ANNUAL REPORT 2008

BANQUE CENTRALE DU LUXEMBOURG
EUROSYSTEM
1998 - 2008
10 YEARS

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The Governor's Message

In 2008, Luxembourg was struck by the global financial and economic crises. The financial turmoil that developed from August 2007 in the United States subprime market gradually affected Europe and emerging countries, spreading from the financial sector to the real economy. The macroeconomic projections for Luxembourg, issued by the BCL as well as by other national, international and supranational institutions (IMF, European Commission), were revised downwards several times. We are facing an unprecedented recession, which appears as one of the steepest in the European Union.

This crisis contrasts with the decade that followed the introduction of the euro, when Luxembourg witnessed steady employment growth. The single currency played a part in that trend and still entails many benefits, for the euro zone as well as for Luxembourg, namely thanks to its ability to mitigate the impacts of the crisis. Without the euro, Europe would have faced erratic movements of intra-European exchange rates and interest rates, reminiscent of past episodes such as the crisis of the European monetary system in 1992-1993. Such volatility would have aggravated the impact of the crisis even more.

Another benefit of the euro results from the involvement of the Luxembourg Central Bank in monetary policy. The establishment of the BCL also entailed a major benefit for the national economy, namely because of the close links between the BCL and several prominent national and European actors.

Basing monetary policy on clear rules, thus allowing a better anchoring of inflation expectations, is another benefit brought about by the euro. This policy permitted the stabilisation and containment of inflation within the euro area. Nevertheless, the general trend regarding Luxembourg is that of a higher level of inflation than in the rest of the euro area; Luxembourg's cost-salary competitiveness developed in a way that was incompatible with a monetary union.

At the European level, the euro also facilitated the integration of the goods and services markets, as well as of the financial markets. This resulted in significant benefits for a small open economy such as Luxembourg's.

As far as the BCL is concerned, it has had to face a triple challenge since its creation: the challenge of finding its niche in the national institutional landscape, as a European-rooted, constitutionally independent institution; the challenge of making itself heard at the European level, in spite of relatively limited human and financial resources; and the challenge of ensuring optimal financial and human management, in the light of its European missions and international developments. Above and beyond these came the challenge of meeting the financial and economic crises in 2008.

At first, faced with inflationary pressures, the Governing Council of the ECB increased its main interest rate by 25 basis points in July 2008. In October, nonetheless, in a context of higher uncertainties and the fall of inflationary pressures, the ECB decided, in conjunction with other prominent central banks, to lower its main interest rate. Between late September 2008 and May 2009, the main interest rate was decreased by 325 basis points in total. This represents the sharpest decrease recorded since the creation of the Eurosystem. In order to remedy the drying-up of the interbank market, the Governing Council also adopted, in late 2008, new liquidity management measures. Among these were the adoption of a fixed rate tender procedure with full allotment for weekly main refinancing operations, and a temporary expansion of the list of assets eligible as collateral in Eurosystem credit operations, associated with an enhancement of risk control measures. In May 2009, the Governing Council decided to introduce temporarily several non-standard monetary policy measures: the granting to the EIB of the status of eligible Eurosystem monetary policy counterparty, the conduct of liquidity-providing longer-term refinancing operations with a maturity of one year, and a purchase programme for euro-denominated covered bonds issued in the euro area.

After its real GDP fell by 4.5% in the last quarter of 2008, Luxembourg will have to face a contraction spillover in 2009 (resulting from a negative base effect), amounting to 3.5%. Furthermore, economic activity kept declining in the course of the first quarter of 2009. Industrial output underwent a decrease of 7.4%. The financial sector also experienced a reduction in activity, though less pronounced than during the last quarter of 2008. This can be witnessed, for instance, through a better resistance of the net asset value of undertakings for collective investment, which decreased by 4% in the first quarter, a less dismal performance than in the last quarter of 2008 when the decline had reached 14%.

The first indicators of an economic stabilisation – even though their level is still low – emerged in the second quarter of 2009. First, stock markets witnessed some gains. Moreover, several indicators taken from conjuncture surveys have shown a consolidation, and even an improvement in some cases.

For 2009 on the whole, the BCL expects a growth rate between -5% and -4.4%, reflecting the important contraction spillover. The GDP in volume should stagnate in 2010 and show a progression between 1.4% and 3% in 2011, which appears relatively weak in comparison with the growth rates of the last two decades in Luxembourg. The issue most at stake, therefore, is not only the impact of the crisis on the present GDP level, but its impact on the potential growth rate of our economy. Lower than expected potential growth would complicate the financing of expensive social benefits and force Luxembourg to pay more attention to the maintenance of its competitiveness.

In any case, potential growth could be negatively affected by several risk factors directly linked to developments in the Luxembourg financial centre. In particular, the impact of bank restructurings in neighbouring countries will be significant for Luxembourg. Moreover, productivity in the banking sector could be persistently affected by the crisis, affecting the Luxembourg economy which heavily relies on this sector.

As usual, the labour market reacted with some delay to the decline in economic activity. Employment increased by nearly 5% in the course of 2008 on the whole, with an average yearly unemployment rate of 4.4%. The apparent dichotomy between economic activity and employment in 2008, which mechanically implied a decrease in apparent work productivity, can be explained by the existence of a powerful shock-absorber: partial unemployment. In July 2009, more than 11 000 people were concerned by this measure.

This shock-absorber, however, will not be sufficient to protect permanently the labour market from the hazards of the business cycle. Besides, apparent productivity will need to recover, in order to avoid an excessively pronounced degradation of companies' operational results. According to the BCL's projections, paid employment will decrease by 0.2% in 2009 and by some 1.7% in 2010, before stabilising in 2011. Thus, the unemployment rate will go up from 4.4% in 2008, to 5.6% in 2009, 6.7% in 2010 and 7% in 2011.

The labour market's degradation will negatively affect the evolution of average labour costs. In nominal terms, the latter would only increase by 0.6% and 0.4% in 2009 and 2010. On the other hand, the increase would reach 2.5% in 2011, due to the enforcement of an index bracket at the beginning of year.

Because of several factors, namely the economic crisis, the evolution of commodity prices and the slowing down of salary increases, the progression rates of NCPI and HCPI would only amount to 0.2% and -0.2% in 2009. An increase of the inflation rate is, however, expected for 2010, due to the increase of the energy component. In 2011, inflation in the services' sector would be stimulated by the index bracket mentioned above.

Containing any lasting revival of inflation – which might accelerate during a forthcoming recovery in the absence of the required vigilance – is of paramount importance. Keeping inflation in check is all the more important as Luxembourg's competitiveness is still at risk. Thus, the BCL's calculations expect a deterioration, in the course of 2009-2011, of the two indicators of price-competitiveness, the one based on consumer prices (except in 2009) and the one inferred from the GDP's deflator. The indicator based on unit labour costs in the whole economy would improve slightly in 2009 and 2010 and would only slightly deteriorate in 2011. It is worth remembering that these predictable developments are based on a pronounced deterioration of those three indicators between 2000 and 2008. As for the period 2009-2011, there is no sign that this tendency is likely to change.

The crisis will also have a significant impact on the state's fiscal revenues. If public sector revenues were still dynamic in 2008, the current financial crisis will heavily weigh on them in the years to come. Besides, the national recovery plan brought about additional spending, with a counter-cyclical objective. This spending was topped by the fiscal cost of partial unemployment and an increase in unemployment benefits. While public administrations still achieved a surplus of 2.6% of GDP in 2008, they are expected to experience a deficit close to 4% in 2009, thereby exceeding, for the first time since the introduction of the euro, the 3% threshold imposed by the Treaty on the European Union. Besides, the fiscal situation would continue to worsen in 2010 and 2011. This noxious development is not solely linked to the economic and financial crisis. Thus, the public administrations' balance, adjusted for economic cycles, would also become clearly negative, amounting to 5% of GDP in 2011 in the case of unchanged policy.

Due to the combined effects of these important structural deficits and the increasing trend regarding social security and pensions expenditure, Luxembourg could rapidly be confronted by powerful indebtedness dynamics, should no new structural measures be taken, as shown by several simulations carried out in the present report and yet using dissimilar tools (accounting projections on the one hand; general balance models on the other hand).

An important effort of fiscal consolidation is required in this context. It should be two-fold. First, it is essential to retrieve, as soon as possible, when the economy so permits, structural surpluses of at least 1.5% of GDP. Second, it is necessary to carry out, without further delay, a reform of social security, especially in the field of pensions. Only a strategy that takes those two aspects into account will allow Luxembourg to ensure the long-term sustainability of its public finances, which currently appears endangered.

More generally, structural measures are indispensable, both for entailing a sustainable stabilisation of public finances, and for improving the competitiveness and the productivity of the Luxembourg economy, namely in the fields of education, research and infrastructures.

In order to reinforce support to the financial sector and the economy on the whole in the context of a deepening financial crisis, the BCL strongly increased the degree of intermediation towards its domestic counterparties in the course of 2008. The Bank's balance sheet went up by 71% in 2008, increasing from 59 billion euro at end-2007 to 100.6 billion euro at end-2008. The BCL remains the third most important national central bank as far as liquidity allocation in the Eurosystem is concerned. Nevertheless, the BCL's capitalisation remains low relative to its stabilising role in the current crisis.

The BCL, having been granted a new regulatory competence by the law of 24 October 2008, has become a proper supervisory authority and intends to develop its enlarged competences in full cooperation with the Government and the other authorities, on the national and international level. Besides, it issued a regulation relative to liquidity supervision on 29 April 2009. In this context, ongoing discussions taking place in international or regional fora (G20, FSF recently renamed FSB, de Larosière Group, CEBS, BSC, EFC…) have tackled issues such as regulatory deficiencies, inadequate macro-prudential supervision, and the necessary reform of the supervisory architecture.

The BCL implemented a revision of its organisation chart on 1 January 2009, allowing an optimal allotment between its new missions and the mobilisation of competent teams, which will be reinforced in the course of 2009, helping the BCL honour its obligations concerning financial stability. This crisis period has demanded exceptional efforts from all staff members of the BCL; I insist on thanking them for their professionalism and their strong commitment.

Yves Mersch

10th anniversary of the BCL: official celebration

On 12 November 2008, on the occasion of the 10th anniversary of the BCL, Mr. Jürgen Stark, Member of the Executive Board, European Central Bank, Mr. Akinari Horii, Assistant Governor of the Bank of Japan, Mr. Donald L. Kohn, Vice Chairman, Federal Reserve Board of Governors, participated in the traditional Pierre Werner Lecture panel discussion about "Growth and Productivity of the Financial Sector: Challenges for Monetary Policy"?

Afterwards, the Governor of the BCL opened the official ceremony in presence of Mr. Jean-Claude Juncker, Prime Minister and Mr. Jean-Claude Trichet, President of the European Central Bank (ECB).

1 *Mr. Donald L. Kohn, Vice Chairman, Federal Reserve Board of Governors*

2 *Mr. Akinari Horii, Assistant Governor, Bank of Japan*

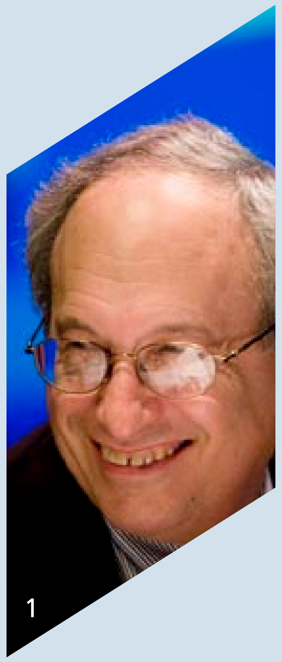
3 *Mr. Jürgen Stark, Member of the Executive Board, European Central Bank*

4 *(from left to right) Mr. Slawomir Skrzypek, Governor of the National Bank of Poland, Mr. Victor Dora, Vice-Governor of the National Bank of Moldavia, Pr. Dr. Ewald Nowotny, Governor of the Oesterreichische Nationalbank, Mr. Ardian Fullani, Governor of the Bank of Albania, Mr. Jean-Claude Trichet, President of the European Central Bank, Mr. Ivan Iskrov, Governor of the National Bank of Bulgaria, Mr. Yves Mersch, Governor of the Central Bank of Luxembourg, Mr. Nicholas Garganas, former Governor of the Bank of Greece, Mr. Kemal Kozaric, Governor of the Central Bank of Bosnia and Herzegovina, Mr. Ljubiša Krgovi, President of the Central Bank of Montenegro*

5 *Mr. Yves Mersch, Governor of the Central Bank of Luxembourg and Mrs. Catherine Lubochinsky, President of SUERF*

6 *Mr. Yves Mersch, Governor of the Central Bank of Luxembourg with members of the BCL Council*

7 *Mr. Jean-Claude Juncker, Prime Minister, Mr. Yves Mersch, Governor of the BCL and Mr. Jean-Claude Trichet, President of the European Central Bank*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1. Economic and financial situation

1.1 Economic situation at the international level

1.1.1 Short-term interest rates and monetary policy decisions

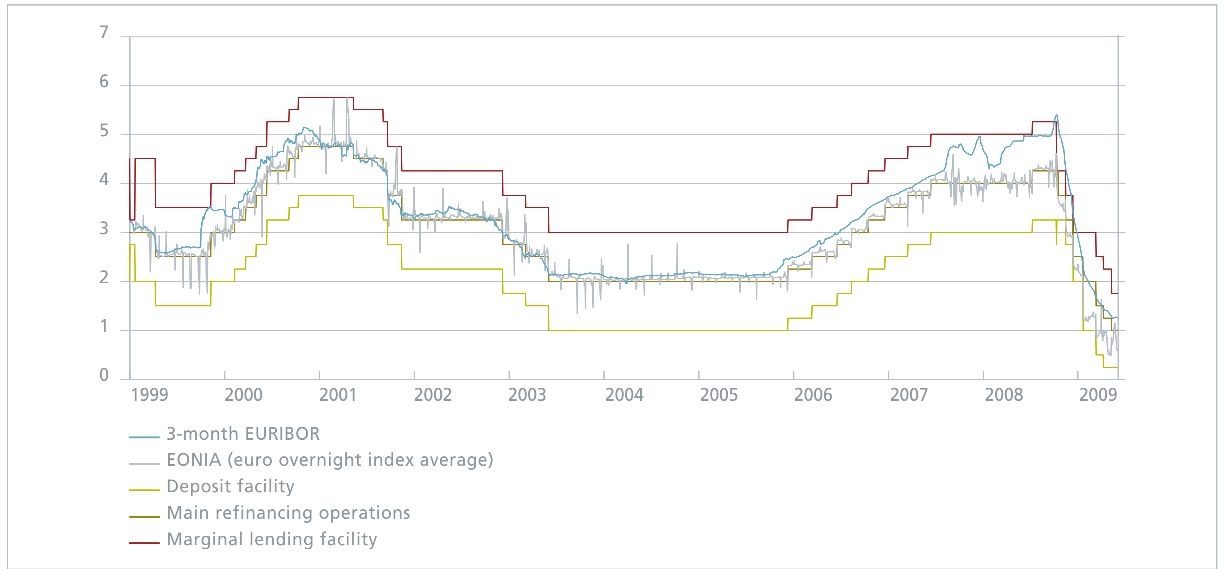
The monetary policy decisions of the Governing Council reflect the inflation outlook, the underlying monetary developments, as well as the macroeconomic outlook which was much more favourable in the first half of the period under review (January 2008 to June 2009). Inflationary pressures decreased in parallel with a deterioration of the macroeconomic outlook, in particular since mid-September. In this context, the decision to raise the key policy rates by 25 basis points in July 2008 was taken in order to prevent broadly based second-round effects and to counteract the increasing upside risks to price stability over the medium term. The Governing Council then proceeded to progressively reduce the interest rate on the main refinancing operations by 325 basis points, to 1%.

Since October 15, the main refinancing operations have been conducted as fixed rate tenders with full allotment. Between October 9 2008 and May 13 2009, the Governing Council also made changes to the interest rate corridor, first reducing it from 200 to 100 basis points, then raising it back to 200 basis points and finally setting the corridor at 150 basis points. The interest rates on the deposit facility and on the marginal lending facility stand at 0.25% and 1.75% respectively.

Annual HICP inflation peaked at 4% in June and July 2008, before embarking on a downward trajectory, reaching 0.0% in May 2009. The evolution of inflation rates to a large extent mirrored oil price developments; indeed, the price of oil peaked at approximately 150 dollars per barrel in July 2008. Throughout most of 2008, the Eurosystem staff projections foresaw annual average HICP inflation above 2%. However, the projection ranges were subsequently revised down, in particular in December 2008 and in March 2009.

In the course of 2008, the available evidence pointed to a stronger than expected impact of the financial turmoil and the global economic slowdown on the macroeconomic outlook in the euro area. Economic activity in the euro area already began to moderate in 2007 and continued to do so in 2008; on an annual basis, real GDP growth turned negative in the fourth quarter of 2008 while Eurostat's first estimate puts the growth rate in the first quarter of 2009 at -4.8%. The Eurosystem staff macroeconomic projections were revised down in the course of 2008, most notably in December. In March and June 2009, the staff projections were also revised down, in particular for 2009. The expansion of money and credit moderated further in 2008, while remaining elevated: M3 progressed by 9.5% on average, while loans to the private sector rose by 9.3%.

FIGURE 1 :
KEY POLICY RATES OF THE EUROSYSTEM, THE EONIA AND THE THREE-MONTH EURIBOR
(PERCENTAGES PER ANNUM; DAILY DATA)



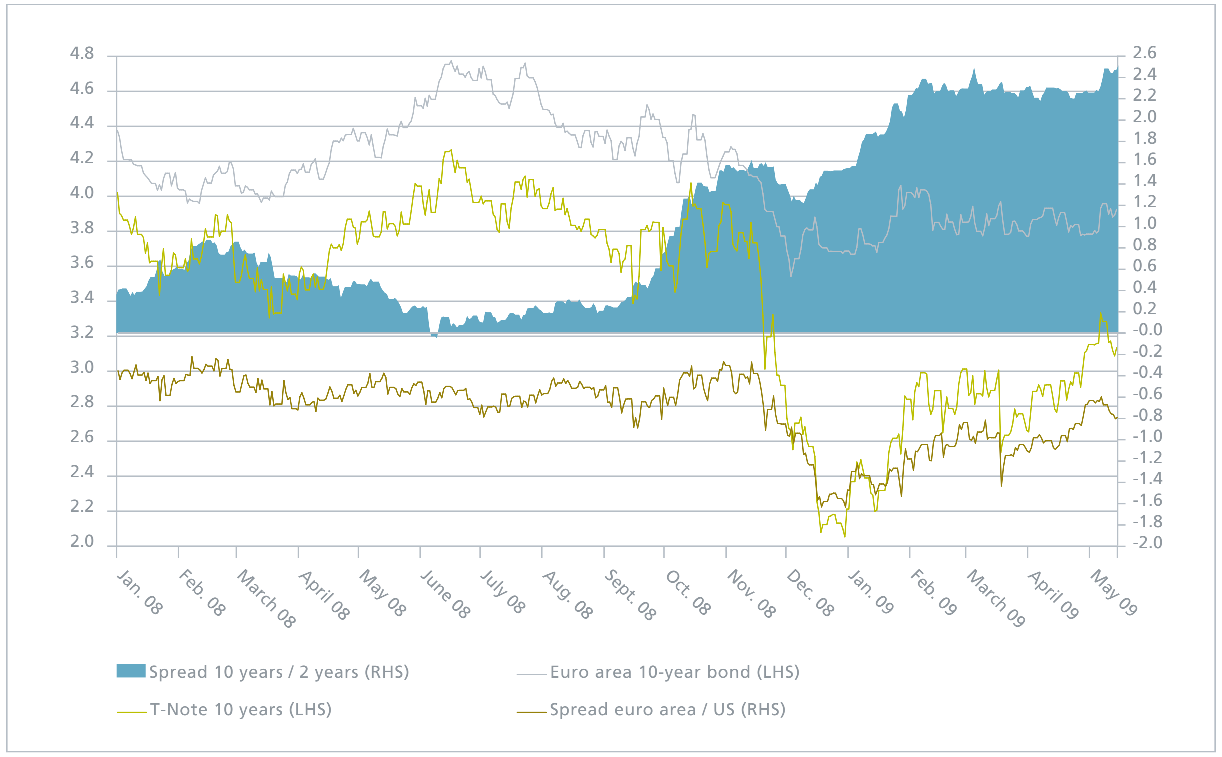
Sources : ECB, Bloomberg

However, the downward trend of the respective year-on-year growth rates – visible since end-2007 – largely continued in 2009. The annual growth rate of M1 fell from 4% in December 2007 to 0.2% in August 2008 when an inflection point was reached and the downward trend was reversed. Other short-term deposits (M2-M1) used to be the main driver of monetary growth, though the impact on M3 growth fell substantially. At the same time, the impact of marketable instruments (M3-M2) continued to decrease and became negative in 2009. As for the counterparts of M3, the annual growth rates of credit continued to plummet, in particular as regards loans to households.

1.1.2 Long-term government bond yields

In the course of 2008, government bond yields in the euro area and in the United States were subject to a considerable degree of volatility but generally followed a downward trend owing to flights to quality in the context of ongoing financial tensions. Between January 2008 and mid-May 2009, ten-year government bond yields in the euro area and in the United States came down by 45 and 89 basis points respectively; the yield differential reached around 79 basis points at the end of the review period.

FIGURE 2 :
LONG-TERM GOVERNMENT BOND YIELDS IN THE EURO AREA AND IN THE UNITED STATES
(LHS: PERCENTAGES PER ANNUM; RHS: PERCENTAGE POINTS)



Sources : ECB, Bloomberg

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In early-2008, yields on both sides of the Atlantic first fell but then followed an upward trend in the face of rising inflationary pressures. This trend was interrupted around mid-June owing to a rise in risk aversion and the corresponding flight to quality which persisted until end-2008. However, the downward trend accelerated in November; indeed, between November 1 and December 31 2008, ten-year government bond yields in the euro area and in the United States fell by 57 and 174 basis points respectively. On the one hand, this reflected concerns about the macroeconomic outlook and the stability of the global financial system; on the other hand, the sharp fall in yields also reflected the cuts in key policy rates by central banks across the globe. In January 2009, ten-year yields began to rise again following massive bond issues, against the backdrop of fiscal measures put in place by governments and efforts to shore up the financial sector. However, while government bond yields in the euro area subsequently stabilised, they continued their ascent in the United States. The rise in US bond yields was supported by the Federal Reserve's announcement, on March 18, regarding the purchase of USD 300 billion worth of Treasury notes over a six-month period.

As for the spread between two-year and ten-year government bond yields in the euro area, the yield curve has steepened considerably in the course of the review period, in particular since autumn 2008; at end-January 2009, the yield spread stabilised somewhat just above 2 percentage points.

Intra euro area yield spreads also widened substantially in the course of 2008. The situation has improved since January 2009; however, the spreads and the corresponding sovereign risk premia remain elevated.

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1.1.3 Equity markets

After reaching historical peaks in 2007, major stock markets in the US, in Japan and in the euro area came down sharply in the course of 2008. Between January 1 and December 31 2008, the Dow Jones EuroStoxx, the S&P500 and the Nikkei 225 recorded losses amounting to -46.3%, -38.5% and -42.1% respectively. Moreover, stock market volatility rose substantially in 2008.

FIGURE 3:
MAJOR STOCK INDICES IN THE EURO AREA, THE UNITED STATES AND JAPAN
(INDEX: 01/01/2008 = 100)

Source : Bloomberg

All in all, the losses are largely attributable to market participants' concerns regarding the impact of financial tensions and a deteriorating macroeconomic outlook on stock market developments. In spite of massive central bank interventions in the interbank market since August 2007, there were significant safe haven movements in favour of government bonds. Shortly after the rescue of Bear Stearns, there were renewed concerns about Fannie Mae and Freddie Mac; until July 2008, the rapid rise in oil prices exerted further downward pressure on stock markets.

In September, market participants' confidence was further rattled when Fannie Mae and Freddie Mac

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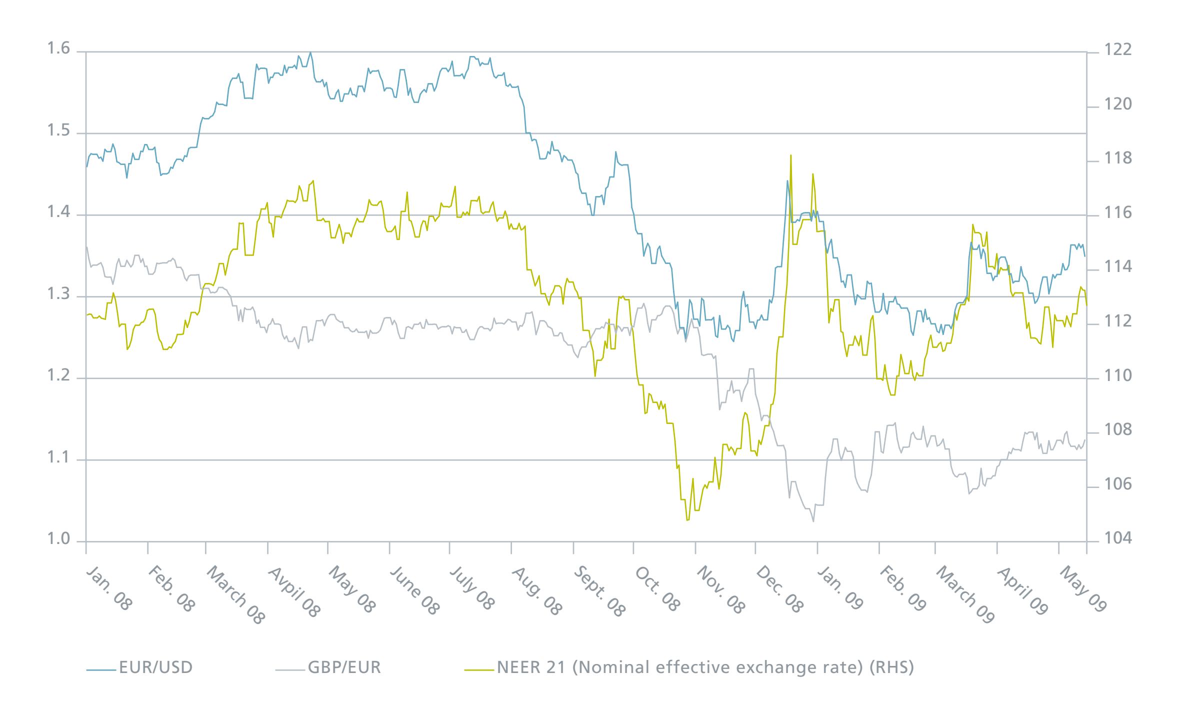
were placed in conservatorship, Lehman Brothers went bankrupt, AIG was rescued by the Federal Reserve and Merrill Lynch was taken over by Bank of America. The situation was compounded by the difficulties experienced by a number of banks in Europe (Fortis, Dexia, Hypo Real Estate,...). The combined efforts of central banks and governments across the globe led to a temporary rebound in stock markets but failed to cause an outright recovery in light of the deteriorating macroeconomic outlook. Stock markets did stabilise somewhat, however, although volatility remained high. Uncertainty prevailed in early-2009 when risk aversion rose and stock markets recorded new losses. After reaching new lows in March, stock prices rebounded and were back to levels seen at end-2008. These developments are attributable to renewed optimism among market participants following tentative evidence of "green shoots" of growth in the economy.

FIGURE 4 :
EXCHANGE RATE DEVELOPMENTS



Sources : Bloomberg, ECB

1.1.4 Exchange rate developments

In the course of 2008 the nominal effective exchange rate (NEER) of the euro, based on weighted averages of bilateral euro exchange rates against 21 major trading partners of the euro area, was subject to a significant degree of volatility; in mid-May 2009, the NEER was back to levels seen at the beginning of the review period. This is largely attributable to the evolution of the euro with regard to the US dollar and the pound sterling, given that the combined weight of the latter two currencies amounts to 45% of the overall basket. All in all, over the review period, the single currency depreciated with regard to the US dollar, the Japanese yen, the Chinese yuan and the Swiss franc, but appreciated considerably against the pound sterling, the Polish zloty, the Hungarian forint, the New Romanian leu and the Swedish krona.

In early-2008, the single currency first continued its upward trend against the US dollar and, several times between April and July, came close to the historical peak of 1.60 USD. Between mid-July and end-October, the euro depreciated by nearly 20% against the dollar, taking it back to levels not seen since early-2007. While several elements – such as market participants' interest rate expectations, oil price developments, the macroeconomic outlook of the euro area and the difficulties experienced by a number of banks located in Europe – contributed to these developments, the dollar also benefited from its traditional safe haven status.

The dollar rebounded briefly in December, when the Federal Reserve announced it would keep interest rates near zero for a prolonged period, and again in mid-March following the Federal Reserve's announcement to purchase up to USD 300 billion of government debt. On May 15 2009, the euro stood at USD 1.35, or 7.4% below its 2008 average.

From August 2008, the euro also depreciated strongly with regard to the Swiss franc and the Japanese yen. Indeed, mounting risk aversion and a rise in volatility in foreign exchange markets strongly reduced the attractiveness of carry trades, leading to a significant unwinding of carry trade positions. The pound sterling, on the other hand, depreciated strongly with regard to the euro, in particular since October, approaching parity with the single currency towards year-end. These developments should be seen against the backdrop of considerable interest rate cuts by the Bank of England, as well as market participants' concerns regarding the severity of the recession in the UK. However, the movement was countervailed in early-2009 by concerns about the economic and monetary policy outlook in the euro area. The quantitative easing measures announced by the Bank of England did not lead to a significant depreciation of the pound which stabilised somewhat, reaching EUR 1.14 in mid-May.

ERM II currencies remained mostly stable against the euro in 2008. The Slovak koruna was revalued in May 2008 and in January 2009 the euro became legal tender in Slovakia at the irrevocably fixed exchange rate of SKK 30.1260. EU currencies outside ERM II were strongly affected by the prevailing market tensions, most notably the Polish zloty, the Hungarian forint and the New Romanian leu. Mounting risk aversion led to a significant depreciation of these currencies. The Hungarian forint was, however, supported by measures agreed with the IMF, the EU and the World Bank. The ECB concluded agreements on repurchase transactions with the central banks of Poland and Hungary after the financial tensions intensified following the bankruptcy of Lehman Brothers in September, enabling the national central banks to borrow up to EUR 10 and 5 billion respectively. More recently, Poland also benefited from a precautionary EUR 20 billion credit line from the IMF.

1.1.5 Consumer prices

HICP inflation in the euro area averaged 3.3% in 2008, its highest level since the introduction of the euro in 1999. After having reached a peak in the third quarter of 2008, headline inflation embarked on a downward trend and fell to around 2.3% in the fourth quarter of 2008. Against the background of falling energy prices and declining HICP ex energy inflation, the downward trend continued in the beginning of 2009 and inflation fell to 0.6% in April.

Amidst the sharp fall in the oil price, the HICP energy inflation first moderated in the second half of 2008 and then turned negative in the first quarter of 2009. The reversal in the HICP excluding energy inflation was initially driven by the unwinding of the food commodities shock. Unprocessed food and processed inflation dropped from their peak rates in the third quarter of 2008 to below 3% towards the end of the year 2008 and further below 2% in the beginning of 2009. The inflation rates of the other components proved more resilient. Non-energy industrial goods inflation declined by only 0.2pp between the end of 2008 and the beginning of 2009. Services inflation decelerated somewhat faster, probably because of a faster moderation of wages.

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TABLE 1:
DEVELOPMENTS IN THE HICP AND ITS COMPONENTS (ANNUAL PERCENTAGE CHANGES)

	2007	2008	08 Q3	08 Q4	09 Q1	April-09
HICP	2.1	3.3	3.8	2.3	1.0	0.6
Unprocessed food	3.0	3.5	3.9	3.0	2.8	1.6
Processed food	2.8	6.1	6.7	4.3	2.1	1.2
Non-energy industrial goods	1.0	0.8	0.7	0.9	0.7	0.8
Energy	2.6	10.3	15.1	2.1	-6.1	-8.8
Services	2.5	2.6	2.6	2.6	2.2	2.5
HICP ex energy and unprocessed food	2.0	2.4	2.5	2.2	1.6	1.7

Source: Eurostat

HICP inflation is expected at 0.0% in May and, in the subsequent months, it could turn negative. These negative inflation rates are part of the disinflationary process driven by the falling energy prices. The period of negative inflation rates however would be short as headline inflation would turn positive again towards the end of the year. These developments should thus not be confused with a self-perpetuating deflationary spiral. The June 2009 Eurosystem staff projections foresee inflation to reach its trough in 2009 and to re-accelerate thereafter. Average annual HICP inflation is anticipated between 0.1% and 0.5% in 2009 compared to 3.3% in 2008. For 2010 inflation should be respectively between 0.6% and 1.4%. Compared with the March 2009 ECB staff projections, the inflation projections have been revised down.

1.1.6 Output, demand and labour market developments

TABLE 2:
COMPOSITION OF REAL GDP GROWTH
(PERCENTAGE CHANGES, SEASONALLY ADJUSTED DATA)

	Annual rates of change			Annual rates of change						Quarterly rates of change					
	2006	2007	2008	2007	2008	2008	2008	2008	2009	2007	2008	2008	2008	2008	2009
				Q4	Q1	Q2	Q3	Q4	Q1	Q4	Q1	Q2	Q3	Q4	Q1
Real Gross Domestic Product	2.9	2.7	0.6	2.2	2.2	1.5	0.5	-1.7	-4.8	0.4	0.7	-0.3	-0.3	-1.8	-2.5
of which:															
Domestic Demand	2.8	2.5	0.5	2.0	1.6	0.9	0.5	-0.4	-3.1	0.1	0.5	-0.4	0.3	-0.7	-2.1
Private consumption	2.0	1.6	0.3	1.2	1.4	0.5	0.1	-0.6	-1.1	0.3	0.0	-0.3	0.1	-0.3	-0.5
Public consumption	1.9	2.2	2.0	2.0	1.5	2.0	2.0	2.1	1.7	0.3	0.4	0.9	0.6	0.4	0.0
Gross fixed capital formation	5.5	4.8	-0.3	3.4	3.1	1.6	-0.3	-5.5	-10.4	0.9	1.0	-1.3	-0.7	-4.0	-4.2
Net exports	0.2	0.3	0.0		0.6	0.6	0.0	-1.3	-1.8		0.2	0.2	-0.7	-1.0	-0.4
Exports of goods and services	8.3	5.9	0.8	3.9	5.1	3.8	1.4	-6.5	-15.5	0.7	1.6	-0.3	-0.6	-7.2	-8.1
Imports of goods and services	8.2	5.3	0.9	3.5	3.9	2.4	1.4	-3.7	-11.7	-0.1	1.2	-0.8	1.1	-5.1	-7.2
Employment	1.6	1.8	0.8	1.7	1.5	1.1	0.5	0.0	n.a.	0.3	0.3	0.1	-0.1	-0.3	n.a.

Sources: Eurostat, Eurosystem

In the first quarter of 2009, the recession in the euro area accelerated. again After a fall in output by -1.8 % in the last quarter of 2008, first quarter GDP decreased by -2.5 % compared to previous quarter. In annual terms, this corresponds to a reduction of about -4.8 % of real GDP, compared to the first quarter of 2008.

1. ECONOMIC AND FINANCIAL SITUATION

Therefore the beginning of 2009 is not only marked by a prolongation of the recession, but also by its deepening. In the current context of worldwide recession and breakdown in international trade, all GDP components, except for public consumption, have contributed negatively to output growth.

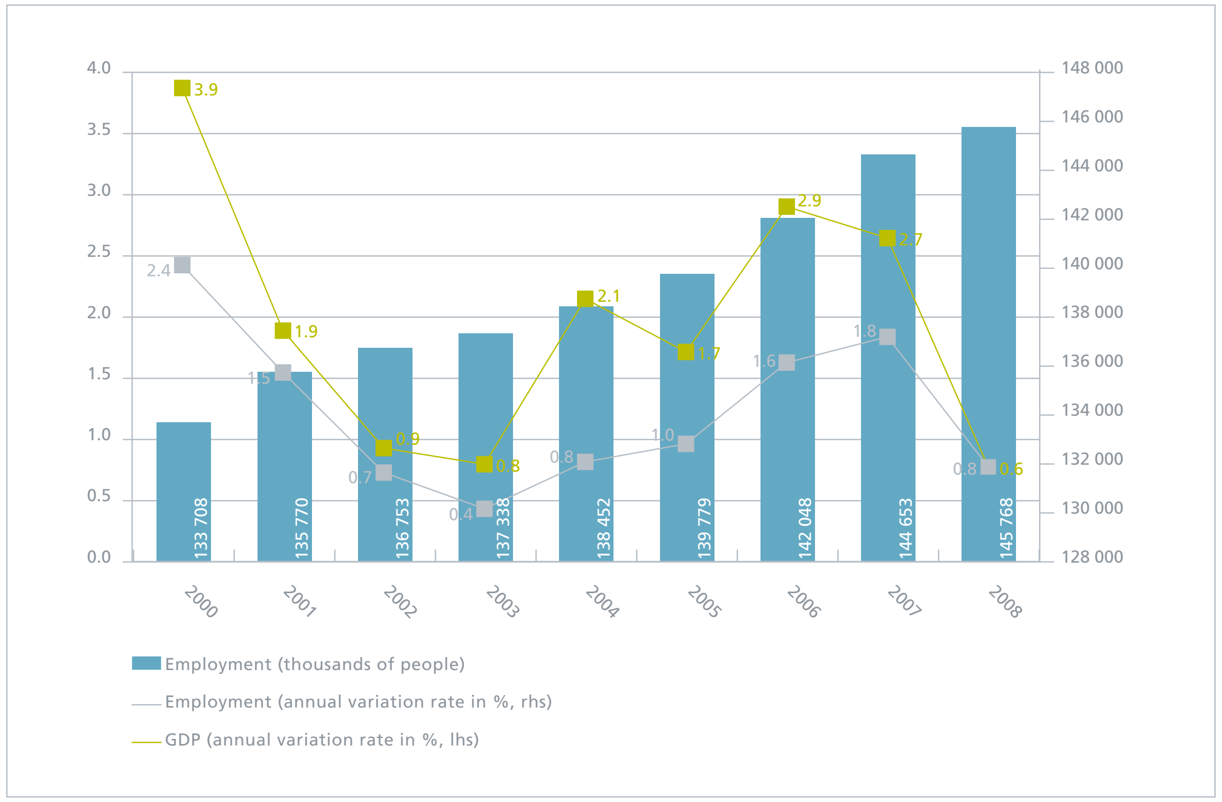
Net exports' contribution to GDP growth (about -0.4 q-o-q) has turned out less negative than in the preceding period. At first sight, this could be considered as a sign of slowdown of the fall in international trade and therefore be interpreted as a precursor of a floor level that would soon be reached. However, the improvement of net exports' contribution to growth only reflects the increased weakness of internal demand, which has led to a fall in imports. Exports have actually undergone an acceleration of their downward trend.

Besides exports, investment reflects particularly well the gravity of the current crisis as well as the morose outlook. Until late 2008, private consumption seemed to stand up relatively well to the crisis. Consumers' reaction as observed in early 2009 also seems to be relatively limited, if one takes into account the unprecedented collapse of GDP growth. Several factors can contribute to the comprehension of this phenomenon. First, the decrease in consumer price inflation has induced a positive impact on real disposable income for households. Furthermore, the labour market, main source of revenue for private households, typically reacts with a certain lag to economic activity. In addition, governments and social partners in the euro zone try to lessen the impact that the crisis could induce to both employment and unemployment. These measures are notably undertaken by the recourse to the "short time work" instrument, well known not only well known in Luxembourg. Nevertheless, there is a big threat that the lagged impact of the crisis on the labour market will be strong, which will have consequences on the revenue and thus on the consumption behavior of private households.

The labour market situation in the euro zone already had deteriorated somewhat in the course of 2008. After experiencing three years of favorable evolution, characterized by a sustained progression of employment and a reduction of the unemployment rate, the euro area has entered a phase of reversal in 2008. It is characterized by an increase of the unemployment rate, starting in the second quarter and by an employment slowdown starting in the second half of the year. According to recent available data, employment would have retracted by 0.3 % in the last quarter of 2008 while on average, employment has increased by 0.8 % in 2008, after progressing by 1.8 % in 2007. In the fourth quarter, 147.6 million people in the euro area were employed.

The simultaneous rise of unemployment is another element reflecting the economic situation. After diminishing from 9.0% in January 2005 to 7.2 % in late 2007, the unemployment rate has been rising again since the second quarter of 2008. The unemployment rate has reached an average of 7.5 % in 2008. Available figures for the beginning of 2009 show the continuation of this increase: the number of unemployed people has exceeded the level of 14 million people, while the unemployment rate has attained 9.2% in April 2009.

FIGURE 5:
TOTAL EMPLOYMENT



Source : Eurostat et STATEC

The latest macroeconomic projections by international organisations suggest a strong fall of euro area GDP in 2009, followed by another drop, though of a minor magnitude, in 2010. According to the IMF, the OECD and the European Commission, annual average real GDP should fall by -4.1% in 2009. According to the Eurosystem, the drop should be in a range between -5.1% and -4.1%. For 2010, the change in real GDP should average -0.1% according to the European Commission and -0.4 % according to the IMF. The Eurosystem is projecting a change between -1.0 % and 0.4%.

Compared to the recessions in 1993 and 2002-2003, the current one is clearly more severe, as regard both its duration and its depth. The massive degradation is also general, encapsulating both exports, in the context of the collapse of world trade, as well as domestic demand. As was the case in March 2009, the Eurosystem projects a fall for all GDP components in 2009, except for public consumption. The situation is set to improve by 2010, provided that the expansionary fiscal and monetary policies in the euro area as well as in the rest of the world take effect. It would occur against the background of a resumption of exports, a gradual return to a normal functioning of the financial system as well as the stabilisation of the real estate markets. Nevertheless, for 2010, the central point of the projection ranges still remains slightly negative for all components, except for public consumption. Hence, the most likely scenario is for most GDP components to fall during two consecutive years.

Private consumption should register a decrease between -1.3% and -0.5% in 2009 and a change between -1.1% and 0.3% in 2010. Regarding public consumption, this one should grow moderately, settling in a range between 1.4% and 2.0% in 2009, and between 0.9% and 1.7% in 2010. Finally, gross fixed capital formation

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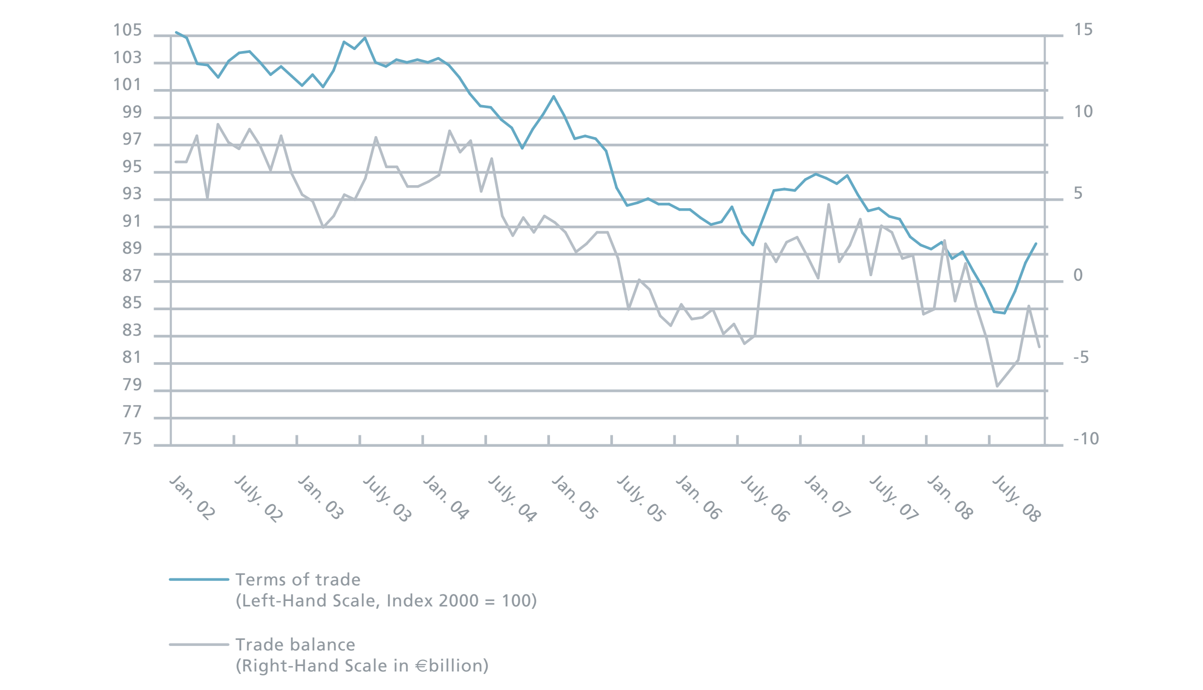
would drop by between -12.3% and -10.1% in 2009 and by between -6.1% to -2.1% in 2010. This unfavorable evolution would stem from the weakness of global demand, the particularly high uncertainty level and the less favorable financing conditions. On top of that comes the reduction of residential investment in certain euro area countries facing an adjustment of their real estate market. In the context of the collapse of world trade, exports would display the most severe adjustment in 2009 before stabilising gradually in the course of 2010. Nevertheless, in terms of annual averages, they should still fall in 2010. As for the risks to the Eurosystem's growth projections, the Governing Council estimates that they are balanced at the current juncture.

1.1.7 External trade

In 2008 the euro area external trade in goods recorded a deficit of €40 billion compared with a surplus of €12 billion in 2007. The higher oil prices during the first eight months of the year 2008, together with the contraction of exports particularly in the second half of the year, were the main factors behind this degradation. The contraction of goods exports in the second half of the year is largely explained by the fall in the global demand.

The geographical allocation of the euro area trade shows a decline in the surplus with the United States (-22% at €50 billion in 2008) and with the United Kingdom (-8% at €57 billion). However the surplus vis-à-vis Switzerland (€16 billion), Romania (€12 billion) and Turkey (€10 billion) rose respectively by 10%, 10% and 15% in 2008. Large trade deficits were recorded with oil exporting countries: OPEC members (+50% at €41 billion), Russia (+14% at €39 billion) and Norway (+45% at €29 billion). Moreover the usual heavy trade deficit with China (+7% at €119 billion) continued to broaden in 2008.

FIGURE 6:
MONTHLY DEVELOPMENTS IN THE EURO AREA TRADE BALANCE AND IN THE TERMS OF TRADE
(SEASONALLY ADJUSTED DATA)



Source :Eurostat

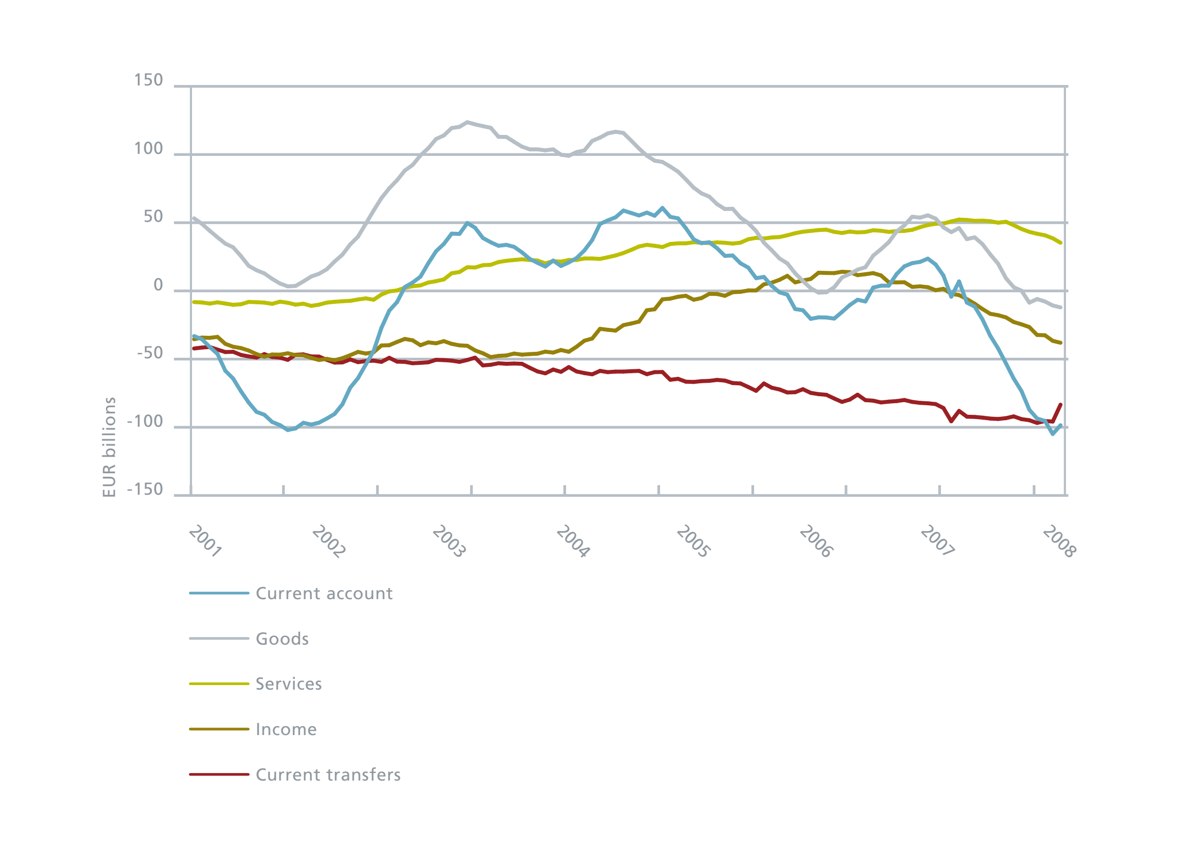
1.1.8 Balance of payments

In 2008 the current account of the euro area recorded a deficit of €93.6 billion, compared with a surplus of €11 billion in 2007. This worsening resulted mainly from the goods and the income balances that shifted from surplus in 2007 to deficits in 2008. The goods balance recorded a deficit of €6 billion in 2008, compared with a surplus of €46.6 billion in 2007. The drop in exports, particularly in the second half of the year, combined with the increase in oil prices in the first half of the year, were the main factors behind this deterioration.

The shift into a deficit of the income balance reflected higher interest rates in the euro area. At the same time the surplus in services balance decreased (-15%) to €41.7 billion and the deficit in the current transfers rose (+13%) to €96.8 billion in 2008.

In the financial account, the euro area recorded net inflows of €314 billion compared with net inflows of €41 billion in 2007. This positive development reflected a rise in net inflows of short-term debt instruments and net sales of foreign equity securities by euro area residents.

FIGURE 7:
CURRENT ACCOUNT BALANCE AND ITS COMPONENTS
(12-MONTHS CUMULATED TRANSACTIONS)



Source :Eurostat

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1.2 Economic Situation in Luxembourg

1.2.1 Prices and costs

1.2.1.1 Consumer prices and inflation projections

Inflation has fallen considerably since July 2008. After having reached a high of 4.9% in July, the national index of consumer prices (NICP) fell to 1.1% in December 2008 and further down to 0.6% in April 2009. On an annual average basis, consumer prices increased by 3.4% in 2008, the highest rate since 1993.

FIGURE 8:
INFLATION INDICATORS
(ANNUAL PERCENTAGE CHANGES)

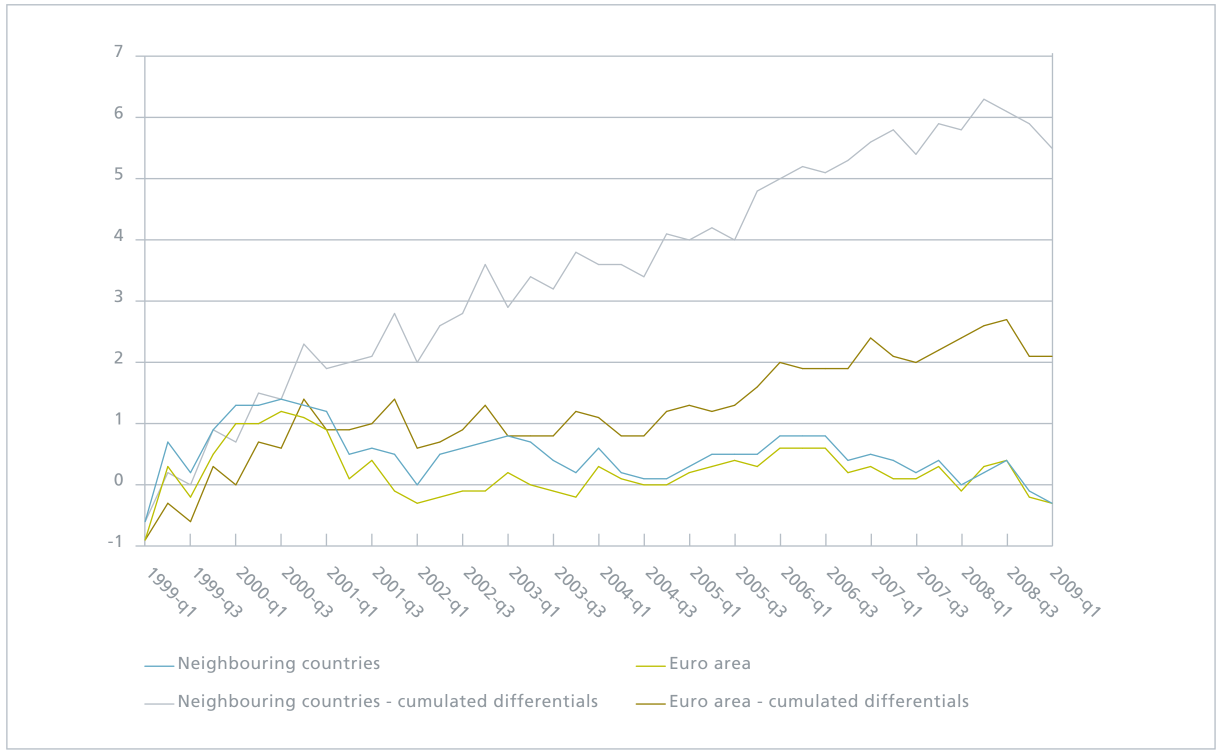
Source: STATEC

The decline in headline inflation comes amidst negative inflation rates for energy products and decelerating prices of other goods and services. Indeed, the inflation rate of petroleum products declined steadily from its peak of 30% in mid-2008 to turn negative in November 2008 and to fall to -24% in April 2009. The inflation rate for other goods and services fell from 2.7% in August 2008 to 2.3% in April 2009.

As regards the harmonised index of consumer prices (HICP), it fell from 5.8% in July 2008 to 0.0% in January 2009 and further down to -0.3% in March and April 2009.

Luxembourg's inflation differentials against the euro area and against the three neighbouring countries turned favourable again towards the end of the year 2008 and the beginning of 2009. Over the period from the beginning of phase III of EMU in 1999 to the beginning of 2009, Luxembourg's cumulated inflation differential stood at 2.1 percentage points vis-à-vis the euro area and 5.5 percentage points vis-à-vis Luxembourg's neighbouring countries (see chart).

FIGURE 9:
INFLATION DIFFERENTIALS
(IN PERCENTAGE POINTS)



Sources: STATEC, Eurostat, own calculations

According to the BCL's consumer survey, qualitative inflation perceptions have fallen sharply since mid-2008 to a new record low in May 2009. These developments seem to be in line with the sharp fall in the observed inflation rates.

Consumers' inflation expectations have also decreased substantially to reach a new record low in December 2008. Since then, they have roughly stabilised around that level. Consumers now expect prices to fall over the next 12 months. These expectations of price falls are much more pronounced and much persistent than in mid-2003, a period when deflationary concerns were

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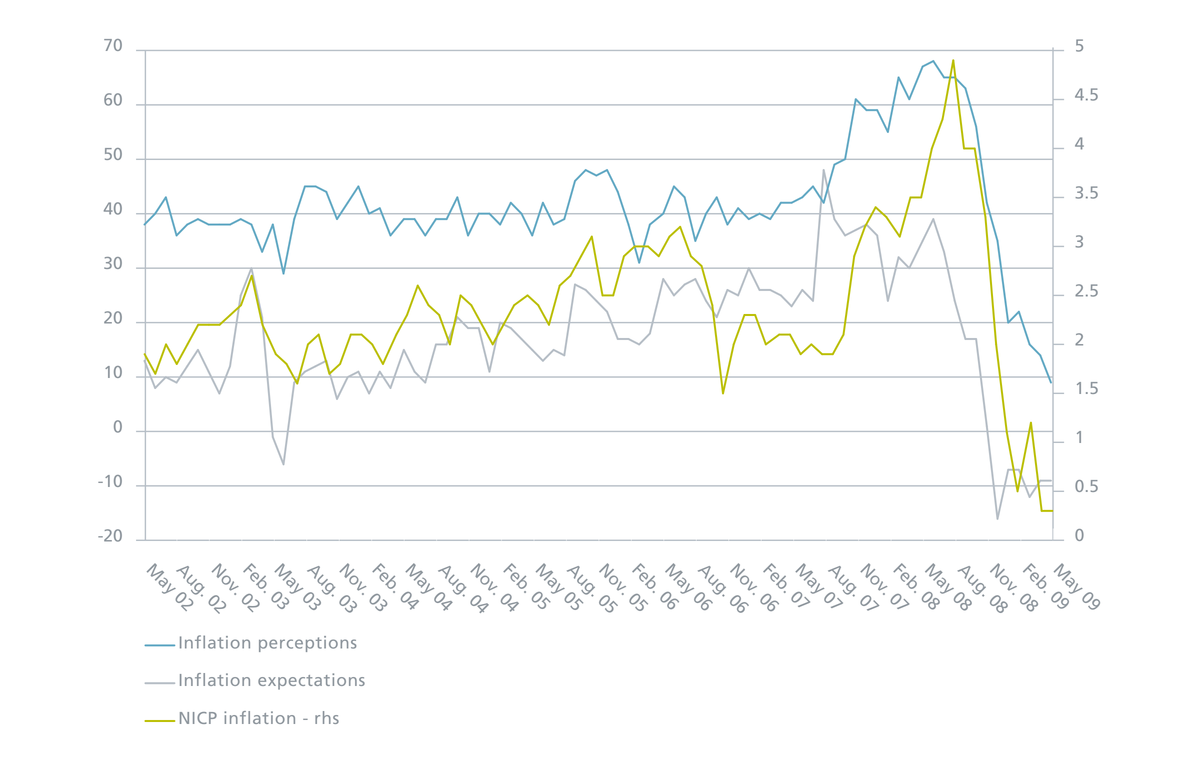
widespread in Europe. The latest and the expected consumer price developments come however closer to a disinflationary period, i.e. a fall in the inflation rate, which should not be confused with deflation.

FIGURE 10:
CONSUMER PRICE INFLATION PERCEPTIONS AND EXPECTATIONS



Sources : BCL and STATEC

Deflation is characterised by a general fall in prices that persists over a long period and that is self-perpetuating via the expectations of further price falls. These expectations could induce consumers to postpone some purchases reinforcing the downward pressure on prices. Although consumers expect further price falls, their expectations could be unduly influenced by recent inflation developments. Indeed, the three characteristics of a deflationary spiral are not met at the current juncture. First, the drop in inflation is not general but is mostly due to falling energy prices. The prices of other goods and services are still increasing, though at a more moderate pace than in the recent past. Second, according to the BCL's inflation projections, inflation would turn positive again towards the end of the year, and remain so in 2010 and in 2011. The period of negative inflation rates would thus be very short, and it is likely that consumers' expectations will also revert in the coming months. Third, there is no evidence of a self-perpetuating process of expectations of price falls. If, at the current juncture, some households postpone purchases, such as those for durables, it is most likely because of the prevailing climate of uncertainty about the future economic developments, possibly linked to the rise in unemployment, than because of expectations of price falls.

Inflation projections

Assumptions

End of May, the price of oil fluctuated around 55 USD per barrel and the financial markets were anticipating a rise to around 65 USD per barrel in June 2009. The quote for one euro against the dollar stood at 1.34, which corresponds to an appreciation with respect to both the average of 2007 and the previous exercise[1]. On average, the price of oil in euros would fall by 38% in 2009 compared to 2008. Compared to the previous exercise, these assumptions are higher, by 9.4% on average. Detailed assumptions are given in the following table.

TABLE 3:
ASSUMPTIONS UNDERLYING THE INFLATION PROJECTIONS

	2008	2009	2010	09-Q1	09-Q2	09-Q3	09-Q4	10-Q1	10-Q2
Price of oil in USD/barrel	97.7	54.5	65.5	45.1	54.2	58.1	60.7	63.0	64.9
Exchange rate USD/€	1.47	1.33	1.34	1.30	1.34	1.34	1.34	1.34	1.34
Price of oil in € (annual percentage changes)	24.0	-37.6	19.2	-46.4	-48.3	-43.6	6.4	35.8	19.1

Source: BCL

The decline in inflation excluding energy should continue over the coming months. Initially, it would again be driven by the unwinding of the food commodities shock. The inflation rates of both unprocessed and processed food would thus moderate further, lowering thereby ex energy inflation. Subsequently, the disinflation process would become more general as the price rises of other goods and services would also moderate. Several inflationary factors have disappeared with the sudden reversal of the conjunctural situation. The sharp drop in the oil price will induce favourable direct and indirect effects, first via a fall in producer prices and then via slowing consumer prices. A fall in consumer demand is also in the pipeline as the euro area is currently in the midst of the sharpest recession since the mid of the previous century. The expected sharp fall in employment with a concomitant rise in unemployment will lead to very muted wage cost developments, exacerbating thereby the downward pressure on consumer prices. Imported inflation, as proxied by the Eurosystem's projections for HICP inflation in the euro area, is set to fall sharply in 2009, before accelerating in 2010, though remaining below 2%. Services inflation would only decline more significantly in 2010, when the impact of the automatic 2.5% general wage hike, granted in March 2009, would fade. Furthermore, the minimum wage should not be adjusted in 2010. Those two factors would then bring services inflation below 2%.

1 BCL, Bulletin 2009/1, pp.30-33

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Results

The projections for the energy component of inflation have been slightly revised up compared to the previous exercise. On the basis of the euro oil price assumptions, the contribution of the energy component to headline inflation would be negative throughout the four quarters of 2009 (see chart) before turning marginally positive in the beginning of 2010. On average, the HICP energy would fall by 18% in 2009, its lowest rate for more than 20 years, before rising by around 5% in the first half of 2010.

Despite the deeper than expected recession, the projections for the HICP and the NICP excluding energy have been slightly revised upwards. These a priori counter-intuitive developments are probably linked to the stronger than assumed remaining price pressures, possibly linked to past wage and other production costs. NICP ex inflation would drop from 2.2% in the first half of 2009 to 2.0% in the second half of the year, and decline to around 1.3% in the first half of 2010. The more substantial fall in 2010 could be ascribed to lower services inflation, amidst the sharply moderating wages, and the low non-energy industrial goods inflation, due to very low imported inflation.

TABLE 4:
INFLATION PROJECTIONS AND REVISIONS COMPARED TO THE PREVIOUS EXERCISE
(IN ANNUAL PERCENTAGE CHANGES, RESP. IN PERCENTAGE POINTS)

	2008	2009	2009-1st half	2009-2nd half	2010-1st half
NICP	3.4	0.2(0.1)	0.2(-)	0.2 (0.2)	1.5
NICP ex energy	2.5	2.1(0.3)	2.2(0.2)	2.0(0.3)	1.3
HICP	4.1	-0.2(0.2)	-0.4(0.1)	0.0(0.2)	2.1
HICP energy	12.4	-18.2(0.3)	-20(-)	-16.3(0.6)	5.3
HICP ex energy	3.0	2.4(0.1)	2.6(0.1)	2.3(0.2)	1.7
Impact of government measures on the NICP, in pp	0.4	0.3(-0.1)			
Impact of government measures on the HICP, in pp	0.9	0.7(-0.1)			

Source: BCL

Headline inflation probably turned negative in May, and it should continue to fall up to July 2009 when a rate of -0.7% is expected. Negative inflation rates would be observed in respectively 5 (on the basis of the NICP) and 8 (on the basis of the HICP) months. It would turn positive again in the fourth quarter of 2009 to converge to around 1.5% in the first half of 2010. On average, headline inflation in 2009 is expected at 0.2%, if measured by the NICP, and -0.2%, if measured by the HICP. The situation seems comparable to the years 1986 and 1987, when in the context of the positive oil price shock, very low inflation rates of respectively 0.3% and -0.1% were observed.

FIGURE 11:
CONTRIBUTIONS TO NICP INFLATION

Source : STATEC, own calculations

The payout of the automatic wage indexation that had been triggered in mid-2008 was postponed until March 2009, in line with the measures agreed in 2006. On the basis of these inflation projections, the next 2.5% automatic wage increase would be due in the beginning of 2011. The latest developments of the oil price and the €/$ exchange rate, as observed towards the end of May 2009, have however proved above our expectations. They would suggest that the timing of next automatic wage increase could be brought forward and occur more likely towards the end of 2010.

1.2.1.2 Producer prices in industry

Industrial producer prices increased on average by 8.7% in 2008. This price development is mostly due to both energy and intermediate good prices. Prices for consumption and capital goods increased too, but at a more moderate pace.

The last figures indicate a decline of industrial producer prices during the first quarter of 2009 (-4.7%, after -2.2% during the fourth quarter of 2008). The breakdown reveals that a price decline has been recorded for all sectors during the first quarter of 2009, except for consumption goods.
The available data from the harmonized business surveys however suggest that the decline of overall industrial producer prices should continue.

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TABLE 5:
INDUSTRIAL PRODUCER PRICES (CHANGES WITH RESPECT TO THE PREVIOUS PERIOD)

	2006	2007	2008	2008-Q1	2008-Q2	2008-Q3	2008-Q4	2009-Q1
Total	7.7%	9.1%	8.7%	2.3%	3.3%	4.6%	-2.2%	-4.7%
Intermediate goods	8.8%	12.5%	9.2%	1.9%	4.3%	5.0%	-3.9%	-6.7%
Capital goods	0.9%	5.0%	5.1%	2.3%	1.1%	0.3%	1.0%	-0.2%
Consumer goods	1.2%	0.5%	2.1%	0.4%	0.8%	1.0%	0.5%	1.6%
Energy	19.8%	0.1%	17.2%	8.8%	3.2%	8.6%	0.0%	-5.0%

Sources : STATEC, BCL

1.2.1.3 Construction prices

The prices of construction services rose by 3.2% in the course of 2008 (after +3.1% in 2007). This probably reflected developments on the cost side, in particular wages, rather than the cyclical position of the sector.

Given the high labour content of construction, it is no surprise that these price increases rarely drop below the automatic wage increases dictated by the indexation scheme (see chart).

FIGURE 12:
CONSTRUCTION PRICES

Sources : Statec, BCL calculations

Price/cost competitiveness – impact of the crisis and outlook for 2009-2011

Over the second half or 2008, the consumer price index (NICP) in Luxembourg experienced a spectacular slowdown. In July Luxembourg still had one of the highest levels of inflation in the euro area, but since November inflation has reached one of the lowest levels in the euro area (along with Ireland and Portugal). Luxembourg's price and cost competitiveness indicators have been marked by these developments. In particular, the indicator based on consumer prices and the one based on the GDP deflator both suggest a competitiveness improvement but only for the last quarter of 2008.

These competitiveness indicators can be extended up to 2011 using the recent eurosystem projections. This exercise reveals that recent competitiveness developments are more a transitory correction than a turning point in the trend, since Luxembourg's competitiveness continues to deteriorate until the end of the projection horizon.

The national competitiveness indicators calculated by the BCL are effective exchange rate indices deflated by different measures of prices or costs. These compare prices or costs in Luxembourg to a weighted average of the same prices or costs in Luxembourg's main trading partners[2], all expressed in a common currency. The weight attached to each trading partner is based on its importance in Luxembourg's international trade.

The figure presents Luxembourg's competitiveness indicators extended through 2011 using the results of the recent eurosystem projections[2]. For each line, an increase means that prices or costs are growing faster in Luxembourg than abroad (a deterioration of Luxembourg's competitiveness). The indicator based on consumer prices began to fall in 2008Q4, implying a competitiveness improvement. This limited the deterioration over the whole of 2008 to +1.40%, largely below the +2.08% anticipated in the last BCL annual report. In 2009Q1 (latest available observation) the indicator improved yet again, dropping -1.01% year-on-year. For the whole of 2009, projections expect a competitiveness improvement of -0.84%. However, in 2010 and 2011 this indicator should deteriorate at around +0.5% per year, close to its historical average since 1999Q1 (+0.71%).

According to the latest national accounts figures, the indicator based on the GDP deflator deteriorated by +1.94% in 2008 (very close to the level expected in the last annual report). However, in 2008Q4 (latest available observation) year-on-year growth was only +0.19%. For 2009 as a whole, projections expect a deterioration of only +1.09% and similar amounts in 2010 and 2011. Thus the GDP deflator based competitiveness indicator should deteriorate over the entire projection horizon, but at a rate far below its historical average since 1999Q1, which is +1.69%.

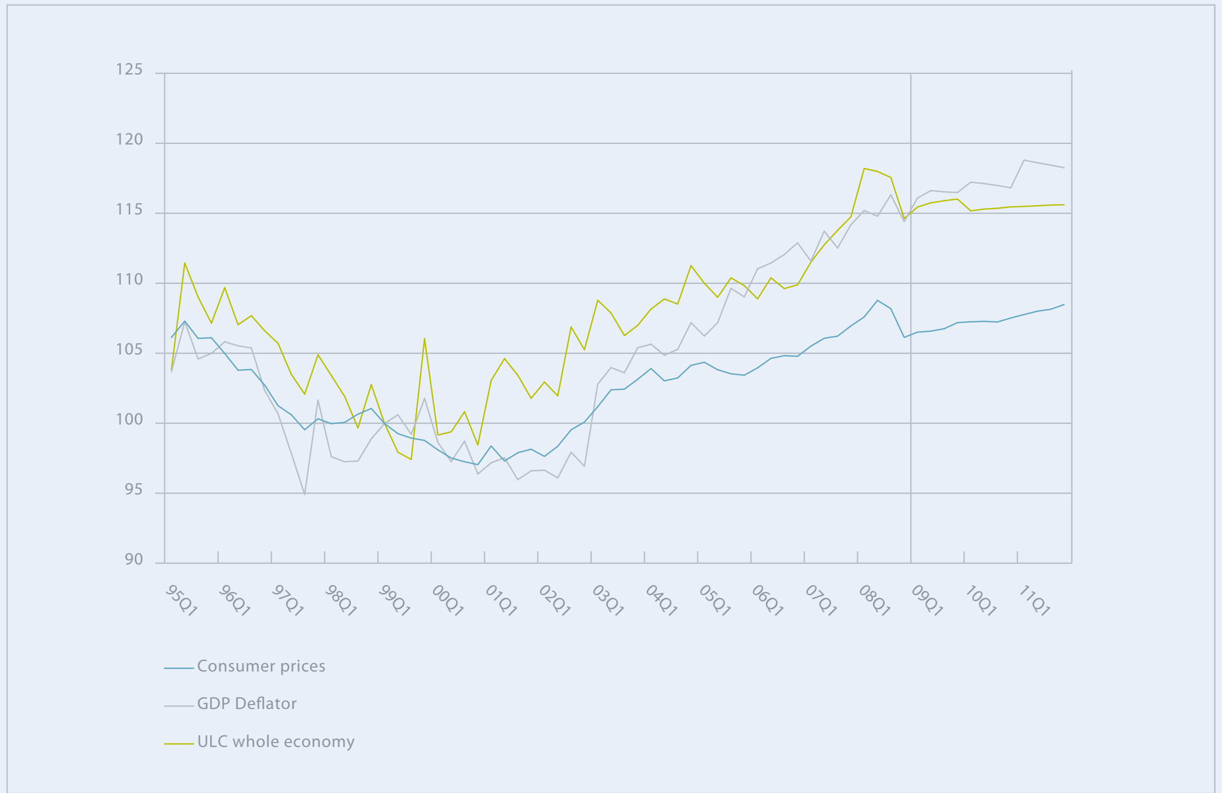
The indicator based on unit labour costs in the whole economy indicates a competitiveness deterioration of +3.46% en 2008, far above the +1.74% expected a year ago. This difference is linked to an important fall in apparent labour productivity all along the year. However, 2008Q4 (latest available observation) saw a slight improvement in this indicator, with a drop of -0.10% year-on-year. According to the projections, this improvement in cost-competitiveness should continue during 2009 with a fall of -1.11% for the year as a whole. In 2010 the indicator should improve only -0.39% and in 2011 it should deteriorate +0.20%. Thus projections do not anticipate a turning point, but a clear improvement with respect to the steady deterioration since 1999Q1 (average +1.44%).

In the context of the current crisis, it bears repeating that the projections are surrounded by greater uncertainty than usual, so the outlook for Luxembourg's price-cost competitiveness may be subject to significant revisions following the publication of new data.

2 The group of trading partners considered includes the 26 other members of the euro area as well as eleven other countries : Switzerland, Norway, the US, Canada, Japan, Australia, New Zealand, South Korea, China, Hong Kong and Singapore.

3 The projections for the deflators are limited to the sixteen other members of the euro area, the UK, Switzerland, the US and Japan.

FIGURE 13:
NATIONAL COMPETITIVENESS INDICATORS BASED ON CONSUMER PRICES GDP DEFLATOR AND UNIT LABOUR COSTS (ULC) FOR THE WHOLE ECONOMY



Sources: Eurosystem and BCL calculations

1.2.2 Sectoral developments

1.2.2.1 Industry

The short-term indicators paint a disastrous picture for the industrial sector. The industrial production per working day index, which is corrected for price developments, fell sharply in 2008 after a weak rise in 2007. The decrease in the production has been particularly marked since the fourth quarter of 2008. The sectoral breakdown of production per working day suggests fairly heterogeneous developments in the different branches in 2008. Production of both capital goods and energy decreased only slightly compared to 2007, whereas an outright fall in production levels was recorded for consumer and intermediate good components. Latest data indicate that the production per working day went down further in all branches of the industrial sector during the first quarter of the year 2009.

TABLE 6:
INDICATORS FOR THE INDUSTRIAL SECTOR (IN ANNUAL PERCENTAGE CHANGES)

	2006	2007	2008	2008-Q1	2008-Q2	2008-Q3	2008-Q4	2009-Q1
Production per working day (ppwd)	2.4	0.6	-4.8	-4.0	0.6	1.5	-16.7	-23.9
Intermediate goods (ppwd)	5.5	1.3	-6.3	-5.6	-0.5	4.6	-23.5	-29.1
Capital goods (ppwd)	1.6	11.0	-0.9	3.5	7.3	-6.6	-6.9	-29.5
Consumer goods (ppwd)	-4.1	-7.9	-6.0	-3.4	-6.2	0.4	-14.6	-14.1
Energy (ppwd)	-0.4	0.6	-0.4	3.3	8.7	-6.3	-5.4	-9.9

Sources: STATEC,BCL

The confidence indicator based on harmonised monthly business surveys has significantly deteriorated in 2008. It has even reached its historical minimum in December 2008. Thereafter, the confidence indicator has fluctuated around this absolute minimum between January and May 2009, possibly suggesting that the deterioration of industrial activity wouldn't accelerate. It seems nevertheless important to keep in mind that total hours worked has decreased substantially since October 2008 so that industrial production fall should not halt suddenly.

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1.2.2.2 Construction

In 2008 and in the beginning of 2009, the construction sector showed some signs of relative resilience. In 2008, turnover accelerated to 2.3%, whereas production per working day (ppwd) decreased by 1.4%. Over the first quarter of 2009, ppwd continued to decrease (-0.4%) and hours worked declined by 5.4% (after -0.2% in 2008).

The economic indicators related to the housing sector are on the downswing. The decline of building permits was marked during 2008 and the first quarter of 2009 (respectively -18.6 and -36.7%). The number of new loans to households for house purchase decreased by -13.4% in the fourth quarter of 2008 and by 19.2% in the first quarter of 2009. During the same time, the outstanding of loans to households for house purchase decelerated strongly.

TABLE 7:
INDICATORS FOR THE CONSTRUCTION SECTOR (IN ANNUAL PERCENTAGE CHANGES)

	2006	2007	2008	2008-Q1	2008-Q2	2008-Q3	2008-Q4	2009-Q1
Turnover - Total	7.5	-0.5	2.3	5.6	-1.4	4.4	1.3	-13.4
Production per working day -Total	2.1	1.7	-1.4	-2.0	0.0	-2.0	-1.8	-0.4
Hours worked	1.7	2.2	-0.2	-3.1	1.3	-0.2	1.1	-5.4
Building permits	-5.9	12.1	-18.6	-7.9	-31.8	2.6	-26.7	-36.7
Loans for house purchase - outstanding amounts	13.8	22.1	10.7	12.2	11.6	10.6	8.4	6.9
Loans for house purchase - new business	9.4	19.4	13.8	16.7	21.5	43.1	-13.4	-19.2
Mortgage rates	4.0	4.7	4.9	4.9	4.9	5.1	4.6	3.2

Sources: STATEC, BCL calculations

1.2.2.3 Trade and other sectors

In 2008, turnover in the wholesale trade decreased by 2%. The fall in the turnover has been particularly strong during the fourth quarter of the year 2008 (-18.3%) and thus in line with the deterioration of the industrial production. Turnover in the retail trade maintained its growth performance of the previous year. However, retail trade data need to be interpreted carefully as they are affected by e-commerce activities. After correcting for these activities, turnover growth rate would have been only -0.7% in 2008, after +0.9 in 2007.

Car registrations recorded only modest growth in 2008, while motor vehicle repair saw a modest raise in sales (+2.7%).Turnover in other service sectors continued to enhance in 2008. It increased by 3.5% in the hotel branch (after +3.8%) and by 8.8% in transports (after +5.3%).

The latest available statistics suggest that car registrations decrease by 10.9% over the four first months of the year in comparison to the same period in 2008, notwithstanding the huge cut in consumption loan interest rates.

TABLE 8:
TURNOVER AND CAR REGISTRATIONS
(IN ANNUAL PERCENTAGE CHANGES)

	2006	2007	2008	2008-Q1	2008-Q2	2008-Q3	2008-Q4	2009-Q1
Car registrations	4.7	1.0	2.0	-6.5	10.7	10.7	-6.7	-10.4
Car	1.1	-2.2	-1.9	-3.0	2.3	-3.2	-4.2	-
Wholesale trade	1.5	-8.8	-2.0	5.2	5.5	1.9	-18.3	-
Retail trade	15.0	15.9	15.9	12.4	8.7	3.3	2.2	-
Retail trade (excl. e-commerce activities)	3.4	0.9	-0.7	1.8	0.4	-1.2	-3.3	-
Hotels and restaurants*	2.0	3.8	3.5	6.6	6.0	2.0	-0.1	-
Transport – total*	4.0	5.3	8.8	10.3	5.4	14.5	5.6	-
Communications*	10.4	7.1	4.9	-0.6	15.4	2.0	6.3	-

Sources : STATEC, BCL
** in value*

4 The consumer survey carried out in Luxembourg is part of the Joint Harmonised EU Programme of Business and Consumer Surveys and is co-financed by the European Commission.

1.2.3 Consumer survey

Consumer confidence[4] has been in a downtrend since mid-2007, which coincided with the apparition of the financial turmoil. It has reached is historical minimum in December 2008 before stabilising. The halt of the deterioration in the European consumer confidence has appeared later, as the absolute minimum was reached in March 2009 only.

All components of the consumer confidence indicator have reached their historical minimum in December 2008, except for consumers' expectations as regards unemployment in Luxembourg. It continued to evolve unfavourably until April 2009.

The latest consumer survey dates from May 2009 and it indicates that the consumer confidence indicator improved by two points for the second month in a row. Components of the indicator behaved in various manners. Consumers' expectations as regards unemployment in Luxembourg have strongly deteriorated since September 2008, notwithstanding a marked straightening up in May. Consumers' expectations as regards the outlook for the general economic situation in Luxembourg have enhanced markedly in May. They are now more optimistic than in December 2008. Finally, consumers' expectations as regards their financial situation and their savings have been downward revised in May, after they improved in April 2009.

TABLE 9:
CONSUMER CONFIDENCE INDICATORS
(SEASONNALLY ADJUSTED DATA)

			EXPECTATIONS FOR THE NEXT TWELVE MONTHS			
		Consumer confidence indicator	Economic situation in Luxembourg	Unemployment in Luxembourg	Financial situation of households	Saving capacity of households
2007	May	10	4	18	4	50
	June	8	1	20	3	47
	July	10	0	12	4	47
	August	8	-3	15	2	48
	September	5	-10	18	-3	50
	October	9	2	20	4	49
	November	6	-5	17	-1	47
	December	4	-4	20	-1	41
2008	January	5	-8	19	-1	46
	February	4	-9	22	0	48
	March	4	-10	20	-1	47
	April	3	-14	18	-2	45
	May	0	-21	18	-8	47
	June	-1	-24	16	-9	44
	July	-4	-27	22	-9	41
	August	-2	-25	22	-9	47
	September	-2	-21	25	-4	42
	October	-10	-36	44	-6	46
	November	-12	-32	54	-7	43
	December	-20	-44	66	-9	38
2009	January	-16	-42	66	0	44
	February	-17	-34	70	-6	42
	March	-19	-37	70	-6	39
	April	-17	-36	75	-3	47
	May	-15	-31	66	-4	40

Source : BCL

1.2.4 Economic growth

According to the first release of national accounts data for 2008, GDP decreased by -0.9% after +6.4 and +5.2% in 2006 and 2007 respectively. This decrease is predominantly due to a negative contribution of net exports to growth (-2 pp.): while exports slowed down drastically (from 4.4% in 2007 to 0.3% in 2008), imports decelerated much less. Financial services exports were especially hit by the financial crisis and decreased by 10% and 25% in the third and fourth quarters respectively.

The contribution of domestic demand, while remaining positive, decreased markedly, due predominantly to the slowdown of gross capital formation growth. Private consumption, on the other side, remained robust. Although compensation per employee slowed down significantly (to 1.5%), Unit labor costs rose considerably by 7.2% as a consequence of high employment growth and shrinking output. Analogously, profit margins fell by 6%.

One should keep in mind that they should be interpreted with care as they are subject to future revisions. For instance, the 1.5% increase of compensation per employee seems rather low if compared to other indicators of labour cost developments.

TABLE 10:
ANNUAL NATIONAL ACCOUNTS : FIRST ESTIMATE OF 2008 REAL GDP GROWTH

	April 2009 National accounts							Contributions to GDP growth						
	Yearly rate of change													
	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008
Private consumption	5.8	-5.3	2.7	1.9	2.9	2.1	1.8	2.4	-2.2	1.0	0.7	1.0	0.7	0.6
Public consumption	4.6	4.1	4.6	3.4	2.7	2.6	1.3	0.7	0.7	0.8	0.6	0.4	0.4	0.2
Gross Capital Formation	-4.4	8.8	3.2	11.2	-1.5	7.2	1.6	-1.1	1.9	0.7	2.4	-0.3	1.4	0.3
Domestic demand	2.6	0.4	3.2	5.0	1.4	3.8	1.6	2.1	0.4	2.5	3.8	1.1	2.6	1.1
Imports	0.8	6.9	11.8	6.0	13.4	3.5	1.7	1.0	8.4	13.3	7.7	17.8	5.1	2.5
Exports	2.1	6.8	11.2	6.0	14.6	4.4	0.3	3.0	9.5	15.4	9.2	23.1	7.8	0.5
Net exports	10.7	5.9	7.8	6.2	22.4	9.8	-7.8	2.0	1.1	2.1	1.5	5.3	2.7	-2.0
Gross Domestic Product	4.1	1.5	4.5	5.2	6.4	5.2	- 0.9							
GDP Deflator	2.1	6.0	1.9	4.5	5.4	2.0	1.6							
Employees	3.4	1.9	2.4	3.1	3.9	4.7	4.8							
Total employment	3.2	1.8	2.2	2.9	3.6	4.5	4.6							
Compensation per employee	3.1	1.1	3.7	3.7	3.1	4.3	1.5							
Labour productivity	0.8	-0.3	2.3	2.2	2.7	0.7	-5.3							
Unit labour cost	2.2	1.4	1.4	1.4	0.4	3.6	7.2							
Profit margins	-0.1	4.6	0.5	3.1	5.0	-1.6	-5.6							

Sources : STATEC, BCL calculations

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1.2.5 Financial sector

Luxembourg's financial centre faced a net decrease of four credit institutions throughout 2008, diminishing their number to 152 at 31 December 2008. In detail, the census reported two closures, two mergers, one liquidation and a constitution for 2008. Until 29 May 2009, we recorded two mergers and a withdrawal which further reduces the number of credit institutions to 149.

1.2.5.1 Credit institutions' balance sheets

Annual activity growth rate in terms of volume was limited to 1.8% at 31 December 2008. This growth rate of the aggregate balance sheet of Luxembourg banks was the feeblest observed since March 2004 (1.7%). The strongest decline throughout 2008 was registered during fourth quarter (-6.2%).

TABLE 11 :
MAIN FIGURES RELATING TO THE ASSET SIDE OF THE AGGREGATE BALANCE SHEET
(OUTSTANDING AMOUNTS AS AT END OF PERIOD)

	Amounts in million euros			Variation in million euros and in %				Relative weight[1]
Assets	2007/12	2008/12	2009/04	2007/12 - 2008/12		2008/12 - 2009/04		2009/04
				million euros	%	million euros	%	
Interbank loans	455 682	471 281	418 914	15 599	3.4	-52 367	-11.1	47.5
Loans to non-banking customers	195 350	205 222	206 093	9 872	5.1	871	0.4	23.4
Portofolio investment	236 700	221 593	228 519	-15 107	-6.4	6 927	3.1	25.9
Other assets	27 717	33 466	28 240	5 749	20.7	-5 226	-15.6	3.2
Total assets	915 448	931 562	881 766	16 114	1.8	-49 796	-5.3	100.0

Source : BCL

1. Relative weight in relation to total assets

TABLE 12 :
MAIN FIGURES RELATIVE TO THE LIABILITY SIDE OF THE AGGREGATE BALANCE SHEET
(OUTSTANDING AMOUNTS AS AT END OF PERIOD)

	Amounts in million euros			Variation in million euros and in %				Relative weight[1]
Liabilities	2007/12	2008/12	2009/04	2007/12 - 2008/12		2008/12 - 2009/04		2009/04
				million euros	en %	million euros	en %	
Interbank debts	443 797	479 178	425 297	35 380	8.0	-53 881	-11.2	48.2
Deposits to non-banking customers	305 279	286 692	288 986	-18 587	-6.1	2 294	0.8	32.8
Dept securities issued	93 574	80 062	82 996	-13 512	-14.4	2 934	3.7	9.4
Other liabilities	72 797	85 630	84 487	12 833	17.6	-1 143	-1.3	9.6
Total liabilities	915 448	931 562	881 766	16 114	1.8	-49 796	-5.3	100.0

Source : BCL

1. Relative weight in relation to total liabilities

On 30 April 2009, the aggregated balance sheet of Luxembourg banks amounted to 881 766 million euros, against 931 562 million euros at 31 December 2008. This represents a decline of 49 796 million euros (-5.3%). Between end November and end December 2008, it had already decreased by 48 282 million euros. During the first four months of 2009, the volume of loans and interbank deposits have decreased by 11.1% (52 367 million euros in assets) and by 11.2% (53 881 million euros in liabilities), respectively. Loans to non bank customers increased by 5.1% on an annual basis, followed by a stabilisation trend between December 2008 and April 2009 (0.4%). The latter moderate increase is largely the result of weak demand. Hefty annual variations with respect to other assets and other liabilities are in large part due to derivative financial instruments, which are recorded from January 2008 onwards on balance sheet instead of off-balance sheet beforehand.

Loans to non-bank customers
Loans to residents

Outstanding loans to resident households increased by 7.7% (1 257 million euros) during 2008 and 180 million euros (1.0%) during the first four months of 2009 accounting for 17 871 million euros at 30 April 2009. This positive development is mainly due to mortgage loan growth of 1 054 million euros in 2008 and of 158 million euros (1.1%) between end December 2008 and end April 2009. However, the remarkable growth rate of 22.1% registered in 2007 could by far not be repeated and declined to "only" 7.6% growth in 2008. Bearing the financial crisis in mind, demand from resident other financial intermediaries was down by 7.5% (2 266 million euros) between December 2007 and December 2008. During March the worst performing month in 2009 so far, a decrease of 5 177 million was observed. However, throughout the first four months of 2009, the decline in stocks accounts for 2 131 million euros (-7.6%), reaching 25 820 million euros at 30 April 2009.

Deposits of non-bank customers
Deposits of residents

While deposits of resident non-bank customers rose by 1.2% (2 050 million euros) in 2008, the trend reversed until April 2009. Eventually, the decline of the first four months in 2009 was substantial with 5.0% (8 376 million), mainly due to a loss of investor confidence, which began in September 2008, and was due to withdrawals of funds from other resident financial intermediaries. They withdrew 9 553 million, or 8.1% of their outstanding deposits with Luxembourg banks between end of year 2008 and end April 2009.

1.2.5.2 Retail interest rates in Luxembourg

During 2008, main refinancing operations interest rates were set to a peak level of 4.25% between 9th July and 15th October 2008. In the aftermath, they were progressively reduced to 2.50% as of 10th December 2008.

Early 2009 was characterised by four new softenings of the Eurosystem's main refinancing interest rate who has reached the 1.00% level on 13 May. New financing conditions were quickly passed on to customers, reducing either variable interest rates or offering new contracts adopting interest rates according to changed market conditions.

The cost of new housing loans' contracts at variable interest rate conditions decreased by 61 basis points between end December 2007 (4.83%) and end December 2008 (4.22%). At first quarter end 2009, a further interest rate softening of 121 basis points was passed on to customers and drove housing loans with variable interest rates down to 3.01%. New housing loans contracts were set back to a historic feeble level at end April to 2.38%.

Despite the economic slowdown, housing loans demand for new business remains dynamic. Thus, as of end April 2009, 298 millions euros were granted by domestic banks, compared to 241 millions in 2008 and 230 million euros in 2007 (monthly average of the corresponding year).

2008 was a year characterised by a slow downward trend for consumption loans rates. During first quarter of 2009, the observed decline was much more significant due to the so-called Luxembourgish "festival de l'automobile". Between December 2007 and December 2008, the cost of new business consumption loans with interest rates fixation over one and up to five years decreased by nine basis points from 6.29% down to

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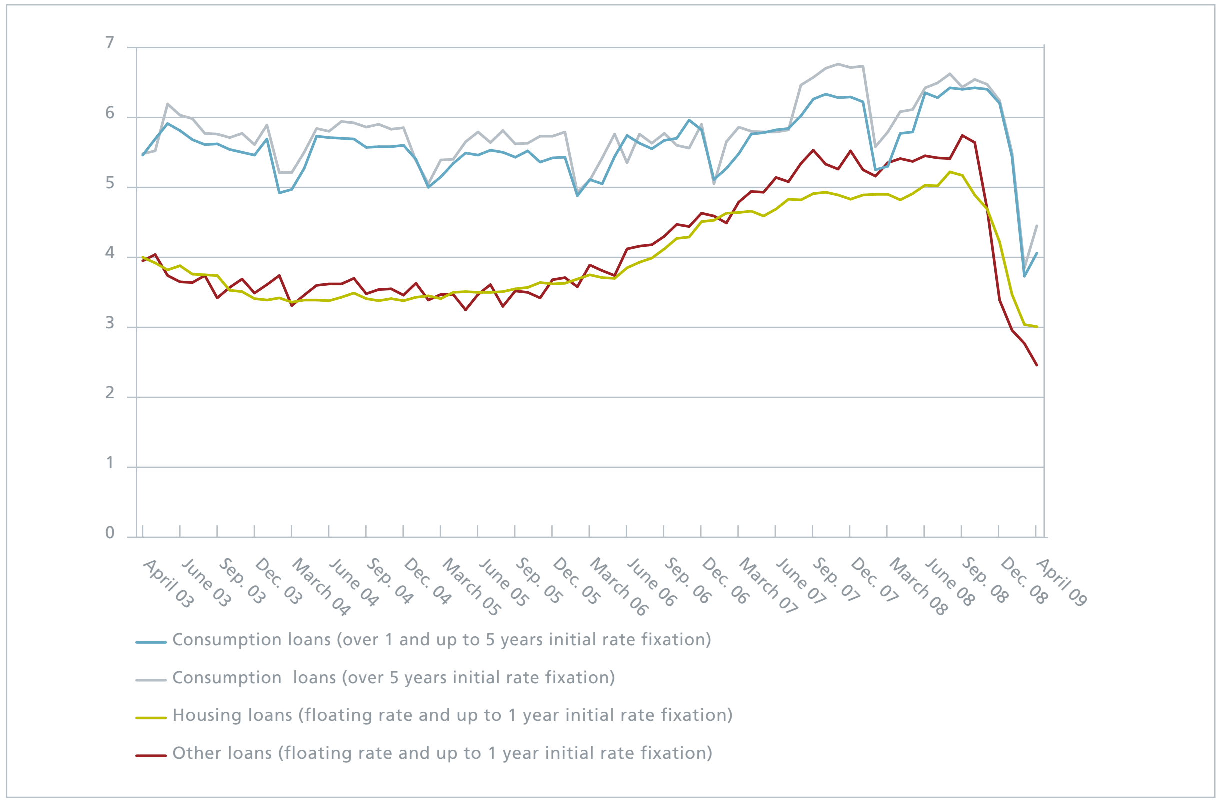
6.20%. Between December 2008 and March 2009, the latter diminished by 214 basis points down to 4.06%. Finally, at end April 2009 it surged to 4.77%.

The cost of consumption loans with interest rates fixation over five years, was reduced by 47 basis points between December 2007 (6.71%) and December 2008 (6.24%). From December 2008 until April 2009 costs (4.45%) in this category became another 179 basis points cheaper.

Interest rates of the other loans category plunged between December 2007 (5.52%) and December 2008 (3.39%) by 212 basis points. This trend continued with a reduction of 119 basis points observed from December 2008 (3.39%) to April 2009 (2.21%). A majority of the other loans category is offered to non domestic counterparts (mainly households out of Monetary Union).

FIGURE 14:
LOANS TO HOUSEHOLDS: DEVELOPMENT OF INTEREST RATES BETWEEN APRIL 2003 AND APRIL 2009 (IN %)

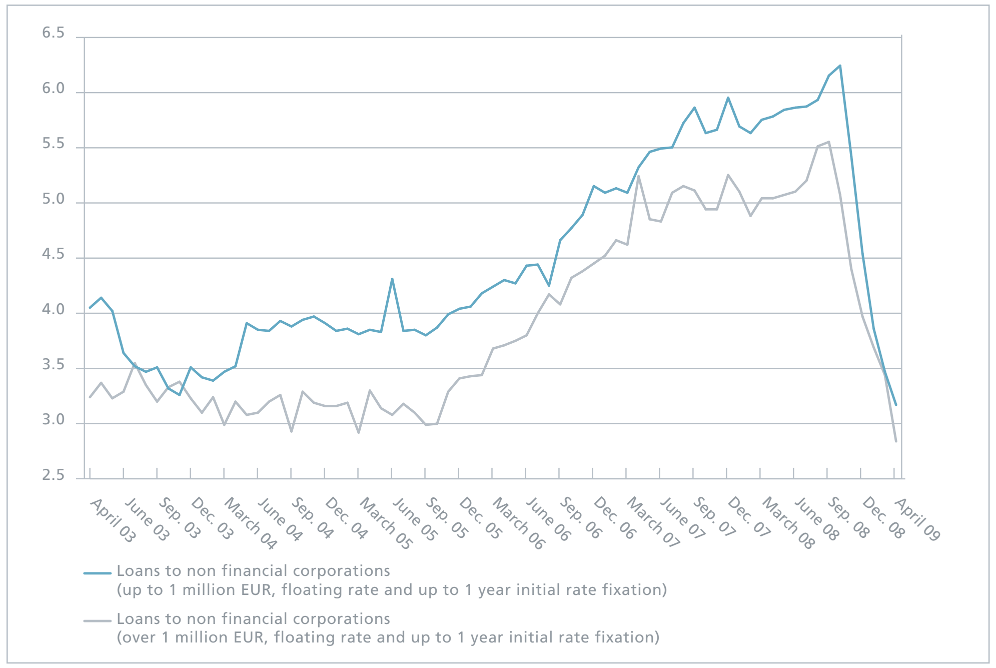


Source : BCL

The cost for new loans to non financial corporations and contracts below one million euros diminished by 141 basis points between December 2007 (5.95%) and December 2008 (4.54%) and by further 160 basis points throughout the first four months of 2009 (2.94%).

Regarding new contracts over one million of euros, interest rates decreased by 113 basis points during 2008 and 128 during the December 2008 to March 2009, respectively. Finally, we observed a level of 2.48% as of end April 2009.

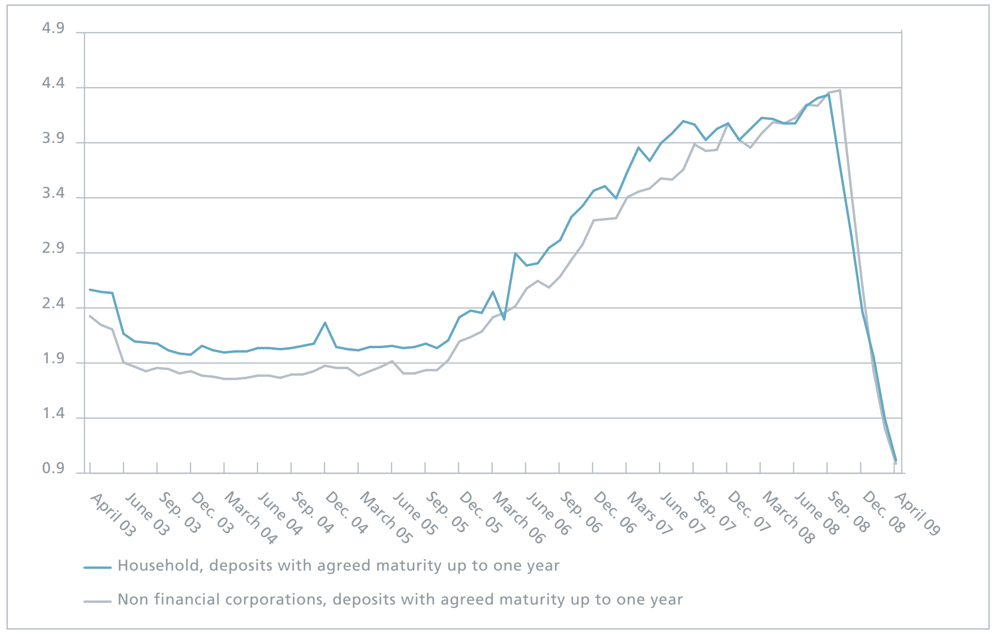
FIGURE 15:
LOANS TO NON FINANCIAL CORPORATIONS:
DEVELOPMENT OF INTEREST RATES BETWEEN APRIL 2003 AND APRIL 2009 (IN %)



Source : BCL

Between December 2007 (4.07%) and April 2009 (0.77%) term deposits rates (with maturities below one year) for households plunged by 330 basis points. Interest rates proposed to non financial corporations in the same category tumbled by 328 basis points from 4.07% in December 2007 down to 0.79% in April 2009. On 30 April 2009, term deposits with identical priory mentioned conditions were remunerated with 0.77% in the case of households and 0.79% for non financial corporations, respectively.

FIGURE 16:
HOUSEHOLDS AND NON FINANCIAL CORPORATIONS' DEPOSITS:
DEVELOPMENT OF INTEREST RATES BETWEEN APRIL 2003 AND APRIL 2009 (IN %)



Source : BCL

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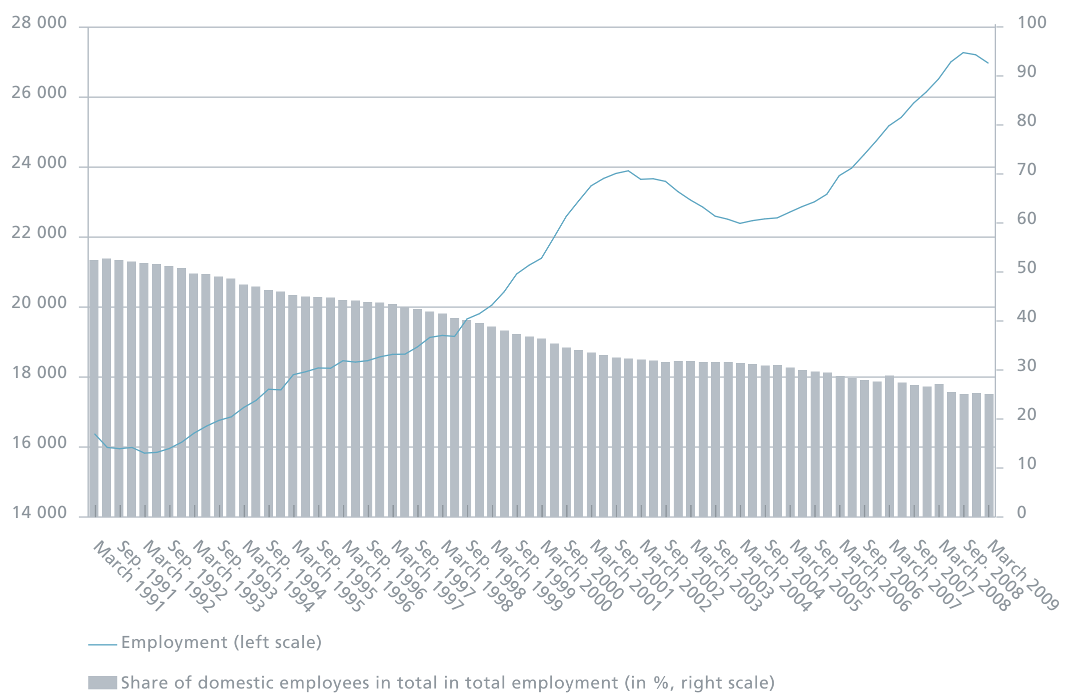
1.2.5.3 Employment in the banking sector

Employment in Luxembourg's banking sector decreased by 0.2% during fourth quarter 2008 and by another 0.9% throughout first quarter 2009 down to 26 973 employees as of 31 March 2009. Nevertheless, Luxembourg's credit institutions created in 2008 as a whole, 4.09% more jobs with reference to end 2007. The share of domestic employees in total employment accounted for 25.1% at end March 2009.

FIGURE 17:
DEVELOPMENT OF EMPLOYMENT IN THE BANKING SECTOR BETWEEN MARCH 1991 AND MARCH 2009



Source : BCL

1.2.5.4 Credit institutions' profit and loss accounts

In a business environment marked by turbulence on international financial markets, a crisis of confidence in banking relations and poor economic prospects, Luxembourg credit institutions have posted, on the basis of currently available data, a result before provisions of 5 851 million euros on 31 December 2008. This represents a decline of 15.8% compared to December 2007. Net result has dropped much more sharply, by 89.0%, from 4 988 million euros in 2007 to only 548 million euros in 2008. At 31 March 2009 net banking income, which amounts to 2 813 million euros, went up by 203 million euros (+7.8%) compared to 31 March 2008.

TABLE 13:
AGGREGATE PROFIT AND LOSS ACCOUNT OF LUXEMBOURG CREDIT INSTITUTIONS AT YEAR-END [1]

	Debit and credit items	2007 12	2008 12	Annual variation million EUR	Annual variation %
1	Interest receivable	60 477	61 098	621	1.0
2	Interest payable	54 681	53 683	-998	-1.8
3	Interest margin	5 796	7 415	1 619	27.9
4	Incom from commissions	3 951	3 723	-228	-5.8
5	Incom from foreign exchange	931	-730	-1 661	-178.4
6	Net income	5 484	2 993	-2 491	-45.4
7	Gross income	11 280	10 408	-872	-7.7
8	Staff costs	2 329	2 467	138	5.9
9	Other administrative expenditures	1 756	1 842	86	4.9
10	General administrative expenditures	4085	4 309	224	5.5
11	Write downs of non-financial fixed assets	243	247	4	1.7
12	Results before depreciation. provisions and tax	6 952	5 851	-1 101	-15.8
13	Depreciation and provisions	1 175	4 974	3 799	323.3
14	Result before tax	5 777	877	-4 900	-84.8
15	Tax on income	789	329	-460	-58.3
16	Net result	4 988	548	-4 440	-89.0

Source: BCL

1) Layout matched to historic data prior to January 2008

As of end of 2008, interest margin rose by 27.9% or 1 619 million euros to 7 415 million euros, compared to 31 December 2007. The Luxembourg banking sector has benefited from its liquidity surplus to generate significant revenue. During first quarter of 2009, the interest margin increased by 347 million euros, an enhancement of 20.7% with respect to the same period one year earlier. This increase was mainly due to the reduction of interest rates within the Eurosystem and a more rapid adjustment on the liability side than on the asset side. However, it is important to know that this effect is temporary and will decline over the coming quarters when all receivable and payable interest rates have been adjusted. In addition, historically low interest rates suggest that further adjustments to the downside within the Eurosystem, if any, will neither have the same frequency nor the same impact as those experienced during preceding months. Finally, at the end of first quarter 2009 the interest margin added up to 2 024 million euros.

Dividends received fell by 12.1% during 2008. With 1 546 million euros they represented, end of December 2008, 21% of the interest margin. Nevertheless, it must be pointed out that restructuring operations of one bank, worth 518 million euros, had an impact on the latter item throughout last quarter of 2007. Ignoring this event, the interest margin would have increased by 40.2% on a year to year basis.

Regarding net income on commissions, a decrease of 5.8% was recorded between December 2007 and December 2008, due to declining financial markets and the subsequent decline of net asset value of Luxembourg mutual funds. However, the increase in volume of Luxembourg mutual funds traded shares/units during 2008 (+54.1% to 7 941 billion euros) has helped offsetting in part the shortfall related to lower NAV (net asset value). On a year to year comparison at end March, net commission income was subject to a decline of 199 million euros (19.4%) to 826 million euros at 31 March 2009.

Credit institutions reported for income from foreign exchange a decrease of 1 661 million euros (178.4%) for the year 2008 turning prior annual positive result into negative territory (-730 million euros).

In addition, excellent interest margin results generated in 2008 were more than counterbalanced by the substantial decline in non interest income. Accordingly, credit institutions posted a 2008 gross income of 10 408 million euros, down by 872 million euros or 7.4% compared to the previous year end. Net banking

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income compared on 31 March 2008 to 31 March 2009 declined by 144 million euros or 15.4%.

General administrative expenditures increased in 2008 by 224 million euros (5.5%) resulting from a labor increase of 4.1% in the same period. However, with dwindling workforce in the financial sector during first quarter of 2009, rising staff and operating expenses were limited to 0.7% (7 million euros), reaching 1 068 million euros as of end March 2009.

Results before provisions, depreciations and taxes deteriorated by 15.8% (1 101 million euros) in 2008 showing an annual result of 5 851 million euros.

According to the figures currently available, Luxembourg credit institutions accounted at end 2008 4 974 million euros depreciations and provisions in their balance sheets, a sharp increase by 323.3% compared to corresponding 2007 figures. Meanwhile income taxes were down by 58.3%, the net result diminished even more by 89.0% between end 2007 and end 2008. Net creation provisions and substantial depreciation on non-trading assets have had a significant negative impact on 2008 net results of credit institutions.

TABLE 14 :
AGGREGATE PROFIT AND LOSS ACCOUNT OF LUXEMBOURG CREDIT INSTITUTIONS AT END MARCH 2007 & 2008[1]

	Description	2008 03	2009 03	Annual variation mill. €	Annual variation %
1	Interest income	16 830	10 744	-6 086	-36.2
2	Divident income	288	157	-131	-45.5
3	Interest expenses	15 441	8 877	-6 564	-42.5
4	Interest margin (1+2+3)	1 677	2 024	347	20.7
5	Net commission income	1 025	826	-199	-19.4
6	Income from foreign exchance operations	16	27	11	68.8
7	Other net income	-108	-64	44	-40.7
8	Non interest income (5+6+7)	933	789	-144	-15.4
9	Net banking income (4+9)	2 610	2 813	203	7.8
10	Staff costs	637	636	-1	-0.2
11	Operation expenses	424	432	8	1.9
12	Staff costs and operation expenses	1 061	1 068	7	0.7
13	Depreciation on fixed assets	69	64	-5	-7.2
14	results before provisions. depreciations and taxes (9+12+13)	1 480	1 681	201	13.6

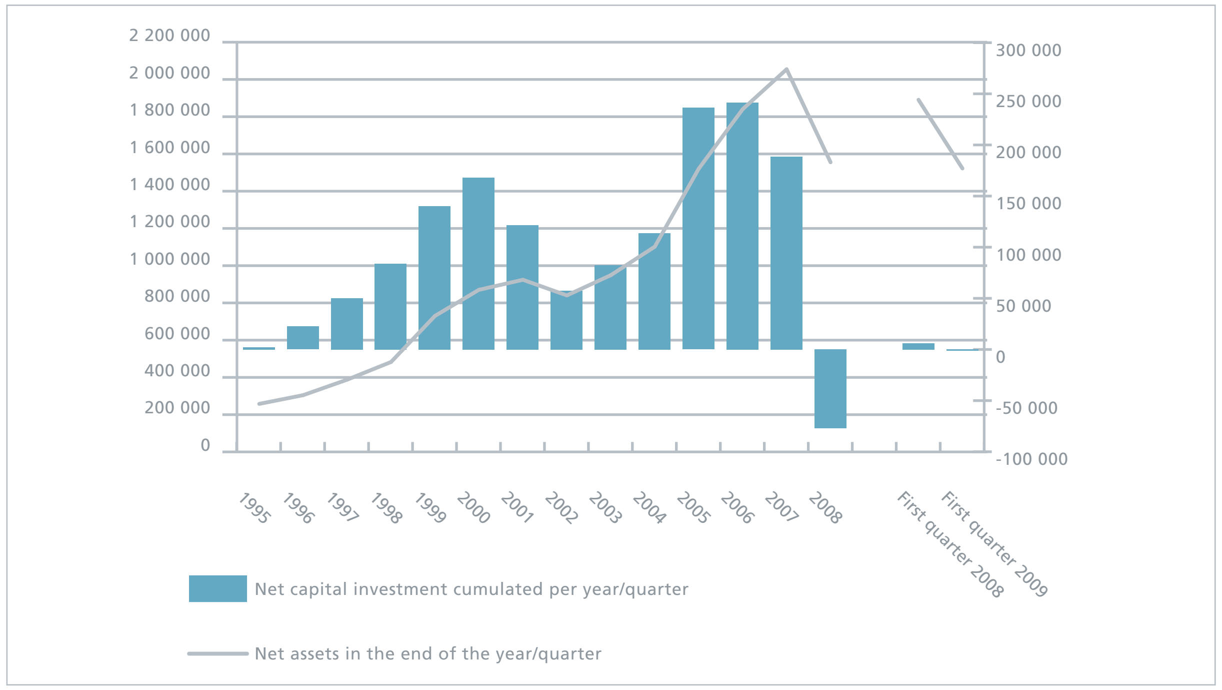
Source: BCL

1) Layout matched to profit and loss accounts after January 2008 (IFRS)

Likewise as second half of 2008, Luxembourg bank profits continued to be hit by the economic and financial crisis during first quarter 2009. Valuation of assets weighted heavily on the results, either directly through their own portfolios, either through commission income. On the other hand, successive reduction in interest rates by the Eurosystem has allowed banks to size opportunities to passing on interest rates with different delays to increase their interest margin.

1.2.5.5 Undertakings for collective investment

FIGURE 18:
DEVELOPMENT OF THE NET ASSETS AND OF THE NET CAPITAL INVESTMENT
(IN MILLION EUROS)



Source : CSSF

The evolution of the number of funds

At the end of 2008, the official list recorded 3372 UCIs, against 2868 at the end of 2007. This represents an increase of 504 units in 2008.

The rate of creation of new UCIs has been very slow since October 2008 and remains low in the first quarter of 2009. Indeed, only 24 supplementary UCIs were created during the first quarter of 2008, against 144 during the same time of the previous year.

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Net asset value

In the year 2008, the UCIs' net global property recorded a considerable decline. Between December 31st 2007 and December 31st 2008, the net asset value diminished by about 500 billion and reached 1559.7 billion, representing a fall of 24.3%. The downward movement of the assets value had been noticeable since autumn 2007, in spite of some limited upward stages in February, April, May and August 2008. The decline accelerated sharply from September 2008 on. During the last four months of 2008, the net asset value declined by 358.3 billion.

TABLE 15:
GLOBAL SITUATION OF UNDERTAKINGS FOR COLLECTIVE INVESTMENTS

(IN EUR. MILLION. OUTSTANDING AMOUNTS AT THE END OF THE PERIOD. UNLESS OTHERWISE INDICATED)

	Number of UCIs	Number of subfunds	Net asset value	Net capital investment 1) 2)	Variation of financial markets 2) 3)	Annual change in EUR million	Annual percentage change	Monthly change in EUR million	Monthly percentage change	
1	2	3	4	5	6	7	8	9	10	11
2000	1 785	6 995	874 600	168 200	-28 118	140 082	19.1			2000
2001	1 908	7 519	928 447	121 700	-67 900	53 847	6.2			2001
2002	1 941	7 806	844 508	57 314	-141 206	-83 939	-9.0			2002
2003	1 870	7 509	953 302	82 609	26 185	108 794	12.9			2003
2004	1 968	7 876	1 106 222	113 731	39 189	152 920	16.0			2004
2005	2 060	8 497	1 525 208	236 277	182 709	418 986	37.9			2005
2006	2 238	9 473	1 844 850	241 344	78 298	319 642	21.0			2006
2007	2 868	11 115	2 059 395	188 488	26 057	214 545	11.6			2007
2008	3 372	12 325	1 559 653	-77 191	-422 549	-499 742	-24.3			2008
2008 Jan.	2 932	11 262	1 951 141	-7 580	-100 674	55 331	2.9	-108 254	-5.3	2008 Jan.
Feb.	2 972	11 387	1 962 845	9 027	2 677	54 138	2.8	11 704	0.6	Feb.
March	3 012	11 498	1 895 445	4 794	-72 194	-31 915	-1.7	-67 400	-3.4	March
April	3 083	11 602	1 964 076	17 993	50 638	-2 920	-0.1	68 631	3.6	April
May	3 105	11 716	1 996 959	15 709	17 174	-27 703	-1.4	32 883	1.7	May
Juni	3 153	11 797	1 902 092	-15 346	-79 521	-144 930	-7.1	-94 867	-4.8	Juni
July	3 220	11 964	1 896 357	9 644	-15 379	-156 620	-7.6	-5 735	-0.3	July
Aug	3 284	12 110	1 917 993	3 149	18 487	-117 301	-5.8	21 636	1.1	Aug
Sep.	3 322	12 234	1 796 696	-28 362	-92 934	-262 448	-12.7	-121 297	-6.3	Sep.
Oct.	3 351	12 300	1 647 028	-69 109	-80 558	-476 491	-22.4	-149 668	-8.3	Oct.
Nov.	3 364	12 374	1 604 237	- 6 873	-35 918	-459 560	-22.3	-42 791	-2.6	Nov.
Dec.	3 372	12 325	1 559 653	-10 237	-34 347	-499 742	-24.3	-44 584	-2.8	Dec.
2009 Jan.	3 398	12 278	1 571 534	3 458	8 423	-379 607	-19.5	11 881	0.8	2009 Jan.
Feb.	3 402	12 255	1 530 291	-4 375	-36 868	-432 554	-22.0	-41 243	-2.6	Feb.
March	3 396	12 200	1 526 563	-226	-3 502	-368 882	-19.5	-3 728	-0.2	March

Source: CSSF

1) Net capital investment is defined as the difference between net proceeds from shares or units and net payments made in settlement of redemption adjusted to take into consideration UCIs in liquidation.

2) Figures cumulated on a yearly/monthly basis.

3) The "variation of financial markets" column reflects the change in net assets which is due to the fluctuation of financial markets.

Despite a slight increase in net capital investment and in the market performance in January, the first quarter of 2009 closed down. The value of the assets portfolio reached 1526.6 billion by the end of March 2009, decreasing by 33.1 billion compared to December 2008. This new decline is mainly due to a very negative market performance observed in February 2009. In parallel, a net withdrawal of capital (- 1.1 billion) was recorded for the whole first quarter of 2009. However, prospects for the next months are slightly better. Considering the increase observed on the stock markets between the end of March and May 2009, a positive effect on the UCIs portfolio net value can be expected in the beginning of the second quarter of 2009.

1.2.5.6 Money market funds

The number of money market funds

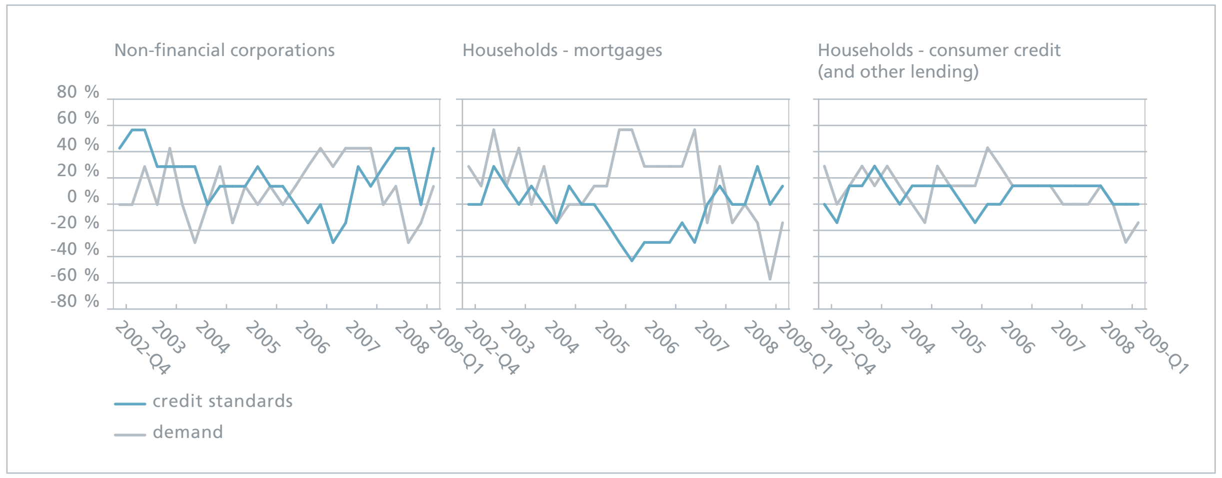
By the end of December 2008, 477 units were recorded on the official list compared to 463 units end 2007, representing a rise of 14 units. During the first quarter of 2009, the number of money market funds continued to increase steadily, and reached 485 units on March 31st 2009. However, according to provisional sources, it decreased to 478 units at the end of April 2009.

The balance sheet of money market funds

In the course of 2008, the balance sheet increased by 34.1%, from 253.6 billion on December 31st 2007 to 340.2 billion on December 31st 2008. During the first four months of 2009, this positive trend slowed down progressively. The balance sheet at April 30st 2009 reached 358.9 billion, representing a monthly average growth of 1.4% in 2009, whereas this monthly growth was 2.5% on average in 2008.

The 2008 increase is mainly explained by new net capital investment. In the context of the financial crisis, money market funds, which are liquid and offer a stable remuneration, attracted many investors. The success of monetary investment had been noticeable since 2007 and the beginning of the US mortgage crisis.
At the end of the reviewed period, this upward trend seems to run progressively out of steam, although the results remain noticeable in comparison with the poor results of non monetary funds. This slowdown is certainly linked to the sharp decrease in money market interest rates observed since November 2008.

FIGURE 19:
THE EVOLUTION OF CREDIT STANDARDS AND LOAN DEMAND IN LUXEMBOURG, NET PERCENTAGES



Source: BCL

1.2.5.7 The Bank Lending Survey

The Bank Lending Survey (BLS) carried out by the Eurosystem since end-2002 assesses credit conditions in the euro area. Every quarter, a questionnaire is sent out to the seven banks from the Luxembourg sample; the survey questionnaire contains a number of questions on the supply of and demand for credit, covering the household sector as well as non-financial corporations (NFCs). Results are generally expressed in terms of "net percentages". For the questions on credit standards, net percentages refer to the difference between those banks that reported a tightening and those that reported an easing of credit standards. For the questions on credit demand, net percentages refer to the difference between those banks that reported a fall in demand and those that reported a rise.

The chart plots the survey results for some the regular key questions in terms of net percentages.

NFCs: Since the onset of financial tensions in August 2007, banks have signalled that credit policies have in general become more restrictive in Luxembourg as well as in the euro area at large. In Luxembourg, net percentages remained high in 2009; however, credit standards remained unchanged in the fourth quarter of 2008 and – compared to the first quarter of 2009 – participating banks expect a less significant tightening for the second quarter. At the level of the euro area, there are signs of a stabilisation of the credit cycle, even though participating banks continue to report significant tightenings. Banks' risk perceptions continue to be the major explanatory factor underlying these developments.
Overall, net demand was slightly negative in Luxembourg in the third and fourth quarter of 2008. The situation remains more favourable than in the euro area at large, however, where net demand was negative throughout 2008 as well as in the first quarter of 2009. In both samples, the negative demand developments were largely attributable to lower financing needs.

Households (mortgages): As regards the evolution of mortgage credit standards, developments are much more favourable for Luxembourg households than for the euro area at large. Indeed, in the period under review, only three slight tightenings were recorded in Luxembourg (two in the third quarter of 2008 and one in the first quarter of 2009). Net percentages in the euro area, on the other hand, have been rising continuously up to the fourth quarter of 2008, when they reached a historical peak. As for corporate lending, banks' risk perceptions continue to be the major explanatory factor underlying these developments.

On the demand side, Luxembourg developments were much more in line with those at the euro area level at large. Indeed, throughout the period under review, net demand was largely negative in Luxembourg, even hitting an all-time low in the final quarter of 2008. Euro area net demand also fell sharply in 2008; while net percentages rebounded in the first quarter of 2009, they remained negative. Deteriorating housing market prospects and consumer confidence contributed to these demand developments in both samples.

Households (consumer credit and other lending): Taking into account that the survey results are not weighted by the participating banks' respective market shares, credit standards applied to consumer credit (and other loans) remained largely unchanged in Luxembourg. In the euro area at large, survey results were similar to those recorded for mortgage loans. The tightening of credit standards in the aggregate euro area sample is attributable to banks' risk perceptions.

Net demand in Luxembourg turned negative in the fourth quarter of 2008, while in the euro area at large it has been negative since the fourth quarter of 2007. The fall in net demand in Luxembourg is owing to a deterioration in consumer confidence, most notably in the final quarter of 2008. Lower financing needs largely explain the drop in demand at the euro area level.

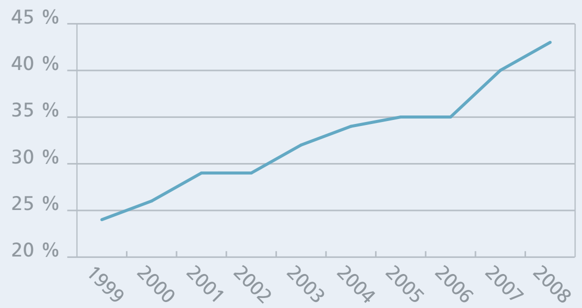
Housing finance in Luxembourg

Mortgage loan developments in Luxembourg have been in the spotlight for some time now. This box presents the latest developments, drawing on the monthly *BSI* and *MIR* reporting, as well as presenting some of the information that has become available in the context of the Structural Issues Report (SIR) on housing finance in the euro area.

The SIR was published in 2009 and focuses on longer-term developments. While the report draws on available information, a major source of information was a questionnaire (covering, in principle, the period from January to December 2007) sent to a representative panel of banks. Before looking at some of the data that became available through this questionnaire, it is worth taking note of the evolution of household indebtedness in Luxembourg. In percent of GDP, mortgage debt has increased strongly over the last ten years, rising from 24% in 1999 to 43% in 2008.

FIGURE 20:
HOUSING DEBT TO GDP RATIO, 1999 TO 2008

(STOCK OF MORTGAGE LOANS TO EURO AREA HOUSEHOLDS GRANTED BY LUXEMBOURG BANKS, DIVIDED BY GDP)



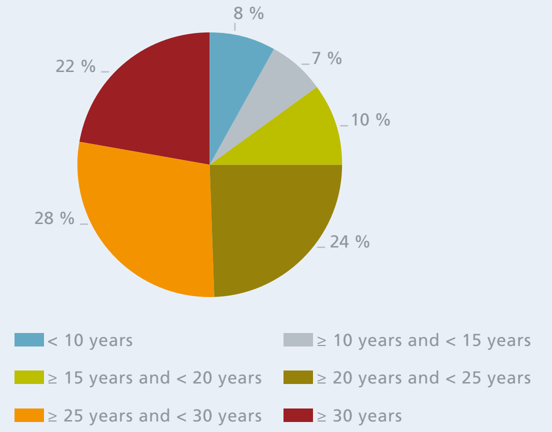
Source : BCL

The rise in indebtedness also had an impact on the loan-to-value ratio which, based on the weighted answers provided in the framework of the bank questionnaire, stood at 87% in 2007. A key determinant was undoubtedly the significant rise in the price of housing (10.4% on average between 1999 and 2007); however, it is more plausible to assume a mutually reinforcing relationship between mortgage developments on the one hand and the price of housing on the other.

Moreover, demographic developments may have had a bigger impact in Luxembourg than in the euro area at large, where the average population growth rate was lower.

It is unsurprising to note that the rise in indebtedness also had an impact on the loan maturity. While in 2002 the available information indicated that the average loan maturity was between 20 and 25 years, the information that became available through the bank questionnaire indicates that around 50% of all mortgage loans granted in 2007 had a loan maturity above or equal to 25 years. Around 80% of these loans were used to finance owner-occupied first homes.

FIGURE 21:
MORTGAGE LOANS BY MATURITY, 2007

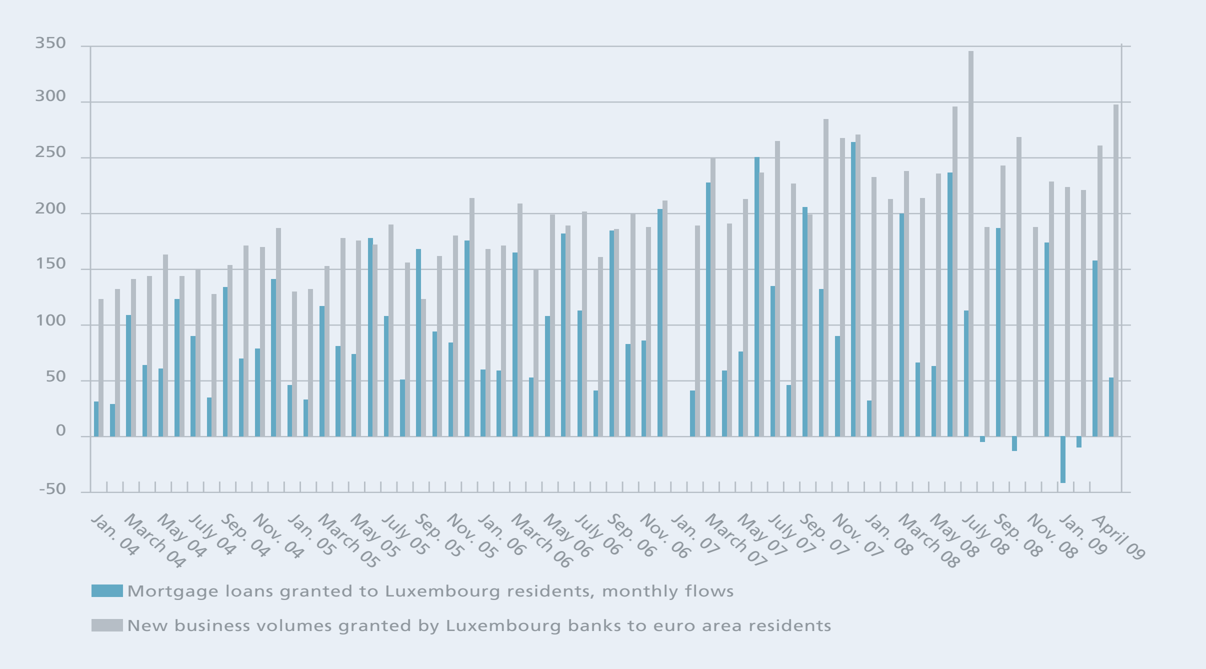


Source : BCL

Variable rate loans (i.e. floating rate loans or loans with an initial interest fixation period of up to one year) make up the large majority of mortgage loans in Luxembourg. In the period 2007-2008, an average of 85% of new business volumes were variable rate loans.

As for credit volumes, two major data sources provide insight into the latest developments, namely *BSI* and *MIR* data. While these two sources are not always perfectly in line on a monthly basis, largely owing to methodological differences, the underlying trend developments point to a slowdown in mortgage loan growth.

FIGURE 22:
THE EVOLUTION OF MORTGAGE LOANS, EUR MILLION, JANUARY 2004 TO APRIL 2009



Source : BCL

BSI data indicate that the monthly flows have been following a downward trend in 2008; more recently, the flows were even negative on several occasions. As for the *MIR* statistics, the available evidence points to an underlying downward trend in new business volumes since 2008, although there was a temporary rebound around mid-2008.

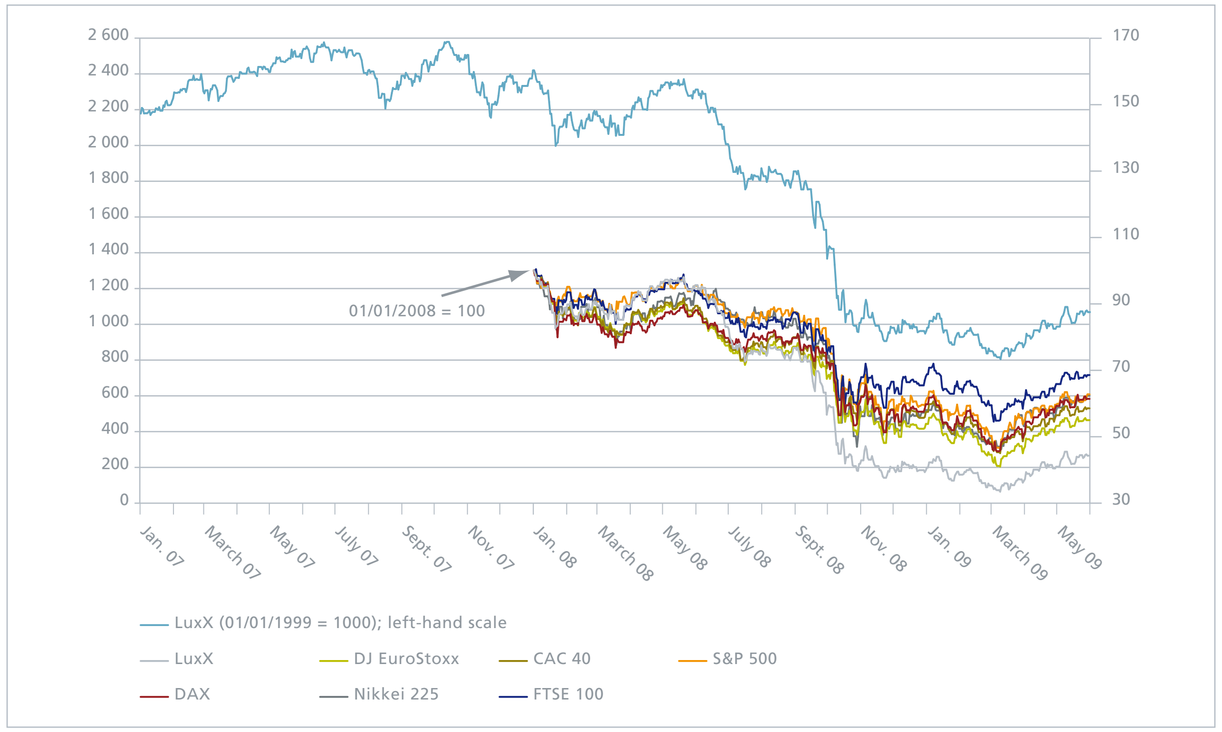
While there is little doubt that mortgage loan developments have slowed down, it is important to stress that there are hardly any signs of a credit crunch in Luxembourg. Regarding *BSI* data, it is helpful to compare the monthly flows from 2008 with 2004 and 2005, when flows progressed more moderately without actually approaching the peaks recorded in 2007. Indeed, the monthly flows averaged EUR 88 million in 2008, compared to EUR 81 million in 2004 and EUR 101 million in 2005. *MIR* data look even more favourable: new business volumes averaged EUR 241 million per month in 2008, the highest since *MIR* data became available in 2003. It remains to be seen if the latest developments recorded in 2009 should be seen against the backdrop of the afore-mentioned slowdown, or whether they signal a rebound, considering the underlying volatility of the series and the fact that the series are not seasonally adjusted.

Lastly, it is worth mentioning that the slowdown in mortgage loan developments is most probably demand-driven, rather than being attributable to a generalised tightening of credit standards (see also "The Bank Lending Survey").

1.2.6 Luxembourg Stock Exchange

Between end-2007 and end-2008, the LuxX index fell by 59.5%; thus, the index has gone from 2 419.28 to 980.91. In the first five months of 2009, the LuxX has progressed by 8.8%, standing at 1 067.5 at end-May. Compared to other major stock indices, the Luxembourg index was particularly strongly affected by the financial turmoil owing to the preponderance of banks and financial corporations in the basket.

FIGURE 23:
THE LUXX INDEX AND OTHER MAJOR INTERNATIONAL STOCK INDICES
(INDEX: 01/01/2008 = 100 UNLESS OTHERWISE INDICATED; DAILY DATA)



Source : Bloomberg

Fortis S.A. shares, for example, fell sharply in 2008 and made up 20% of the overall basket until they were removed from the index in October. However, all the shares that make up the LuxX index fell significantly in the course of the review period, with the exception of Cegedel S.A. which progressed by 46.4%.

In early-2009, the index composition was revised: Reinet Investments S.C.A. (a securitisation vehicle) and Intercultures S.A. (a holding company which invests primarily in agricultural enterprises in Africa) were added to the LuxX index.

At end-2008, there was a total of 49 097 listings (of which 5 221 in the alternative Euro MTF market). Taking into account all de-listings, this represents a progression of 7.73%.

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The share of listed bonds fell slightly, from 69.1% at end-2007 to 67.1% at end-2008, while the share of money market funds rose somewhat (from 16.2% to 16.6%). The share of warrants also rose, from 14.1% to 15.8%, while the number of shares dropped marginally, from 292 to 290, accounting for the remaining 0.6% of total listings.

Total turnover by volume rose by 116.9% in 2008, standing at EUR 1.41 billion.

1.2.7 The labour market

1.2.7.1 Employment

After several years of dynamic growth, net employment creation reached a peak at the end of Q1 2008 and decelerated thereafter, especially during the last quarter of the year in the aftermath of the worsening of the crisis.

This slowdown corresponds to a one-year lag with respect to developments in economic activity, as GDP had already begun to slow down in Q2 2007.

FIGURE 24 :
GDP AND EMPLOYMENT GROWTH

Source : STATEC

While employment of non-residents started to slow at the beginning of 2008 and continued to do so until December, employment of residents remained grew relatively stable at around 3.2% throughout that period.

Recent estimates suggest that in Q1 2009, national employment started to slow down as well. The earlier and more pronounced reaction of non-resident employment growth to the economic downturn could result from the fact that cross-border commuters are somewhat overrepresented in sectors that are particularly exposed to the crisis. Also, they might, on average, have less seniority than residents and therefore be more exposed to lay-offs. As a result of these circumstances, the contribution of non-residents to total employment growth decreased markedly.

TABLE 16 :
ANNUAL EMPLOYMENT GROWTH (IN %)* AND RATE OF UNEMPLOYMENT

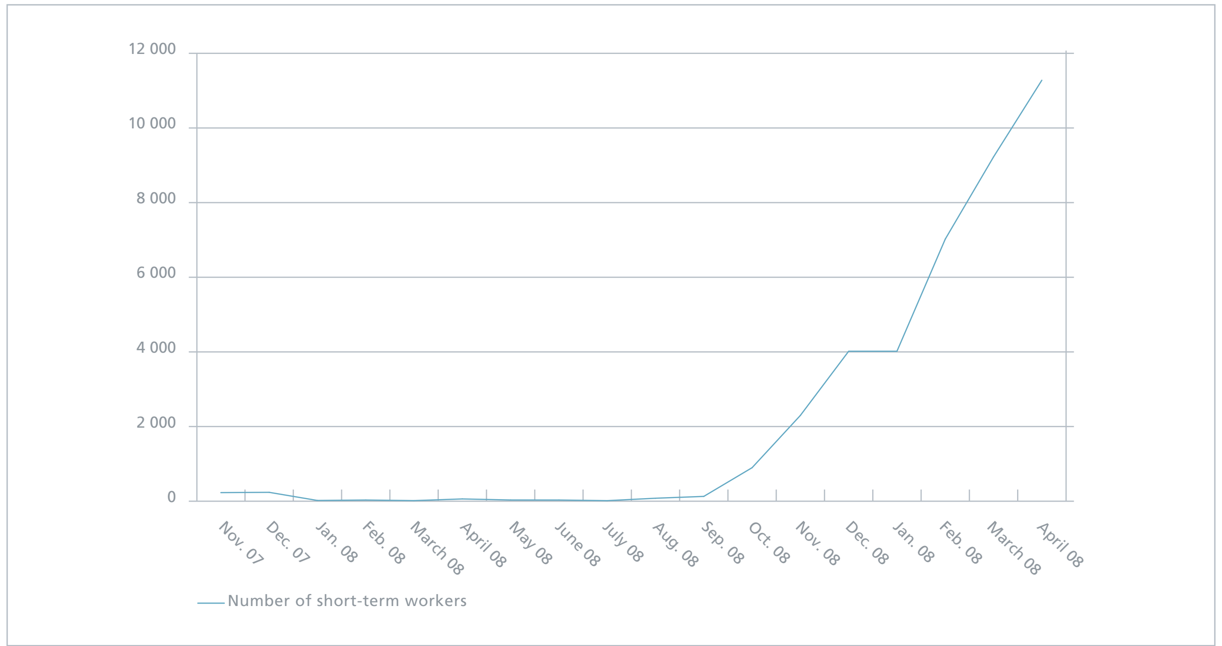
	Employees *	Self-employed*	Total domestic employment*	Incoming cross-border commuters*	National employment*	Active populatiopn*	Unemployment (narrow definition)	Unemployment (narrow), seasonally adjusted	Unemployment (broad definition)	Harmonised unemployment rate
2003	2.0	0.3	1.9	3.8	0.7	1.8	3.5%	3.5%	5.2%	3.8%
2004	2.6	0.3	2.4	4.7	1.9	1.9	3.9%	3.9%	5.7%	5.0%
2005	3.2	0.3	3.0	5.8	1.7	2.1	4.2%	4.2%	6.1%	4.6%
2006	4.1	-0.6	3.8	6.7	2.0	2.1	4.4%	4.4%	6.3%	4.6%
2007	4.6	0.6	4.4	7.9	2.3	2.2	4.4%	4.4%	6.1%	4.2%
2008	5.0	2.4	4.8	7.2	3.2	3.1	4.4%	4.4%	5.8%	4.4%
2008Q1	5.4	2.6	5.3	8.3	3.2	2.8	4.4%	4.2%	5.9%	4.1%
2008Q2	5.2	2.6	5.0	7.6	3.2	3.1	4.1%	4.3%	5.5%	4.3%
2008Q3	5.1	2.6	4.9	7.2	3.3	3.3	4.2%	4.4%	5.5%	4.4%
2008Q4	4.2	2.0	4.1	5.7	2.9	3.3	4.7%	4.6%	6.0%	4.7%
2009Q1	3.2	0.5	3.0	4.7	1.9	3.1	5.6%	5.2%	6.8%	5.2%
Dec.-08	4.0	1.8	3.9	5.3	2.9	3.5	5.0%	4.8%	6.2%	4.9%
jan.-09	3.2	0.7	3.1	4.8	1.9	2.9	5.6%	5.0%	6.8%	5.1%
Feb.-09	3.1	0.4	2.9	4.4	1.9	3.0	5.6%	5.2%	6.9%	5.3%
Mar.-09	3.2	0.4	3.1	4.7	1.9	3.3	5.5%	5.3%	6.8%	n.d.
April-09	2.6	0.0	2.4	3.5	1.7	3.1	5.5%	5.5%	6.8%	n.d.

Sources: IGSS. STATEC. Eurostat and BCL calculations

** Data from January to April 2009 are estimates*

The evolution of temporary employment, while not very important in terms of total employment - that can serve as a leading indicator of employment growth and did indeed give the right signal, as it decelerated significantly in 2008 compared to one year before. This is in line with the particularly strong deceleration in non-resident employment, as non-residents are strongly represented among temporary staff.

FIGURE 25: EVOLUTION OF SHORT-TIME WORK



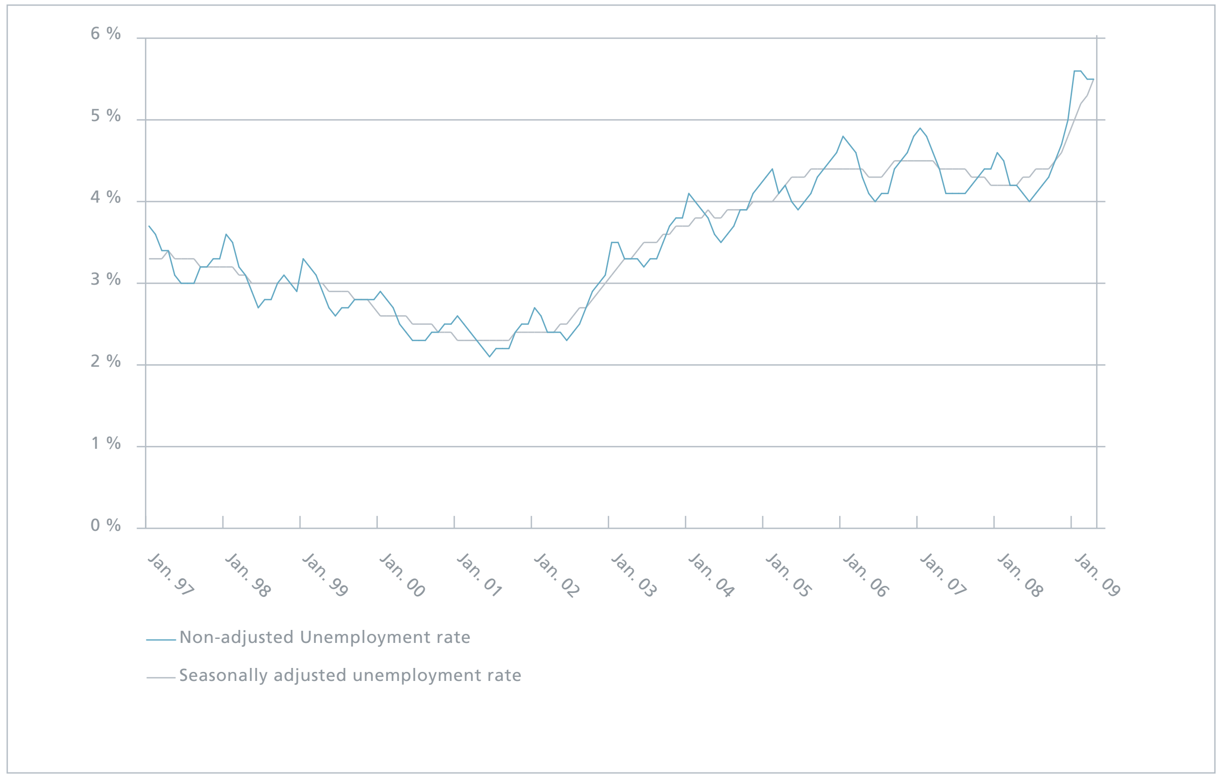
Source : STATEC

The striking feature of 2008 and early 2009 is the exponential increase in short-time work. While until September 2008, the corresponding schemes were rarely used at all, firms rapidly started to request permissions for short-time work for more and more workers. The short-time permissions granted in May 2009 reached a record high of more than 11 000 wage earners. Although the Government relaxed the set of rules of these schemes, they remain limited in time and whether once these schemes come to an end layoffs can be avoided remains an open issue.

1.2.7.2 Unemployment

Unemployment took off towards the end of 2008 and continued to do so in 2009. It reached a record high in February 2009 (5.6%). The seasonally adjusted rate continued to rise thereafter.

FIGURE 26: UNEMPLOYMENT RATE (NARROW DEFINITION)



Source : ADEM

The number of people benefiting from a "special measure for employment" decreased throughout 2008 and early 2009 (by around 14% y-o-y). This instrument, designed to support unemployed people who face particular challenges integrating the labor market seems to be of limited use in the current crisis. Indeed, those firms that usually participate in these schemes may at the current juncture be less disposed to temporarily hire or train unemployed people.

Officially registered vacancies are also decreasing in the context of the current crisis (-15% in 2008 and -32% in Q1 2009 compared to one year before). The ratio persons unemployed per vacancy deteriorated from 4 in 2007 to 5 in 2008. This evolution is reflected in a move along the Beveridge curve towards the upper left (see graph), indicating that the current deterioration is a consequence of the slowdown in activity.

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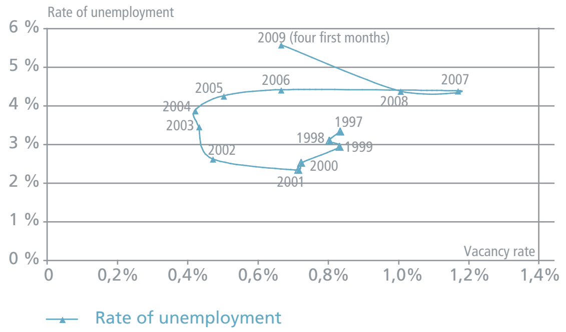
FIGURE 27:
BEVERIDGE CURVE



Sources : ADEM, IGSS.

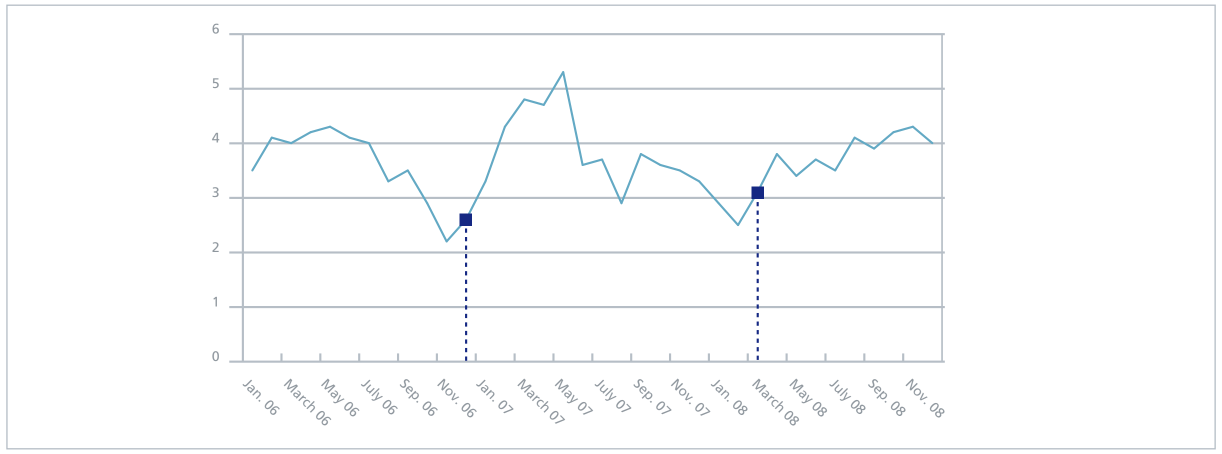
In order to get an idea of the unemployment of cross-border commuters and of very recent developments in cross-order employment, one can rely on the number of E301 certificates established by ADEM which commuters - in case they loose their job – can use to request unemployment benefits in their home country. These figures become available earlier than official employment statistics. The recent unprecedented increase in E301 certificates mirrors the evolution of resident unemployment and of total employment.

Until today, while an impact of the recession on employment and unemployment figures is already clearly visible, the reaction of employment to the breakdown in output appears to be rather limited so far. A more substantial decrease in employment in the course of 2009 might very well occur.

1.2.7.3 Labour costs

According to IGSS, compensation per employee rose by 3.7% in 2008, which seems more realistic than the 1.5% published in the context of the National Accounts. Wage indexation in March and the fact that negotiated wage increases for 2008 had to some extent already been agreed on prior to worsening of the crisis should have more than compensated for a possible decline in bonus payments in some sectors at the end of the year. It seems noteworthy, however, that according to IGSS figures, wages and salaries did not even decelerate around the end of 2008. The Chart shows 3-month-weighted averages increases of compensation per employee as well as the timing of two consecutive automatic wage increases. The notable acceleration observed after the first indexation is missing after the second one, which might indicate that the impact of this indexation hides a certain deceleration of the evolution of the "real" average wage. Future wage rounds marked by the crisis as well as by low inflation are likely to lead to a clear deceleration in nominal wage growth.

FIGURE 28:
ANNUAL CHANGE (IN %) OF COMPENSATION PER EMPLOYEE)
(3-MONTH AVERAGE)



Source : IGSS.

1.2.8 External trade

The world economic slowdown in the second half of 2008 has negatively affected Luxembourg external trade. In the last quarter of 2008 exports of goods declined by 10% before dropping by 26% during the first quarter of 2009. The contraction of goods exports since the end of 2008 is largely explained by the fall in the global demand. At the same time oil prices increased strongly (until august 2008), offsetting the decline in the import's volumes. Overall import values increased by 6% in 2008 as a whole. As a result Luxembourg trade deficit deteriorated further (by 19%) reaching up €5.3 billion in 2008.

1.2.9 Balance of payments

In 2008 the Luxembourg current account surplus dropped by 43% reaching up €2 billion (or 5% of GDP compared with 10% of GDP a year earlier). This deterioration was largely driven by developments in the exports of financial services that, in the wake of the financial turmoil, felled by 10% and 25% respectively during the third and the fourth quarters of the year. The goods balance was also negatively affected by the economic slowdown with exports dropping in the second half of 2008. The drop in the exports of goods, combined with a strong increase in imports prices in the first half of the year, induced a further deterioration in the trade deficit.

In the financial account, Luxembourg registered for the first time net outflows in portfolio equity securities, which were largely explained by net buying back of resident collective investments shares.

1.2.10 Macroeconomic projections

Since the finalisation of the previous projection exercise, Luxembourg's economy has fared significantly worse than expected. Real GDP is currently estimated to have contracted by 0.9% in 2008, thus much lower than expected in the December projections. Compared to other euro area countries, the recession started earlier in Luxembourg and it is particularly severe. In the fourth quarter of 2008, real GDP fell by 4.5% quarter-on-quarter, a record drop and sharper than in any other economy of the European Union except Ireland. Towards the end of 2008, the growth underhang for annual average real GDP in 2009 is estimated at 3.5%.

Recent developments

In the beginning of 2009, the decline in economic activity continued, though probably at diverging speeds in the different sectors of the economy. In the financial sector, the pace of the decline probably slowed down compared to the end of 2008. The drop in non-interest income in the banking sector still accelerated in 2009Q1. But, against the backdrop of a more muted fall in stock markets, -13% compared to -26 in 2008Q4, the decline in the net asset value of the mutual fund industry was only -4% in 2009Q1 compared to -14% in the previous quarter. In the non-financial sector however, the slowdown deepened, in line with developments seen in the rest of the euro area. Industrial production for example fell by 7.4% on a quarter-on-quarter basis and by 23.4% on year-on-year basis. These rates are among the lowest in the European Union. Indirect effects were felt in the transport sector, specifically in the aviation industry.

In the second quarter, some tentative signs of a stabilisation have emerged. The stockmarkets seem to anticipate an improvement in the euro area economy and have shot up since their lows in March 2009. The results in the financial sector could therefore improve soon. In Luxembourg, the business surveys in the manufacturing sector also hint to a bottoming out. While the sharp growth fallout has come to a halt and the worst may be behind us, the return to positive growth rates is still a long way as many indicators remain at depressed levels. The number of people working shorter hours, i.e. those in "partial unemployment", has continuously increased up to June 2009, when more than 11,000 persons were registered in this scheme. Even when adjusted for the hours actually worked, the number of persons "fully unemployed" - the full-time equivalents of people in "partial unemployment" - was more than 5,000 which corresponds to roughly half the number of the officially unemployed.

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Overall, it is likely that, in the first half of 2009, the level of real GDP fell further, thus extending the recession in Luxembourg. It seems equally plausible that the economy might have touched the bottom and that a stabilisation is now in sight.

International developments

Compared to the previous exercise, the outlook for the international environment has been significantly adjusted downwards, both for 2009 and 2010. The IMF now expects World GDP to contract by 1.3% in 2009 before rebounding thereafter, a scenario which corresponds to the worst recession since World War II. The international projections are characterised by two exceptionally pronounced features, the depth of the recession on the one hand and its length on the other hand. Empirical studies have indeed shown that recessions associated with financial crises tend to more severe than "normal" recessions. Furthermore, the recoveries happen to be very muted ones. Those same studies also suggest that synchronised recessions are usually deeper, longer and followed by a weaker rebound than the "normal" recessions. Given the situation in the first quarter of 2009, these two features have been integrated into the projections of the international organisations, including the Eurosystem's, and they explain the rather gloomy international view underlying our projections.

TABLE 17 :
PROJECTIONS OF INTERNATIONAL INSTITUTIONS
(IN ANNUAL PERCENTAGE CHANGES, RESPECTIVELY IN PERCENTAGE POINTS)

	2008	2009	2010	2011
World trade (EC)	2.6 (-2.4)	-11.4 (-13.6)	0.9 (-3.2)	-
World GDP (IMF)	3.2 (-0.5)	-1.3 (-3.5)	1.9	-
World GDP (EC)	3.1 (-0.6)	-1.4 (-3.7)	1.9 (-1.3)	-
Real GDP euro area (IMF)	0.9 (-0.3)	-4.2 (-3.7)	-0.4	-
Real GDP euro area (EC)	0.8 (-0.4)	-4.0 (-4.1)	-0.1 (-1.0)	-
Real GDP euro area (Eurosystem)	0.6	-5.1/-4.1	-1.0/0.4	-
World demand for Luxembourg	1.9 (-1.0)	-11.6 (-11.9)	-0.2 (-4.0)	3.2
Oil in USD/barrel [1]	98 (-2)	55 (-12)	65 (-12)	70
Exchange rate USD/EUR [2]	1.47 (-)	1.33 (0.06)	1.34 (0.07)	1.34
Short-term interest rate	4.64 (-0.1)	1.42 (-1.4)	1.60 (-1.6)	2.48
Long-term interest rate	4.4 (-)	4.2 (-0.3)	4.6 (-0.1)	5.0
Eurostoxx [3]	285 (-31)	213 (-21)	210 (-23)	200

Sources : European Central Bank, European Commission, BCL

1 Revisions in USD/barrel
2 Revisions in USD/EUR
3 Revisions in indice points

Since mid-2008, the euro area is in the midst of a recession and the downturn has worsened significantly towards the turn of the year 2008/2009. Real GDP contracted by respectively 1.6% and 2.5% in the fourth quarter of 2008 and the first quarter of 2009. Conjunctural indicators suggest a continuation of these trends in the second quarter of 2009, though at a much slower pace. For the year 2009 as a whole, the international organisations project euro area real GDP to fall, a first since the introduction of the euro. While a recovery should start in the course of 2010, a return to a positive annual average growth is now only expected for 2011.

Growth in Luxembourg's export markets decelerated already sharply in 2008, but the decline is set to worsen considerably in 2009 when foreign demand is to drop at a new record rate. A stabilisation is assumed for 2010 followed by a muted recovery in 2011, assumptions which reflect directly the length and the depth of the projected international scenario.

Real GDP and demand components

Luxembourg is in the midst of a severe recession, a scenario much worse than previously expected. Real GDP growth is now expected in a range between -5.0% and -4.4%, a scenario somewhere in-between the recessions of 1975 and 1980/1981. The subsequent recovery should be very muted and take longer than in normal recessions. Production should roughly stabilise in 2010, thus one year later than projected in the December exercise, before converging to a growth rate of around 2.2% in 2011. Underlying these figures are quarterly dynamics suggesting a stagnation of the economy in the second half of 2009 and in the first half of 2010 before the recovery sets in. At the end of the projection horizon, the pre-recession output levels would not be surpassed. As a consequence, the prolonged economic weakness would make an adjustment of the level of employment unavoidable. If the external shock has mostly run its course, a fall in employment is only about to start and will weigh on domestic demand, thus prolonging the weak growth scenario.

The contraction in 2009 would show up in all components except for public consumption and public investment. Given the openness of the Luxembourg economy, the bulk of the recession would feed through via the impact of the slowdown in the international environment on our exports. The lack of an external impulse would have repercussions on private demand. Private consumption and private investment should thus also contract in 2009.

The manufacturing sector has already announced a cutback in its investment expenditures for 2009 (see chart). A convulsion of factors also points to negative growth rates for private non-residential investment in most sectors of the economy. Weak activity and very low capacity utilisation rates, for instance 65% in the manufacturing sector, obviate any needs for new production facilities. While profits were still rising in the past, those are set to contract substantially in 2009 weighing particularly on the companies' cash generation. As regards the financing of investments, higher indebtedness could make up for a reduced cash level. Indeed, the financing conditions have becoming particularly appealing with the Eurosystem's monetary policy easing. Commercial bank rates on loans to the non-financial sector are for example at record low levels (see under 2.5.2). But companies are more likely to embark on a deleveraging process, all the more as banks adopt a much more prudent credit allocation policy (see under 2.6).

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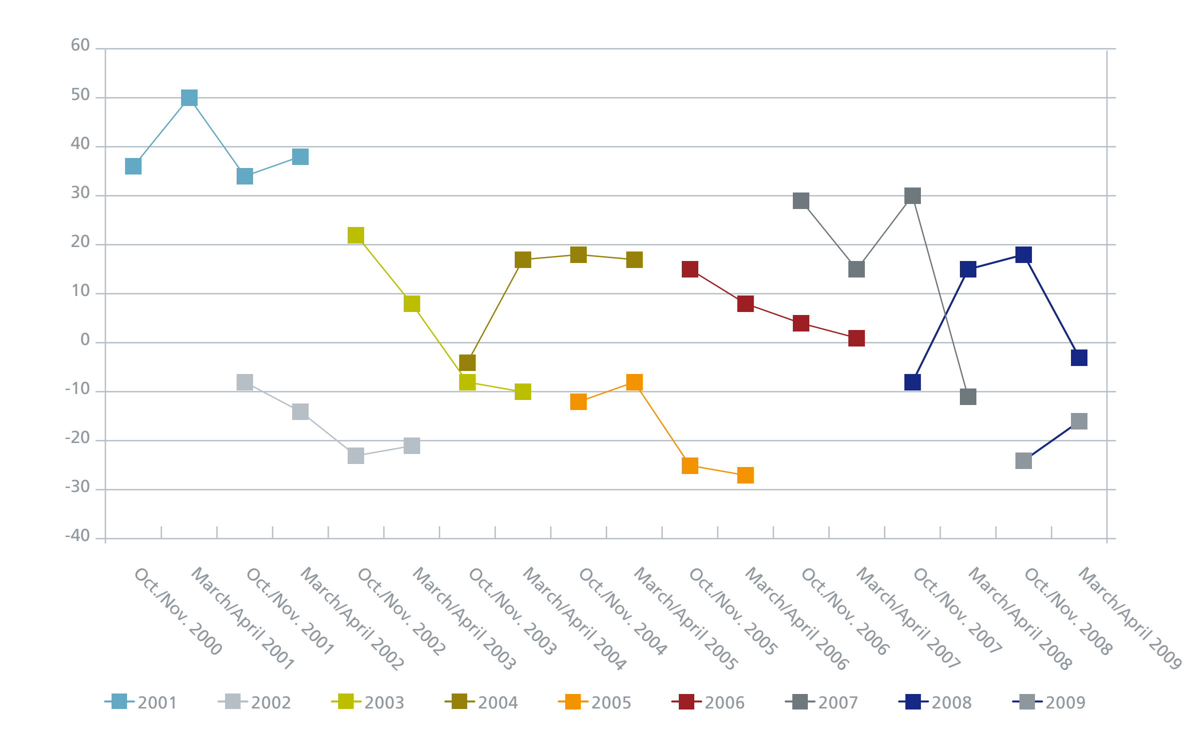
FIGURE 29:
BI-ANNUAL INVESTMENT SURVEYS IN THE INDUSTRIAL SECTOR
(EXPENDITURES AT CURRENT PRICES, IN ANNUAL PERCENTAGE CHANGES)[1]



Source: European Commission

1) The surveys are carried out in October/November and in March/April of each year.

Private consumption is unlikely to be very dynamic in the near future. Against the background of a fiscal boost and lower inflation, households' real disposable income is increasing sharply in 2009. However, the muted wage developments and the projected fall in employment will restrain growth. Furthermore, in light of the prevailing climate of uncertainty, consumers are likely to behave more cautiously and increase their savings instead. Consumer confidence remains indeed at historically depressed levels.

With the onset of the crisis, the government had launched a substantial fiscal stimulus package, first via the 2009 central government budget voted at the end of 2008, then via an additional expenditure plan decided upon in the beginning of 2009. The fiscal boost represents about 2.1% of GDP in 2009 and has a stabilising effect on the economy, mostly via households' disposable income and public investment. While it is rather difficult to quantify the impact of this fiscal program on economic activity, it is expected that fiscal policy could have dampened the fall in real GDP growth by around 1.1pp in 2009.

Labour market and wages

So far the labour market seems to have escaped unscathed. Employment increased up to the beginning of 2009 and the increase in the official unemployment rate is not spectacular. The drop in economic activity has indeed been absorbed by a cut in hours worked, notably via the "partial unemployment" scheme, avoiding thereby massive layoffs. The under-utilisation of labour however remains substantial and it is feared that a temporary adjustment in hours worked will prove insufficient to absorb the fallout in output and the deterioration of the companies' operating results. The financial sector, at the heart of the current macroeconomic turbulences is also facing a deterioration of its results, notably via substantial write-downs on its assets. Furthermore, the sector is in the midst of a European-wide restructuring process. It has already cut into its workforce and that process is likely to continue over the next quarters, akin to what was observed in the 2001-2003 period when banking sector employment fell by more than 6% over a period of nine quarters.

The risks weighing on employment are all the more acute as the recession will be followed by a muted upturn. Production levels will remain depressed and, in the near future, they are unlikely to surpass their pre-recession peaks. In the medium term, a permanent cut in employment is more likely than a temporary reduction in hours worked. According to our projections, employment would fall by 0.2% in 2009 and by 1.7% in 2010 before stabilising thereafter. On the one hand, those developments would still be better than in the rest of the euro area. On the other hand, productivity growth would still be negative and thus labour hoarding would not have completely vanished. The shedding of labour could start in the second half of 2009 when the "partial unemployment" scheme could have been fully used and companies are seeing no other exit strategy. "Partial unemployment" would mutate into official unemployment. The latter could rise from 4.4% in 2008 to 5.6% in 2009 and further to 7.0% in 2011.

TABLE 18:
MACRO-ECONOMIC PROJECTIONS AND REVISIONS COMPARED TO DECEMBER 2008
(IN ANNUAL PERCENTAGE CHANGES, RESP. IN PERCENTAGE POINTS)

	2008	2009	2010	2011	2008	2009	2010
Real GDP	-0.9	-5.0/-4.4	-0.5/0.5	1.4/3.0	-3.0	-4.7	-3.2
HICP	4.1	-0.2	1.9	1.9	-0.1	-1.2	-0.5
HICP energy	12.4	-18.2	4.8	2.6	-0.6	-10.3	0.6
HICP ex energy	3.0	2.4	1.6	1.8	-	0.1	-0.6
NICP	3.4	0.2	1.4	1.6	-0.1	-0.9	-0.5
NICP ex energy	2.5	2.1	1.1	1.5	-	0.1	-0.5
Contribution of indexation to nominal wage increase	2.1	2.5	0.4	2.5	-	-	-2.1
Compensation per employee	1.5	0.6	0.4	2.5	-1.3	-0.7	-2.8
Employees	4.8	-0.2	-1.7	0.0	-0.1	-1.1	-2.8
Unemployment rate	4.4	5.6	6.7	7.0	-	0.5	1.2

Source : BCL

The adjustment in employment would go along with very weak wage developments. As was the case in 2003, the latter would barely increase in 2009 as companies cut into hours worked and reduce their bonus and extra-salary payments. For the subsequent years, real wages are expected to stagnate. Nominal wage growth would therefore be entirely attributable to the automatic wage indexation scheme. According to our inflation projections, the next

2.5% automatic wage hike would be due at the beginning of 2011, leading to nominal wage increases of 0.4% in 2010 and 2.5% in 2011. The real wage dynamics would reflect the very weak employment prospects. The unions have low bargaining power and, in the wage negotiations, they are likely to give the priority to job preservation.

Inflation

The inflation prospects have improved considerably in the recent past. The sharp fall in the oil price will lead to a negative inflation rate for the energy component, denting the NICP increase by 1.6pp in 2009. Later on, indirect effects, via lower production costs, will feed through to the ex energy inflation. Wages are slowing in the context of the weak labour market and imported inflation would also fall in 2009. Following the strong rise in 2008, headline inflation is set to fall sharply in 2009 before rebounding thereafter. The NICP and the HICP annual average rates are expected at respectively 0.2% and -0.2% (see also the detailed inflation projections under 2.1.1). The rebound in 2010 is essentially driven by the energy component as the oil price is set to increase again and the related positive base effects are set to vanish. In the context of the weak conjunctural situation however, ex energy inflation could slow down further in 2010. A reversal of this inflation component seems likely in 2011 when another 2.5% automatic wage hike would trigger a re-acceleration of services inflation. In light of the prevailing large negative output however, a more substantial acceleration of inflation is deemed unlikely. Headline inflation would therefore remain below 2.0% for a third consecutive year.

1.2.11 Public finances

1.2.11.1 Introduction

The first section of the analysis outlines the most determinant evolutions of Luxembourg public finances, by confronting them to similar evolutions observed in other European countries. Afterwards, the patrimonial situation of general government, which is characterized by low liabilities compared to other Member States in the euro zone, as well as by significant financial assets, is taken under analysis.

The envious situation could turn out to be fragile. On the one hand, assets and liabilities are due to the evolution dynamic of budgetary balances. Though, short term BCL projections – as well as the addendum for the 10th update of the Luxembourg Stability Programme, in addition to the European Commission spring projections – let project significant deficits during the 2009-2011 period. On the other hand, as illustrated in the <<perspectives>> section, which examines the expectable evolution of general government finances until 2050, the sustainability at term of social security is threatened. This official report is verified by a recent report of the EPC and the European Commission.

1.2.11.2 Public finances : overview

2008 was marked by 4 phenomenon of great significance. First, the authorities continued carrying out certain budgetary measures adopted in 2006 as part of the Comité de coordination Tripartite. The main measures were an increase of fiscal and para-fiscal pressure, the suspension of the indexation of family allowances, and the rescheduling of pensions´ indexation to real wages. In addition, a public sector wage freeze was announced as well as closer monitoring of investment expenditure.

Second, new measures according to the 2008 draft budget have been applied. It consists in the instauration of a child bonus, partial indexation, in this case of 6 %, of the tax schedules on treatments and wages and in the decrease from 1 % to 0.5 % of a specific registration tax, namely ''droit d'apport''.

Third, despite the degradation of macroeconomic situation – due to the financial crisis which has affected heavily European markets by the last quarter of 2008, and is prevailing by spreading over to the real economy – general government has succeeded in accumulating significant revenues, allowing it to put up a surplus equal to 2.6 % of GDP in 2008. This makes Luxembourg one of the 4 countries in the euro zone, which have achieved a surplus in 2008.

Finally, after a relative stability in the last years, the general government debt-ratio has doubled, to reach 14.7 % of GDP. This evolution is essentially attributable to loans intended to restore the financial situation of one particular credit institution, Fortis Banque Luxembourg.

The 2009 budget proposal has been adopted by the Chamber of Deputies in December 2008. Compared to the beginning of 2000, increase of expenditure has decelerated but compared to 2007 and 2008, an acceleration would take place. Expenditure growth should be limited to 6.9 % in 2009. Revenues should grow faster than expenditures, allowing the central government balance to go up from a deficit of 20.5 million Euros in 2008 to a slight surplus of 13 million Euros next year. The following table gives an outline of the key-numbers of the 2009 budget.

TABLE 19 :
KEY FIGURES IN THE 2009 CENTRAL GOVERNMENT BUDGET
(EUR MILLIONS, UNLESS OTHERWISE INDICATED)

	Final 2008 budget	2009 budget	Increase in nominal terms
Revenue	**8 438.0**	**9 056.9**	**7.3%**
Current revenue	8 355.4	8 968.7	7.3%
Capital revenue	82.6	88.2	6.8%
Expenditure	**8 458.5**	**9 043.7**	**6.9%**
Current expenditure	7 631.3	8 107.1	6.2%
Capital expenditure	827.2	936.6	13.2%
Balance	**-20.5**	**13.2**	**---**
of which current balance	724.1	861.6	---
of which capital balance	-744.6	-848.4	---

Source : Law concerning the revenue and expenditure budget for the 2009 exercise.

However, these numbers should be interpreted with caution, as they incorporate allocations to extra-budgetary funds instead of their actual expenditures.

In addition, the final 2007 budget is an inappropriate basis for comparison, as in Luxembourg budgetary executions diverge clearly from the final budget. After correcting for these two inconsistencies, total central government expenditure should increase by 15 % in the 2007-2009 period – namely 7.5 % per

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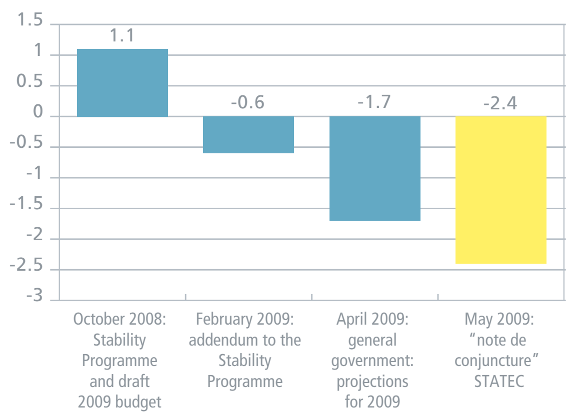
year on average – under the effect of a significant growth in planned expenditures by the extra-budgetary funds and by some public institutions. On the other hand, still based on budgetary documents, central government revenues should increase by 4.1 % only over the 2 year period 2007-2009.

In addition, it is important to emphasize at this stadium that in the context of the 2009 budget, the government based its 2009 forecasts of the general government fiscal items on assumptions that somehow seem to be unrealistic in the current economic context, namely a growth of real GDP of 3 % and an employment growth rate of 2.7 %. In expectancy of the 10th stability program update, these assumptions have already been heavily revised downwards, which leads to a less positive estimation of the 2009 government balance. Moreover, this last one outlines an additional degradation in the recent STATEC conjuncture note.

The following figure illustrates the current uncertainty in the 2009 general government balance. Since October 2008, 3 downwards revisions of this estimation have been undertaken.

FIGURE 30:
SUCCESSIVE REVISIONS OF THE GENERAL GOVERNMENT SEC 95 BALANCE SHEET FOR THE YEAR 2009



Source : 10th update of the Luxembourg Stability Programme, addendum to the 10th update, draft budget for 2009, Statec.

1.2.11.3 Government revenues

While it had initiated a decrease in 2006, the revenue to GDP ratio has displayed an increase in 2007. This progression has gone on steadily in 2008, with the ratio reaching 43.4 % of GDP, instead of 41 % last year. Whit such a growth, the ratio shows again a level comparable to the beginning of the decade, but remains very high compared to 2006 and 2007, years where the ratio had remained low due to sustained nominal GDP growth. The strong increase of the revenue to GDP ratio in 2008 is due to additional tax revenues, coming from electronic trade, direct taxes paid by households as well as a strong deceleration of nominal GDP growth.

In nominal terms, revenues have gone up by 6.6 % in 2008.

TABLE 20:
GENERAL GOVERNMENT REVENUE
(AS % OF GDP. UNLESS OTHERWISE INDICATED)

	Official data April 2009						BCL projections June 2009		
	2003	2004	2005	2006	2007	2008	2009	2010	2011
Direct taxes	14.6	13.0	13.6	13.0	13.4	14.4	13.0	12.6	12.6
Payable by households	7.3	7.2	7.8	8.1	8.0	8.9	8.1	8.1	7.9
Payable by corporations	7.3	5.7	5.8	5.0	5.4	5.5	4.8	4.6	4.6
Indirect taxes	12.6	13.4	13.4	12.7	12.8	13.0	12.3	12.2	11.9
Social contributions	11.7	11.6	11.4	10.8	11.0	11.7	12.0	11.7	11.4
Other revenue	3.6	3.5	3.3	3.6	3.7	4.3	4.8	5.1	4.9
Total revenue	**42.5**	**41.5**	**41.7**	**40.1**	**41.0**	**43.4**	**42.0**	**41.5**	**40.7**
Nominal increase in total revenue %	**4.2**	**4.0**	**10.4**	**7.9**	**9.8**	**6.6**	**-7.3**	**-0.3**	**2.2**

Source: IGF, IGSS, STATEC, UCM, BCL calculations.

While 2008 has been a positive year in terms of general government revenues, the current financial crisis will weigh heavily on revenues - particularly in terms of corporate taxes – during the projection period. The revenue ratio will decline significantly in 2009. It will continue deteriorating itself in 2010 and 2011, but less significantly. These projections still remain marked by large uncertainty. Indeed, they confirm to a large extent the very high level of specific revenues in 2008 (for instance tax on capital revenues), in a mainly uncertain macroeconomic and financial context. Significant risk factors include the financial market turmoil, the decelerations of employment growth, the decrease of private consumption and the recent downward revisions of world GDP growth. In addition, the durability of additional revenues collected in the last three years, is no longer sure.

1.2.11.4 General government expenditure

2008 was marked by a break of the trend and eventually by a decline of the expenditure-to-GDP ratio, which was initiated in 2005. Indeed in only one year, it reached 40.8 % of GDP in 2008 compared to 37.4 % in 2007, which figure borders on the level registered around 2000. As explained in the preceding paragraph, nominal GDP has only increased by 0.7 % in 2008 compared to 7.3 % in 2007. After a clear deceleration of the nominal growth of total expenditure during the last three years (2005-2007), the ratio one has sustained a strong increase in 2008 to reach the 10 % level. This rate seems to be extremely high compared to the average rate in the last five years, and remains clearly higher than the rates observed in contiguous countries.

Projections allow foreseeing a new significant rise of the expenditure ratio in 2009. Furthermore, this strong progression in 2009 is on one hand attributable to the acute economic crisis which has affected Luxembourg's economy, and on the other hand to the implementation of different discretionary measures by the government, intending to sustain economy and reach the objectives defined on occasion of the European plan for economic revival.

Discretionary measures introduced by the government contain fiscal measures, which have been approved by the Chamber of Deputies in the frame of the 2009 budget, but also discretionary measures, newly announced March 6th 2009, which are part of the Luxembourg's revival plan. According to BCL estimates, these newly announced measures should run to about 300 million Euros, which would equal 0.85 % of GDP in 2009.

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According to the BCL, the expenditure ratio should continue rising in 2010 and 2011, but in a slighter way compared to 2009. This slowdown is in partly due to the disappearance of certain temporary discretionary measures brought in 2009, but also to a revival of economic activity.

TABLE 21: GENERAL GOVERNMENT EXPENDITURE

(AS A PERCENTAGE OF GDP, UNLESS OTHERWISE INDICATED)

	Official data April 2009						BCL projections June 2009		
	2003	2004	2005	2006	2007	2008	2009	2010	2011
Social Transfers	20.8	21.0	20.6	19.3	18.8	20.5	22.8	23.5	23.8
Public investments	4.6	4.2	4.5	3.6	3.4	3.9	4.6	4.2	4.0
Consumption expenditure	11.4	11.5	11.3	10.4	10.3	11.3	12.3	12.8	13.1
Subsidies	1.7	1.7	1.7	1.6	1.6	1.7	1.8	1.9	1.8
Other expenditure	3.5	4.1	3.6	3.8	3.3	3.4	4.2	4.3	4.3
Total expenditure	**42.0**	**42.6**	**41.7**	**38.7**	**37.4**	**40.8**	**45.8**	**46.7**	**47.1**
Nominal increase in total expenditure (%)	**8.2**	**8.0**	**7.6**	**4.2**	**3.6**	**10.0**	**7.5**	**2.6**	**5.1**

Sources: IGF, IGSS, STATEC, UCM, BCL calculations

Nominal growth of total expenditure (view previous table) which is set at 10 %, is very important compared to the evolution noted in the last five years and reflects a new drift of expenditure, which is not part of the expenditure policy announced by the government as a result of the agreement of the *Comité de Coordination Tripartite* in April 2006. Regarding the projection period, total expenditure will continue progressing steadily in 2009, nominal growth setting itself at 7.5 %. This high rate is mainly attributable to the introduction of measures included in the 2009 budget, as well as to recent discretionary measures announced by the government at the beginning of March 2009. Public investments in addition to additional resources allocated to Employment Fund bear upon this evolution. Expenditure growth will diminish in 2010 and reach 2.6 % only and eventually rise by about 5 % in 2011. Given the strong progression of expenditure in 2009, the deceleration of growth rates in 2010 and 2011 is due to a so called ''basis effect''. The need of consolidation of expenditure growth remains, in order to react to uncertainty, which weighs heavily on future revenues.

1.2.11.5 General government net lending or borrowing

The general government budget balance is obviously the difference between the expenditure and revenue ratios described above. After a period of deterioration, 2006-2008 has seen a return to a surplus position. This mainly reflects a very favorable economic environment, a dynamic employment, an excellent financial sector performance (despite the fact that the economic crisis has affected this last in the fourth quarter of 2008) as well as the implementation of certain budgetary consolidation measures, proposed by the Comité de Coordination Tripartite in 2006. The general government budget surplus has diminished from 3.6 % of GDP in 2007 to 2.6 % of GDP in 2008. Despite this degradation, Luxembourg remains, after Cyprus, the Netherlands and Finland, among the rare euro area countries capable to register a general government surplus in 2008.

A yearly analysis of the budget balance evolution shows that 2008 has been an exceptional year, bringing out a budgetary surplus of 2.6 %. This relative magnitude was unexpected, given the fact that the financial crisis has heavily affected the financial sector, and spread out to the real economy. Among the subsectors of general government, only social security improved its balance in terms of GDP, going up by 0.3 % of GDP. After displaying a surplus of 0.8 % of GDP in 2007, the central government balance was in deficit by 0.3 % of GDP. Local government balance remained in equilibrium in 2008 but has gone down by 0.4 % of GDP compared to 2007.

On the other hand, 2009 would be marked by a significant degradation of the general government budget balance, which would switch from a surplus to a net borrowing situation. This is a sudden blow to the budgetary consolidation process initiated in 2005. The balance, in surplus by 2.6 % of GDP in 2008, would reach a deficit of 3.8 % of GDP in 2009.

This degradation is due to 4 main factors :

1) Strong downward revision of GDP growth rate;

2) New measures adopted on the occasion of the 2009 budget, which are as follows:
- Partial indexation, of 9 %, of personal income tax brackets
- Implementation of tax credits for wage-earners and pensioners, and of the *crédit monoparental*;
- Fiscal measures favorable to housing: Housing tax, mortgage loans, etc;
- Introduction of the *chèques services* system in order to ease the access to day-care services for children;
- Abolition of the *droit d'apport*;
- Enlargement of the recipient circle regarding exoneration from taxes on dividends;
- Doubling of the heating grant, transformed into *allocation de vie chère*;
- Decrease in the official rate of the most important direct tax on corporations *(impôt sur le revenu des collectivités).*

The ex ante cost of these measures should in total amount to 1.2 % of GDP, based inter alia on estimates made in the draft budget for 2009. This seems to be high at first sight, in particular concerning partial indexation.

1) New measures announced by the government in the frame of the conjuncture plan, which are not contained in the 2009 budget. According to BCL estimates, these measures should induce a supplementary cost of 300 million Euros in 2009.

1) The significant, negative impact of the financial crisis on government revenues. The financial turmoil, has affected European markets heavily since September 2008. This turmoil will have a significant impact on government revenues. Taxes like the subscription tax or taxes on bank benefits will be directly affected and will surely diminish in 2009.

The adjusted general government balance would be negative by 3.9 % in 2009 according to the BCL projection, which would induce a significant backward step compared to the adjusted balances observed in the last years. The balance will continue turning sour in 2010 and 2011.

TABLE 22:
BUDGETARY BALANCE OF GENERAL GOVERNMENT AND ITS SUBDIVISIONS
(AS % OF GDP, UNLESS OTHERWISE INDICATED)

	Efective balances (Net lending (+) or net borrowing (-))								
	Official Data April 2009						BCL projections June 2009		
	2003	2004	2005	2006	2007	2008	2009	2010	2011
General government	**0.5**	**-1.1**	**0.0**	**1.4**	**3.6**	**2.6**	**-3.8**	**-5.1**	**-6.3**
Central government	-1.3	-2.5	-1.2	-0.7	0.8	-0.3	-5.6	-6.0	-6.4
Local government	0.0	-0.1	-0.3	0.2	0.4	0.0	-0.5	-0.7	-0.9
Social security	1.8	1.5	1.5	1.8	2.5	2.8	2.3	1.6	0.9
October 2008 Stability Programme	---	---	---	---	---	**2.3**	**1.1**	**0.8**	**1.1**
Stability Programme - February 2009 addendum	---	---	---	---	---	**2.0**	**-0.6**	**-1.5**	---
As a reminder: BCL projections - December 2007	---	---	---	---	---	**1.3**	**-1.9**	**-2.8**	---
	General government balance without cyclical conditions								
June 2009 BCL estimations [1]	0.8	-0.6	0.3	0.9	2.4	1.6	-3.9	-4.2	-5.2
Octobre 2008 Stability Programme estimations						2.9	2.3	2.1	2.0
Stability Programme estimations - Februry 2009 addendum						na	na	na	na

Sources: IGF, IGSS, STATEC, UCM. BCL calculations.
1) These balances are calculated by using a disaggregated method, based on the Hodrick-Prescott filter.

As indicated in the joined chart and table, the degradation of the general governments budgetary situation is largely attributable to the central government but in a broad sense, i.e. after consolidation of the central government stricto sensu with special funds operations and with several public institutions. The central government could exhibit a noticeable deficit of 5.6 % of GDP in 2009. The balance will continue going down in 2010 and 2011. A strong increase in central government expenditure combined with a reduction of revenues is the direct explanations for this evolution. Both the addendum of the Stability Programme as well as BCL projections, forecast a persistence of important government deficits in the next years.

The social security surplus should also diminish in 2009, but the most visible balance break should show up in 2010 and 2011. Mainly responsible for this clear deterioration is the fall in revenues directly linked to the growth of the employment rate and of the wage bill. BCL projections indeed plan on an significant deterioration in the labour market.

Regarding local administrations, the situation is degrading severely all along the projection period.

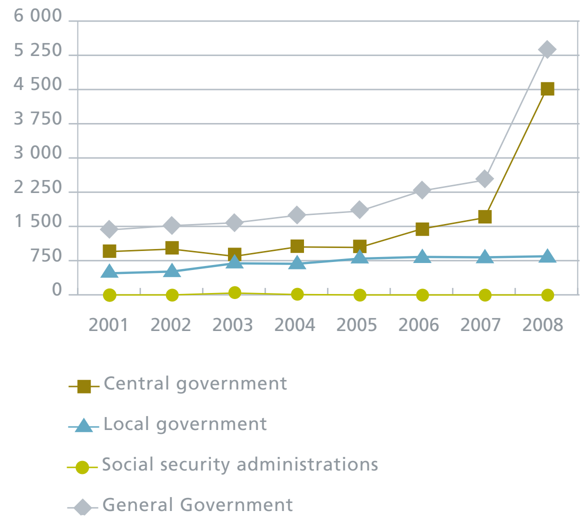
After being characterized by a relative stability in the last years, the ***general government debt –to-GDP ratio*** has displayed a very clear rise of more than 7 percentage points, to stabilize at 14.7 % in 2008. This evolution reflects an impulse equal to 2.5 billion Euros, namely the major part of the loans intended to restore the financial situation of a credit institution of systemic importance, Fortis Banque Luxembourg.

An additional explanation for the pronounced increase of debt relies on the fact that government has borrowed a total of 200 million Euros in order to finance investments in facilities trough the Fond du rail and the Fond des routes. Concerning 2009, 2 new loans for a total amount of 400 millions Euros, again favorable to the Fond du rail and the Fond des routes, as well as an additional loan in order to restore the financial situation of Dexia BIL S.A. (undertaken by the government in 2008) will cause the debt ratio to rise slightly and attain 17.2 % of GDP in 2009. The same operation concerning the 2 funds will be repeated in 2010, again for the same total amount. In addition, the last addendum of the Stability Programme plans that eventually, government might be led to borrow another 500 million Euros for the 2010 budget exercise. In these conditions, the debt ratio would set at 19.2 % and respectively 20.5 % in 2010 and 2011. It should be noted that for 2011, government assets will almost be used up; consequently, an important part of the deficit will have to be funded by indebtedness. However, the public debt-to-GDP ratio still remains the lowest in the euro zone.

Risks of an additional rise of the general government debt ratio in 2009 are linked to two factors. First, the grand-ducal regulation of October 10th authorized the government to grant a financial guarantee to the Dexia Group. This guarantee is limited at 4.5 billion Euros, which would be 12.8 % of GDP, corresponding to 3 % of total funding lifted on by the Dexia Group before October 9th 2009 and arrive at maturity before October 31st 2009. As long as this guarantee is not called upon, there will be no impact neither on public debt nor budgetary balance. However, a risk of a public debt rise attaining an extremely high level of 12.8 % of GDP remains.

Second, on October 9th 2008 the Icelandic bank Kaupthing Bank Luxembourg S.A. has been placed in a suspension of payments situation. Until now, the Luxembourg government has not announced the eventual amount of its commitment to support the Icelandic bank. The following chart does not contain the two factors previously mentioned, due to the high uncertainty level of their realization, regarding realization itself as well as the implied amounts. The same chart shows that the central administration mainly contributes to the rise of indebtedness.

FIGURE 31:
CONTRIBUTION OF GENERAL GOVERNMENT SUBDIVISIONS TO THE FUNDED PUBLIC DEBT
(EUR MILLIONS)



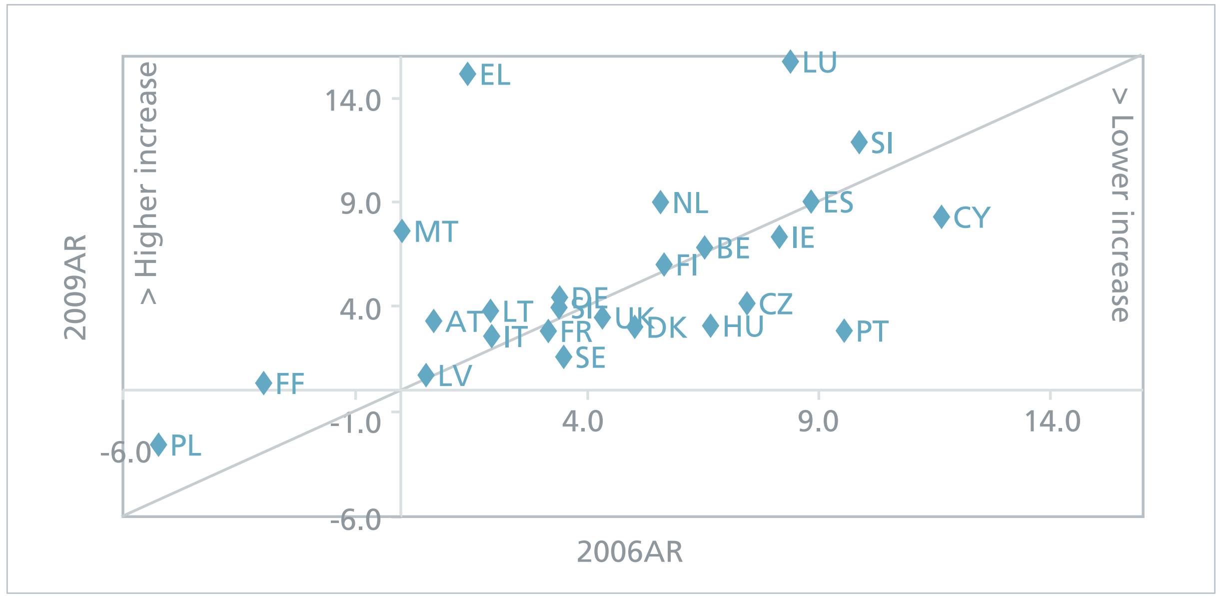
Sources: STATEC, BCL calculations

An additional vigilance regarding the evolution of public debt is all the more required as the projected financial situation of the pension regime is extremely weak. Through various publications, BCL as well as several international institutions (e.g. IMF, OECD, European Commission) have underlined several times the need for pension reforms.

In addition, in its recommendation to the Council on the Luxemburg Stability Programme addendum, which was published on February 25th 2009, the European Commission emphasized once again the uncertain sustainability of Luxembourg's budgetary policy. According to the Commission, Luxembourg public finances will face heavy costs in the next years, due to expenses linked to population ageing. The Commission invites the government to quickly start improving public finances, by implementing structural reforms in particular in the pension sector.

The recent publication of the European Commission, which has updated the 2006 report of the Ageing Working Group (AWG), outlines a very marked rise of general pension regime expenditure, if no reform is undertaken. The following chart shows that Luxembourg is the country whit the most important ageing cost. The pension expenditure-to-GDP ratio should attain 23.9 % of GDP by 2060, which would be a progression by 15.2 % between 2007 and 2060.

FIGURE 32:
AGEING COST IN THE 2009 AWG REPORT COMPARED TO THE 2006 AWG REPORT, 2007-2060, AS GDP PERCENTAGE POINTS



Source: European Commission (2009), The 2009 Ageing Report: Economic and budgetary projections for the EU-27 Member States (2008-2060), page 38.

Note: Bulgaria and Romania were not part of the 2006 exercise and pension projections for Greece were not available.

At last, it has to be noted that BCL tax projections suppose an unchanged tax policy. These last ones are likely to be revised depending on the international environment development, on new elements concerning the width and the duration of financial blows, or even on the impact of the current turmoil on Luxembourg's industry and consequently on the labor market. In particular, it is appropriate to watch closely the implementation as well as the incidence of the different discretionary measures announced by the government. It is essential that, as foreseen in the European plan, these national budgetary measures, intended to sustain and revive the economy, follow the three TTT *(timely, targeted and temporary)*. In other words, they need to:

1) be taken rapidly
2) be temporary
3) be targeted on the source of the economic problem

Additionally, it would be appropriated to publish quickly a credible commitment concerning the return to public finances that are sustainable over the medium term, without resorting to a massive tax increase. This commitment of a return to equilibrium is essential in view of the weak sustainability of social security.

1.2.11.6 Luxembourg public finances: inventory and perspectives

Introduction

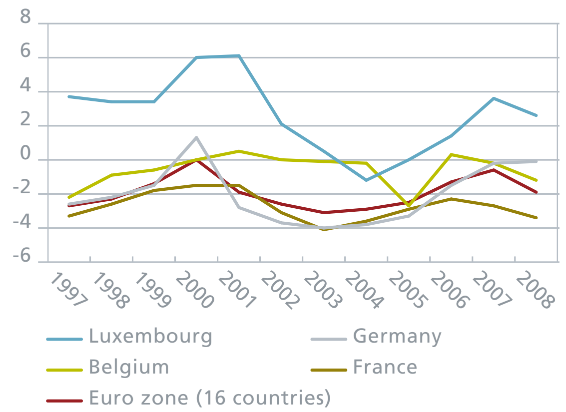
The first section of the analysis outlines the most determinant evolutions of Luxembourg public finances, by confronting them to similar evolutions observed in other European countries. Afterwards, the patrimonial situation of general government, which is characterized by low liabilities compared to other Member States in the euro zone, as well as by significant financial assets, is taken under analysis.

The envious situation could turn out to be fragile. On the one hand, assets and liabilities are due to the evolution dynamic of budgetary balances. Though, short term BCL projections – as well as the addendum for the 10th update of the Luxembourg Stability Programme, in addition to the European Commission spring projections – let project significant deficits during the 2009-2011 period. On the other hand, as illustrated in the <<perspectives>> section, which examines the expectable evolution of general government finances until 2050, the sustainability at term of social security is threatened. This official report is verified by a recent report of the EPC and the European Commission.

1.2.11.6.1 Luxembourg public finances: inventory

The Luxembourg's general government registered a surplus in the last ten years, except in 2004. In addition, this balance has been clearly higher than the average of the neighbouring countries or the euro zone. However, the differential to this last one has severely declined between 2000 and 2004. It has admittedly enlarged slightly afterwards, due to extremely dynamic revenues between 2006 and 2008, but in total, it remains smaller in 2008 than in 1997. The following chart illustrates this trend.

FIGURE 33:
GENERAL GOVERNMENT BALANCE
(AS % OF GDP)

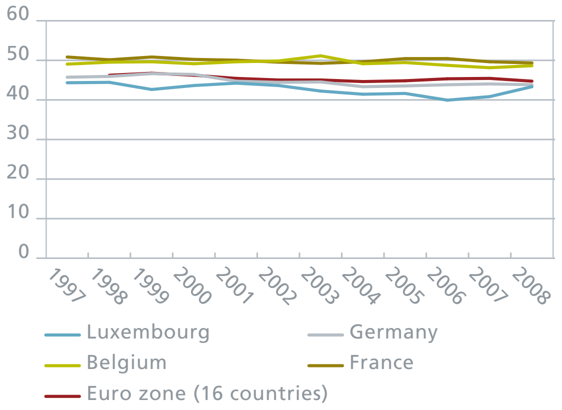


Sources: Eurostat, BCL calculations.

The rising of revenues, observed from 1999 to 2002 and from 2006 to 2008, has come with significant progressions of expenditure ratios. The following charts show this trend. These ratios should normally have been diluted by the steady GDP growth. It would have been more opportune saving these additional revenues, induced by the period of high conjuncture. The country would have been more able to face the current recession.

The ratio of total expenditure remains lower than the corresponding ratios in contiguous countries, as well as compared to the euro zone ratio. This reflects a growth rate of nominal GDP which is distinctly more positive for Luxembourg than for other countries in the euro zone. This phenomenon persists over the whole observation period. Furthermore, the differential has grown larger in 2006, in favor of a very positive Luxembourg's conjuncture.

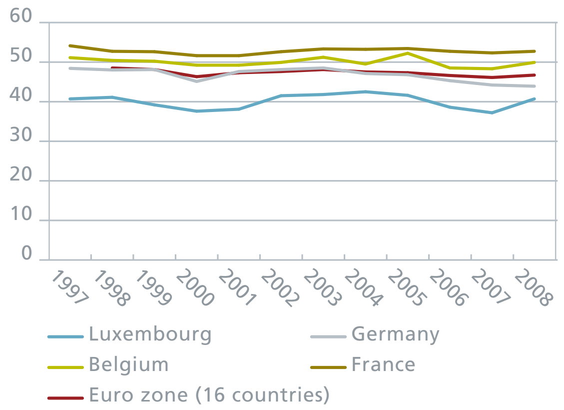
FIGURE 34:
TOTAL LUXEMBOURG GENERAL GOVERNMENT REVENUE, COMPARED TO THE NEIGHBOURING COUNTRIES AND THE EURO ZONE, 1997-2008.
(AS % OF GDP)



Source : Eurostat, BCL calculations

Luxembourg's expenditure ratio is also lower than the corresponding ratio in the neighbouring countries and in the euro zone. The biggest ratio difference comes up between Luxembourg and France. However, in 2008, the gap has diminished largely compared to data observed abroad. On this measure, Luxembourg's ratio is almost even with the German ratio or the euro zone ratio. The comparative deterioration reflects on one hand, the slight deceleration of Luxembourg's nominal GDP growth in 2008, and on the other hand, a significant increase in expenditures. This last one is in part linked to the measures which have been approved within the 2008 budget.

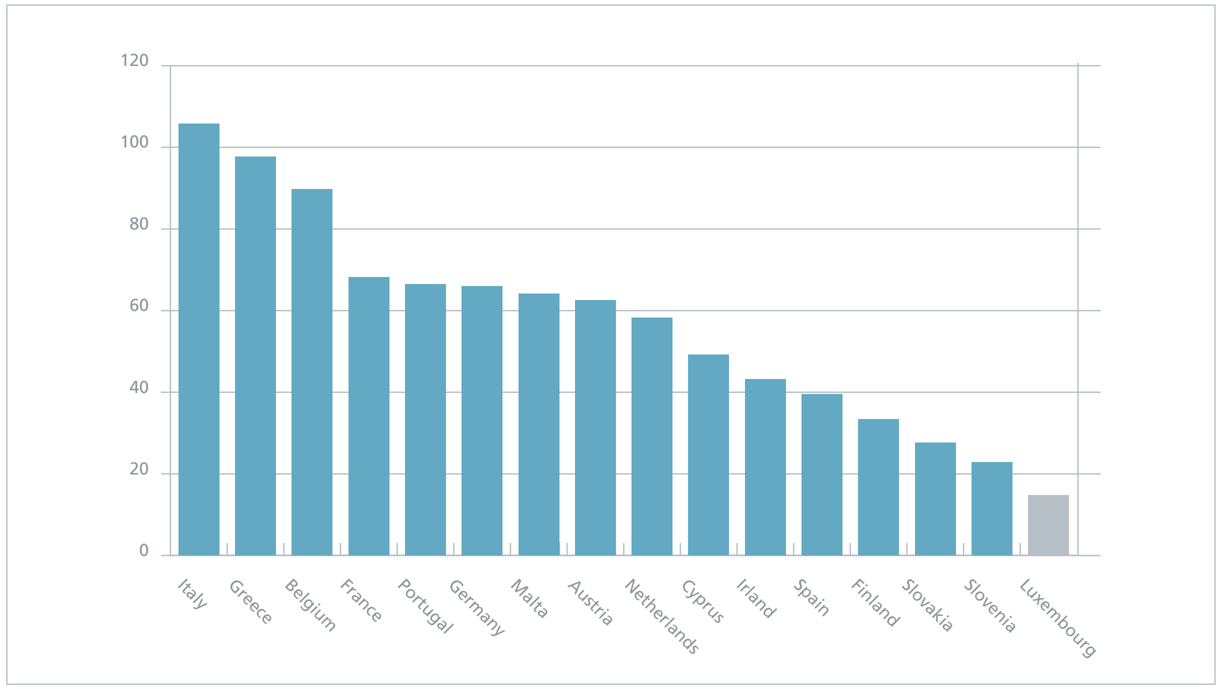
FIGURE 35:
TOTAL LUXEMBOURG GENERAL GOVERNMENT EXPENDITURES, COMPARED TO THE NEIGHBOURING COUNTRIES AND THE EURO ZONE, 1997-2008.
(AS % OF GDP)



Source: Eurostat, BCL calculations

The financial situation of the general government remains favorable in an international perspective. As illustrated in the joined chart, the public debt-to-GDP ratio has indeed limited itself to 14.7 % in 2008, which is the lowest level among the 16 countries in the euro zone. However, Luxembourg's public debt has doubled in 2008 due to support operations for major credit institutions.

FIGURE 36:
GROSS CONSOLIDATED DEBT IN 2008 IN THE EURO ZONE COUNTRIES
(AS % OF GDP)

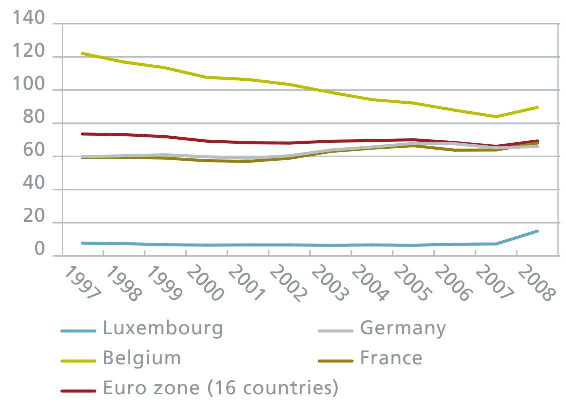


Sources: Eurostat, BCL calculations.

When the progression of Luxembourg general government debt is compared to the registered evolution in contiguous countries and the euro zone, it appears that the Luxembourg ratio remains very low all along the 1997-2008 period, even in 2008 despite the previously mentioned doubling of debt. Significant surpluses registered by general government have allowed Luxembourg authorities to limit their resort to indebtedness.

According to the BCL June projections, however, the debt ratio will progressively increase in 2010 and 2011, to reach 20.5 % in 2011. Despite this progression, the Luxembourg public debt ratio will remain the lowest of the euro zone and will clearly remain under the 60 % Maastricht criterion.

FIGURE 37:
EVOLUTION OF THE GROSS CONSOLIDATED DEBT OF THE LUXEMBOURG GENERAL GOVERNMENT, COMPARED TO THE NEIGHBOURING COUNTRIES AND THE EURO ZONE, 1997-2008
(AS % OF GDP)



Source: Eurostat, BCL calculations.

1. ECONOMIC AND FINANCIAL SITUATION

Despite a favorable financial situation and a low public debt, the budgetary strategy in the next years should be a demonstration of high caution. The positive situation observed in the recent past has indeed, to a large extent, resulted from a very steady economic growth between 1997 and 2000 and to a lesser extent between 2005 and 2008.

In this regard, a clear break should occur in 2009. On one hand, assets of special funds should gradually decline in the near future. The major cause for this would be the probable stagnation of revenues. In any case, BCL spring projections forecast an absence of GDP growth in 2009 and 2010, along with a low growth in 2011.

Furthermore, important surpluses of social security reflect a phase difference between the evolutions of contributions on the one hand and pension payments on the other hand, under the effect of an important inflow of border workers during the last two decades. This surpluses will tend to decline and even make space for deficits in a mid term horizon.

In other terms, the compensation reserves of the pension regime are to a certain extent of an artificial nature, as they could turn out to be insufficient when facing future pension commitments. With a lack of new measure, the return to substantial deficits of the central administration in 2008, as well as future deficits of local administrations, should induce a dangerous indebtedness dynamic, as shown in the part of the current chapter dedicated to the public finance outlook.

BCL spring projections (2009-2011): an unfavorable budgetary dynamic

If the financial position of Luxembourg central government is currently favorable, the public finances situation seems to be weaker in terms of budgetary balances. Luxembourg still registered a budgetary surplus of respectively 3.6 % of GDP and 2.6 % in 2007 and 2008. However, according to the most recent BCL projections – which are under close scrutiny in the first part of the Public finances section of the present bulletin – general government will record an important deficit in 2009, which will further deteriorate afterwards, in 2010 and 2011. The deficit will attain about 6.3 % of GDP in 2011, caused by higher central and local government deficits, and lower social security surpluses. The projections presented in the Luxembourg Stability Programme addendum, as well as the Commission spring projections also suggest a degradation of the Luxembourg´s central government balance, which is certainly less slight than forecasted by the BCL. The following table illustrates this process.

TABLE 23:
BUDGETARY BALANCE OF GENERAL GOVERNMENT AND ITS SUBDIVISIONS
(AS % OF GDP, UNLESS OTHERWISE INDICATED)

	Effective balance (Net borrowing (+) or net lending (-))								
	Official data April 2009						BCL projections June 2009		
	2003	2004	2005	2006	2007	2008	2009	2010	2011
	General government								
Total revenue	42.5	41.5	41.7	40.1	41.0	43.4	42.0	41.5	40.7
Total expenditures	42.0	42.6	41.7	38.7	37.4	40.8	45.8	46.7	47.1
Deficit (-) or surplus (+)	**0.5**	**-1.1**	**0.0**	**1.4**	**3.6**	**2.6**	**-3.8**	**-5.1**	**-6.3**
October 2008 Stability Programme	--	--	--	--	--	**2.3**	**1.1**	**0.8**	**1.1**
Stability Programme - Februra 2009 addendum	--	--	--	--	--	**2.0**	**-0.6**	**-1.5**	--
European Commission spring previsions	--	--	**0.0**	**1.4**	**3.6**	**2.6**	**-1.5**	**-2.8**	--
	Subdivisions balance								
Central government	-1.3	-2.5	-1.2	-0.7	0.8	-0.3	-5.6	-6.0	-6.4
Local government	0.0	-0.1	-0.3	0.2	0.4	0.0	-0.5	-0.7	-0.9
Social security	1.8	1.5	1.5	1.8	2.5	2.8	2.3	1.6	0.9
	General government balance without cyclical conditions								
June 2009 BCL estimations [1]	0.8	-0.6	0.3	0.9	2.4	1.6	-3.9	-4.2	-5.2
October 2008 Stability Programme estimations						2.9	2.3	2.1	2.0
Stability Programme estimations - February 2009 addendum						na	na	na	na

Sources: IGF, IGSS, STATEC, UCM, BCL calculations.
Note: [1] These balances are calculated by using a disaggregated method, based on the Hodrick-Prescott filter.

1. ECONOMIC AND FINANCIAL SITUATION

The budgetary balance should decrease by about 9 % of GDP between 2008 and 2011. This evolution only partly reflects the economic slowdown, observed since the last quarter of 2008. Thus, the general government budget balance without economic impact would switch from a surplus of more than 1.5 % of GDP in 2008, to a deficit equal to 3.9 % of GDP in 2009. This result reflects the expected implementation of different new measures in the wake of the revival plan (in particular the adaptation by 9 % of tax brackets, the introduction of different tax deductions, the increase of public investments…).

1.2.11.6.2 Luxembourg public finances : perspectives

As indicated in the previous section, Luxembourg's public finances will probably suffer a deep structural deterioration during the 2009-2011 periods. Nevertheless, they still seem relatively solid in an international comparison, as illustrated in particular by the public debt, which is notably lower than in almost all other Member States of the European Union.

The present section intends to demonstrate that a slackening of budgetary policy could be dangerous, despite the favorable starting position in terms of indebtedness.

Under the combined effect of an underlying rise of social security expenditure and resolutely negative structural balances in the next years, Luxembourg is threatened to face quickly a strong indebtedness dynamic, in the absence of new structural measures. In this context, an important effort of budgetary consolidation is needed. It should cover two different aspects. First, it is recommended to diminish current general government deficits and as soon as possible, if allowed by conjuncture, to register surpluses of 1.5 % of GDP and even above. Furthermore, it is suggested that structural reforms are implemented in the social security sector. Only a strategy that plays simultaneously on these two aspects will allow Luxembourg to ensure the sustainability of its public finances.

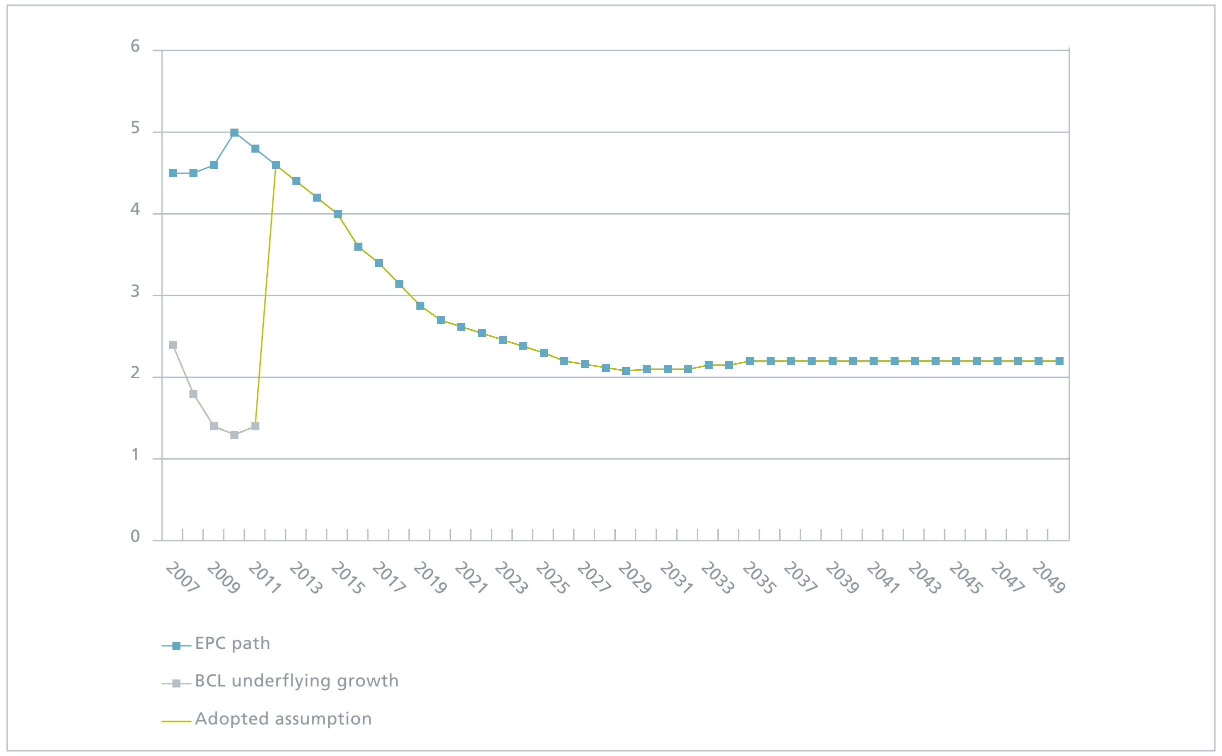
1.2.11.6.2.1 Reference simulation

Assumptions

The simulations carried out in this section mainly rely on two sources, which are on one hand the works of the Ageing Working Group of the Economic policy Committee (EPC), and on the other hand the 2009-2011 BCL macroeconomic projections. Detailed calculations underneath result from a reconciliation of these two sources, regarding in particular the economic growth rate. As illustrated in the joined chart, the previously mentioned work by the EPC is on the optimist side as regards Luxembourg's GDP growth from 2008 to 2011. At the moment where it had carried out this work though, it surely couldn't predict the gravity of the current recession.

The growth scenario used in the following pages is the EPC (Economic Policy Committee) scenario after 2012 and the GDP growth rates resulting from BCL projections from 2007-2011 (view the orange curb on the chart for the total retained path). Compared to the EPC scenario, the BCL scenario induces a marked discrepancy until 2011, which will produce a downward revision of revenue, compared to the EPC scenario. Yet, social security costs expressed in absolute terms, pensions in particular, are scarcely affected by the growth discrepancy, due to their strong downward rigidity in the short and medium term. This will result in a mechanic increase of expenditure ratios and therefore in less favorable social security balances, compared to the EPC reference scenario.

FIGURE 38:
STRUCTURAL GDP GROWTH
(AS %)



Sources : Eurostat, BCL calculations

The practice which consists in threading the BCL underlying growth rate, calculated on the Hodrick-Prescott filter basis, and the EPC growth assumptions, induces a sudden growth increase in 2012. This situation, even if a little artificial, shows that projections, which were carried out in this section, rely on favorable assumptions. Moreover, it matters to remark that if the EPC scenario, taken into consideration in this section starting from 2012, induces a clear decrease of underlying growth during the projection horizon; growth would still be greater than 4 % until 2014 and would only afterwards diminish gradually. The underlying, trend growth rate would only be reached around 2025. Pursuant to EPC projections, real salary per wage-earner should increase at the same speed than productivity, which would increase by 1.7 % per year in the steady state, which means that employment growth would stabilize at 0.5 % per year. The wage bill as well as social contributions supported by wage-earners should remain stable compared to GDP.

Concerning the inflation rate, it is supposed to reach 2 % per year between 2012 and 2050.

The relatively classic demographic assumptions won't be mentioned in detail in this present section, as it is presented in the EPC report. It is appropriate to note the important number of immigrants, at a level of 3000 to 4 000 people per year.

Public revenues and costs result from BCL projections until 2011, and from the previously mentioned assumptions from 2012 onwards. It is appropriate to note that all these projections are carried out in structural terms. Economic cycles are surely not modeled by the EPC from 2012 to 2060. For the 2009-2011 periods, the BCL has carried out projections on structural general government revenue and expenditure balance. These projections notably induce the calculation of the structural budgetary balance. In clear, these revenues and costs are "cleared" of the impact of economic cycles and temporary measures.

On the expenditure side, it is supposed that the wage bill of public sector employees will experience the same evolution as in the private sector, which implies that average wages and public employment will increase at the same speed as in the private sector all along the projection horizon. This means that in the steady state, public employment will increase by 0.5 % per year (growth of 2.2 % and increase of productivity by 1.7 % per year), which seems moderate compared to evolutions observed in the last ten years.

In terms of social security, pension expenditures (both general – namely private sector – regime and the special regimes dedicated inter alia to civil servants), health insurance, unemployment allowances and dependency insurance, are supposed to evolve in the same manner as in the EPC basis scenario. This induces a clear increase of primary expenditure linked to these three sectors, by 16 % of GDP, between 2011 and 2050. However, this impact is tempered by the treatment reserved to family allowances. This post, which carries a certain weight in Luxembourg, is not considered in the EPC study. To infer the long term evolution of this post, that will represent about 3 % of GDP in 2011, according to the BCL unchanged policy assumption, it is supposed that national family allowances will not be indexed to prices, according to decisions approved by the Comité de Coordination Tripartite in April 2006. In the same perspective, it is supposed that the Luxembourg authorities will not implement new measures regarding family allowances. The nominal amount of the concerned benefits is consequently freezed all along the projection period. Therefore in the projections presented in this section, the corresponding benefits will switch from 3.0 % of GDP in 2011 to only 0.6 % of GDP in 2050. This decrease by 2.4 % covers about one fifth of the additional cost, expected from pensions.

On the revenue side, the general rule to which the scenarios commented underneath stick, is that revenue progress along with GDP. An example is given by social contributions paid by active people, beheld that the wage bill itself is supposed to remain stable compared to GDP. However, the proportionality principle between revenue and GDP suffers from several exceptions. First, contrary to the EPC, the BCL takes in consideration the positive incidence of the marked increase of pensions on two revenue categories, namely social contributions paid by pensioners (health and dependency insurance), and direct taxes.

This effect, which succeeds in diminishing the impact of ageing, can't be ignored. Indeed, it contributes to the improvement of the primary public balance by about 1.5 % of GDP from 2011 to 2050, which represents a little more than 10 % of the increase of expected pension expenditures in the same period. Second, as indicated below, interest receivable is estimated according to general government assets, and consequently does not remain stable compared to GDP. Finally, direct taxes on corporations, which should reach a historically low level in 2011, are supposed to attain gradually their 2009 level (at least as percentages of GDP) in 2015. Afterwards, taxes on companies are stable compared to GDP.

Another distinguishing factor compared to the EPC is the recognition of interest receivable - notably on pension reserves – and interest payable. The rate of return on capital is supposed to attain 3 % per year, which would be appreciatively the rate observed in the last years. The implicit interest rate on debt is fixed at 4 % in nominal terms all along the 2012-2050 periods. The debt evolution dynamic considers an important constraint: central government is surely not supposed to fund these deficits by drawing funds from pension reserves. A gross consolidated debt can therefore be followed by significant positive assets. This corresponds to the current situation. By assumption, pension reserves will attain 27 % of GDP in 2011, compared to 23 % in 2007. During this period, the pension regime should indeed continue accumulating surpluses, which however will decline in time. The reserves ratio will in addition be mechanically strengthened by the decrease of nominal GDP expected for 2009.

Results of the reference simulation

The results of the reference simulation come up in the following table. It appears that the total revenue ratio would slightly increase along the reference period. Direct taxes and social contributions are indeed privileged by the underlying rise of their common basis; which is mainly composed of the wage bill and pension incomes. If by assumption, the wage bill would remain stable to GDP, the opposite situation prevails as far as pensions are concerned.

However, this positive impact of revenues would largely be balanced by a fall of interest receivable, which would suffer from the effect of a progressive disappearance of pension reserves. Due to increasing pension expenditure, pension reserves would disappear by 2026, and would then be followed by increasingly large debts.

TABLE 24:
REFERENCE SIMULATION: GENERAL GOVERNMENT REVENUE, EXPENDITURE, BALANCES AND INDEBTEDNESS
(AS % OF UNDERLYING GDP)

	2011	2015	2020	2025	2030	2035	2040	2045	2050
Total revenue	**40.1**	**39.8**	**39.6**	**39.5**	**39.5**	**39.8**	**39.9**	**40.2**	**40.3**
Direct taxes	12.5	12.9	13.0	13.2	13.3	13.5	13.6	13.7	13.8
Indirect taxes	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4
Social contributions	11.3	11.3	11.3	11.4	11.5	11.6	11.7	11.8	11.8
Interest revenue	1.6	0.9	0.6	0.2	0.0	0.0	0.0	0.0	0.0
Other	3.2	3.2	3.3	3.3	3.2	3.2	3.2	3.2	3.2
Total expenditure	**45.3**	**45.5**	**47.1**	**50.1**	**53.6**	**58.2**	**62.4**	**67.4**	**71.7**
Social transfers	22.9	22.7	23.5	25.7	27.8	30.3	32.2	34.4	35.7
Public investments	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
Wages	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
Other primary expenditure	9.4	9.2	9.2	9.3	9.3	9.3	9.3	9.3	9.3
Interest charges	0.5	1.1	1.8	2.6	4.1	6.1	8.5	11.2	14.3
Deficit(-) or surplus(+)	**-5.2**	**-5.7**	**-7.5**	**-10.6**	**-14.1**	**-18.4**	**-22.5**	**-27.2**	**-31.4**
Public debt	**20.1**	**31.7**	**51.8**	**73.3**	**115.9**	**171.6**	**235.6**	**308.4**	**387.8**
Of which pensions	-27.4	-23.7	-17.1	-3.0	21.1	56.3	100.5	153.8	214.1

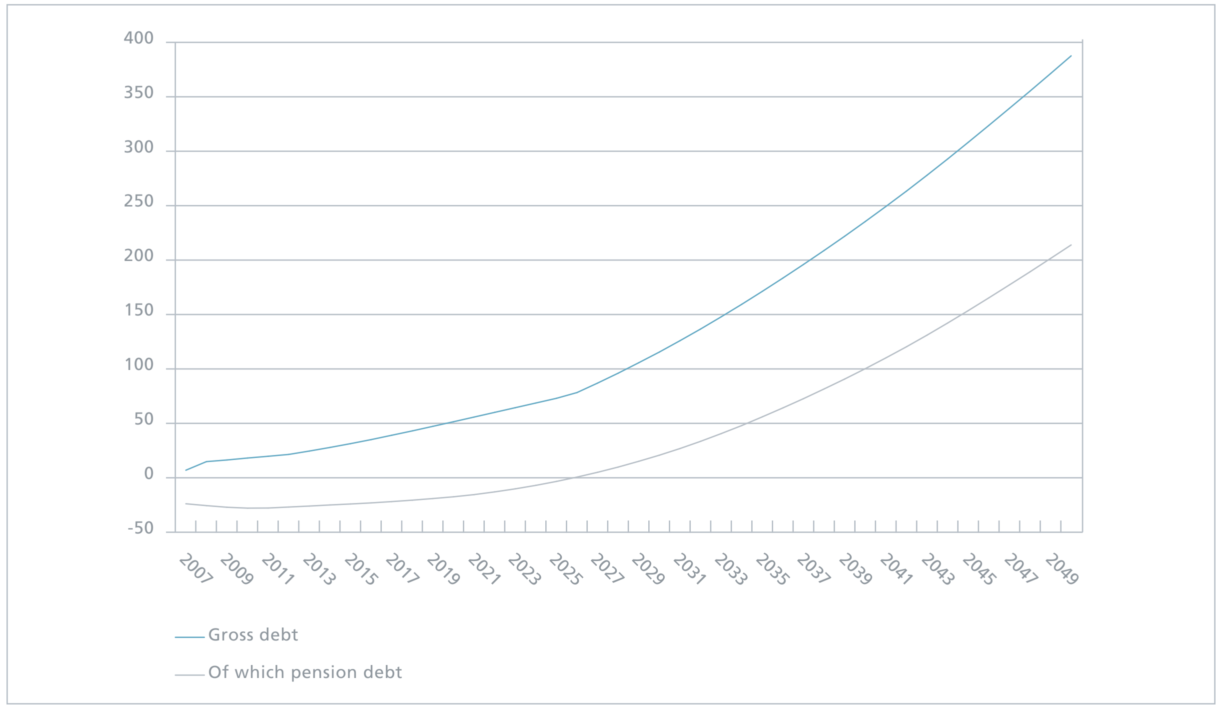
Sources: Ageing Working Group, IGSS, Statec, BCL calculations.

1. ECONOMIC AND FINANCIAL SITUATION

Pension expenditure should rise by 13 % of GDP from 2011 to 2050. health expenditure and dependency insurance expenditure should progress by respectively 1.1 and 1.2 % of GDP, in the same period of time. These rises, which should attain 15.3 % of GDP in total, would only be partially countered by the diminution of family allowances (-2.4 % of GDP) and of expenditures linked to unemployment (-0.1 %). In total, social transfers would switch from 23 % of GDP in 2011 to about 36 % of GDP in 2050. As a reminder, EPC concludes that social transfers will rise by 16 % of GDP from 2011 to 2050. The difference between EPC and BCL figures is mainly due to the treatment regarding family allowances.

General government expenditures, apart social transfers, are supposed to remain stable compared to GDP, except interest charges which should switch from 0.5 % of GDP in 2011 to more than 14 % of GDP in 2050. This result reflects the inherent dangers of a poorly controlled indebtedness dynamic. Because of the assumption of absolute rigidity of expenditure, the reference scenario induces growing deficits, which would largely exceed the 3 % level of GDP, all along the projection horizon. At term, it would even exceed 30 % of GDP. In this context, interest charges would progress in an exponential manner. It would already attain 40 % of GDP by 2017 and cross the 60 % of GDP reference value in 2022. Afterwards, it would approach 400 % of GDP by the end of the projection horizon. As indicated in the joined chart, the pension system, whose indebtedness should in the end reach more than 200 % of GDP, constitutes one of the major motors of the indebtedness dynamic. However, it is appropriate to note that other components of general government will also provide this dynamic, due to the importance of their structural deficits starting from 2009.

FIGURE 39:
REFERENCE SIMULATION : GENERAL GOVERNMENT INDEBTEDNESS
(AS % OF UNDERLYING GDP)



Sources : Ageing Working Group, IGSS, Statec; BCL calculations.

The deficits and the debt level expected for the 2012-2050 period, do not constitute previsions *sensu stricto*, because it is probable that authorities will react before such deterioration occurs, in line with the unchanged policy assumption. This reference projection simply intends to illustrate the inherent dangers of a too passive a budgetary policy in the next years.

1.2.11.6.2.2 Surplus of 1.5 % of GDP of the structural balance by 2012

The second simulation precisely aims to assess the impact of a prefund effort of future charges. By assumption, this effort holds the form of a drastic reduction of the Item “other primary expenditure” in 2012. The choice of this post is very arbitrary and simply aims to illustrate the impact of a prefund effort. Such an effort could surely be spread among the different expenditure components. In addition, budgetary consolidation could be carried out in a more progressive way, in several years time. The consolidation effort could conceivably start before 2012, especially in case of an economic recovery. This effort could also be carried out in a future horizon of three years, for instance in the frame of a Luxembourg Stability Programme update.

The simulated prefund effort consists in a budgetary adjustment of about 7 % of GDP in 2012, which allows us to reach a structural surplus of general government equal to 1.5 % of GDP. At first sight, this effort seems somewhat unrealistic, but as indicated in the simulation results, even an adjustment of this order could not insure favorable medium term perspectives. The short term impact is bound to be positive. The structural surplus would reach more than 2 % of GDP in 2015 and 1.4 % of GDP in 2020. However, it would decline afterwards due to the impact of a rise in social transfers which, as a reminder, would not be affected by the initial consolidation effort.

TABLE 25:
SURPLUS OF 1.5 % IN 2012: GENERAL GOVERNMENT REVENUE, EXPENDITURE, BALANCES AND INDEBTEDNESS
(AS % OF UNDERLYING GDP)

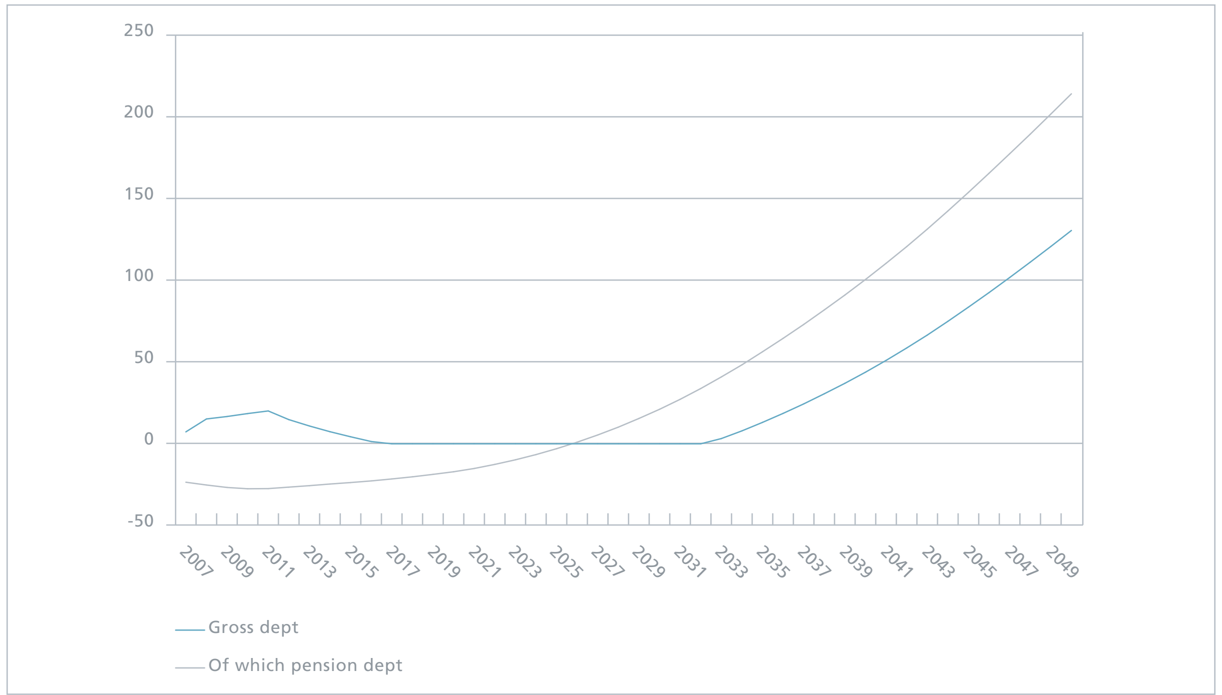
	2011	2015	2020	2025	2030	2035	2040	2045	2050
Total revenue	**40.1**	**39.8**	**39.6**	**40.0**	**39.5**	**39.8**	**39.9**	**40.2**	**40.3**
Direct taxes	12.5	12.9	13.0	13.2	13.3	13.5	13.6	13.7	13.8
Indirect taxes	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4
Social contributions	11.3	11.3	11.3	11.4	11.5	11.6	11.7	11.8	11.8
Interest revenue	1.6	0.9	0.6	0.7	0.0	0.0	0.0	0.0	0.0
Other	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Total expenditure	**45.3**	**37.6**	**38.2**	**40.3**	**42.5**	**45.3**	**48.2**	**52.0**	**55.0**
Social transfers	22.9	22.7	23.5	25.7	27.8	30.3	32.2	34.4	35.7
Public investments	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
Wages	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
Other primary expenditure	9.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Interest charges	0.5	0.3	0.0	0.0	0.0	0.3	1.4	2.9	4.6
Deficit(-) or surplus(+)	**-5.2**	**2.1**	**1.4**	**-0.4**	**-3.0**	**-5.5**	**-8.3**	**-11.8**	**-14.7**
Public debt	**20.1**	**4.3**	**0.0**	**0.0**	**0.0**	**13.0**	**43.7**	**83.5**	**130.4**
Of which pensions	-27.4	-23.7	-17.1	-3.0	21.1	56.3	100.5	153.8	214.1

Sources: Ageing Working Group, IGSS, Statec, BCL calculations.

1. ECONOMIC AND FINANCIAL SITUATION

Deficits should be largely lower that in the reference scenario, but nevertheless would attain more than 3 % of GDP in 2030 and about 15 % of GDP by the end of the projection horizon. Public debt would steadily remain at the floor level of 0 %, due to the initial consolidation effort, as illustrated in the following chart. However, it would show strength, shortly after 2030, along with the evolution of the pension system debt. These results show that a budgetary consolidation strategy has to rely on short time prefund measures, as well as structural measures, intending to reform social security in general and pensions in particular.

FIGURE 40:
SURPLUS OF 1.5 % IN 2012 : GENERAL GOVERNMENT INDEBTEDNESS
(AS % OF UNDERLYING GDP)



Sources : Ageing Working Group, IGSS, Statec, BCL calculations.

Note : the general government gross consolidated debt can be lower than the pension debt in the simulations, because it is assumed that the debt of the pension system could be financed by the other general government subsectors, provided that they own sufficient assets.

1.2.11.6.2.3 Reference simulation in absence of indexation of pensions to real wages

Like the previous projection, the current simulation aims to apprehend the medium term consequences of a consolidation strategy. This time though, this last one consists in a more gradual measure, which would affect exclusively the pension level. It consists in suspending the adjustment of pensions to real wages during the whole projection horizon. This adjustment occurs during even years in the current situation, intending to settle the stability of the pension replacement rate. The impact on public finances of such a suspension is illustrated in the following table.

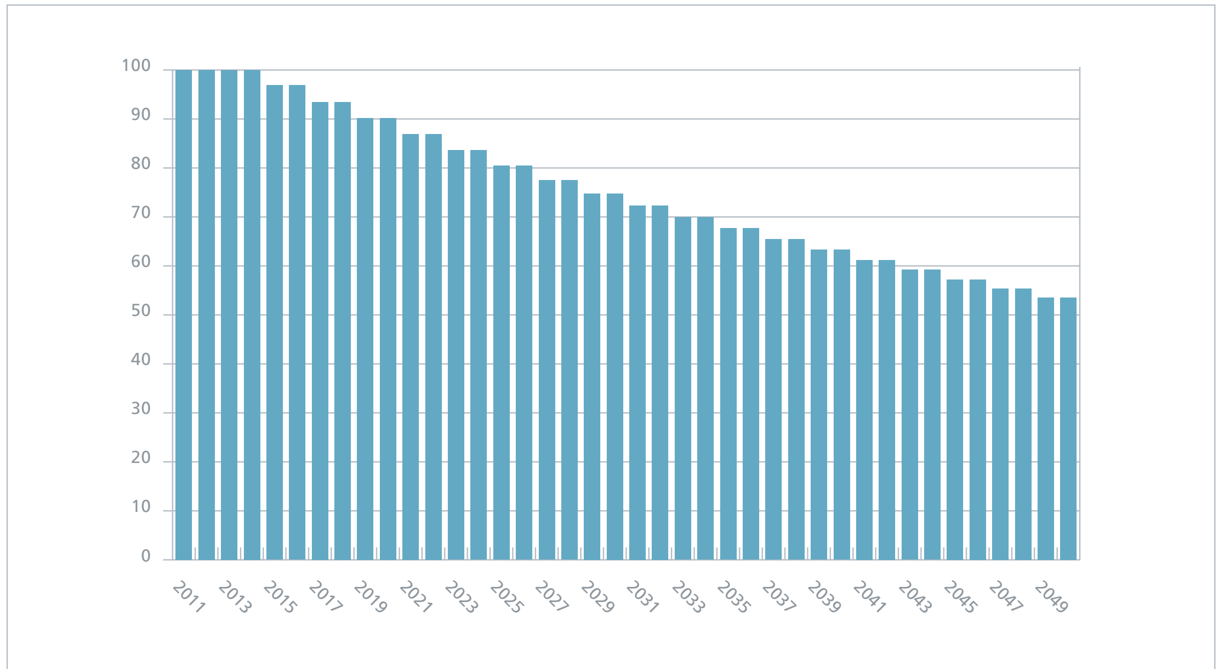
TABLE 26:
SUSPENSION OF WAGE INDEXATION OF PENSIONS :
GENERAL GOVERNMENT REVENUE, EXPENDITURE, BALANCES AND INDEBTEDNESS
(AS % OF GDP)

	2011	2015	2020	2025	2030	2035	2040	2045	2050
Total revenue	**40.1**	**39.7**	**39.6**	**39.5**	**39.4**	**39.1**	**39.2**	**39.2**	**39.1**
Direct taxes	12.5	12.9	12.9	13.0	13.0	13.1	13.1	13.1	13.1
Indirect taxes	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4
Social contributions	11.3	11.3	11.3	11.3	11.4	11.4	11.4	11.4	11.4
Interest revenue	1.6	0.9	0.7	0.5	0.3	0.0	0.0	0.0	0.0
Other	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Total expenditure	**45.3**	**45.1**	**46.0**	**47.5**	**49.3**	**50.8**	**52.6**	**54.2**	**55.6**
Social transfers	22.9	22.4	22.4	23.1	23.9	24.6	25.0	25.2	25.2
Public investments	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
Wages	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
Other primary expenditure	9.4	9.2	9.2	9.3	9.3	9.3	9.3	9.3	9.3
Interest charges	0.5	1.1	1.8	2.7	3.6	4.5	5.8	7.2	8.6
Deficit(-) or surplus(+)	**-5.2**	**-5.4**	**-6.4**	**-8.0**	**-9.9**	**-11.6**	**-13.4**	**-15.0**	**-16.4**
Public debt	**20.1**	**31.7**	**52.3**	**74.8**	**98.1**	**123.8**	**159.3**	**195.8**	**232.2**
Of which pensions	-27.4	-24.0	-21.1	-16.3	-8.3	2.5	14.6	27.3	39.3

Sources: Ageing Working Group, IGSS, Statec, BCL calculations.

The suspension should affect strongly the evolution of social transfers. While these last ones would attain 35.7 % of GDP in the reference simulation, they would struggle at 25.2 % in case of suspension of the adjustment of pensions to real wages. In other terms, the impact of demographic ageing on public finances would be balanced in a large measure. This would result in a much more favorable indebtedness dynamic than in the reference projection. However, this dynamic would remain worrying despite the severity of the simulated measure.

FIGURE 41:
EVOLUTION OF THE PENSION REPLACEMENT RATE
(COMPARED TO THE REFERENCE SCENARIO = 100)



Source : BCL calculations.

This severity is illustrated in the attached chart, which allows perceiving the evolution of the rate of replacement of wages by pensions. These rates would decrease by almost the half during the projection horizon. However, this marked diminution could be palliated by a modulation of the suspension in function of the pension level or by a shorter suspension period. In addition, the modulation could be accompanied by measures intending to diminish the cost of pensions without affecting the replacement rate, for instance a rising of the effective retirement age. Finally, the reduction of transfers could occur in other social security branches than the pension sector, which would limit the required adjustment of the replacement rate.

1.2.11.6.2.4 Suspension of pensions indexation to real wages and general government surplus of 1.5 % of GDP in 2012

The two previous simulations have shown that, in spite of an appreciable contribution in terms of budgetary sustainability, neither a prefund strategy, nor a suspension of adjustment of pensions to real wages, permit to restore sustainability of Luxembourgish public finances if they are implemented separately. However, a combination of these two measures – or of equivalent measures – induces a durable budgetary recovery. This is illustrated in the following table, which exhibits a surplus of general government during nearly all the projection horizon and a public debt equal to zero. In addition, the pension reserves would subsist until 2030.

TABLE 27:
SUSPENSION OF PENSION INDEXATION AND SRUPLUS OF 1.5 % OF GDP IN 2012
(AS % OF GDP)

	2011	2015	2020	2025	2030	2035	2040	2045	2050
Total revenue	**40.1**	**39.7**	**39.7**	**40.0**	**40.1**	**40.2**	**40.1**	**40.0**	**39.8**
Direct taxes	12.5	12.9	12.9	13.0	13.0	13.1	13.1	13.1	13.1
Indirect taxes	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4
Social contributions	11.3	11.3	11.3	11.3	11.4	11.4	11.4	11.4	11.4
Interest revenue	1.6	0.9	0.8	1.0	1.1	1.0	0.9	0.8	0.7
Other	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Total expenditure	**45.3**	**37.3**	**37.1**	**37.7**	**38.6**	**39.2**	**39.7**	**39.9**	**39.9**
Social transfers	22.9	22.4	22.4	23.1	23.9	24.6	25.0	25.2	25.2
Public investments	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
Wages	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
Other primary expenditure	9.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Interest charges	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Deficit(-) or surplus(+)	**-5.2**	**2.4**	**2.6**	**2.2**	**1.5**	**0.9**	**0.4**	**0.1**	**-0.1**
Public debt	**20.1**	**4.3**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Of which pensions	-27.4	-24.0	-21.1	-16.3	-8.3	2.5	14.6	27.3	39.3

Sources : Ageing Working Group, IGSS, Statec, BCL calculations.

These results illustrate the need for a decisive consolidation policy, consisting in a quick return to a general government surplus – by 1.5 % of GDP and even more – and on structural reforms in social security, whose incidence is necessarily more gradual.

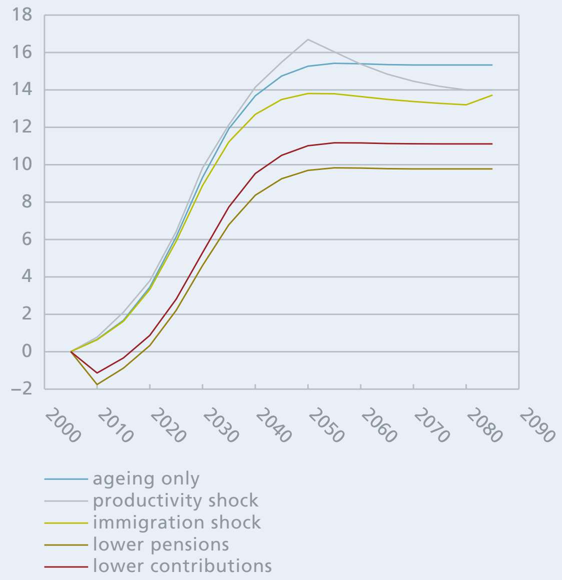
Demographics, pensions and structural reforms

In most European countries, pension payments represent the largest share of the public expenses. With the ageing of the population, this share is the expected to increase further in the future. The situation seems particularly dramatic in Luxembourg with the ageing of both the residents and the cross-border commuters. Using a dynamic general equilibrium model developed at the BCL (see Pierrard and Sneessens, 2009a, for a full exposition), this analysis quantifies the effects of ageing on the sustainability of the pension system in Luxembourg and provides reform proposals.

Ageing of the population

First, the model is used to look at the effects of population ageing, keeping all other parameters (productivity, migration and cross-border commuting) constant. The model suggests that pension expenses will represent about 25% of GDP in 2060. This is quite close to a recent estimation by the European Commission (2009). A more interesting measure of the cost of ageing is the evolution of the general government budget (for instance, a social security account deficit would not be problematic if the central State was otherwise running large budgetary surplus). Figure 1 ('ageing only') shows that the ageing of the population increases public deficit by 15% of GDP around 2055.

Figure 42: Increase in public deficit due to the population ageing in Luxembourg (expected evolution under alternative scenarios, in percentage of GDP)



We may object that productivity remains unchanged during the simulation horizon. A similar exercise is therefore reproduced but with a gradual increase in productivity by 15% in the next 30 years (productivity remains at this level afterwards). The higher productivity stimulates employment, wages, consumption and economic growth. Taxation return is higher but also public expenses because pensions are indexed on average wages. Figure 1 ('productivity shock') shows that the positive income effect is *in fine* compensated by the negative expense effect and the evolution of public deficit is almost unchanged with respect to the benchmark situation ('ageing only'). In other words, growth per se cannot solve, even partially, the pension problem, unless real wage growth is drastically restricted.

Migration and cross-border commuting

Increasing potential contributors to the pension system through immigration is one solution to the ageing of the population (and the fall of the dependency ratio). These migrants also have children who will in turn contribute to the pension system. On the other hand, immigration is useless if there is no extra employment creation, i.e. if there is only a crowding-out of the residents by the immigrants. Again, the model is used to investigate this scenario. Figure 1 compares the benchmark scenario ('ageing only') to an alternative scenario with a gradual increase in immigration by 30% in the next 70 years ('immigration shock'). There is almost no effect in the short run because the labour market takes time to assimilate new immigrants. The effect is more significant although weak in the long run (public deficit increases by 14% under 'immigration shock' instead of 15% under 'ageing only'). Replacing the immigration shock by a cross-border commuting shock would also produce similar results.

It is worth noting that simulations assume immigrants with exactly the same characteristics as residents (same productivity, same bargaining power and same birth rate). This is crucial for the results. Assuming instead a lower bargaining power (and similar productivity) or a higher productivity (and similar bargaining power) for the immigrants would generate more positive effects because employment would be further stimulated by this more productive or less expensive labour supply (see also Pierrard, 2008, for a discussion). However, a long-lived distinction between immigrants and residents seems unrealistic (catching up process).

Structural reforms and public finance

During years, early retirement was a usual and painless solution during economic turbulences. Nevertheless, the solution is also very costly for the society and the cost will increase further in the light of population ageing. The model is used to study two alternative incentive mechanisms to differ early retirement decision. First, Figure 1 ('lower pensions') shows the effects of an immediate reduction by 10-percentage points in the pension real replacement ratio (moves from 100% to 90%). Lower pensions obviously reduce public expenses but it also stimulates the elderly activity rate (+ 15-percentage points). This in turn stimulates employment, GDP and in fine taxation income. The public deficit increase is reduced to less than 10% of GDP, instead of 15% under the benchmark scenario ('ageing only'). It is worth noting that an immediate policy implementation is important to generate sizeable results and that our results are robust to changes in calibration (especially to changes in the activity rate elasticity).
Second, the lower replacement ratio policy is replaced by an immediate reduction by 10-percentage points in the taxation rate for workers between 55 and 65 years (moves from 12%, including an 8% contribution for pensions, to 2%). The policy is initially not very costly for public finance because only few people between 55 and 65 years work. On the other hand, the policy prompts people to differ their – early – retirement age. The activity rate increases as well as taxation income. In the end, the policy is self-financed and the public deficit 'only' increases by 11% of GDP in 2085, as shown in figure 1 ('lower contributions'). Because of nonlinearities ('Laffer curve'), reducing even more taxation would not necessarily improve further public finance.

Structural reforms and political economy

The two previous policies produce similar effects (higher elderly activity rate and improvement of public finance) but through completely different mechanisms. We can expect that the population welcomes the second policy ('lower contributions') but rejects the first one ('lower pensions'). It is therefore worthwhile to check out how each policy affects the welfare of each generation (see Pierrard and Sneessens, 9009b, for a welfare definition). Figure 2 shows that lower pensions reduce the welfare of each generation and hence of the median voter. The welfare loss is lower for young generations because they can adapt to the new situation through savings and/or activity. On the other hand, lower contributions for the elderly improve the welfare of all working generations and hence of the median voter (who belongs to the 35-40 years generation). The improvement is stronger for the 55-60 because they can immediately and during the next 10 years benefit from the lower taxation.

Figure 43: Change in welfare for each generation, under alternative scenarios (in percentage with respect to the benchmark scenario)

Conclusions

The analysis draws three main conclusions : (i) without reforms, the population ageing (both residents and cross-border commuters) will dramatically destroy the sustainability of the pension system in Luxembourg, (ii) growth and immigration cannot be the unique answer, and (iii) an immediate implementation of policies aiming at increasing the activity rate of the elderly could seriously improve the situation. For instance, the model shows that, if we combine (a) ageing of the population (b) gradual increases (+15% in the next 30 years) in productivity, immigration and cross-border commuting, and (c) immediate reductions (-10-percentage points) in the pension real replacement ratio and in the elderly contributions, the public deficit increases by 6% of GDP in the long run (from 2050 onwards). With only ageing, the increase is more than 15% of GDP, as already explained previously. Moreover, adding lower contributions to lower pensions makes the reform acceptable by the population (median voter). This kind of policy reforms was already suggested by the BCL in previous work (Bouchet, 2006)

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1.3 Ten years of EMU in a Luxembourg perspective

Introduction and executive summary

The third stage of Economic and Monetary Union (EMU) began 10 years ago, on the first January 1999. The conversion rates were fixed on this occasion and the scriptural euro was introduced. In addition, the ECB was fully in charge of monetary policy from the 1 January 1999. This chapter contains an assessment of the first 10 years of EMU from a Luxembourg perspective. The salient conclusion is that the euro acted as a catalyst for several favourable evolutions in Luxembourg.

A first advantage of the euro (Part 1.3.1) is the greater involvement of the Luxembourg monetary authorities in the definition and implementation of monetary policy. The Maastricht Treaty and the advent of the euro required the introduction of a central bank in Luxembourg. This bank, BCL, contributes to the elaboration of the common monetary policy.

This fully transparent monetary policy, based on clear rules and concepts helped anchor inflation expectations in a much more efficient way and this led to lower and less volatile inflation in the euro area (part 1.3.2). This pattern of low and stable inflation was also observed in Luxembourg over the last 10 years, although Luxembourg exhibited a recurring and positive inflation differential with respect to the euro area average. The improving inflation pattern in the area also helped contain and stabilize interest rates (part 1.3.3).

The euro also acted as a catalyst for a deeper integration of markets for goods and services (part 1.3.4) and of financial markets (part 1.3.5) across the euro area. This integration process induced various advantages for a small and open economy such as Luxembourg. This is illustrated inter alia by a dynamic Luxembourg economy over the last 10 years (part 1.3.6). During this time period, total employment in Luxembourg grew by 110 000 units. This evolution does not reflect the advent of the euro alone, but the latter magnified these favourable developments.

Part 1.3.7 of the chapter, which is devoted to the Luxembourg public finances, delivers a less clear-cut message as far as the role of the euro is concerned. The budgetary surveillance framework developed at the European level made it possible to monitor public finances in Member States in a more efficient way than before. However, this enhanced monitoring has so far been a potential rather than an effective achievement in Luxembourg, because Luxembourg was in surplus over most of the 1998-2008 period and exhibited a low public debt ratio. The Maastricht reference values and even the so-called "medium-term objectives" (MTOs) were not really binding in this context. However, this situation will probably change in the near future, due to the impact of the economic crisis and also to the additional costs induced by population ageing.

The crisis meant an abrupt end of the economic expansion recorded over the last 10 years. However, as indicated in part 1.3.8 of the chapter, the crisis will in no way lead to a less favourable cost-benefit assessment of the euro. This magnitude and the roots of the crisis are exceptional and the crisis was certainly not related to the euro.

The euro contributed to improve the economic situation in Luxembourg over the last 10 years. However, it is no panacea liable to solve all the pending problems. The major problems that would required swift reforms are as follows: (i) non sustainable public finances, (ii) a deteriorating competitiveness due inter alia to a stronger inflation rate than in other euro area countries, (iii) economic diversification, (iv) labour participation rates among the lowest in Europe. This is only when these obstacles will be lifted that Luxembourg will fully benefit from the euro.

1.3.1 EMU: a monetary policy more in tune with the peculiarities of the Luxembourg economy, with a national central bank

Contrary to most other euro area countries, Luxembourg already belong to an economic union and a monetary

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association – namely "Union Economique Belgo-Luxembourgeoise" (UEBL) before January 1999. This specific situation has consequences at three levels:

First, the Luxembourg monetary authorities are more involved in the elaboration of monetary policy than before. These authorities have to take into account the euro area as a whole when they try to implement the overriding objective of an inflation rate below but close to 2%. However, they tend to enrich the monetary decision process, as they introduce into the picture the experience of a small, very open economy, which is enlightening for the euro area as a whole.

Second, Luxembourg could not dampen asymmetric shocks even before the advent of the euro. Therefore, the euro did not constrain in any way the room for manoeuvre of the Luxembourg monetary authorities.

Third, Luxembourg had to set up a new, national central bank prior to the advent of the euro. The creation of BCL led to many advantages for the Luxembourg economy, including a close relationship with various economic agents and institutions in Luxembourg and a deeply-rooted knowledge of the Luxembourg economy.

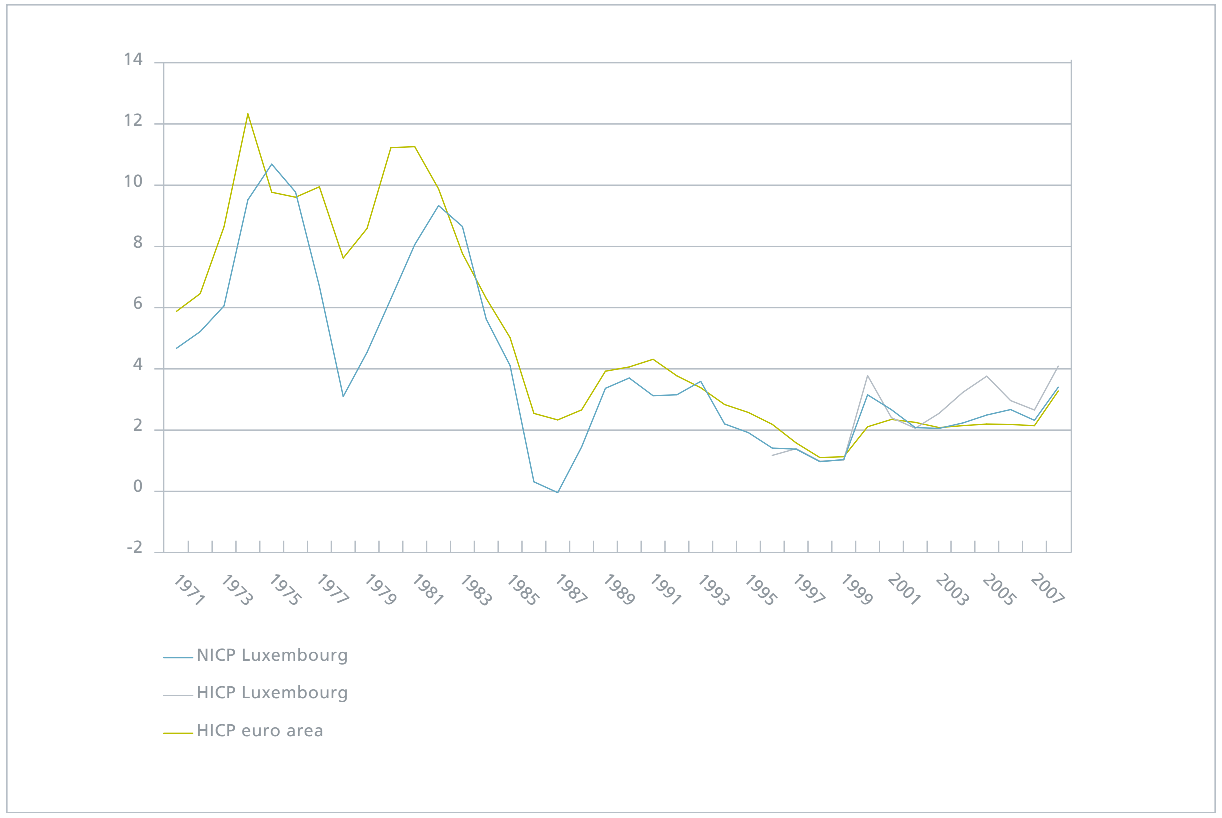
Finally, BCL plays an essential role in the collection, analysis and publication of economic information and statistical data. On the statistical side, it is particularly active as regards the financial sector, monetary institutions and balances of payment. The central bank uses these data for its own purpose and also for the Eurosystem, as they help insure sound economic governance. By so doing, BCL enhances in a decisive way the quality of the statistical process in Luxembourg.

1.3.2 The common monetary policy provides a sound anchor for inflation expectations ...

As illustrated in the following chart, inflation went down in a significant way in the euro area over the first half of the eighties. Measured on the basis of the harmonized index of consumer prices (HICP), the euro area inflation rate went down from around 11% in 1981 to 2.5% only in 1986. Non energy inflation was equal to 1.8% only in 1988. It increased thereafter and reached 4.2% in 1991. Owing to the transition to EMU, non energy inflation decreased after 1991. It is still very low by historical standards thanks inter alia to the common monetary policy and the precise definition of price stability privileged by the Eurosystem.

Non energy inflation did not exceed 1.9% on average from 1999 to 2008 in the euro area. Due to a sustained increase in oil prices over this time horizon, overall inflation was slightly higher, as it reached 2.2% a year on average.

FIGURE 44:
INFLATION RATE IN LUXEMBOURG AND IN THE EURO AREA
(PERCENTAGES)



Sources : Statec, ECB.

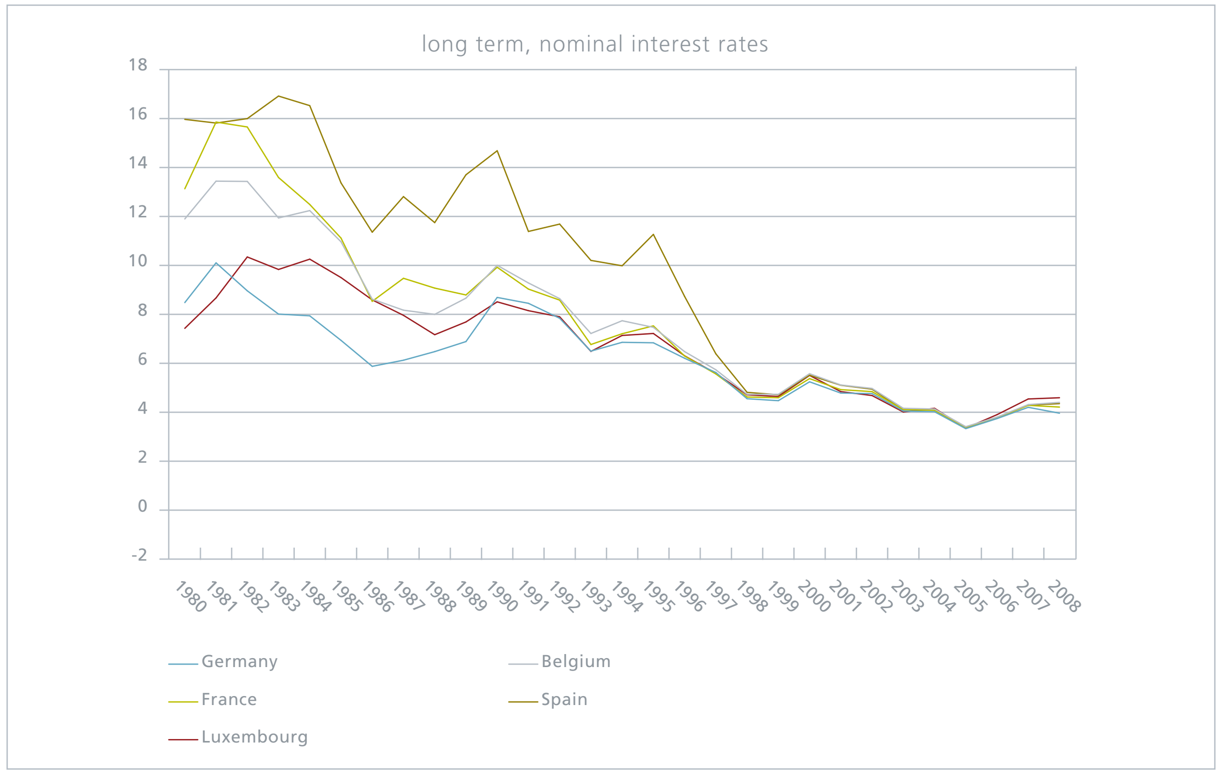
The Luxembourg inflation rate calculated on the basis of the NICP is broadly parallel to euro area inflation. However, the two inflation rates differ in one important respect: the Luxembourg rate is usually in excess of the euro area inflation rate since 1998. From 1998 to 2008, the Luxembourg NICP increased by 26.8% compared to 24.1% over the same period for the euro area HICP. The annual differential therefore reached about 0.3% a year on average, to the detriment of Luxembourg. The differential was even higher with respect to the three neighbouring countries, as it reached 0,5% with respect to the average inflation rate recorded in Belgium, France and Germany over the last 10 years. Such a situation is of course very detrimental to the competitive position of the Luxembourg economy. This is particularly so within a monetary union. This problem must be solved as soon as possible and wage increases should never exceed productivity.

1.3.3 ... and contributes to stabilise interest rates

The lower inflation achieved in Luxembourg and even more in the euro area since the advent of the euro contributed to a general decrease of interest rates. Moreover, the latter became less volatile than before.

In the countries represented in the chart below, the yield on long-term government bonds was much lower and less volatile from 1999 onwards than during the pre-EMU period. As regards volatility, the standard deviation of Belgian long term interest reached 2.07% from 1980 to 1990. The corresponding figure was 0.65% only from 1999 on. Lower and more stable long term rates are particularly welcome, as they tend to stimulate the gross fixed capital formation of companies and individuals.These advantages also prevail in Luxembourg, where long term rates have also decreased in a marked way in the aftermath of the introduction of the euro, at least until 2002. No sufficiently accurate data is available since 2003 due to the lack of a liquid market for long term bonds issued in Luxembourg.

FIGURE 45:
NOMINAL YIELD ON GOVERNMENT BONDS IN LUXEMBOURG, THE NEIGHBOURING COUNTRIES AND IN SPAIN
(PERCENTAGES, ANNUAL AVERAGES)

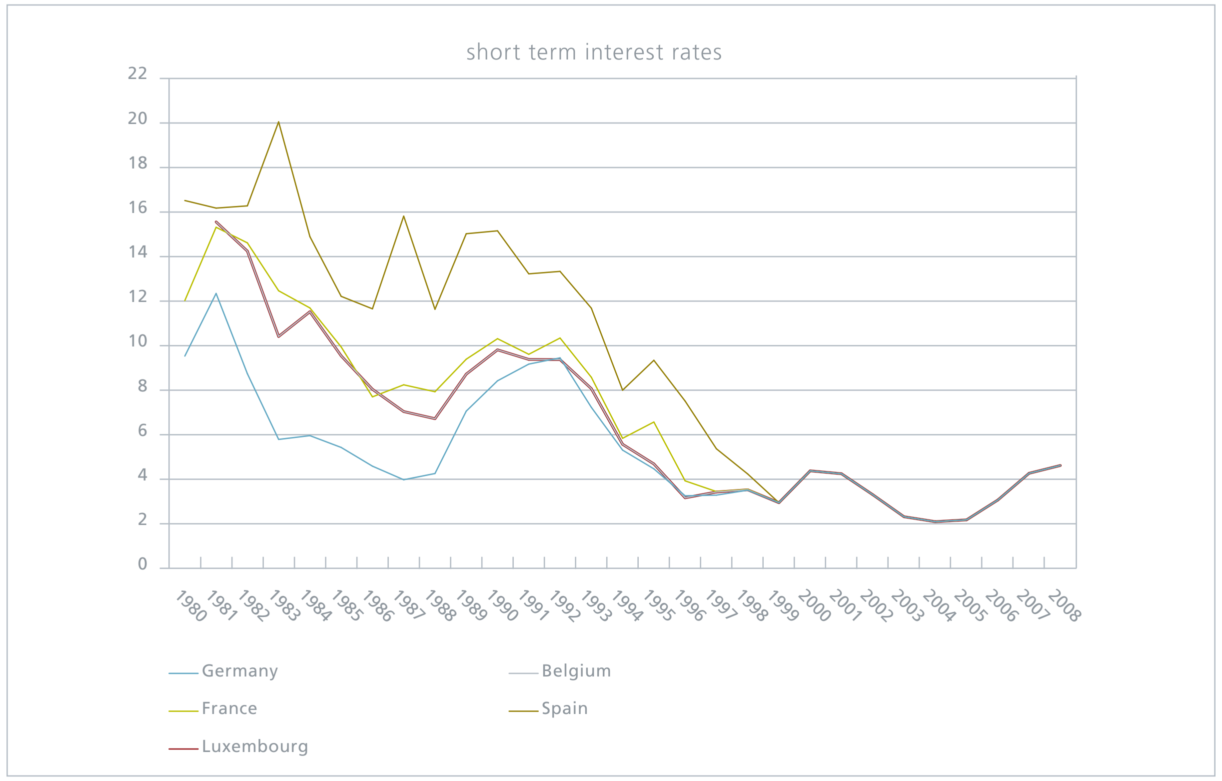


Source : Source : AMECO (European Commission).

Note : 10-year government bonds from 1993 onwards and similar national definitions before 1993. For Luxembourg, the yield on central government bonds with 5 to 7 year duration is considered before 1994 and the yield on Olux bonds afterwards, from 1994 to 2002.

Lower and less volatile long term rates are also observed as far as short term interest rates are concerned, as illustrated in the following chart.

FIGURE 46:
SHORT TERM INTEREST RATES IN LUXEMBOURG, THE NEIGHBOURING COUNTRIES AND IN SPAIN
(PERCENTAGES, ANNUAL AVERAGES)



Source : AMECO (European Commission).

Note : 3-month money market rates all over the period in Germany and Spain. 3-month rates are also considered from 1985 onwards in Belgium and from 1982 in France (similar rates before for these two countries). For Luxembourg, were considered the short-term rate observed in Belgium before EMU (Luxembourg was then in monetary association with Belgium) and the rates recorded in the other countries since 1999.

During the eighties, the short term rates were already quite low and stable in Germany. However, other countries exhibited much higher and volatile rates, as their respective monetary policies did not enjoy the credibility achieved by the German authorities. The interest differential between Germany and Belgium/Luxembourg even reached 5.5% in 1982 – the year the Belgo-Luxembourg Franc was devalued by 8.5% – 4.6% the year after and 5.6% in 1984. This huge differential shrunk around the beginning of the nineties, namely when the transition process to the common currency started.

1.3.4 The Monetary Union also improved the integration of markets for goods and services and stimulated direct investments in Luxembourg

The advent of the euro is likely to stimulate the goods and services transactions between euro area countries, owing to the disappearance of conversion costs and of the exchange rate risk. The euro also enhances price transparency and it therefore promotes competition in the area. This heightened competition in turn contributes to improve the allocation of production factors and to highlight the comparative advantages of the different European countries. Efficiency gains tend to pile up as a result. However, they cannot be measured in a precise way, also in Luxembourg.

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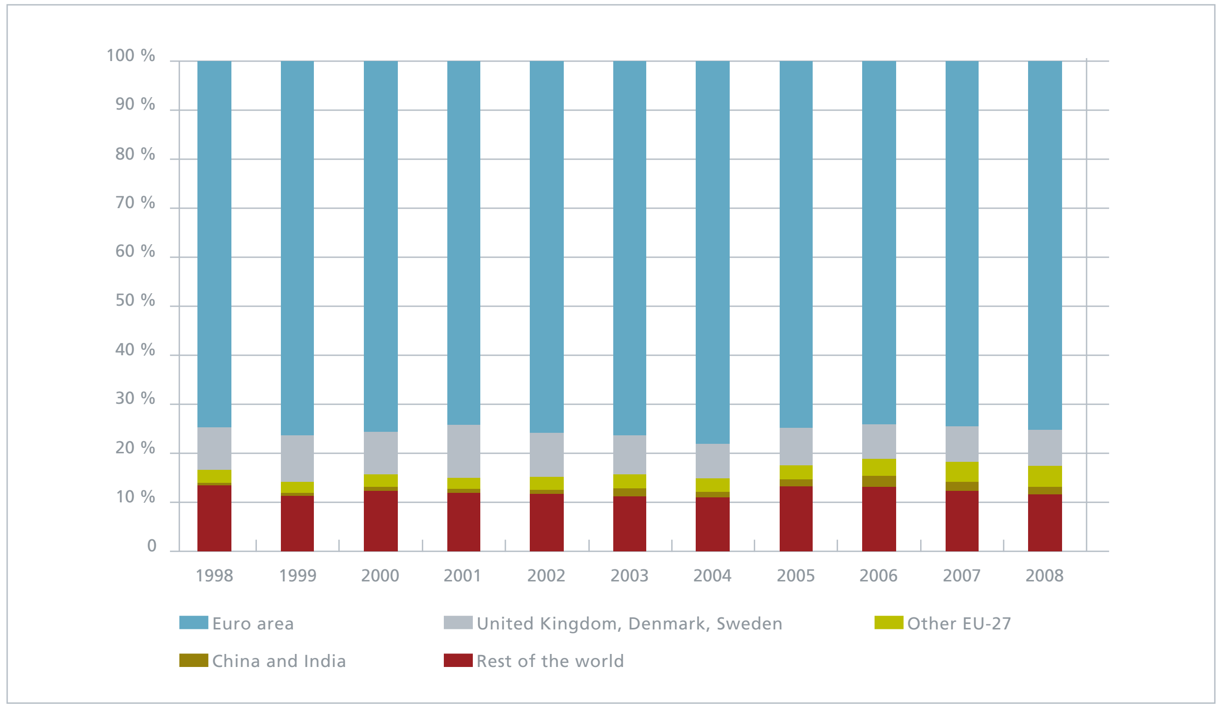
One could get a tentative idea of the impact of the euro by examining the geographical composition of the trade in goods between Luxembourg and the rest of the world. This indicator should be interpreted with caution, however, given the multiplicity of variables likely to influence trade structures.

As indicated in the chart below, the geographical composition of the Luxembourg exports of goods did not change in a significant way from 1998 to 2008. For instance, the euro area (16 countries) accounted for 75.2% of the Luxembourg merchandise exports in 2008, compared to 74.7% in 1998. This slight increase is a major achievement, however.

FIGURE 47:
GEOGRAPHICAL BREAKDOWN OF THE LUXEMBOURG MERCHANDISE EXPORTS
(AS A PERCENTAGE OF TOTAL LUXEMBOURG MERCHANDISE EXPORTS)



Source: Statec

First, the slight increase in the share of the euro area in the Luxembourg exports of goods contrasts with the strong decline recorded by a group of three non area countries, namely the UK, Denmark and Sweden. Close to 9% of Luxembourg exports flowed to these countries in 1998, and the share even culminated at 11% in 2001. In 2008, the three countries accounted for only 7% of our good exports. The decline was particularly strong as regards chemical products (from 9.8% in 1998 to 5.8% in 2008) and food, drink and tobacco (from 3.5 to 0.8%).

Second, the stability of the euro area in Luxembourg good exports took place in spite of a structural evolution not directly related to the euro, namely the rise of China and India. The share of these two countries in our exports increased from 0.6% in 1998 to 1.9% en 2008.

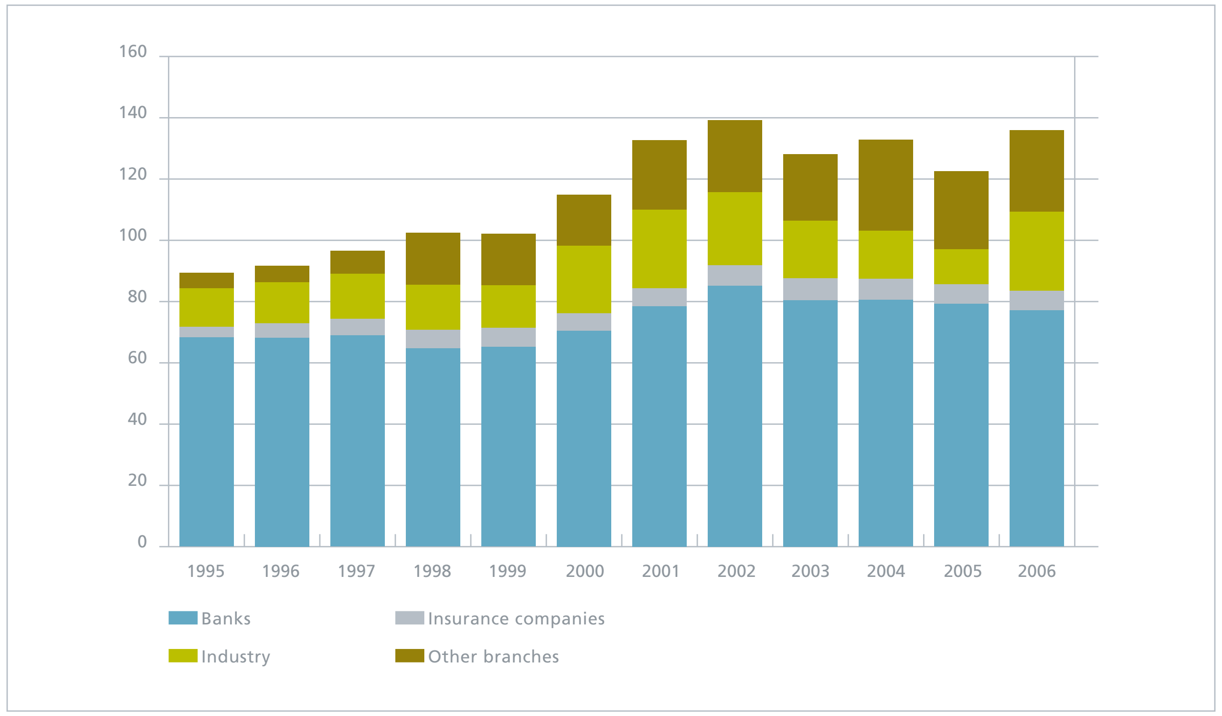
The role of the euro as a catalyst for exchanges is more apparent on the import than on the export side. About 85% of Luxembourg imports came from the current euro area countries in 1998. This percentage was equal to 88% ten years later. The increase is even more pronounced compared to 1999.

The slight discrepancy between imports and exports is also apparent in terms of growth rates. The Luxembourg merchandise imports from euro area countries increased by 6.3% a year, on average, over the 1998-2008 period, whereas the exports of goods from Luxembourg to the same area went up by 5.2% only over this 10-year period. This could signal a deteriorated competitiveness of Luxembourg (see part 1.3.9).

Lying at the heart of an area characterised by more economic integration owing to the euro, Luxembourg should in principle benefit from higher direct investments, as several foreign companies are willing to access the "Luxembourg gate" to a large integrated market, namely the euro area.

The chart below indeed highlights a strong increase in the outstanding amount of foreign direct investments made in Luxembourg. These amounts accounted for 102% of GDP in 1998 and for 95%, on average, from 1995 to 1998. They went up thereafter, to reach 136% of GDP in 2008. These figures should be interpreted with care, as the euro is not the one single factor behind this increase, but the trend is quite clear.

FIGURE 48:
DIRECT FOREIGN INVESTMENTS IN LUXEMBOURG FIGURE (OUTSTANDING AMOUNTS)
(AS % OF GDP)



Source : Statec.

Note: holding compagnies and Soparfi are not included in the chart data.

1.3.5 EMU has also fostered the integration of financial markets, with favourable fallouts in Luxembourg

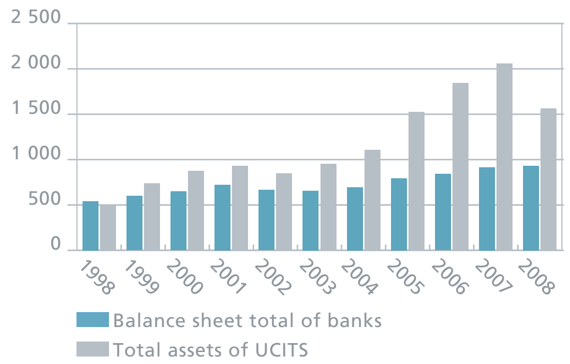
The common currency induced lower transaction costs on financial markets. In addition, the euro put an end to a powerful hindrance to the integration of financial markets, namely exchange rate volatility and the ensuing uncertainty for investors. Finally, several initiatives at the European or national levels contributed to enhance the integration of financial markets, for instance the deregulation process, the first stage of EMU and the related liberalisation of capital flows. The adoption of common or harmonised technical platforms also eased the integration process.

According to a recent ECB study[5], integration is particular deep on the euro money market, given its proximity with the common monetary policy. The development of infrastructures such as TARGET and TARGET-2 eased this integration process, as they reinforced the standardisation of payment services within the euro area. Besides the money market, bond markets also benefited a lot from the euro as far as integration is concerned.

Equity markets and banking activities connected to capital markets and wholesale transactions are in a go-between from the viewpoint of integration. Although integration is less apparent than on money and bond markets, it is deeper than in retail banking, where many national peculiarities still prevail.

Luxembourg benefits a lot from the financial integration process, given the small size and the openness of the country. This is illustrated inter alia by the spectacular increase in total assets managed by Luxembourg UCITS. These assets indeed witnessed a 220% increase from 1998 to 2008, in spite of a decrease by 24% in 2008.

FIGURE 49:
ASSETS MANAGED BY LUXEMBOURG UCITS AND BALANCE SHEET TOTAL OF LUXEMBOURG CREDIT INSTITUTIONS
(EUR BILLION)



Sources : BCL, CSSF.

The total assets of credit institutions also increased in a significant way following the introduction of the scriptural euro. Although total assets did not exceed EUR 540 billion at the end of 1998, they amounted to EUR 932 billion on 31 December 2008. The average growth rate therefore reached no less than 5.6% a year.

1.3.6 A sustained increase in economic activity and employment

The advent of the euro was accompanied by a strong GDP increase, which in turn induced a sustained rise in total employment. Real GDP increased by no less than 55% from 1998 to 2008. During the same period, total employment grew by an unprecedented 110 000 people, which represents close to one half of the total 1998 workforce.

On the other hand, one could argue that these outstanding results reflect the continuation of "secular" trends rather than the impact of the euro.

5 Financial Integration in Europe, ECB, avril 2009.

TABLE 28:
REAL GDP GROWTH: RATES AND STANDARD DEVIATIONS
(AS YEARLY PERCENTAGES)

Average growth rates

	1961-1969	1970-1979	1980-1989	1990-1998	1999-2008
Euro area (16 countries)	-	-	-	2.4	2.1
Belgium	4.8	3.6	2.2	1.9	2.2
Germany	-	-	-	1.5	1.5
France	5.7	4.2	2.3	1.7	2.1
Luxembourg	3.8	2.7	4.6	4.4	4.5
Differential: LU/FR-BE	-1.5	-1.1	2.3	2.5	2.4

Standard deviation of the growth rates

	1961-1969	1970-1979	1980-1989	1990-1998	1999-2008
Euro area (16 countries)				0.5	1.0
Belgium	1.3	2.5	1.7	1.4	1.1
Germany				1.2	1.2
France	1.0	2.1	1.2	1.3	1.0
Luxembourg	3.2	3.9	3.8	2.5	2.9

Sources: AMECO database (European Commission).

Note: the differential between Luxembourg on the one hand, Belgium and France on the other hand is equal to the average growth rate recorded in Luxembourg less the arithmetical average of the corresponding rates observed in the latter two countries.

The data in the table above contradict this contention. Real economic growth in Luxembourg averaged 4.5% a year since the advent of the euro, in spite of the depressing impact of the negative growth rate estimated for 2008. This 4.5% rate is about twice the rates registered in Belgium and France and three times higher than the German achievement.

The 1999-2008 period appears in a positive light compared to the sixties and the seventies from a Luxembourg perspective. In addition, the growth rate achieved from 1998 to 2008 is marginally below the similar rate recorded in the eighties, but on the other hand it is much more stable. The standard deviation testifies to this lesser volatility during the "euro years": it confined itself to 2,9% over the 1998-2008 period compared to 3.8% in the eighties.

It is interesting to note that only the nineties withstand the comparison with the euro years, as regards both the level and the stability of GDP growth rates. This period corresponds closely to the transition to the euro and witnessed the implementation of several major structural reforms aimed at facilitating the convergence process.

The euro stimulated total employment through another channel than increased labour demand by companies. The labour market is of course at the crossroad of labour demand and supply. In Luxembourg, labour supply rests to a large extent on cross-border workers. And it seems that this crucial segment was also stimulated by the euro.

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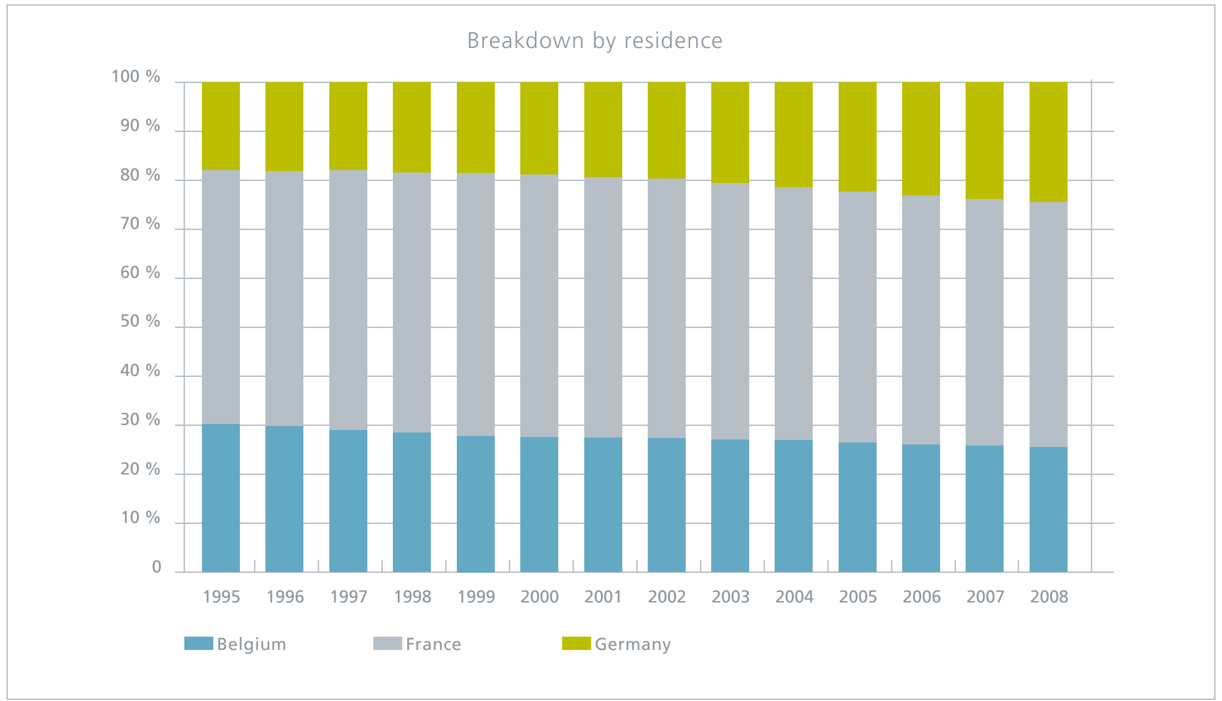
Cross-border workers are for Luxembourg an employment pool of paramount importance. Without this labour reserve, Luxembourg would probably not be able to match the very dynamic demand for labour, as the "spontaneous" rate of growth of the resident workforce is too limited. The European unification process provided a boost to the cross-border segment. It encouraged foreign residents to work in Luxembourg, owing inter alia to the elimination of legal, tax and social hindrances to international labour mobility. The very strong increase in the number of cross-border workers over the last 10 years testifies to the relevance of this effect. About 74 000 foreign residents were active in Luxembourg in 1998. This figure nearly doubled over the 10 ensuing years, to more than 145 000 people in 2008.

FIGURE 50:
BREAKDOWN OF CROSS-BORDER WORKERS ACCORDING TO THEIR RESIDENCE COUNTRIES
(PERCENTAGES)



Source : Statec

The euro is part of the explanation for the strong increase in cross-border workers. Conversion costs have indeed disappeared, at least for French and German residents. Prior to the euro, they had to convert in their respective currencies wages paid in Francs. In addition, the advent of the scriptural euro enhanced transparency, as it became much easier for French and German residents to compare pay conditions in the different neighbouring countries. Finally, exchange rate risks vanished owing to the euro. This was a boon to German residents working in Luxembourg, as they were previously penalised by the strength of the German Mark.

Changes in the composition by residence country of the cross-border population seem to corroborate this "monetary" explanation of the increased number of such workers. In the space of ten years, the proportion of German residents increased in a significant way and became roughly equal to the share accounted for by Belgian residents (24.5 and 25.6%, respectively, in 2008). One should note in this respect that Germans were particularly exposed to the exchange risk before the euro, whereas Belgians were already insulated from this risk.

These evolutions are of course attributable to several other factors than the euro, but in any case the evolution of the composition of cross-border workers echoes in a striking way what would be anticipated on the basis of the "euro", "monetary" explanation. This suggests that the euro played a role in the aforementioned increase in the number of cross-border workers, and therefore in the evolution of total employment and, ultimately, economic growth.

1.3.7 A better surveillance of budgetary positions

A European budgetary surveillance framework was put in place even before the introduction of the euro. One of the rationale for such a framework was the need to palliate the so-called "free rider" problem: ceteris paribus, it is easier for a Member State to finance its public debt within a monetary union, as higher debt is no longer penalised by adverse exchange rate movements and because the impact on national interest rates is somewhat "diluted" in a monetary union. The surveillance framework is frequently seen as a safeguard against this potential dilution of responsibilities.

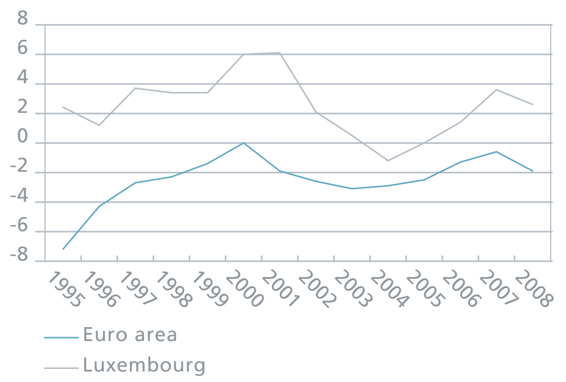
The cornerstone of the surveillance framework is the Stability and Growth Pact (SGP), adopted in 1997. Two salient features of the SGP are the so-called reference values, namely the one related to general government deficits (a maximum of 3% of GDP in principle) and the other to the debt ratio (no more than 60% of GDP in principle). The reference values were already incorporated to the Maastricht Treaty in 1992.

Compliance with the 3% reference value in all circumstances presupposes that Member States fulfil the so-called "Medium-term budgetary objectives" (MTOs). MTOs are defined in a structural way, as they correspond to general government balances corrected for the impact of economic cycles and of temporary measures. OMTs can vary from one country to the other, depending on national peculiarities, but within predetermined ranges. The current OMT in Luxembourg is a structural, general government deficit equal to 0.8% of GDP. The objective will probably become more binding in the near future. A reform currently discussed at the European level would imply that population ageing is taken on board in the definition of MTOs. In Luxembourg, this would imply a much more demanding MTO, equal to about 1% of GDP instead of the current -0.8%.

The euro and the accompanying surveillance framework did not play a very significant role in the evolution of public finances over the observation period, because the general government balances in Luxembourg were more favourable than the 3% reference value and even the MTO (equal to -0.8% - namely a deficit – in the most recent update of the Luxembourg Stability Programme). Furthermore, the impact of the euro on interest rates did not play a role as far as Luxembourg public finances are concerned, reflecting the low public debt ratio.

In 2008, public finances deteriorated both in Luxembourg and in the euro area as a whole. This adverse evolution is of course the reflection of a sudden and acute economic crisis, and in no way the consequence of the euro. According to the BCL projections presented in detail elsewhere in this annual report, and conditional upon the "no policy change" assumption, public finances would deteriorate in a striking way in 2009, as Luxembourg would record a general government deficit equal to about 4% of GDP. The deficit would grow further in 2010 and 2011, with 5 and more than 6%, respectively. This unprecedented situation would to a certain extent mirror the economic and financial crisis. However, the cyclically-adjusted deficit would amount to no less than 5% of GDP in 2011, which suggests that the major part of the additional deficits is not directly attributable to the crisis.

FIGURE 51 :
EVOLUTION OF GENERAL GOVERNMENT BALANCES IN LUXEMBOURG AND THE EURO AREA
(PERCENTAGES OF GDP)



Sources : Eurostat

This evolution would be observed in spite of the good starting position of Luxembourg, which is illustrated in the chart above. It means that in the absence of decisive, structural consolidation measures, Luxembourg will much sooner than assumed so far have to face the multilateral surveillance framework.

1.3.8 Economic and financial crisis: the euro as a cushion

The economic evolutions depicted above are not influenced in a pronounced way by the current economic crisis, as the series do not extend beyond 2008. Three comments should be borne in mind in this respect. First, the negative evolutions observed or anticipated for 2009 follow a 10-year period characterised by a significant improvement of many indicators, as illustrated for instance by the evolution of GDP or total employment. Second, the prompt and decisive action of the Eurosystem prevented an extension of the financial crisis. Distinct, national authorities would probably not have been able to implement a sufficiently strong and coordinated strategy, which would have been particularly damaging in the midst of a truly international crisis.
Third, the economic recession is in no way connected to the euro, as illustrated for instance by the acute crisis faced by countries outside the euro area. Some of them, for instance Iceland, even contemplate EU membership and, at a later stage, the adoption of the euro. They are indeed willing to insulate their economies from large exchange rate movements. By so doing, they would be able to anchor inflation expectations in a much more efficient way than is currently the case.

The pre-EMU period also highlights the lack of economic stability in fragmented economic area. Many exchange crises indeed occurred during this period, which exacerbated interest rate volatility in a considerable way. The period between September 1992 and the end of 1993 was particularly emblematic in this respect. On the 2 August 1993, the fluctuation margins within the EMS (European Monetary System) were enlarged to 15% around the different pivot exchange rates, the latter being unchanged. Due to this enlargement, the Belgo-Luxembourg Franc underwent a significant depreciation with respect to the German Mark. The depreciation reached its maximum, namely 6.5%, on the 14 October 1993. Thanks to the strict policy pursued by the National Bank of Belgium, this discrepancy compared to the Mark shrunk thereafter and reached 1% only at the end of 1993.

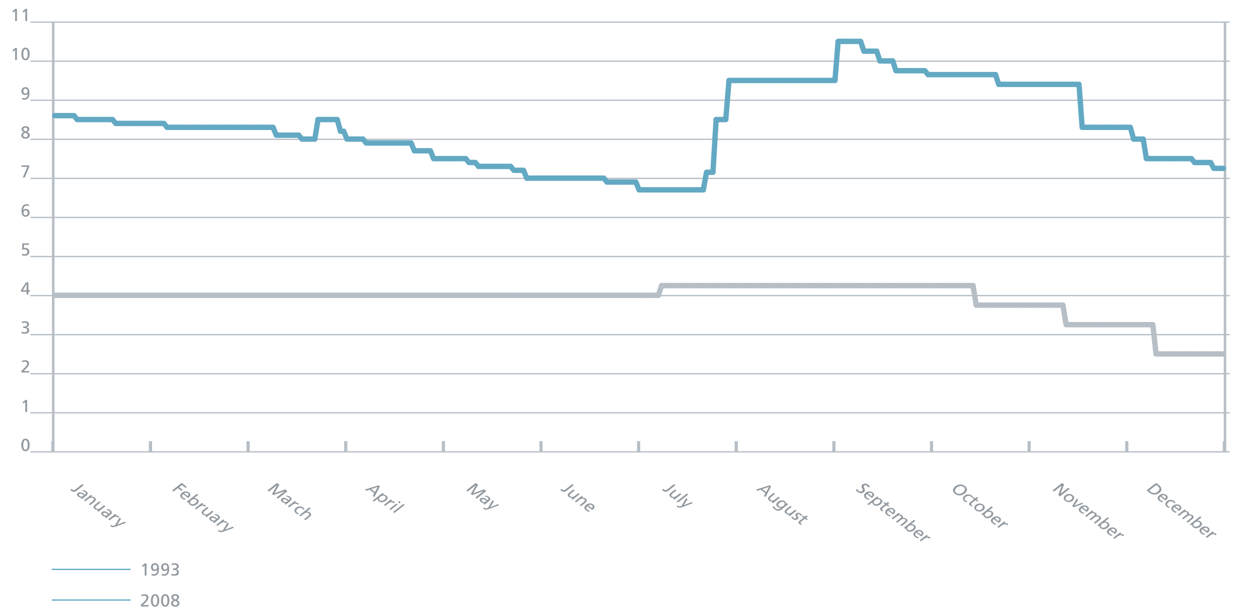
However, such an evolution was detrimental from a macroeconomic perspective, due to the ensuing volatility of interest rates in countries like Belgium, France or Luxembourg. For instance, the gross fixed capital formation of Belgian and Luxembourg companies hardly exceeded in 1993 and 1994 the level recorded in 1991, namely before the currency crisis.[6]

Without the euro, the current crisis would probably have been exacerbated by a similar instability of exchange rates and interest rates, or by even more pronounced fluctuations given the acuteness of this crisis. In these circumstances, interest rate conditions would probably have deteriorated in countries like Belgium and Luxembourg, at the very moment when their economies were struck by the recession. This pro-cyclical effect would have neutralised the economic recovery plans of these countries. They could even have prevented the adoption of these plans.

6 Source : AMECO database of the European Commission.

The euro could cushion all these instability factors, as illustrated in the following chart, where the central bank official rates are compared in 1993 and 2008. By so doing, the euro has palliated the impact on the euro area of the economic and financial crisis.

FIGURE 52 :
CENTRAL NBB RATE IN 1993 AND ECB (MAIN REFINANCING OPERATIONS) RATES IN 2008
(PERCENTAGES)



Sources : BNB, BCE.

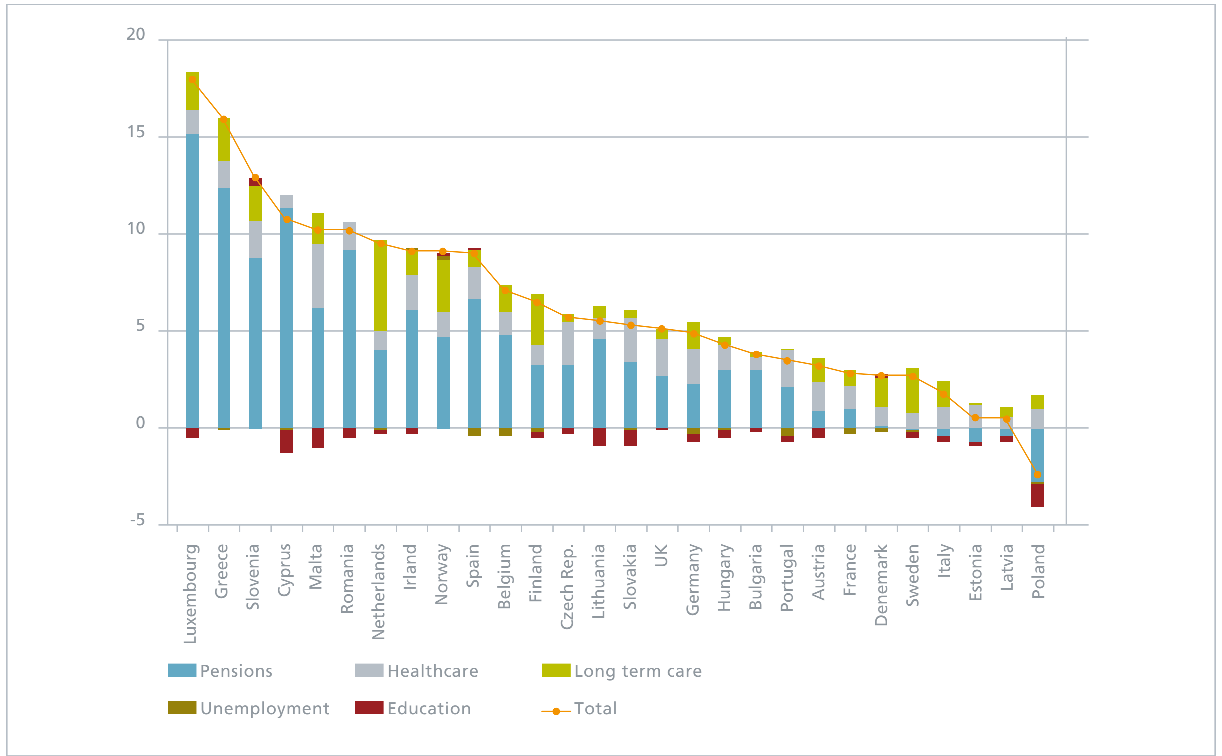
1.3.9 The challenges: how to capitalise on the advantages of the euro

1.3.9.1 Public finances : ensure long term sustainability, especially of the pension system

As argued in part 1.3.7 above, the short term indicators available up to 2008 deliver a sound image of public finances in Luxembourg. However, the message is much less favourable once longer term, sustainability indicators are observed. For instance, according to recent projections by the EPC and the European Commission, Luxembourg is among all the EU countries the one where the cost of ageing will be the most acute. Age-related expenditure (pensions, long-term care, unemployment, education, and healthcare) would indeed increase by no less than 18% of GDP in Luxembourg over the 2007-2060 time horizon, as illustrated in the chart below. Most of this impressive ageing cost would accrue from pensions.

1. ECONOMIC AND FINANCIAL SITUATION

FIGURE 53:
INCREASE IN AGE-RELATED EXPENDITURE FROM 2007 TO 2060
(AS PERCENTAGES OF GDP)



Source: Economic and Policy Committee (2009).

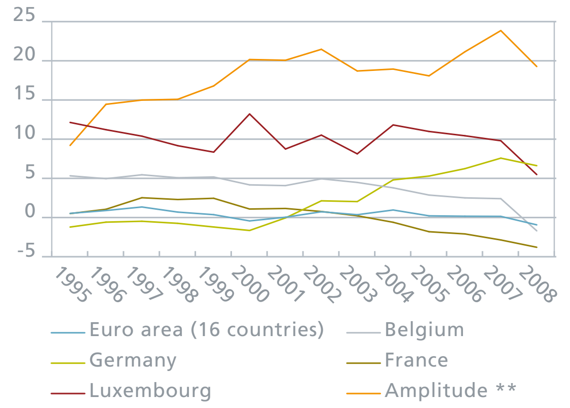
This would give way to an unprecedented increase in public debt, which would be particularly damaging within a monetary union. This clearly highlights the need for major structural reforms as regards in particular pensions and healthcare.

The integration in the formula used to derive MTOs of the implicit liabilities of social security should be operational already in the next update of Stability Programmes. This will encourage Luxembourg to implement the aforementioned reforms, which underlines the paramount importance of the European budgetary surveillance framework. Given the difficult initial budgetary situation and the high cost of ageing in Luxembourg, the European rules should be accompanied by specific, national and more stringent budgetary norms. Expenditure, in particular, should be kept in check and their downward flexibility should be reinforced.

1.3.9.2 Improvement of the competitiveness of the Luxembourg economy

A close monitoring of the competitive position of Luxembourg is essential in a monetary union, for at least two reasons. First, the Member States cannot adjust their exchange rates within such an union, by definition.

FIGURE 54:
BALANCE OF PAYMENTS: CURRENT ACCOUNT
(AS PERCENTAGES OF GDP)



Source: AMECO.
** : amplitude = difference between the most and the less favourable balance within the euro area. Due to their high volatility, the balances of Malta, Luxembourg and Cyprus are not taken into account in the calculation of the amplitude.

Second, a deteriorated competitiveness is more difficult to apprehend in a monetary union, because balances of payment become less binding. As illustrated in the chart above, the amplitude of balance of payment discrepancies within the area has increased since the advent of the euro. This amplitude was below 10% of GDP in 1995 but it reached 20% of GDP in 2008. This could reflect the fact that balance of payment deficits are easier to finance within such a union. Member States could tend to neglect or to tolerate competitiveness problems in such a context. It is therefore all the more required to monitor competitiveness closely in a monetary union.

As indicated in the chart, the current account of the Luxembourg balance of payments was still in surplus in 2008, by 5.5% of GDP. This surplus is on a decreasing trend, however. It reached 9% of GDP in 1998 and even 12% in 2004. The decline was particularly pronounced in 2008, due to the impact of much weaker exports of financial services. Moreover, the goods balance is structurally in deficit in Luxembourg. The deficit amounted to EUR 4.3 billion in 2008.

The diagnosis of a weak competitiveness is corroborated by the price and cost competitiveness indicators commented in a box of the present annual report. These indicators exhibited a significant deterioration from 1990 to 2008.

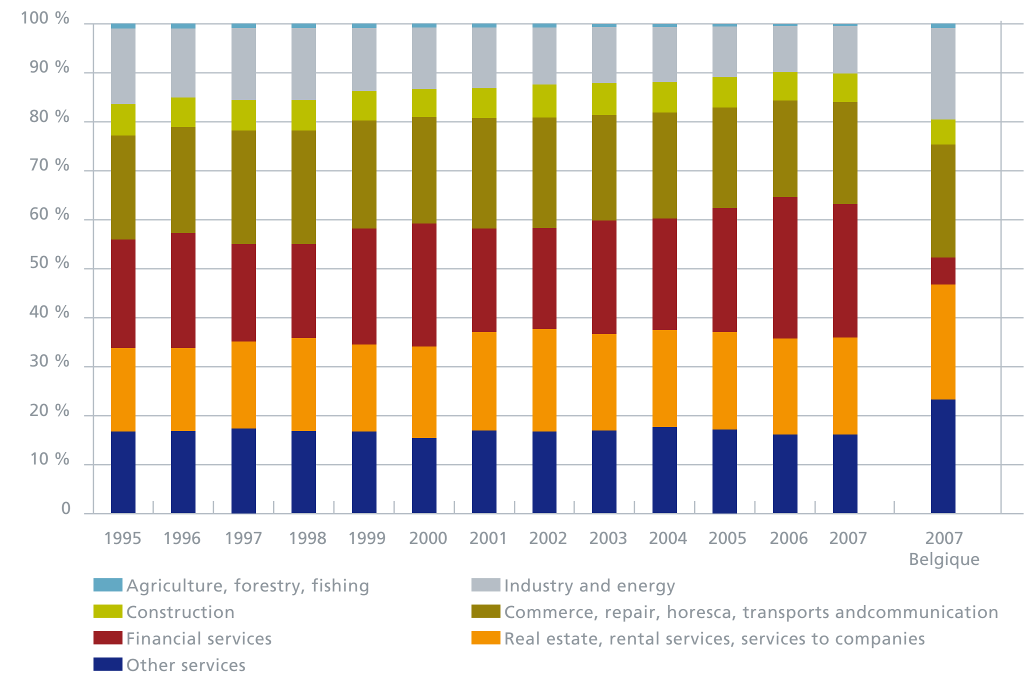
1.3.9.3 Economic diversification and R&D expenditure

Research and development (R&D) is a key aspect of the Lisbon strategy. The objective in this field, defined at the European level, is to increase total R&D expenditure – both private and public – to 3% of GDP. The Luxembourg authorities have adopted this 3% value as the national target.

However, Eurostat data for 2007 show that Luxembourg does not spend more than 1.6% of its GDP in R&D, which is well below the objective in spite of the significant efforts made by the Luxembourg authorities in this respect – as regards for instance the University of Luxembourg. A catch up process is essential, in order to further diversify our economy.

The Luxembourg economy is indeed not diversified enough. The financial sector accounted for 27% of the gross value added in 2007, compared to 5.7% only in Belgium and 5.1% for the euro area average. By contrast, industry and construction jointly represent 16% of the value added. In 1995, the weight of financial services on the one hand and industry plus construction on the other hand was roughly similar.

FIGURE 55:
BREAKDOWN BY BRANCH OF GROSS VALUE ADDED
(AS A PERCENTAGE OF GROSS VALUE ADDED)



Sources : BNB, Statec.

In conjunction with the diversification effort and the additional R&D investments, the education level of young people should be improved. According to Eurostat, only 70.9% of the Luxembourgers aged 20 to 24 reached upper secondary education in 2007. The corresponding rates were 82.6, 82.4 and 72.5% in Germany, Belgium, France and Germany, respectively, whereas the euro area average equalled 74.5%. The Lisbon objective in this field is much higher, namely 85%. In addition, the PISA scores calculated by the OECD are notoriously poor in Luxembourg in spite of expenditure per pupil well in excess of the European average.

1.3.9.4 Higher workforce participation rates

As indicated in the table below, Luxembourg clearly lags behind as regards the workforce participation rate, in spite of a favourable evolution over the recent years. The participation rate for people, women and men, aged 15 to 64 year was equal to 66% in Luxembourg in 2007, compared to 79% in the Netherlands and 76% in Germany. From this yardstick, Luxembourg is 14th among the 16 euro area countries. Only Italy and Malta are outranked by Luxembourg in this respect. The situation is only marginally better as regards the women participation rate. Luxembourg is reasonably close to the corresponding Lisbon objective, namely 60%. However, the country is still outranked by 12 of the 16 euro area countries.

TABLE 29:
LABOUR PARTICIPATION RATES ("LISBON" RATES) IN THE EURO AREA
(AS PERCENTAGES OF THE CONCERNED POPULATIONS, 2007 DATA)

15 to 64 year		50 to 64 year		Women. 15 to 64 year	
Netherlands	78.7	Finland	59.4	Finland	74.1
Germany	76.2	Cyprus	57.6	Netherlands	72.4
Finland	75.8	Germany	57.3	Germany	70.2
Austria	74.8	Ireland	55.1	Portugal	68.9
Portugal	74.1	Portugal	54.5	Austria	68.0
Cyprus	72.9	Netherlands	53.3	Slovenia	66.7
Ireland	72.5	Spain	47.5	France	65.6
Spain	71.6	Greece	44.3	Cyprus	64.7
Slovenia	71.4	France	41.0	Ireland	63.3
France	70.3	Austria	40.0	Spain	61.5
Slovakia	68.8	Slovakia	39.4	Slovakia	61.2
Belgium	67.3	Belgium	36.2	Belgium	60.7
Greece	67.1	Italy	34.7	Luxembourg	57.9
Luxembourg	66.4	Slovenia	34.5	Greece	55.2
Italy	62.6	Luxembourg	33.0	Italy	50.7
Malta	59.5	Malta	31.6	Malta	39.9

Source : European Commission.

The second column of the table highlights the most salient cause of these low participation rates, namely a very limited proportion of professionally active persons among the 50 to 64 age cohort. This proportion is indeed equal to about one third in Luxembourg. Only Malta exhibits an even worse result. Another striking feature is that the participation rate in Germany reaches 57% against 33% in Luxembourg.

Discrepancies of this magnitude are particularly damaging within a monetary union. A country that neglect a high proportion of its population of working age puts its competitiveness, its social security and its potential growth rate under threat.

A box included in this annual report proposes the implementation of a policy that would result in a lower effective retirement age than at present. The key would be decreased social contributions targeted on aged workers, in order to encourage them to retain their jobs.