



LE GOUVERNEMENT
DU GRAND-DUCHÉ DE LUXEMBOURG
Ministère des Finances

10th UPDATE OF THE LUXEMBOURG STABILITY AND GROWTH PROGRAMME

Luxembourg, 6 October 2008

Contents

INTRODUCTION	2
I. GENERAL GUIDELINES AND OBJECTIVES OF FISCAL POLICY	3
II. ECONOMIC SITUATION AND DEVELOPMENTS	5
II.1. THE INTERNATIONAL ECONOMIC ENVIRONMENT: MAIN ASSUMPTIONS	5
II.2. THE SHORT-TERM ECONOMIC ENVIRONMENT, 2008-2009.....	7
II.3. MEDIUM-TERM MACROECONOMIC FORECAST, 2010-2011	10
III. BUDGETARY SITUATION AND PUBLIC DEBT	11
III.1. GENERAL GUIDELINES OF FISCAL POLICY AND MEDIUM-TERM OBJECTIVES.....	11
III.2. BUDGETARY SITUATION IN 2007 AND 2008.....	12
III.3. BUDGET FOR 2009 FISCAL YEAR	15
III.4. MEDIUM-TERM FORECAST, 2010-2011	18
III.5. PUBLIC DEBT	18
IV. SENSITIVITY ANALYSIS AND COMPARISON WITH PREVIOUS UPDATE	22
IV.1. SENSITIVITY ANALYSIS	22
IV.2. COMPARISON WITH PREVIOUS STABILITY PROGRAMME	23
V. QUALITY OF PUBLIC FINANCES	25
VI. LONG-TERM SUSTAINABILITY OF PUBLIC FINANCES	28
VII. INSTITUTIONAL FEATURES OF PUBLIC FINANCES	31

Tables

TABLE IA: MACROECONOMIC FORECAST	34
TABLE IB: PRICE DEVELOPMENTS	35
TABLE IC: LABOUR MARKET DEVELOPMENTS	35
TABLE ID: SECTORIAL BALANCES	36
TABLE 2: GENERAL GOVERNMENT BUDGETARY DEVELOPMENTS	37
TABLE 3: GENERAL GOVERNMENT EXPENDITURE ACCORDING TO FUNCTION	38
TABLE 4: PUBLIC DEBT	38
TABLE 5: CYCLICAL DEVELOPMENTS OF PUBLIC FINANCES	39
TABLE 6: DIVERGENCES FROM PREVIOUS PROGRAMME UPDATE	39
TABLE 7: LONG-TERM SUSTAINABILITY OF PUBLIC FINANCES	40
TABLE 8: BASIC ASSUMPTIONS	41

Introduction

In accordance with Council Regulation CE 1466/97, the Grand Duchy of Luxembourg presented its first stability and growth programme to the Council and the European Commission at the beginning of 1999. The present document is the 10th update of this programme, covering the 2008 – 2011 time period.

The present update of the stability and growth programme has been prepared in parallel with the 2009 draft budget law. The draft budget was presented to Parliament on 1 October 2008 and will be the subject of a final vote towards mid-December 2008. The draft budget is available on the website of the *Inspection générale des Finances* under <http://www.igf.etat.lu/pb2009.pdf>. This update also takes into account the key data of the multi-annual investment spending plan for the 2008-2012 time period.

The 10th update of the Luxembourg stability and growth programme was approved by the Cabinet on 3 October 2008 and has been transmitted to Parliament. It is available on the website of the Ministry of Finances under <http://www.mf.public.lu/>.

Parliament has also been notified of the Council's opinion on the previous update of the stability and growth programme.

I. General guidelines and objectives of fiscal policy

The 2009 draft budget law and the 10th update of the 2008-2011 stability programme were drawn up in an economic context characterised by strong volatility and a high degree of uncertainty.

Nevertheless, despite the economic slowdown in Europe and in Luxembourg and the persistence of the financial crisis, Luxembourg's public finances are to remain solid.

The general government is indeed forecast in 2008 to free up net lending capacities amounting to 2.3% of GDP. Furthermore, the 2009 draft budget law foresees a general government budgetary surplus amounting to 1.1% of GDP. Luxembourg will thus continue to achieve its medium-term budgetary objective in 2008 and 2009.

The stability programme foresees that budgetary surpluses amounting to 1% of GDP will be maintained in 2010 and 2011. However, taking into account the particularly high degree of uncertainty surrounding future economic and financial developments and the fact that parliamentary elections will be taking place in June 2009, the public finances forecast for the 2010-2011 time period is based on the assumption of an unchanged fiscal policy and a gradual normalisation of the macroeconomic context.

The adoption of the budgetary consolidation measures in April 2006 by the Tripartite Coordinating Committee and the rapid improvement of the economy enabled a balanced budgetary position to be regained more rapidly than anticipated and new budgetary leeway to be created for the fiscal policy.

The existence of this leeway has enabled the Government to reduce fiscal pressure on households and businesses, to use the fiscal policy instrument to act upon domestic demand in order to ease cyclical fluctuations and to adopt a series of targeted measures aiming to improve the purchasing power of low-income households in a high-inflation environment.

In the context of the financial crisis, the Government launched a concerted action at the end of September with the Belgian, French and Dutch governments to support the Dexia and Fortis banks. To this effect, the Government will be granting a convertible loan to Dexia and Fortis for a total amount of €2.876 billion (7.6% of GDP).

This Government intervention, which has a significant impact on public debt (which will increase from 7% of GDP in 2007 to 13.9% of GDP at the end of 2008), was necessary in order to guarantee the stability of the Luxembourg financial system. It should be pointed out that this intervention is temporary and that it will a priori not have a negative impact on either the long-term sustainability of public finances or on the short-term budgetary balance.

The 2009 draft budget law and the 10th update of the stability programme are consistent with the National Plan for Innovation and Full Employment drawn up in the context of the Lisbon Strategy and the forecasts for the short-term and medium-term public finances take into account the budgetary impact of the measures laid out in the National Reform Programme for the new 2008-2010 three-year cycle.

In this context, it can be reminded that the European Council of 4 March 2008 did not express specific recommendations with regard to Luxembourg, but confined itself to identifying “points to be monitored”, including in particular the need to adopt measures to reform and ensure the long-term sustainability of the pension system.

Despite the uncertain economic context and the existence of numerous downside risks, the Government reaffirms its commitment to achieve the objectives of the Stability and Growth Pact. It is prepared to take all the necessary measures, in particular in a discretionary manner at public expenditure level, in order to avoid a substantial deterioration of the State’s net lending capacity and a significant divergence from the above-mentioned objectives.

II. Economic situation and developments

II.1. The international economic environment: main assumptions

Since the beginning of the third quarter of 2008, the international economic and financial context has gradually deteriorated and additional risks to growth have materialised. The subprime crisis in the United States has spread through the financial markets and the credit markets have henceforth been severely affected. The financial crisis appears to be more sustained and significant than initially envisaged and Europe has not been spared by this financial crisis.

The economic situation as well as the short-term and medium-term economic outlook are thus particularly uncertain. Consequently, the macroeconomic scenario outlined in the 2009 draft budget law and the present stability programme update is subject to numerous risks. These are above all oriented downwards, yet upside risks are nevertheless not to be totally excluded. This scenario is thus based on the information available upon drawing up the draft budget law and the stability programme.

During the second quarter of 2008, the GDP of the eurozone decreased by 0.2% and according to the interim forecasts of the European Commission of September, growth over the entire year is estimated at 1.3%, i.e. a downwards revision of 0.4 percentage points with reference to the spring forecast.

The relatively flat growth profile during the second quarter of 2008 implies that the growth achieved during the beginning of 2009 will be very weak, which will also result in a downwards revision of growth for 2009. According to its September projections, the ECB is henceforth expecting an economic growth between 0.6% and 1.8% for the eurozone in 2009.

It must be pointed out that the German economy is showing a good level of resistance in this difficult context. The European Commission estimates that economic growth will reach 1.8% for 2008. This is all the more significant in that Germany is Luxembourg's principal economic and commercial partner.

In accordance with the short-term and medium-term forecast developments, the growth assumptions underlying the macroeconomic scenario of the stability programme have been adapted, i.e. revised downwards in comparison with the forecast drawn up by Statec in June 2008. Economic growth is indeed estimated at 1.4% in 2008 and 1.2% in 2009. The macroeconomic scenario is based on the assumption that the negative effects linked to the financial crisis and the inflationary shock will gradually fade over the course of 2009 and that

from 2010 onwards, the eurozone will once again experience a more robust economic growth that will approach the potential growth.

Inflation in the eurozone has persisted at a very high level during the first half of 2008. Since August, inflation has slowed down: in fact, the year-to-year inflation rate amounted to 3.8% against 4% in the previous month.

For 2008, the European Commission is henceforth anticipating an inflation rate of 3.6% in the eurozone, i.e. an upwards revision of 0.5 percentage points in comparison with the spring forecast.

Inflation has accelerated under the influence of a double external shock in terms of energy product prices and the food prices, while the euro exchange rate appreciation has enabled these pressures to be eased. Nevertheless, the strong nominal and effective increase in value of the euro exchange rate as well as the high level of volatility on the foreign exchange markets have generated new risks to economic growth.

The strong increase in inflation has had negative repercussions on household spending and has thus contributed to the economic slowdown. The inflation effect on household spending has also been direct, by means of a negative effect on the confidence indicators of the economic players.

Strong inflationary pressures still persist in the eurozone and for 2009, the ECB is expecting an inflation rate in the 2.3%-2.9% range. Nevertheless, with the decline in activity and the recent drop in oil prices, these pressures could diminish more rapidly. Furthermore, the underlying inflation is developing at a more moderate rhythm, indicating that there are currently no generalised second-round effects in the eurozone.

Oil prices and the euro exchange rate are important factors for price developments in Luxembourg. The stability programme is based on the external assumption of oil prices reaching US\$95.5/barrel in the 2009-2011 period and on a euro exchange rate of 1.45 against the American dollar.

It should be reminded that the short-term and medium-term macroeconomic forecast have been drawn up in a general economic context characterised by a particularly high degree of uncertainty. This is even more applicable for the short-term forecasts for 2010-2011.

For the Luxembourg economy, the macroeconomic scenario outlined below is in particular based on the assumption that the financial crisis and inflationary shock are of a cyclical nature,

the effects of which will gradually recede over the course of 2009. This implies that there will be no long-term negative effect in terms of potential growth.

It should also be noted that the main basic assumptions underlying the present stability programme update are likely to differ from the common assumptions of the European Commission. This is owing to the fact that the stability programme was drawn up in conjunction with the 2009 draft budget law and that the submission of the draft budget to Parliament preceded the publication of the European Commission's autumn forecast.

II.2. The short-term economic environment, 2008-2009

In 2007, the growth in GDP reached 5.2%, i.e. a growth that was lower than foreseen in the previous stability programme (6%), but higher than the potential growth.

The 2007 growth was supported by a robust domestic and external demand. The exceptional dynamism in investment (+11.8%) should also be underlined.

Despite an economic activity growing beyond its potential, inflation (NICP) decelerated from 2.7% in 2006 to 2.3% in 2007. However, under the impact of the double inflationary shock of oil and foodstuff prices, inflation has accelerated since October and exceeded 3% since November 2007.

At the same time, the unemployment rate has dropped from 4.8% in 2006 to 4.2% in 2007 and domestic employment has continued strongly to rise (+4.3%, i.e. a net creation of 16,400 jobs).

The activity in the financial sector has been witnessing a slowdown since the end of 2006. This slowdown was precipitated by the financial turmoil in the wake of the subprime crisis in the United States, which had negative repercussions on the activity of the financial sector from the second half of 2007 onwards. However, owing to the low exposure of Luxembourg institutions to this type of risk, the direct negative effect was contained and less severe than in other financial centres. Nevertheless, the Luxembourg sector will not escape the indirect effects that will materialise more in the medium term and will be all the more severe the longer the crisis continues. At the end of September thus, the Government, in a concerted action with the Belgian, French and Dutch governments, had to intervene to recapitalise the Dexia and Fortis banks following a sharp drop in market value of the two companies, which gave rise to a confidence crisis. The rapid intervention of the public authorities allowed confidence in the market to be regained and contagion effects to the real economy to be avoided.

Consequently, the slowdown of the world economy as a result of the international financial crisis and the increase in energy and agricultural raw material prices has led to a downwards revision of growth prospects for 2008 and 2009.

Economic growth in 2008 is now estimated at 2.5%, i.e. the weakest growth rate since 2003.

The exogenous shocks that the Luxembourg economy is subject to affect both domestic and external demand.

The inflationary shock and the financial crisis have negative repercussions on consumer confidence, despite the fact that the real disposable income per capita has continued to increase throughout 2007 and 2008 (at a rate of 0.9% in 2007 and 0.5% in 2008 according to Statec estimates). Household spending is forecast to slow down, marginally at first (from 2% in 2007 to 1.8% in 2008) and then more strongly in 2009 (to 1.5%).

The short-term and medium-term deterioration of growth prospects as well as the increased cost of lending have a negative effect on investment, including real estate investment. Investment has undergone an exceptionally dynamic development in 2007 (+11.8%), but will slow down to 2% in 2008 and decrease in 2009 (-3.3%).

The domestic demand component will nevertheless be stabilised by public consumption, which will progress from 2.6% in 2007 to 4.2% in 2008 and 2009.

In parallel, the contribution to growth of the external demand component decreases under the influence of a less favourable international growth and a deterioration of the terms of trade resulting in particular from a rise of the effective exchange rate of the euro since the end of 2006 and the increase in energy prices. This implies a slowdown in 2008 of exports of goods and services – including financial services – and an increase in imports.

It must be noted that despite comparable economic growth rates in 2008 and 2009, the composition of growth is quite different from one year to the next. Indeed, in 2008 the impulse on growth comes essentially from domestic demand and the contribution of external demand is relatively weak. In spite of the economic slowdown and high inflation having negative repercussions on domestic demand, employment and consumer purchasing power exhibit resistance, with sound public finances. However, in the medium term, the economic fluctuations will have downstream ramifications on employment and purchasing power, and investment will decrease. Concurrently, the gradual return to a relative calm on the financial markets and a slowdown in inflation are likely to have favourable repercussions on external demand. Consequently, in 2009 the impulse on growth will essentially come from external demand (in

this case the exports of financial services) whereas the contribution of domestic demand will be more moderate.

In this context, it should be specified that the 2009 draft budget law includes a series of measures to maintain household purchasing power, in particular of low-income households (and thus with a high marginal propensity to consume). The effect of these measures on household purchasing power and household expenditure is not taken into account in this scenario. They thus represent a potential positive factor for growth in 2009.

By analogy with the development of inflation in the eurozone, the inflation rate (NICP and HICP) achieved a relative maximum in July 2008 and, since August, inflation has entered a slowdown phase. Nevertheless, annual average inflation will be very high, at 3.7% for the NICP and 4.6% for the HICP. The fall in oil prices and the existence of favourable base effects imply that inflation will significantly slow down in 2009, yet that it will persist at a level superior to the price stability objective laid down by the ECB. Indeed, the NICP is forecast to reach 2.4% in 2009, while the HICP will reach 2.9%. Despite the drop in headline inflation, the inflation prospects remain oriented upwards in the medium term: the underlying inflation will go from 2.4% in 2008 to 2.6% in 2009, implying the existence of significant inflationary pressures that are not linked to energy or foodstuff price developments.

In terms of inflation dynamics, it should be pointed out that the Government has decided a freeze on administered prices for 2008 and 2009, in accordance with the terms of reference of the Eurogroup of 11 February 2008 on inflation. Furthermore, the adjustment of the automatic wage indexation system has resulted in the effective index-linked payment increase due on 1 June 2008 being postponed to 1 March 2009. According to Statec estimations, the adjustment of the automatic wage indexation system reduces inflation by 0.2 percentage points per annum. The Tripartite agreement of May 2006 foresees that the adjustment of the automatic indexation system be maintained in 2009.

The labour market has been characterised by an exceptional dynamism in 2007, total employment having increased by 4.5%. In contrast with the rhythm of economic activity, employment exhibits a good level of resistance to the cyclical fluctuations and it was not until the second half of 2008 that a slowdown in employment growth was observed. The good resistance capacity of employment can be explained in particular through a structural lack of qualified workers on the Luxembourg labour market. Consequently, employers are reticent to engage in layoffs when the economic slowdown is perceived to be limited in time. For 2008, the employment growth rate is estimated at 3.7%. In parallel, the unemployment rate continues to drop, from 4.2% in 2007 to 4.0% in 2008. The economic slowdown nevertheless implies that in the medium term the labour market will witness less dynamic developments and that the unemployment rate will once again increase. Indeed, it is forecast that in 2009 total employment

growth will slow down to 2.7% and that the unemployment rate will increase to 4.5%. Owing to the structure of unemployment – more than half of those affected by unemployment have a lower level of training and more than a third are long-term unemployed – and the existence of an elastic labour force at “Greater Region” level, unemployment developments are asymmetrical in function of the cycle phases: unemployment rises more rapidly during the descending phase of the cycle than it is reduced during the ascending phase of the cycle.

It should be noted that the temporary discrepancy between employment and economic activity implies a sluggish development of labour productivity during the course of the 2007-2009 time period.

II.3. Medium-term macroeconomic forecast, 2010-2011

The economic situation and short-term cyclical prospects being particularly uncertain, the preparation of a medium-term macroeconomic scenario for 2010-2011 is surrounded by a very high margin of uncertainty.

At the moment of preparation of the stability programme, the central scenario is based on the assumption that the effects of the financial crisis will gradually fade over the course of 2009 and that inflationary pressures resulting from energy and food prices will subside.

This “technical” assumption implies that the Luxembourg economy will converge towards its potential growth in 2010 and 2011.

III. Budgetary situation and public debt

III.1. General guidelines of fiscal policy and medium-term objectives

Since 2006, Luxembourg has achieved its medium-term budgetary objective and the general government budgetary situation has yielded a surplus.

Following the economic slowdown of 2001-2003, public finances gradually deteriorated and public deficits were registered in 2004 and 2005. In April 2006, the Government and the social partners, meeting within the Tripartite Coordinating Committee, agreed on a set of measures aimed at enhancing the competitiveness of the Luxembourg economy and at regaining balanced public finances.

The primary objective of these measures was to slow down the growth in public expenditure. It was thus decided to modulate the automatic wage indexation system, to disindex family benefits and to optimise public expenditure, in particular in relation to current operating expenditure and investment spending. In addition, a certain number of specific measures at revenue level were decided (e.g. increase of the long-term care insurance contribution rate payable by the insured party, increase of VAT rate applicable to certain service provisions).

The adoption of the budgetary consolidation measures in April 2006 coincided with a regained dynamism of the Luxembourg economy, the scope of which had not been fully anticipated. Indeed, economic growth accelerated to reach 6.4% in 2006. In addition, the general government budgetary situation was positively affected by an exceptional event (Arcelor-Mittal merger), of which the total impact on the budgetary balance amounted to approximately 0.4-0.5% of GDP (of which approximately 0.3% of GDP can be qualified as temporary one-off). Consequently, the effect of the measures adopted by the Tripartite Coordinating Committee was thus enhanced by a combination of favourable economic circumstances and allowed the return to a balanced budgetary position at general government level from the 2006 fiscal year onwards.

The implementation of these budgetary consolidation measures and the application of great discipline in matters of public expenditure control have enabled a balanced position of public finances to be regained. This has also allowed sufficient budgetary leeway to be created for financing the Government's important financial commitments and policies, which are to be implemented in favour of long-term economic growth, without however increasing the tax burden or placing an excessive burden on future generations. In terms of these commitments, policies that merit particular attention include those involving social equity, employment – in particular those

aiming to reduce unemployment – education and research, the development of a more efficient public transport service and the protection of the environment.

However, it appears as though the economic slowdown and the financial crisis will be reducing budgetary leeway.

The smallness of the Luxembourg economy and its high degree of openness mean that public finances are particularly sensitive to cyclical developments. The effect of automatic stabilisers on the budgetary balance is thus also particularly high. In addition, the Government has reacted to the increase in inflation by introducing measures aimed at preserving the purchasing power of low-income households.

As shown in the table below, the general government budgetary situation is thus going to deteriorate in the short term. It will nevertheless largely yield surpluses and Luxembourg will continue to achieve its medium-term budgetary objective over the entire projection horizon.

	2007	2008	2009	2010	2011
General government	3.2	2.3	1.1	0.8	1.1
Central government	0.8	-0.4	-1.8	-1.7	-1.5
Local government	0.0	0.2	0.2	0.0	0.0
Social security	2.4	2.5	2.7	2.5	2.5

Note: in % of GDP

It should once again be noted that the budgetary objectives defined by the Government are expressed in nominal terms and not in structural terms. Indeed, in the case of Luxembourg, the computation – in particular *ex ante* – of the cyclically-adjusted balance (and thus of the structural balance) is affected by a relatively wide margin of imprecision. The common methodology for estimating the output gap is based on the computation of the “natural” unemployment rate (Nairu). Due to the strong presence of non-resident workers on the Luxembourg labour market, however, the Nairu concept poses a problem owing to the fact that labour supply is highly elastic. Alternative methods for estimating the output gap (e.g. by Statec) yield results that differ considerably from output gap estimations based on the common methodology. Hence the more restrictive decision by the Government to define the budgetary objectives in nominal terms.

III.2. Budgetary situation in 2007 and 2008

On 1 October 2008, Luxembourg notified the European Commission of a net lending capacity of 3.2% of GDP in 2007 and of 2.3% of GDP in 2008.

With the exception of the measures introduced via a special law, the majority of the budgetary consolidation measures started to produce their effects with the implementation of the budget for the 2007 fiscal year: restriction of the number of public servants being employed at central government level, introduction of a “ceiling” for central government current expenditure, disindexation of family benefits, adjournment and staggering of the adjustment of allowances and pensions scheduled for 1 January 2007. In addition, the adjustment of the automatic wage indexation system introduced via a special law has enabled the “external” progression of budgetary aggregates linked directly or indirectly to this system (e.g. wages and salaries, expert contracts) to be restricted.

Consequently, the ratio between public expenditure and GDP has decreased from 38.6% in 2006 to 37.8% in 2007.

Supported by a strong economic growth of 5.2%, public revenue has undergone a very favourable development. The ratio between public revenue and GDP has thus increased from 39.9% in 2006 to 41.0% in 2007.

The strong employment growth, the dynamism of domestic demand and a good performance of the financial sector have supported the development of public revenue and the ratio between revenue derived from tax and GDP has increased from 25.5% to 26.2%. In addition, further to the favourable employment development, the ratio between the social contributions and GDP has increased from 10.8% to 11.1%.

It should nevertheless be pointed out that in 2007 excise duty revenue stagnated in nominal terms. This stagnation in revenue was anticipated and mirrors the measures taken by the Government in the context of its policies aimed at achieving better qualitative results in terms of health provision and environmental protection (in this case the honouring of commitments in the context of the Kyoto Protocol).

Despite a significant slowdown in economic growth from 5.2% in 2007 to 2.5%, the general government budgetary situation continues largely to yield surpluses in 2008. Nevertheless, the general government net lending capacity decreases from 3.2% of GDP in 2007 to 2.3% of GDP in 2008.

The deterioration of the budgetary situation is concentrated at central government level: following a surplus balance of 0.8% of GDP in 2007, the central government recorded a slight budgetary deficit of 0.4% of GDP in 2008. At the same time, the good level of resistance of the employment market to the economic slowdown implies that the budgetary surplus of social security increases from 2.4% of GDP in 2007 to 2.5% of GDP in 2008. It must be noted that the local government budgetary situation remains close to balance and positive.

Public revenue developments generally react with a lag to the economic situation. Thus, the economic slowdown deploys its effects on public revenue in several stages and the public revenues of the 2008 fiscal year are hardly affected, with the exception of those linked more closely to the development of the financial sector (e.g. subscription tax). The majority of negative effects will thus materialise in the medium term (essentially in 2009-2010).

Consequently, the ratio between public revenue and GDP continues to increase and goes from 41% in 2007 to 42% in 2008.

Despite the economic slowdown, net employment creation continues at a sustained rhythm in 2008. The increase in employment thus largely compensates for the negative effect on revenue resulting from the adjustment to inflation of 6% of the personal income tax scale. In addition, the introduction of a child tax bonus and the abolishment of the tax reduction for children has had positive repercussions on the gross revenue derived from personal income tax, while this increase in revenue being matched by an increase in cash social transfers. It must be noted that the cumulative budgetary impact from the adjustment to the tax scale and the introduction of a tax bonus for children amounts to approximately 1% of GDP.

The good level of resistance of the labour market to the economic slowdown also has positive implications at the level of social contributions, which increase from 11.1% of GDP in 2007 to 11.3% of GDP in 2008.

At the level of indirect taxes, the financial turbulences imply a reduction in comparison with 2007 of subscription tax revenues (> €100 million). In addition, the excise duty revenues stagnate in nominal terms with regard to the previous fiscal year. Value added tax collections, however, continue to develop on a positive path.

Despite the good level of resistance in a first phase of the public revenues to the economic slowdown, a reduction of the State's net lending capacity was unable to be avoided, to the extent that the scale of the slowdown had not been fully anticipated.

Indeed, the 2008 budget had been drawn up under the assumption of a real economic growth of 4.5% and a nominal growth of 7.6%. The effective economic growth in 2008, however, is markedly inferior to these forecasts, amounting to 2.5% in real terms and 4.4% in nominal terms.

Consequently, the expenditures included in the budget have developed at a rhythm higher than the short-term economic growth, pushing the ratio between public expenditure and GDP upwards. This ratio thus went from 37.8% in 2007 to 39.7% in 2008.

However, this increase cannot fully be explained by a "base effect" linked to a lower than anticipated economic growth.

Thus, the introduction of the child tax bonus implies a change in structure translated by an increase in cash social transfers from 13.1% of GDP in 2007 to 13.7% of GDP in 2008. It should be reminded that the “net” budgetary impact resulting from the introduction of the child tax bonus is lower, given that in parallel with its introduction, the tax reduction for children was abolished, which generated additional tax revenue.

The strong increase in employee compensation and intermediate consumption expenditure from 10.4% of GDP in 2007 to 11% of GDP in 2008 is a priori not compatible with the stated will of the Government to exercise strict control on current expenditure developments. However, at the rate of 0.2% of GDP, this increase can be explained by the acquisition of military equipment in the context of peace-keeping operations. In addition, the GDP increase in the share of employee compensation can essentially be explained by recruitments undertaken in the context of developing the University of Luxembourg and public research centres and as such it is in line with the context of fulfilling the objectives of the Lisbon Strategy.

“Other expenditure” increased from 4.0% of GDP to 4.3% of GDP owing to additional expenditure for achieving reductions in greenhouse gas emissions via the flexibility mechanisms defined in the Kyoto Protocol.

Finally, public investment increased from 3.7% of GDP in 2007 to 4.0% in 2008.

III.3. Budget for 2009 fiscal year

On 1 October 2008, the Government submitted to Parliament the draft budget for the 2009 fiscal year.

The 2009 draft budget presents a general government surplus of €427 million, i.e. 1.1% of GDP. The central government budget balance shows a deficit of 1.8% of GDP while the local government and social security budget balances continue to yield a surplus (0.2% of GDP and 2.7% of GDP, respectively).

The economic context governing the preparation of the 2009 draft budget is particularly difficult and uncertain.

The uncertainties regarding the development of economic activity, the persistence of the financial crisis and the possible consequences in terms of employment and unemployment bring significant risks to bear on public revenue developments.

At the same time, the persistence of inflation at a high level has eroded household purchasing power and weighs on both domestic demand and social cohesion.

From a longer-term perspective, it is important to maintain an “institutional” framework that is favourable to the economic activity and investment while guaranteeing the long-term sustainability of public finances.

The 2009 budget thus aims to establish the balance between short-term stabilisation and medium-term and long-term stabilisation.

In terms of public revenue, the 2009 budget will be subjected to the impact resulting from the play of automatic stabilisers. In addition, the budget foresees additional measures, which have an impact on revenue. The global tax burden on households and businesses will thus be reduced.

At household level, the personal income tax scale will be adapted by 9%. In 2008, the scale was already adapted by 6%. It should however be pointed out that prior to this adjustment, the scale had not been adapted since 2002 and consequently the implicit tax burden on households has increased and given rise to high marginal tax rates in certain segments of the distribution of taxable incomes, in particular those of lower taxable incomes. In order to remedy this situation and to avoid possible disincentive and distortionary effects resulting from high marginal tax rates in certain income distribution segments, the Government has thus carried out an adaptation in two stages of the personal income tax brackets. The budgetary impact of this measure is estimated at €342 million (0.9% of GDP) in 2009.

In addition, the Government will introduce a tax credit for employees, a tax credit for pensioners and a tax credit for single parents, and in parallel it will abolish the corresponding tax allowances. The replacement of compensatory reductions by tax credits is a measure that essentially benefits households with low taxable incomes, to the extent that their disposable income will increase. The budgetary impact of these measures is estimated at €98 million (0.25% of GDP).

In order to strengthen the competitiveness of businesses in an international context, the corporate income tax rate is reduced from 22% to 21%. Despite the fact that this business taxation reduction enters into force in 2009, it will not have any repercussions on tax revenues until the 2010 fiscal year.

Finally, the slowdown in employment growth will imply a more moderate growth in social contributions, which will go from 11.3% of GDP in 2008 to 11.2% in 2009.

Consequently, the ratio between public revenue and GDP will decrease from 42% in 2008 to 41.1% in 2009.

In parallel, the ratio between public expenditure and GDP will increase from 39.7% of GDP in 2008 to 40.1% of GDP in 2009.

At public expenditure level, the priorities laid down in the 2009 draft budget largely coincide with the priorities defined by the Government in the context of the implementation of the Lisbon Strategy.

Emphasis is thus placed on the following fields of action:

- The development of infrastructures in the family and social fields, allowing in particular an improved reconciliation between professional life and family life. To this effect, the 2009 draft budget foresees the introduction of a “service cheque” system for financing childcare. The budgetary impact of this measure is estimated at €20-25 million (< 0.1% of GDP).
- Development assistance to the small and medium-sized business sector, in particular by means of official aid favouring investment.
- The development of research activities, with the main emphasis on the action plan “Technologies de la santé” which, in partnership with American research centres, aims to create a centre of excellence in the field of molecular biology. In the 2009 budget, public R&D investment amounts to 0.51% of GDP.
- Development and modernisation of public infrastructures. Public investment is forecast to increase from 4% of GDP in 2008 to 4.1% of GDP in 2009.

With a view to cementing social cohesion and solidarity, the 2009 budget foresees in particular:

- An increase of the heating allowance and its transformation into an inflation allowance, in order to lessen the impact of the price increases on living standards for households with very low incomes.
- The allocation of allowances for social housing, equivalent to €127.5 million (0.32% of GDP).
- The intensification of development cooperation by increasing public development aid to 0.92% of GNI.

Finally, in the field of environmental and sustainable development policies, the Government foresees additional budget provisions with a view to achieving reductions in greenhouse gas emissions, via either national measures or flexibility mechanisms defined in the Kyoto Protocol. In 2009, related expenditure will amount to €121.7 million (0.3% of GDP). The Government will also pursue its public transport improvement policy for both the national and cross-border networks.

It must be noted that the global budgetary implications of the budgetary consolidation measures adopted in the context of the Tripartite Coordinating Committee in April 2006, which continue

to exert their effects on the 2009 budget, result in an improvement of the budgetary balance of €300 million (0.75% of GDP).

III.4. Medium-term forecast, 2010-2011

The economic situation and short-term cyclical prospects being particularly uncertain, the preparation of medium-term budgetary forecasts for 2010-2011 is surrounded by a high margin of uncertainty.

The macroeconomic scenario is based on the assumption that the negative effects linked to the financial crisis and the inflationary shock will gradually fade and that economic growth will gradually approach potential growth.

In addition, it should be pointed out that parliamentary elections will be taking place in June 2009 and that the responsibility for defining the budgetary guidelines for 2010 and beyond will rest with the Government that emerges from these elections. Consequently, the budgetary projections are based on the assumption of an unchanged fiscal policy.

In this scenario – and despite once again experiencing a more robust economic growth – the general government budgetary situation will continue to deteriorate. The budget balance will nevertheless continue to yield a surplus (+0.8% of GDP) and the medium-term budgetary objective will continue to be met.

The deterioration of the budgetary situation in 2010 essentially mirrors the delayed effect of the economic slowdown of 2008-2009 on public revenue. This discrepancy between the economic activity and the tax revenues shall deploy its effects in particular at the level of direct taxes, following the decrease in profits of the financial institutions and the delayed effect of the economic slowdown on the employment and unemployment development.

With unchanged policies, these delayed effects will gradually fade and the general government budgetary situation will improve in 2011, provided economic growth remains favourable.

III.5. Public debt

Luxembourg general government debt remains well below the 60% of GDP reference value foreseen in Article 104 of the EC Treaty.

Indeed, in 2008, the ratio of general government gross debt to GDP is situated at 13.9%. This is a significant increase of public debt in comparison with the previous stability programme, which

is nevertheless entirely due to the refinancing of the aid package provided to the Dexia and Fortis banks.

	2007	2008	2009	2010	2011
General government gross debt	7.0	13.9	13.9	14.2	14.3
Central government	4.7	11.7	11.7	12.1	12.3
Local government	2.3	2.2	2.2	2.1	2.0
Social security	0.0	0.0	0.0	0.0	0.0

Note: in % of GDP

In addition, the central government has reserves at its own disposal (special funds, budgetary reserve and financial fixed assets) amounting to €3,892 million, i.e. 10.3% of GDP. These reserves were accumulated in particular during the last decade, during which the central government budgetary situation generally yielded surpluses.

Furthermore, the social security sector regularly generates surpluses and these surpluses are put in reserve in order to pay for future social transfers. At the end of 2007, social security had accumulated a reserve amounting to almost €7.9 billion or 21.7% of GDP. Considering the central government's own reserves and the social security pensions reserve, the general government net debt is negative.

In addition to the government debt detailed hereinafter, the central government debt also includes debt of public institutions.

The quantity of monetary signs issued by the Treasury as coins has increased rapidly since the replacement of Belgian and Luxembourg franc coins with euro coins. On 30 August 2008, euro coins worth €171.6 million were in circulation. To this can be added monetary signs in francs, which have yet to be reimbursed and which amount to €8.4 million.

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 (AsDB, AsDF, EBRD, IFAD, GEF, IDA, MIGA, "Kyoto" carbon funds). These bills do not carry interest and they are paid if, and when, they are due. On 31 August 2008, outstanding bills totalled €59.2 million. The payment of the Treasury bills is carried out via the public debt fund or the "Kyoto" fund. According to currently known deadlines, the reimbursements of Treasury bills will amount to €8.2 million in 2008, €13.3 million in 2009, €14.9 million in 2010 and €14.3 million in 2011. However, it is foreseen to issue interest-carrying Treasury bills in 2008 to refinance the aid granted to the Dexia and Fortis banks.

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.

For each of the years 2005, 2006, 2007 and 2008, the Government has been authorised to issue new debt with a view to financing infrastructure projects via the railway fund and the road construction fund, amounting to €100 million per year per fund, i.e. a total of €800 million. The authorisations of 2005 to 2007 were used each time by the taking up of bank loans contracted for ten years to a total amount of €600 million. To this was added in 2007 a further bank loan amounting to €132 million over twenty years, for the purpose of the government acquisition of the rail infrastructure owned by Arcelor S.A., which was the subject of a specific law dated 18 December 2006. The loan authorisation for 2008 was used at the beginning of October.

On 31 August 2008, gross public debt (excluding public institutions and the *Fonds pour la Loi de Garantie*) in the form of government bank loans amounted to €732 million (1.9% of GDP). It is denominated entirely in euro.

The 2006 draft budget also foresaw an authorisation enabling the Government to borrow an amount of €300 million to cover the budget deficit. This authorisation was not used until October 2008. In addition, it is assumed that a similar authorisation will be foreseen from the 2010 fiscal year onwards.

For the purpose of the stability and growth programme and in accordance with the multi-annual capital spending programme, this update also assumes that authorisations for loans in favour of the railway fund and the road construction fund will be taken up in 2008-2011 (€100 million per year per fund).

Furthermore, the Government has granted financial guarantees to property developers in view of the construction of certain public infrastructures (*Loi de Garantie*). In accordance with the Eurostat decision regarding the statistical treatment of public-private partnerships (Press release of 11 February 2004), these transactions are recorded as imputed loans in the general government accounts. Over the course of the 2008-2011 time period, the impact of this decision on the ratio between gross debt and GDP will vary between 1.5%-1.8% per year.

Consequently, central government debt will reach 11.7% of GDP in 2008 and 2009. It will increase to 12.1% of GDP in 2010 and 12.3% of GDP in 2011.

The reserves of the special fund dedicated to the repayment of the public debt will total close to €60 million at the end of 2008, once the servicing of the debt, in terms of capital and interest, has been ensured. For this and subsequent fiscal years, this debt service can be restricted to the repayment of the Treasury bills that are due and to the interest payable on

contracted bank loans. The interest burden on these bills and on the contracted bank loans, which amounts to €33 million in 2008, will as a result increase over the course of subsequent fiscal years. However, this increased burden will be compensated for by higher interest revenues on the convertible loans granted to the Dexia and Fortis banks.

The Luxembourg local government debt remains at a low level in relation to GDP (2.2% of GDP in 2008). The aggregate debt of the local authorities and syndicates thus totals approximately €850 million at the end of 2008.

Local authorities may contract new loans only to finance extraordinary expenditures, only if no other source of finance is either available or economically efficient and only if annuities are regularly repaid. The legislation stringently regulates the conditions under which local authority syndicates may contract new loans.

The social security debt is non-existent, given that this sector regularly generates surpluses.

IV. Sensitivity analysis and comparison with previous update

IV.1. Sensitivity analysis

In the central scenario, the economic growth in the eurozone reaches 1.4% in 2008 and 1.2% in 2009, i.e. an economic growth markedly below the potential growth rate. In 2010 and 2011, the economy of the eurozone is forecast to develop at a rate close to the potential growth rate.

In the alternative scenario developed below, the economic slowdown in the eurozone is more severe than anticipated in the central scenario. Indeed, this scenario simulates the impact of a growth shock equivalent to 0.5 percentage points in 2008 and 2009 on the main economic and budgetary aggregates for the 2009-2011 time period. This shock thus implies an economic growth in the eurozone of 0.9% in 2008 and of 0.7% in 2009.

	2009	2010	2011
Real GDP (variation in %)	1.9 (3.0)	3.9 (4.2)	4.5 (4.5)
Domestic employment (variation in %)	2.4 (2.7)	1.8 (2.2)	2.4 (2.6)
Unemployment rate	4.6 (4.5)	4.9 (4.7)	4.8 (4.8)
Inflation (NICP)	2.4 (2.4)	2.6 (2.7)	2.2 (2.4)
General government budget balance (in % of GDP)	0.9 (1.1)	0.4 (0.8)	0.6 (1.0)

Note: values in brackets correspond to the central scenario.

Following the occurrence of this negative shock, economic growth will slow down from 2.5% in 2008 to 1.9% in 2009 (instead of a resumption of growth to 3%). The resumption of growth will not materialise until 2010 but growth will remain below potential growth. It will reach potential growth in 2011.

The slowdown in economic growth will have a significant impact on the labour market. Total employment will certainly continue to increase, but its growth rate will slow down considerably from 3.7% in 2008 to 2.4% in 2009 and it will fall below 2% in 2010. The negative effects on employment will persist until 2011. In parallel, the unemployment rate will increase more rapidly than foreseen in the central scenario. It will reach 4.6% in 2009 and will be just under 5% in 2010 before decreasing slightly in 2011.

In terms of inflation, the short-term impact on growth will be negligible, but in the medium term, inflationary pressures will be reduced.

The impact of the negative shock on public expenditure is relatively limited. Despite a marginal increase in unemployment, the impact on expenditure via an increase in unemployment benefits will not have a significant impact on the expenditure path. In contrast, the slowdown in employment implies that, with reference to the central scenario, the expenditure of social contributions linked directly or indirectly to employment (e.g. health insurance or family benefits for non-residents) will decrease. Consequently, an additional slowdown in economic growth in 2009-2010 will in fact imply a reduction of the ratio between public expenditure and GDP of 0.2-0.4 percentage points per annum over the course of the 2009-2011 time period.

However, the effect of the negative shock will be markedly more pronounced in terms of public revenue. The slowdown in employment will have a negative effect on direct taxes and social contributions. In addition, in a less favourable economic environment, the profitability of businesses and asset value developments will experience downward pressure, which in turn will have an effect on the tax revenues, in particular at the level of corporate income tax and subscription tax. Finally, an additional slowdown in growth will also have a negative effect on consumption taxes, and in particular on valued added tax. The cumulative effect at revenue level will amount to 0.6-0.7 percentage points per annum over the course of the 2009-2011 time period.

Consequently, in the alternative scenario, the general government net lending capacity will fall below the 1% of GDP threshold in 2009. In accordance with the discrepancy between economic activity and public revenue, the deterioration of the budget balance will continue in 2010 and improve slightly in 2011.

It should be pointed out that despite the impact of a hypothetical negative shock on growth, the general government budget balance will continue to yield a surplus and Luxembourg will continue to achieve its medium-term budgetary objective.

IV.2. Comparison with previous stability programme

In October 2007, when the previous stability programme was drawn up, the ramifications for economic growth and the international financial system of what were then financial turbulences in the wake of the American subprime crisis, were largely uncertain.

In the meantime, the short-term implications have become clearer, to the extent that the downside risks to growth associated with these turbulences have materialised.

At the same time, a high degree of uncertainty persists surrounding medium-term developments, but the risks to growth remain clearly oriented downwards.

In addition, the scale of the inflationary shock triggered in particular by the strong increase in oil prices is an external element that was hardly foreseeable in October 2007. This also applies to the strong rise of the euro exchange rate.

The materialisation of a series of downside risks to growth thus has as a consequence a downwards revision of economic growth in 2007-2009. This downwards revision is particularly pronounced for 2008 and 2009, mirroring the strong sensitivity of the economic activity in accordance with the high degree of openness of the economy and the presence of an international financial centre.

Despite a weaker than anticipated economic growth in 2007-2008, the general government budget balance is more favourable than anticipated. The non-anticipated improvement of the public finances situation despite lower growth mirrors the discrepancy between the economic activity and tax revenues.

The economic cycle reached maturity in the second half of 2006. Nevertheless, a strong growth in employment persisted in 2007 and 2008. This had as a consequence that the development of social contributions and direct taxes on labour remained dynamic and did not leave the path foreseen in a context of a more robust economic growth.

In 2007, the development of asset values was very dynamic during the first half, before reaching a turning point with the subprime crisis. This had positive consequences at the level of indirect taxes, in this case the subscription tax, the revenue of which has largely exceeded the budgetary forecast.

For the 2009 fiscal year, the divergence of this stability programme from the previous stability programme is negligible.

In contrast, the previous stability programme anticipated a higher budgetary surplus in 2010 than is the case in the present update. This downwards revision is the direct result of the economic slowdown and the above-mentioned discrepancy in time between the economic activity and tax revenues.

In matters of public debt, the divergence of the current programme from the previous programme is marginal as far as 2007 is concerned, but significant as far as the 2008-2010 time period is concerned.

However, the strong non-anticipated increase of public debt can be entirely explained by the occurrence of a one-off and unexpected event, in this case the recapitalisation operation of the Dexia and Fortis banks by the Government following difficulties that manifested themselves in the wake of the international financial crisis.

V. Quality of public finances

In order to fully assess the global situation of Luxembourg's public finances, it is not sufficient to examine only the budgetary balance or public debt, which remains at a very low level, without taking into account the existence of central government (and social security) reserves. These reserves were built up during the period of rapid economic growth that yielded a string of large budget surpluses, which in turn were not reinjected into the budgetary circuit and therefore not used for the financing of current expenditures.

The general account (*compte général*), which closes at the end of the fiscal year, provides detailed information regarding the financial resources of central government. The Government's general accounting plan matches resources to their uses, hence providing the possibility of establishing the patrimonial situation of the Government in the form of a financial statement.

On 31 August 2008, this statement read as follows:

Resources (liabilities):

- | | |
|--|----------------|
| • Government's own resources (special funds resources and budgetary reserve) | €2,062 million |
| • Government's own resources corresponding to financial fixed assets acquired by budgetary expenditure | €1,830 million |
| • Third party assets deposited with the Government | €517 million |
| • Third party assets borrowed by the Government (gross public debt) | €971 million |

Uses (assets):

- | | |
|-----------------------------|----------------|
| • Bank financial assets | €2,759 million |
| • Non-bank financial assets | €1,830 million |
| • Balance (net borrowing) | €791 million |

In addition to borrowed funds, the Government has its own funds in the form of reserves. These reserves correspond to the cumulative sum of the net budget surpluses realised since.

These reserves are essentially transferred to the different special government investment funds and are used to achieve the specific objectives for which each special fund was set up via a special law. Over the course of a fiscal year, the resources available in the special funds fluctuate due, on the one hand, to the inflow of budgetary endowments and, on the other hand, to the

outflow relating to payments for work completed. At the end of August 2008, resources available in the special funds amounted to €2,019 million.

The special investment funds are typically used to finance projects that by their very nature are not appropriate to be dealt with via the ordinary budget. In fact, these are typically large investment projects that take several years to complete and where the relevant expenditures are spread out over several fiscal years.

Given that expenditures of the special funds are not tied to a specific fiscal year and funds available at the end of a fiscal year can be carried over to the next, this allows the Government to build up reserves in the special funds that can be used to finance future investment projects.

Due to the existence of these sizeable reserves, the budget is less sensitive to fluctuations in economic activity, by allowing the Government to maintain a high level of investment spending, even when the economy is slowing down. Consequently, the future central government deficits forecast in this update are offset by the existing reserves.

The balance of these reserves constitutes a free reserve, the budgetary reserve. At the end of August 2008, it amounted to €43 million. This reserve, the fluctuations of which depend on the central government balance, is used to ensure that the financial situation of central government is balanced, for instance in circumstances where revenues decrease due to an economic slowdown.

The existence of this budgetary reserve provides additional degrees of freedom to the Government to react to a deterioration of the financial situation of central government without having to use alternative channels, e.g. issuing new debt or increasing the tax burden.

Furthermore, the Government has occasionally acquired financial assets via participations or loans. At the end of September 2008, the value of these assets amounted to €1,830 million, well below the market value. The accounting counterpart of these assets increases the Government's own resources.

The sum of the Government's own resources, borrowed funds and third party assets deposited with the Government are invested in a variety of bank and non-bank financial assets, and the returns that they yield represent an additional source of income for the Government.

The difference between the assets and liabilities, amounting to €791 million at the end of August 2008, represents net government borrowing and is equivalent to the amount of uncovered public debt (Treasury bills and loans).

These net assets will not be affected by the conclusion of the borrowing and lending operations resulting from the aid granted to the Dexia and Fortis banks.

VI. Long-term sustainability of public finances

Owing to a relatively young working population and a robust growth in employment – an average growth of 3% per annum recorded over the last ten years – the financial viability of the pension system is ensured in the medium term.

The social security budget balance regularly generates surpluses and these budgetary surpluses are systematically put in reserve to finance the pension system.

The low level of public debt and the existence of significant financing reserves of the pension system (23% of GDP in 2008) imply that Luxembourg exhibits relatively favourable starting conditions to tackle the economic and budgetary challenges associated with demographic ageing. However, ensuring long term budgetary sustainability remains a genuine challenge.

Indeed, the long-term projections prepared in 2005 by the *Inspection générale de la sécurité sociale* (IGSS) in the context of the work undertaken by the Economic Policy Committee of the European Union and the European Commission show that, with unchanged policies, public expenditures linked to demographic ageing will experience a sharp increase from 2015/2020 onwards and place a considerable burden on the long-term sustainability of public finances.

The forecasts are based on the assumption of potential growth, which will slow down from the current rate of approximately 4% to one of 3% from 2015 onwards, and on a constant rate of unemployment of 4.2%. Following the demographic ageing process, the portion of the population of a working age will decrease from the current 67% to 61% in 2040-2050. In parallel, the ratio of the “inactive workforce” will increase from the current 21% to 36% in 2040-2050. The forecasts are furthermore based on the assumption of an increase in the participation rate in general, and, more particularly, of an increase in the participation rate of older workers from a current 32% to 42% in 2040-2050.

For the projection period, expenditures in relation to population ageing (pensions, healthcare, education, unemployment) will undergo a strong increase. The weight of these expenditures in GDP will increase from 19.5% over the course of the 2004-2010 period to more than 27% over the course of the 2040-2050 period, i.e. an increase amounting to 8% of GDP. The key factor in this increase is linked to pension expenditures (private and public sectors combined). In fact, according to these projections, the share in GDP of pension expenditures will increase by $\geq 7\%$ of GDP by 2040-2050.

Social contributions will undergo a moderate rise between 2006 and 2050. Nevertheless, pension reserves will continue to increase until 2020 to reach approximately 40% of GDP. With

unchanged policies, the social security budget balance will become negative around 2025 and pension reserves will start gradually to erode. Indeed, in 2035 these reserves will have disappeared and the social security deficit will have to be financed at the latest at this stage.

Assuming that the medium-term budgetary objective of a structural balance of 0.8% of GDP will be maintained, the long-term projections of the European Commission forecast that the debt ratio will go from the current < 10% of GDP to > 200% of GDP around 2050. Furthermore, the threshold of 60% of GDP foreseen in Article 104 of the EC Treaty will be exceeded before 2030. It should be pointed out that the medium-term budgetary objective has already been achieved in 2006 and that over the course of the 2008-2011 period, the general government is forecast to free up a net lending capacity in nominal terms. This has consequences for the developments of public debt, which will increase, but at a slower rate than anticipated in these long-term projections.

In the context of the work being undertaken by the *Comité de politique économique sur le vieillissement de la population*, the *Inspection générale de la sécurité sociale* is currently drawing up long-term projections of pension contribution expenditures. Despite the fact that the projections have not yet been validated by the “Working Group on Ageing” of the Economic Policy Committee, the results suggest that the development of public expenditure linked to demographic ageing remains comparable to that observed during the projections drawn up in 2005 for the 2004-2050 time period. Given that the assumptions on long-term economic growth have been revised downwards and that the period of projection henceforth covers the 2007-2060 time period, the impact of the cost of ageing linked to pension contribution expenditures in terms of GDP will be more pronounced at the end of the projection period.

The projections show that adjustments will need to be envisaged in due course to ensure the sustainability of public finances in general and to maintain the financial viability of the social security system.

A first adjustment took place in the wake of the Law of 6 May 2004 on the administration of pension scheme assets. Pursuant to this law, the management of the budget reserves of the pension system is entrusted to a public undertaking named the *Fonds de compensation*. The *Fonds de compensation* has as its mission to optimise the returns on the budget reserves, while also ensuring the security of investments and minimising the risks associated with the financial markets. In July 2007, the *Fonds de compensation* created a specialised investment fund charged with investing the fund reserves in accordance with a strategic allocation decreed by Grand-Ducal regulation. The first funds were invested in August 2007 and the final strategic allocation should be achieved by the *Fonds de compensation* by 2009.

In addition, in April 2006 the Tripartite Coordinating Committee established a discussion group which it entrusted with two missions: (1) to draw up recommendations to ensure the long-term sustainability of the pension system, and (2) to study the various measures that can be envisaged to guarantee this long-term sustainability and to adapt the pension system to developments linked to the changes in the unfolding of professional careers, demographic ageing and its impact on working life spans.

The discussion group is made up of employer, employee and government representatives and has met six times between November 2007 and October 2008. It will outline its analysis and its conclusions before the Government by the end of 2008.

VII. 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.

The Law of 8 June 1999 involved an overhaul of the central government budgetary and accounting system by foreseeing in particular the improvement of the regulations of budgetary accounting, the possibility of granting certain public services greater financial autonomy and the creation of the *Direction du contrôle financier* (DCF).

The creation of the *Direction du contrôle financier* reinforced the coordination and the monitoring of the public expenditure control mission. Financial controllers are placed throughout different ministerial departments where they perform their control missions. These they carry out with a certain degree of independence, to the extent that they do not receive exact instructions regarding specific files. The control mission of the financial controllers is an *ex ante* mission, meaning that the compliance of the expenditure with its applicable resolutions and regulations is verified prior to the commitment of said expenditure.

Nevertheless, the surveillance mission of the *Direction du contrôle financier* does not cover aspects relating to the appropriateness and effectiveness of public expenditure. This mission in turn is entrusted to the *Inspection générale des Finances*, which is furthermore responsible for drawing up the draft bill regarding the State revenue and expenditure budget.

The governmental programme of August 2004 foresees 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 foresees 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 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%.

The budgetary procedure in itself starts with 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. The budgetary circular regarding the 2009 draft budget was distributed to the ministerial departments on 27 March 2008.

In May, the broad guidelines of the governmental policy are presented to Parliament by the Prime Minister in the context of the declaration by the Government on the country’s economic, social and financial situation.

Following the presentation of the political priorities of governmental action and the justification of the budgetary priorities of the ministerial departments pursuant to the broad guidelines, in August the Minister for the Treasury and the Budget 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.

In addition, the Minister of Finance informs the Government on the “horizontal” and “specific” guidelines decreed by the Eurogroup in the context of the mid-term review of the fiscal policies.

At the beginning of October, the draft budget is submitted to Parliament. The presentation of the 2009 draft budget took place on 1 October 2008.

The draft budget comprises three volumes. In addition to the actual budget law (volume I), volume II outlines the multi-annual capital spending programme. For the 2009 draft budget, the

multi-annual programme covered the 2008-2012 time period. 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.

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 surveillance of fiscal policies in the European Union and of the Stability and Growth Pact.

In addition to the improved integration of the national fiscal policy with European surveillance processes, the concurrent drawing up of the draft budget and the stability programme also allows Parliament to include the assessment of the draft budget for the fiscal year ahead within the broader context of medium-term and long-term budgetary planning.

ANNEXES:**Table 1a: Macroeconomic forecast**

	ESA code	2007	2007	2008	2009	2010	2011
		€ billion	%	%	%	%	%
1. Real GDP	B1*g	29.4	5.2	2.5	3.0	4.2	4.5
2. Nominal GDP	B1*g	36.3	6.9	4.4	5.0	7.2	7.7
Growth sources: constant price variation							
3. Private consumption expenditure	P.3	10.2	2.0	1.8	1.5	3.3	3.4
4. Government consumption expenditure	P.3	4.4	2.6	4.2	4.2	3.6	3.3
5. Gross fixed capital formation	P.51	6.6	11.8	2.0	-3.3	2.7	3.6
6. Changes in inventories (in % of GDP)	P.52 + P.53	0.5	0.5	0.2	0.1	0.1	0.0
7. Exports of goods and services	P.6	53.0	4.4	3.6	4.1	5.5	6.3
8. Imports of goods and services	P.7	45.1	3.5	4.1	3.2	5.2	6.1
Contribution to GDP growth							
9. Total final domestic demand		...	3.6	1.7	0.4	2.2	2.4
10. Changes in inventories	P.52 + P.53	...	-0.9	0.5	0.0	0.1	0.0
11. External balance of goods and services	B.11	...	2.5	0.3	2.6	1.9	2.1

Table 1b: Price developments

	ESA code	2007	2008	2009	2010	2011
		%	%	%	%	%
1. GDP deflator		1.7	1.8	1.9	2.9	3.1
2. Private consumption deflator		2.1	3.8	2.4	2.7	2.4
3. Inflation rate (HICP)		2.7	4.6	2.9	3.1	2.9
4. Public consumption deflator		3.9	1.9	2.0	3.1	2.9
5. Investment deflator		1.3	3.2	2.7	2.2	2.0
6. Export price deflator (goods and services)		5.2	-0.5	2.0	4.0	4.6
7. Import price deflator (goods and services)		6.2	0.0	2.7	4.2	4.6

Table 1c: Labour market developments

	ESA code	2007	2007	2008	2009	2010	2011
		Figures	%	%	%	%	%
1. Domestic employment, persons (in thousands)		333.2	4.5	3.7	2.7	2.2	2.6
2. Employment, hours worked		...	5.0	3.3	2.5	1.9	2.4
3. ILO unemployment rate (%)		...	4.2	4.0	4.5	4.7	4.8
4. Labour productivity (real GDP per person employed)		...	0.1	-1.1	0.3	2.0	1.9
5. Labour productivity (real GDP per hour worked)		...	-0.4	-0.7	0.5	2.2	2.1
6. Compensation of employees (€ billion)	D.1	16.2	9.2	6.7	5.9	7.7	6.3
7. Compensation per employee (€1000 / year)		51.8	4.3	2.7	2.9	5.3	3.4

Table 1d: Sectorial balances

in % of GDP	ESA code	2007	2008	2009	2010	2011
1. Net lending/borrowing vis à-vis the rest of the world	B.9	...	...	...	...	...
<i>of which:</i>						
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	3.2	2.3	1.1	0.8	1.0
4. Statistical discrepancy		...	...	...	...	...

Table 2: General government budgetary situation

in % of GDP	ESA code	2007	2007	2008	2009	2010	2011
		en mio. €	%	%	%	%	%
Net lending of sub-sectors							
1. General government	S.13	1,171.1	3.2	2.3	1.1	0.8	1.0
2. Central government	S.1311	287.8	0.8	-0.4	-1.8	-1.7	-1.5
3. Regional government	S.1312	...	...	...	...	...	...
4. Local government	S.1313	7.3	0.0	0.2	0.2	0.0	0.0
5. Social security	S.1314	876.0	2.4	2.5	2.7	2.5	2.5
General government (S.13)							
6. Total revenue	TR	14,885.8	41.0	42.0	41.1	40.5	40.3
7. Total expenditure	TE	13,714.7	37.8	39.7	40.1	39.6	39.4
8. Budget balance	EDP B.9	1,171.1	3.2	2.3	0.8	1.0	1.2
9. Interest burden	EDP D.41	93.6	0.3	0.3	0.3	0.4	0.4
10. Primary balance		1,264.7	3.5	2.6	1.2	1.3	1.5
11. One-off and temporary measures		0.0	0.0	0.0	0.0	0.0	0.0
Main components of revenue							
12. Taxes (12=12a+12b+12c)		9,503.8	26.2	26.7	25.8	25.5	25.6
12a. Taxes on production and import	D.2	4,614.9	12.7	12.9	13.0	13.3	13.5
12b.+12c. Current taxes on income and wealth and taxes on capital	D.5+D.91	4,888.9	13.5	13.7	12.8	12.2	12.2
13. Social contributions	D.61	4,010.5	11.1	11.3	11.2	11.1	10.9
14. Property income	D.4	596.9	1.6	1.8	2.0	1.9	1.9
15. Other revenue		774.6	2.1	2.1	2.1	2.1	2.0
16.=6. Total revenue	TR	14,885.8	41.0	42.0	41.1	40.5	40.3
p.m.: Tax burden (D.2+D.5+D.61+D.91-D.995)		...	37.3	38.0	37.0	36.5	36.5
Main components of expenditure							
17. Employee compensation and intermediate consumption		3,776.3	10.4	11.0	11.0	10.6	10.2
17a. Employee compensation	D.1	2,665.5	7.3	7.5	7.6	7.4	7.2
17b. Intermediate consumption	P.2	1,110.8	3.1	3.4	3.4	3.1	3.0
18. Social transfers (18=18a+18b)		6,495.3	17.9	18.6	18.6	18.1	17.7
18a. Social transfers in kind	D.6311, D.63121, D63131	1,730.2	4.8	4.8	4.9	4.8	4.8
18b. Social transfers in cash	D.62	4,765.1	13.1	13.7	13.7	13.3	13.0
19.=9. Interest expenditure	EDP D.41	93.6	0.3	0.3	0.3	0.4	0.4
20. Subsidies	D.3	540.8	1.5	1.5	1.5	1.4	1.4
21. Gross fixed capital formation	P.51	1,346.8	3.7	4.0	4.1	4.4	4.7
22. Other expenditure		1,461.9	4.0	4.3	4.5	4.8	4.9
23.=7. Total expenditure	TE	13,714.7	37.8	39.7	40.1	39.6	39.4
p.m. Public consumption (in nominal terms)	P.3	5,491.7	15.1	16.1	16.0	15.4	14.9

Table 3: General government expenditure according to function

in % of GDP	COFOG code	2007	2010
1. General public services	1	4.1	...
2. Defence	2	0.2	...
3. Public order and safety	3	0.9	...
4. Economic affairs and services	4	4.0	...
5. Environmental protection	5	1.0	...
6. Housing and community amenities	6	0.6	...
7. Health	7	4.5	...
8. Recreation, culture and religion	8	1.9	...
9. Education	9	4.6	...
10. Social protection	10	15.9	...
11. Total expenditure	TE	37.8	39.6

Table 4: Public debt

in % of GDP	ESA code	2007	2007	2008	2009	2010	2011
		€ million	%	%	%	%	%
1. Gross debt		2,523.6	7.0	13.9	13.9	14.2	14.3
<i>including:</i>							
Central government		1,689.9	4.7	11.7	11.7	12.1	12.3
Local government		833.7	2.3	2.2	2.2	2.1	2.0
Social security		0.0	0				
2. Change in gross debt ratio		...	0.4	7.0	-0.1	0.3	0.1
		Elements contributing to gross debt development					
3. Primary surplus		1,264.7	3.5	2.6	1.4	1.2	1.4
4. Interest expenditure	EDP D.41	93.6	0.3	0.3	0.3	0.4	0.4
5. Stock-flow adjustment		...	4.1	9.5	1.6	2.1	2.1
p.m.: implicit interest rate		...	4.2	5.0	2.5	2.7	2.8
		Other relevant variables					
6. Liquid financial assets		8,771.5	24.2	...	...	...	...
7. Net debt		6,248.0	-17.2		...	...	...

Table 5: Cyclical developments of public finances

in % of GDP	ESA code	2007	2008	2009	2010
		%	%	%	%
1. Real growth in GDP (%)		5.2	2.5	3.0	4.2
2. Net lending/borrowing of general government	EDP B.9	3.2	2.3	1.1	0.8
3. Interest expenditure	EDP D.41	0.3	0.3	0.3	0.4
4. One-off and temporary measures		0.0	0.0	0.0	0.0
5. Potential GDP growth rate (%)		4.7	4.5	4.3	4.1
6. Output gap		0.5	-1.3	-2.5	-2.5
7. Cyclical budgetary components		0.3	-0.7	-1.2	-1.2
8. Cyclically-adjusted budgetary balance		3.0	2.9	2.3	2.1
9. Cyclically-adjusted primary balance		3.2	3.2	2.7	2.4
10. Structural balance		3.0	2.9	2.3	2.1

Table 6: Divergences from previous programme update

	ESA Code	2007	2008	2009	2010
Growth in GDP (%)					
9th update		6.0	4.5	5.0	4.0
10th update		5.2	2.5	3.0	4.2
Difference		-0.8	-2.0	-2.0	0.2
Net lending/borrowing of general government (in % of GDP)	EDP B.9				
9th update		1.0	0.8	1.0	1.2
10th update		3.2	2.3	1.1	0.8
Difference		2.2	1.5	0.1	-0.4
General government gross debt (in % of GDP)					
9th update		6.9	7.1	7.2	7.0
10th update		7.0	13.9	13.9	14.2
Difference		0.1	6.8	6.7	7.2

Table 7: Long-term sustainability of public finances

in % of GDP	2004	2010	2015	2020	2030	2040
General government expenditure	42.5	39.4	...	...	...	...
<i>including: expenditure related to demographic ageing</i>	19.5	19.4	20.5	21.6	25.0	27.4
Pension expenditure	10.0	9.8	10.9	11.9	15.0	17.0
Health	5.1	5.3	5.4	5.6	5.9	6.2
Long-term care insurance	0.9	1.0	1.0	1.0	1.1	1.3
Education	3.3	3.1	2.9	2.8	2.7	2.6
Other expenditure related to demographic ageing	...	...	...	...	...	...
Unemployment benefits	0.3	0.3	0.3	0.3	0.3	0.2
Interest expenditure	0.1	0.4	...	...	...	...
Total revenue	41.7	40.3	...	...	...	...
<i>including: property income</i>	1.1	1.9	...	...	...	...
<i>including: social contributions</i>	11.4	10.9	...	...	...	...
Reserves of pension funds	23.6	31.7	37.4	39.2	17.9	0.0
General government gross debt	6.4	7.0	15.2	26.6	73.6	150.0
	Assumptions					
Labour productivity developments	1.1	2.3	2.1	2.0	1.7	1.7
Economic growth	3.9	4.0	3.2	2.7	3.0	3.0
Participation rate (men, 15-64)	75.7	75.6	75.4	75.0	74.3	75.1
Participation rate (women, 15-64)	55.1	58.6	60.1	60.8	61.3	62.0
Total participation rate (15-64)	65.5	67.2	67.8	67.9	67.9	68.6
Unemployment rate	3.8	4.2	4.2	4.2	4.2	4.2
Inactive/active ratio (65+/15-64)	21.0	21.6	22.8	24.7	31.6	36.7

Table 8: Basic assumptions

	2007	2008	2009	2010	2011
Short-term interest rate in € (annual average)	4.3	4.2	3.8	4.1	4.0
Long-term interest rate in € (annual average)	4.2	4.0	4.0	4.5	4.6
Exchange rate USD/€ (annual average)	1.37	1.51	1.45	1.45	1.45
Nominal effective exchange rate	-0.3	-1.2	0.1	-0.0	-0.0
World GDP growth excluding EU					
Economic growth eurozone	2.6	1.4	1.2	2.1	2.1
Economic growth of relevant foreign markets	3.3	2.5	2.2	5.5	5.9
World import volume growth (excluding EU)	...	...	...	...	...
Oil prices (USD)	72.7	107.5	95.5	95.5	95.5