments.”

The new budgetary procedure has been implemented since the preparation of the 2005 draft budget, pursuant to the principles outlined in the governmental programme of August 2004.

Furthermore, the governmental declaration of August 2004 foresaw that “any direct and indirect investment projects of the State shall be submitted to a more detailed analysis and procedure with the aim of reducing the cost of public investments. More particular attention shall also be paid, from the planning phase onwards, to an assessment of the running and operating costs of the new infrastructures in a bid to control the balanced budgetary position of the State operating expenditure.”

In April 2006, a new procedure involving the preparation and presentation of large-scale infrastructure projects was implemented. It foresees in particular that any significant change in programme arising after the vote of an authorisation law must be subjected to a new assessment by Parliament and that any exceeding of the authorised budget for

implementation will necessarily result in the presentation of a new government bill in the event that said budget exceeding is greater than 5%.

Henceforth, the budgetary procedure in itself starts with the Prime Minister's State of the Nation address, which outlines the broad governmental policy guidelines. It is followed by the budgetary circular being forwarded by the Minister for the Treasury and the Budget to all the ministerial departments. The budgetary circular includes guidelines of a political nature (e.g. budgetary strategy and objectives) and of a technical nature (e.g. macroeconomic assumptions, growth rate ceilings according to category of public expenditure) to be observed by the ministerial departments when drawing up their budgetary proposals.

Following the presentation of the political priorities of governmental action and the justification of the budgetary priorities of the ministerial departments pursuant to said broad guidelines and the opinion of the Ecofin Council on the stability and growth programme, the Minister of Finance in June enters into bilateral discussions with the other members of the Government and the draft budget is finalised at government level towards the end of September.

At the beginning of October, the draft budget is then submitted to Parliament.

The draft budget comprises three volumes. In addition to the actual budget law (volume I), volume II outlines the multi-annual capital spending programme. Furthermore, since 2007 the draft budget has been accompanied by a volume III outlining in a detailed manner the transition from a "working balance" of the different general government sub-sectors to the budget balance of the sub-sectors established in accordance with the regulations and concepts of the stability programme (SEC95).

The presentation of volume III of the draft budget enables the transparency of public finances to be increased while also incorporating the national fiscal policy in the wider context of the multilateral monitoring of fiscal policies in the European Union and of the Stability and Growth Pact.

## ANNEX 1: Detailed tables in accordance with the code of conduct on the format and content of stability programmes

Table 1A: Macroeconomic prospects

| | ESA code | 2010 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|
| | | € billion | % | % | % | % | % |
| **1. Real GDP** | B1*g | 29.7 | 3.5 | 3.2 | 3.5 | 3.7 | 4.0 |
| **2. Nominal GDP** | B1*g | 41.6 | 9.3 | 5.0 | 5.6 | 6.4 | 6.5 |
| | | **Growth sources** | | | | | |
| **3. Private consumption expenditure** | P.3 | 11.1 | 2.0 | 1.6 | 3.5 | 3.2 | 3.2 |
| **4. Government consumption expenditure** | P.3 | 4.8 | 2.9 | 0.5 | 3.1 | 1.8 | 2.2 |
| **5. Gross fixed capital formation** | P.51 | 6.0 | 2.6 | 13.7 | 5.9 | 5.5 | 2.9 |
| **6. Changes in inventories** | P.52 + P.53 | ... | 0.4 | 0.4 | -0.1 | 0.0 | 0.0 |
| **7. Exports of goods and services** | P.6 | 55.9 | 6.3 | 6.2 | 6.0 | 6.9 | 7.6 |
| **8. Imports of goods and services** | P.7 | 48.4 | 6.8 | 7.1 | 6.6 | 7.3 | 7.7 |
| | | **Contribution to GDP growth** | | | | | |
| **9. Total final domestic demand** | | ... | 1.8 | 3.4 | 3.1 | 2.7 | 2.2 |
| **10.Changes in inventories** | P.52 + P.53 | ... | 0.9 | -0.4 | 0.0 | 0.0 | 0.0 |
| **11. External balance of goods and services** | B.11 | ... | 0.8 | 0.2 | 0.4 | 1.0 | 1.8 |

Table 1B: Price developments

| | ESA code | 2010 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|
| | | Level | % | % | % | % | % |
| **1. GDP deflator** | | 1.4 | 5.5 | 1.8 | 2.0 | 2.6 | 2.4 |
| **2. Private consumption deflator** | | 1.2 | 1.9 | 3.2 | 2.0 | 2.0 | 2.2 |
| **3. Rate of inflation (HICP)** | | ... | 2.8 | 3.6 | 2.1 | 1.7 | 1.8 |
| p.m. Rate of inflation (NICP) | | ... | 2.3 | 3.5 | 2.3 | 1.8 | 1.8 |
| **4. Public consumption deflator** | | 1.4 | 2.7 | 2.7 | 3.9 | 3.2 | 2.6 |
| **5. Investment deflator** | | 1.1 | 1.3 | 1.9 | 1.7 | 1.7 | 2.0 |
| **6. Export price deflator** | | 1.3 | 8.4 | 4.9 | 4.9 | 4.9 | 4.6 |
| **7. Import price deflator** | | 1.2 | 7.5 | 6.6 | 5.7 | 5.4 | 5.1 |

Table 1C: Labour market developments

| | ESA code | 2010<br>Level | 2010<br>% | 2011<br>% | 2012<br>% | 2013<br>% | 2014<br>% |
|---|---|---|---|---|---|---|---|
| **1. Domestic employment (x 1000 persons)** | | 357.2 | 1.5 | 1.9 | 1.9 | 2.4 | 2.5 |
| **2. Employment, hours worked** | | 340.3 | 1.6 | 1.4 | 1.5 | 1.9 | 2.1 |
| **3. Unemployment rate (Eurostat definition)** | | ... | 4.4 | 5.2 | 5.3 | 4.9 | 4.7 |
| **4. Labour productivity (real GDP per person employed)** | | ... | 1.9 | 1.2 | 1.6 | 1.3 | 1.5 |
| **5. Labour productivity (real GDP per hour worked)** | | ... | 1.9 | 1.6 | 2.0 | 1.7 | 1.9 |
| **6. Compensation of employees (€ billion)** | D.1 | 18.3 | 3.1 | 4.1 | 6.6 | 5.4 | 5.1 |
| **7. Compensation per employee (€1000 / year)** | | 54.5 | 1.6 | 2.2 | 4.6 | 2.9 | 2.4 |

Table 1D: Sectoral balances

| | ESA code | 2010<br>% | 2011<br>% | 2012<br>% | 2013<br>% | 2014<br>% |
|---|---|---|---|---|---|---|
| **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 | -1.7 | -1.0 | -1.5 | -1.2 | -0.8 |
| **4. Statistical discrepancy** | | | | | | |

Table 2: General government budgetary situation

| | ESA code | 2010 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|
| | | € million | % of GDP | % of GDP | % of GDP | % of GDP | % of GDP |
| **1. General government** | **S.13** | **-710** | **-1.7** | **-1.0** | **-1.5** | **-1.2** | **-0.8** |
| 2. Central government | S.1311 | -1 333 | -3.2 | -2.5 | -3.2 | -2.7 | -2.4 |
| 3. [...] | S.1312 | ... | | | | | |
| 4. Local government | S.1313 | -6 | 0.0 | 0.1 | 0.2 | 0.2 | 0.3 |
| 5. Social security | S.1314 | 630 | 1.5 | 1.4 | 1.6 | 1.3 | 1.3 |
| | | | | | | | |
| **6. Total revenue** | **TR** | **16 446** | **39.5** | **39.7** | **39.5** | **39.3** | **39.2** |
| **7. Total expenditure** | **TE** | **17 156** | **41.2** | **40.7** | **40.9** | **40.5** | **39.9** |
| **8. Net lending/borrowing** | **EDP B.9** | **-710** | **-1.7** | **-1.0** | **-1.5** | **-1.2** | **-0.8** |
| **9. Interest expenditure** | **EDP D.41** | **171** | **0.4** | **0.5** | **0.5** | **0.5** | **0.5** |
| **10. Primary balance** | | **-539** | **-1.3** | **-0.5** | **-1.0** | **-0.7** | **-0.3** |
| **11. One-off and temporary measures** | | **0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| | | | | | | | |
| **12. Taxes (12=12a+12b+12c)** | | **10 326** | **24.8** | **25.1** | **24.7** | **24.6** | **24.5** |
| 12a. Taxes on production and imports | D.2 | 4 734 | 11.4 | 11.4 | 11.4 | 11.2 | 11.1 |
| 12b.+12c. Current taxes on income and wealth and taxes on capital | D.5+D.91 | 5 592 | 13.4 | 13.6 | 13.4 | 13.4 | 13.4 |
| **13. Social contributions** | D.61 | **4 746** | **11.4** | **11.4** | **11.5** | **11.5** | **11.4** |
| **14. Property income** | D.4 | **568** | **1.4** | **1.3** | **1.3** | **1.4** | **1.4** |
| **15. Other revenue** | | **806** | **1.9** | **1.8** | **1.9** | **1.9** | **1.9** |
| **16.=6. Total revenue** | **TR** | **16 446** | **39.5** | **39.7** | **39.5** | **39.3** | **39.2** |
| **p.m.: Tax burden (D.2+D.5+D.61+D.91-D.995)** | | **15 072** | **36.2** | **36.5** | **36.3** | **36.1** | **35.8** |
| | | | | | | | |
| **17. Employee compensation and intermediate consumption** | | **4 669** | **11.2** | **10.9** | **11.1** | **11.1** | **11.0** |
| 17a. Employee compensation | D.1 | 3 218 | 7.7 | 7.7 | 7.8 | 7.7 | 7.6 |
| 17b. Intermediate consumption | P.2 | 1 452 | 3.5 | 3.3 | 3.4 | 3.4 | 3.4 |
| **18. Social transfers (18=18a+18b)** | | **8 188** | **19.7** | **19.4** | **19.5** | **19.4** | **19.0** |
| 18a. Social transfers in kind | D.6311, D.63121, D63131 | 2 069 | 5.0 | 4.9 | 5.0 | 4.9 | 4.8 |
| 18b. Social transfers in cash | D.62 | 6 119 | 14.7 | 14.5 | 14.6 | 14.5 | 14.2 |
| **19.=9. Interest expenditure** | EDP D.41 | **171** | **0.4** | **0.5** | **0.5** | **0.5** | **0.5** |
| **20. Subsidies** | D.3 | **654** | **1.6** | **1.6** | **1.6** | **1.6** | **1.6** |
| **21. Gross fixed capital formation** | P.51 | **1 687** | **4.1** | **3.9** | **3.6** | **3.5** | **3.2** |
| **22. Other expenditure** | | **1 787** | **4.3** | **4.4** | **4.6** | **4.5** | **4.6** |
| **23.=7. Total expenditure** | **TE** | **17 156** | **41.2** | **40.7** | **40.9** | **40.5** | **39.9** |
| p.m. Public consumption (in nominal terms) | | **6 731** | **16.2** | **15.9** | **16.1** | **15.9** | **15.7** |

Table 3: General government expenditure according to function

| in % of GDP | COFOG code | 2009 | 2010 | 2013 |
|---|---|---|---|---|
| 1. General public services | 1 | 4.4 | 4.4 | ... |
| 2. Defence | 2 | 0.3 | 0.5 | ... |
| 3.Public order and safety | 3 | 1.0 | 1.0 | ... |
| 4. Economic affairs and services | 4 | 4.8 | 4.6 | ... |
| 5. Environmental protection | 5 | 1.1 | 1.1 | ... |
| 6. Housing and community amenities | 6 | 0.8 | 0.7 | ... |
| 7. Health | 7 | 5.0 | 4.8 | ... |
| 8. Recreation, culture and religion | 8 | 1.9 | 1.7 | ... |
| 9. Education | 9 | 5.0 | 4.9 | ... |
| 10. Social protection | 10 | 17.9 | 17.4 | ... |
| **11. Total expenditure** | **TE** | **42.2** | **41.2** | **40.5** |

Table 4: Public debt

| in % of GDP | ESA code | 2010 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|
| | | € million | % | % | % | % | % |
| **1. Gross debt** | | 7 661 | 18.4 | 17.5 | 19.8 | 21.4 | 22.7 |
| **2. Change in gross debt ratio** | | 2 120 | 3.9 | -0.9 | 2.3 | 1.6 | 1.2 |
| | | **Elements contributing to gross debt development** | | | | | |
| **3. Primary surplus** | | -539 | -1.3 | -0.5 | -1.0 | -0.7 | -0.3 |
| **4. Interest expenditure** | EDP D.41 | 171 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 |
| **5. Stock-flow adjustment** | | ... | 11.4 | -1.0 | 1.8 | 1.6 | 1.8 |
| **p.m.: implicit interest rate** | | ... | 2.2 | 2.8 | 2.4 | 2.2 | 2.2 |
| | | **Other relevant variables** | | | | | |
| 6. Liquid financial assets | | 16 379 | 39.4 | ... | ... | ... | ... |

Table 5: Cyclical developments of public finances

| in % of GDP | ESA code | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|
| | | % | % | % | % | % |
| **1. Real growth in GDP (%)** | | 3.5 | 3.2 | 3.5 | 3.7 | 4.0 |
| **2. Net lending/borrowing of general government** | EDP B.9 | -1.7 | -1.0 | -1.5 | -1.2 | -0.8 |
| **3. Interest expenditure** | EDP D.41 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 |
| **4. One-off and temporary measures** | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5. Potential GDP growth (%) | | 2.9 | 2.7 | 2.6 | 2.6 | 2.5 |
| 6. Output gap | | -2.6 | -2.2 | -1.3 | -0.2 | 1.3 |
| 7. Cyclical budgetary components | | -1.3 | -1.1 | -0.6 | -0.1 | 0.6 |
| 8. Cyclically-adjusted budgetary balance | | -0.4 | 0.1 | -0.8 | -1.1 | -1.4 |
| 9. Cyclically-adjusted primary balance | | 0.0 | 0.6 | -0.3 | -0.6 | -0.9 |
| 10. Structural balance | | -0.4 | 0.1 | -0.8 | -1.1 | -1.4 |

Table 6: Divergences from previous programme update

| | ESA code | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|
| **Real growth in GDP (%)** | | | | | | |
| 11th update | | 2.5 | 3.0 | 2.7 | 2.9 | 3.1 |
| 12th update | | 3.5 | 3.2 | 3.5 | 3.7 | 4.0 |
| *Difference* | | *1.0* | *0.2* | *0.8* | *0.8* | *0.9* |
| **Nominal growth in GDP (%)** | | | | | | |
| 11th update | | 3.9 | 5.4 | 4.3 | 4.4 | 5.4 |
| 12th update | | 9.3 | 5.0 | 5.6 | 6.4 | 6.5 |
| *Difference* | | *5.4* | *-0.4* | *1.3* | *2.0* | *1.1* |
| **Net lending/borrowing (in % of GDP)** | EDP B.9 | | | | | |
| 11th update | | -3.9 | -5.0 | -4.6 | -4.3 | -3.1 |
| 12th update | | -1.7 | -1.0 | -1.5 | -1.2 | -0.8 |
| *Difference* | | *2.2* | *4.0* | *3.1* | *3.1* | *2.3* |
| **General government gross debt (in % of GDP)** | | | | | | |
| 11th update | | 18.3 | 23.9 | 29.3 | 34.1 | 37.4 |
| 12th update | | 18.4 | 17.5 | 19.8 | 21.4 | 22.7 |
| *Difference* | | *0.1* | *-6.4* | *-9.5* | *-12.7* | *-14.7* |

Table 7: Long-term sustainability of public finances

| in % of GDP | 2015 | 2020 | 2030 | 2040 | 2050 | 2060 |
|---|---|---|---|---|---|---|
| **General government expenditure** | ... | ... | ... | ... | ... | ... |
| *including: expenditure related to demographic ageing* | *19.6* | *20.7* | *25.7* | *30.9* | *35.4* | *37.6* |
| Pension expenditure | 8.9 | 9.9 | 14.2 | 18.4 | 22.1 | 23.9 |
| Health | 6.1 | 6.2 | 6.5 | 6.8 | 7.0 | 7.0 |
| Long-term care insurance | 1.4 | 1.5 | 1.8 | 2.4 | 3.0 | 3.4 |
| Education | 3.2 | 3.1 | 3.2 | 3.3 | 3.3 | 3.3 |
| Other expenditure related to demographic ageing | ... | ... | ... | ... | ... | |
| Unemployment benefits | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| Interest expenditure | ... | ... | ... | ... | ... | |
| **Revenue** | ... | ... | ... | ... | ... | |
| *including: property income* | ... | ... | ... | ... | ... | |
| *including: social contributions* | ... | ... | ... | ... | ... | |
| | **Assumptions** | | | | | |
| Economic growth | 4.0 | 2.7 | 2.1 | 2.2 | 2.2 | 2.0 |
| Employment | 2.1 | 0.7 | 0.4 | 0.5 | 0.5 | 0.3 |
| Labour productivity developments | 1.9 | 2.0 | 1.7 | 1.7 | 1.7 | 1.7 |
| Participation rate (men, 15-64) | 73.6 | 72.7 | 71.8 | 72.5 | 72.4 | 72.1 |
| Participation rate (women, 15-64) | 60.5 | 61.1 | 61.9 | 62.0 | 61.7 | 61.4 |
| Total participation rate (15-64) | 67.1 | 66.9 | 66.9 | 67.3 | 67.1 | 66.8 |
| Unemployment rate | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| Inactive/active ratio (65+/15-64) | 35.0 | 38.0 | 48.0 | 56.0 | 59.0 | 61.0 |

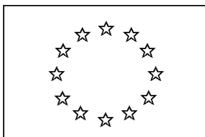
Table 8: Macroeconomic scenario – basic assumptions

| | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|
| **Short-term interest rate (annual average)** | 0.8 | 1.5 | 2.1 | 2.2 | 2.4 |
| **Long-term interest rate (annual average)** | 3.6 | 3.8 | 4.5 | 4.8 | 4.9 |
| **Exchange rate USD/€ (annual average)** | 1.33 | 1.39 | 1.39 | 1.39 | 1.39 |
| **Nominal effective exchange rate** | 0.6 | -0.1 | 0.0 | 0.0 | 0.0 |
| **Economic growth EU** | 1.8 | 1.8 | 1.7 | 2.1 | 2.3 |
| **Growth of relevant foreign markets** | 8.6 | 6.2 | 5.7 | 6.1 | 6.6 |
| **Oil prices (USD)** | 79.9 | 111.6 | 113.9 | 113.9 | 113.9 |

## ANNEX 2: Sensitivity analysis

| | 2010 | 2011 | | | 2012 | | | 2013 | | | 2014 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***central*** | *low* | ***central*** | *high* | *low* | ***central*** | *high* | *low* | ***central*** | *high* | *low* | ***central*** | *high* |
| **Modified exogenous variables** | | | | | | | | | | | | | |
| Eurozone GDP | **1.8** | 1.3 | **1.8** | 2.3 | 1.2 | **1.7** | 2.2 | 1.6 | **2.1** | 2.6 | 1.8 | **2.3** | 2.8 |
| Global demand goods | **12.9** | 5.7 | **7.3** | 8.9 | 5.3 | **6.4** | 7.5 | 5.5 | **6.7** | 7.9 | 6.5 | **7.8** | 9.0 |
| Global demand services | **4.3** | 4.3 | **5.2** | 6.1 | 4.2 | **4.9** | 5.7 | 4.7 | **5.5** | 6.3 | 4.6 | **5.5** | 6.3 |
| European stock index | **10.4** | 3.4 | **7.9** | 12.5 | 8.3 | **12.1** | 15.9 | 7.8 | **10.2** | 12.6 | 6.3 | **7.8** | 9.2 |
| **Main endogenous variables** | | | | | | | | | | | | | |
| Nominal GDP | **9.3** | 4.3 | **5.0** | 5.7 | 4.5 | **5.6** | 6.7 | 5.1 | **6.4** | 7.6 | 5.2 | **6.5** | 7.8 |
| Real GDP | **3.5** | 2.6 | **3.2** | 3.8 | 2.8 | **3.5** | 4.2 | 3.1 | **3.7** | 4.3 | 3.5 | **4.0** | 4.5 |
| Total domestic employment | **1.5** | 1.8 | **1.9** | 2.0 | 1.6 | **1.9** | 2.2 | 2.0 | **2.4** | 2.8 | 2.1 | **2.5** | 2.9 |
| Unemployment rate | **6.0** | 6.1 | **6.0** | 6.0 | 6.3 | **6.1** | 6.0 | 5.9 | **5.7** | 5.6 | 5.7 | **5.6** | 5.4 |
| Consumer price index (NICP) | **2.3** | 3.4 | **3.5** | 3.6 | 2.1 | **2.3** | 2.5 | 1.5 | **1.8** | 2.1 | 1.3 | **1.8** | 2.2 |
| Nominal average labour cost | **1.6** | 2.0 | **2.2** | 2.3 | 4.4 | **4.5** | 4.7 | 2.6 | **2.9** | 3.2 | 2.0 | **2.4** | 2.8 |
| General government budgetary balance (in % of GDP) | **-1.7** | -1.2 | **-1.0** | -0.8 | -2.0 | **-1.5** | -0.9 | -2.0 | **-1.2** | -0.4 | -1.8 | **-0.8** | 0.3 |
| Public revenues | **4.6** | 5.9 | **6.5** | 7.2 | 3.7 | **4.7** | 5.6 | 4.7 | **5.7** | 6.7 | 4.5 | **5.5** | 6.5 |
| Public expenditure | **6.9** | 4.5 | **4.7** | 4.8 | 5.8 | **5.9** | 6.1 | 4.7 | **5.0** | 5.3 | 4.1 | **4.4** | 4.8 |

## ANNEX 3: "Common external assumptions"



EUROPEAN COMMISSION
DIRECTORATE GENERAL
ECONOMIC AND FINANCIAL AFFAIRS

Brussels, 11 April 2011

**Common external assumptions**

(Note for the attention of the Economic and Financial Committee)

The newly launched "European Semester" has changed the dates of the reporting cycle for EU economic surveillance, moving it from December to April of each year. At the same time, the Code of Conduct on the content and format of the stability and convergence programmes requires Member States, in particular euro-area Member States and Member States participating in ERM2, to use common assumptions on the main extra-EU variables or, for comparability reasons, to present sensitivity analysis based on the common assumptions for these variables when differences are significant.

In order to adjust to the new assessment cycle in the context of the "European Semester", the Commission is sharing external assumptions at an earlier stage than is normally the case, specifically the external assumptions underlying the provisional storage of the Commission services Spring 2011 forecast (see attachment). This should give Member States the possibility to take the assumptions into account when preparing their stability or convergence programmes and national reform programmes. Please note that the provisional assumptions are confidential. In view of past leaks of the assumptions, distribution is restricted to EFC members only. It is encouraged to limit the distribution within your institution to a minimum.

Furthermore, the uncertainty surrounding the Commission's provisional outlook is particularly high in view of the rapidly unfolding events in the external environment (Japan and MENA region) as well as in some euro-area sovereign-bond markets and their interaction with the real economy. The attached assumptions and outlook may therefore be subject to larger revisions than is usually the case.

**ASSUMPTIONS ON THE EXTERNAL ECONOMIC ENVIRONMENT UNDERLYING THE PROVISIONAL STORAGE OF THE SPRING 2011 FORECASTS**

| VARIABLE | ASSUMPTIONS FOR | | | | |
|---|---|---|---|---|---|
| (annual averages) | 2010 | 2011 | | 2012 | |
| | | | *change** | | *change** |
| **Interest rates** (in % p.a.) | | | | | |
| - euro area: short-term (3-months money markets) | 0.81 | 1.63 | *+0.24* | 2.57 | +0.86 |
| - euro area: long-term (10-year government bonds, Germany) | 2.74 | 3.37 | *+0.78* | 3.67 | +0.85 |
| - USA: short-term (3-months money markets) | 0.34 | 0.42 | *-0.07* | 1.29 | +0.46 |
| - USA: long-term (10-year government bonds) | 3.20 | 3.58 | *+0.71* | 4.06 | +0.76 |
| **Exchange rates** ("-": depreciation) | | | | | |
| USD / € (level) | 1.33 | 1.40 | *0.01* | 1.41 | 0.02 |
| Nominal effective exchange rate of the euro area (% change) | -6.7 | 1.0 | *+0.8* | 0.5 | +0.5 |
| Nominal effective exchange rate of the EU (% change) | -7.4 | 2.4 | *+1.5* | 0.5 | +0.5 |
| Euro exchange rate: (levels) | | | | | |
| Bulgarian lev | 1.96 | 1.96 | *0.00* | 1.96 | *0.00* |
| Czech koruna | 25.29 | 24.47 | *-0.09* | 24.51 | *-0. 03* |
| Danish krone | 7.45 | 7.46 | *0.01* | 7.46 | *0.01* |
| Latvian lats | 0.71 | 0.71 | *0.00* | 0.71 | *0.00* |
| Lithuanian litas | 3.45 | 3.45 | *0.00* | 3.45 | *0.00* |
| Hungarian forint | 275.35 | 268.15 | *-5.28* | 266.77 | *-6.66* |
| Polish zloty | 3.99 | 4.00 | *0.07* | 4.02 | *0.09* |
| Romanian leu | 4.21 | 4.14 | *-0.15* | 4.11 | *-0.18* |
| Swedish krona | 9.54 | 8.94 | *-0.36* | 8.96 | *-0.34* |
| UK pound sterling | 0.86 | 0.87 | *0.01* | 0.88 | *0.02* |

| VARIABLE | ASSUMPTIONS FOR | | | | |
|---|---|---|---|---|---|
| (annual averages) | 2010 | 2011 | | 2012 | |
| | | | *change** | | *change** |
| **GDP** | (in real terms, % change) | | | | |
| - World, excluding EU (in PPP terms) | 5.6 | 4.6 | *+0.1* | 4.7 | *+0.1* |
| - USA | 2.9 | 2.8 | *+0.7* | 2.6 | *+0.1* |
| - Japan | 3.9 | 0.5 | *-0.8* | 1.5 | *-0.2* |
| - China | 10.3 | 9.3 | *+0.1* | 9.0 | *+0.1* |
| - EU | 1.8 | 1.8 | *+0.1* | 2.0 | *0.0* |
| **World trade** | (% change, goods and services) | | | | |
| EU export markets, extra-EU (volumes) | 11.5 | 7.6 | *+0.1* | 7.3 | *+0.4* |
| World import volumes, excluding EU | 13.0 | 8.3 | *+0.2* | 7.9 | *+0.6* |
| World import prices (in USD) | 5.6 | 10.2 | *+5.2* | 3.2 | *+1.2* |
| **Commodity prices** | | | | | |
| Oil prices (Brent, level in USD/barrel) | 80.2 | 112.8 | *+23.9* | 112.0 | *+21.2* |
| Oil prices (Brent, level in EUR/barrel) | 60.6 | 80.9 | *+16.9* | 80.1 | *+14.8* |
| Non-oil commodity prices (in USD, % change) | 26.0 | 24.8 | *+19.9* | -3.9 | *-1.4* |
| Non-oil commodity prices (in EUR, % change) | 32.7 | 18.5 | *+15.2* | -4.6 | *-2.1* |