



ANNUAL REPORT 2008

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BANQUE CENTRALE DU LUXEMBOURG
EUROSYSTEM 10 YEARS
1998-2008

ANNUAL REPORT 2008



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Contents

The Governor's Message

1. ECONOMIC AND FINANCIAL SITUATION

1.1	Economic situation at the international level	14
1.1.1	Short-term interest rates and monetary policy decisions	14
1.1.2	Long-term government bond yields	15
1.1.3	Equity markets	17
1.1.4	Exchange rate developments	18
1.1.5	Consumer prices	19
1.1.6	Output, demand and labour market developments	21
1.1.7	External trade	24
1.1.8	Balance of payments	25
1.2	Economic Situation in Luxembourg	26
1.2.1	Prices and costs	26
1.2.1.1	Consumer prices and inflation projections	26
1.2.1.2	Producer prices in industry	31
1.2.1.3	Construction prices	32
1.2.2	Sectoral developments	35
1.2.2.1	Industry	35
1.2.2.2	Construction	36
1.2.2.3	Trade and other sectors	36
1.2.3	Consumer survey	38
1.2.4	Economic growth	39
1.2.5	Financial sector	40
1.2.5.1	Credit institutions' balance sheets	40
1.2.5.2	Retail interest rates in Luxembourg	41
1.2.5.3	Employment in the banking sector	44
1.2.5.4	Credit institutions' profit and loss accounts	44
1.2.5.5	Undertakings for collective investment	47
1.2.5.6	Money market funds	49
1.2.5.7	The Bank Lending Survey	49
1.2.6	Luxembourg Stock Exchange	53
1.2.7	The labour market	54
1.2.7.1	Employment	54
1.2.7.2	Unemployment	56
1.2.7.3	Labour costs	58
1.2.8	External trade	59
1.2.9	Balance of payments	59
1.2.10	Macroeconomic projections	59
1.2.11	Public finances	64

1.2.11.1	Introduction	64
1.2.11.2	Public finances : overview	64
1.2.11.3	Government revenues	66
1.2.11.4	General government expenditure	67
1.2.11.5	General government net lending or borrowing	68
1.2.11.6	Luxemburg public finances: inventory and perspectives	73
1.2.11.6.1	Luxemburg public finances: inventory	73
1.2.11.6.2	Luxemburg public finances: perspectives	73
1.2.11.6.2.1	Reference simulation	73
1.2.11.6.2.2	Surplus of 1.5% of GDP of the structural balance by 2012	83
1.2.11.6.2.3	Reference simulation in absence of indexation of pension to real wages.....	84
1.2.11.6.2.4	Suspension of pensions indexation to real wages... ..	87
1.3	Ten years of EMU in a Luxembourg perspective	91
1.3.1	EMU: a monetary policy more in tune with the peculiarities of the Luxembourg economy, with a national central bank	91
1.3.2	The common monetary policy provides a sound anchor for inflation expectations... ..	92
1.3.3	... and contributes to stabilise interest rates	93
1.3.4	The Monetary Union also improved the integration of markets for goods and services and stimulated direct investments in Luxembourg... ..	95
1.3.5	EMU has also fostered the integration of financial markets, with favourable fallouts in Luxembourg... ..	98
1.3.6	A sustained increase in economic activity and employment	98
1.3.7	A better surveillance of budgetary positions	101
1.3.8	Economic and financial crisis: the euro as a cushion	102
1.3.9	The challenges: how to capitalise on the advantages of the euro	103
1.3.9.1	Public finances : ensure long term sustainability, especially of the pension system ..	103
1.3.9.2	Improvement of the competitiveness of the Luxembourg economy	104
1.3.9.3	Economic diversification and R&D expenditure	105
1.3.9.4	Higher workforce participation rates	106

2. THE BCL'S OPERATIONS

2.1	Monetary policy operations	110
2.1.1	Open market operations	111
2.1.1.1	Main refinancing operations (MRO) in 2008	111
2.1.1.2	Longer-term refinancing operations (LTRO) in 2008	112
2.1.1.3	Fine tuning operations in 2008	114
2.1.2	Standing facilities	114
2.1.3	Minimum reserves	114
2.1.4	Temporary currency auction facilities	115
2.2	Foreign exchange reserves management by the BCL	116

2.3	Management of the BCL's assets	116
2.3.1	Institutional structure	116
2.3.2	Risk control	117
2.3.3	Conceptual framework	117
2.3.4	Structure of portfolios	117
2.4	Banknotes and coins	119
2.4.1	Circulation of banknotes and coins	119
2.4.1.1	Euro banknotes and coins	119
2.4.1.2	Luxembourg franc banknotes and coins	121
2.4.2	Handling of banknotes and coins	121
2.4.3	Numismatic issues	121
2.5	Developments in the area of statistics	122
2.5.1	Money and banking statistics	122
2.5.2	External statistics	122
2.5.3	Economic and financial statistics	123
2.5.4	Other statistics	123
2.6	Payment and securities settlement systems	123
2.6.1	Real-time gross settlement systems	123
2.6.1.1	The activity of TARGET2-LU in 2008	123
2.6.2	Retail payment in Luxembourg	128
2.6.2.1	Luxembourg participants' activity in STEP2	128
2.6.2.2	The implementation of the SEPA project for non-cash payments	129
2.6.3	The general framework of eligible collateral in the Eurosystem credit operations ...	129
2.6.3.1	The list of eligible assets	129
2.6.3.2	Eurosystem as a user of securities settlement systems	130
2.6.4	Correspondent Central Banking Model (CCBM)	131
2.6.5	The Eurosystem's future management of collateral	132
2.7	Financial stability	133
2.7.1	Macro-prudential surveillance and liquidity surveillance	133
2.7.2	Oversight of payment and securities settlement systems	133

3. EXTERNAL ACTIVITIES

3.1	Activities with the International Monetary Fund (IM) and other organisations	138
3.2	Activity at the European level	138
3.2.1	Activity at the level of the ECB	138
3.2.2	The enlargement of the euro area	139
3.2.3	The Economic and Financial Committee	139
3.2.4	The Committee on Monetary, Financial and Balance of Payments Statistics	140
3.3	National activities	140
3.3.1	Legal developments	140

3.3.1.1	The law of the 24 October 2008...	140
3.3.1.2	Law of 3 July 2008...	145
3.3.1.3	Legislation relating to the crisis of the financial sector	145
3.3.1.4	Legal rate of interest	146
3.3.1.5	Developments of the eligible collateral framework	146
3.3.1.5.1	Permanent amendments decided in 2008	146
3.3.1.5.2	Temporary amendments decided in 2008	147
3.3.1.6	Miscellaneous...	148
3.3.2	External committees	149
3.3.2.1	The Economic Committee (Comité de conjoncture)	149
3.3.2.2	The Consumer Price Index Commission (Commission de l'indice des prix à la consommation)	149
3.3.2.3	Committee "Comptabilité bancaire"	149
3.3.2.4	Higher Council for Statistics of Luxembourg	149
3.3.2.5	XRBL Luxembourg asbl	150
3.3.3	BCL Committees	150
3.3.3.1	The Statistics committee	150
3.3.3.2	The Monetary and banking statistics consultative commission	150
3.3.3.3	The Balance of payments statistics consultative commission	150
3.3.3.4	The Economic and financial statistics consultative commission	150
3.3.4	BCL research activities	150
3.3.5	Training at the BCL	151
3.3.6	External events	151
3.3.6.1	Conferences and international meetings	151
3.3.6.2	Bilateral relations	153
3.3.6.3	Relations with the Luxembourg Parliament	154
3.4	Communication Activities	154
3.4.1	Annual reports	154
3.4.2	Periodical Bulletins	154
3.4.3	Working papers	154
3.4.4	The BCL's website	155
3.4.5	The library	155
3.4.6	Press relations	155
4.	THE BCL AS AN ORGANISATION	
4.1	The structure of the BCL	158
4.1.1	The Council	158
4.1.2	The Executive Board	158
4.2	The Corporate Governance	160
4.2.1	The internal supervisory mechanisms	160
4.2.2	The Eurosystem Procurement Coordination Office	161

4.3	The BCL staff	161
4.3.1	Quantitative evolution	161
4.3.2	Human resources management	164
4.3.3	Staff training	164
4.3.4	The Pension Fund	164
4.4	Facilities	165
4.5	Internal finance	165
4.6	The budget	166
4.7	The Internal Audit activities	167
4.8	Financial statements as at 31 December 2008	168
4.8.1	Key figures	168
4.8.2	Report of the Independent Auditor	169
4.8.3	Balance sheet as at 31 December 2008	170
4.8.4	Off-balance sheet as at 31 December 2008	172
4.8.5	Profit and loss account for the year 2008	172
4.8.6	Notes to the financial statements as at 31 December 2008	173
5.	ANNEXES	
5.1	List of BCL circulars published in 2008	192
5.2	List of BCL regulations published in 2008	192
5.3	List of BCL publications published in 2008	192
5.4	European Central Bank publications	193
5.5	Monetary, economic and financial statistics	194
5.6	List of abbreviations	196
5.6	Glossary	197

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 estab-

lishment 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*

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%.

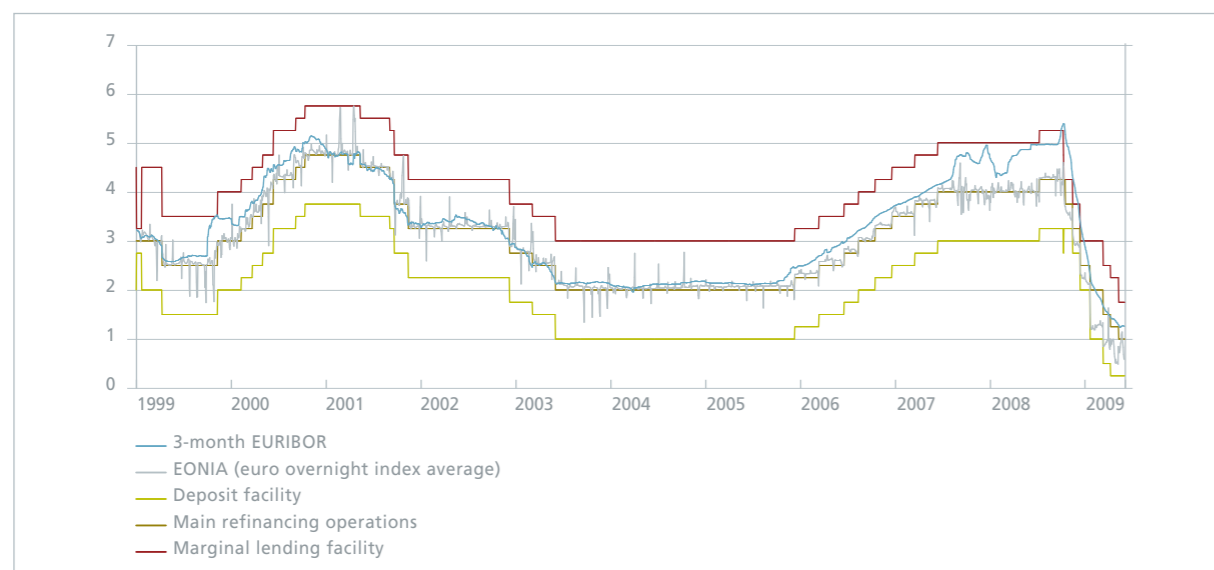
Since October 15, the main refinancing operations have been conducted as fixed rate tenders with full allotment. Between October 9 2008 and May 13 2009, the Go-

verning 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

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



Sources : ECB, Bloomberg

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%.

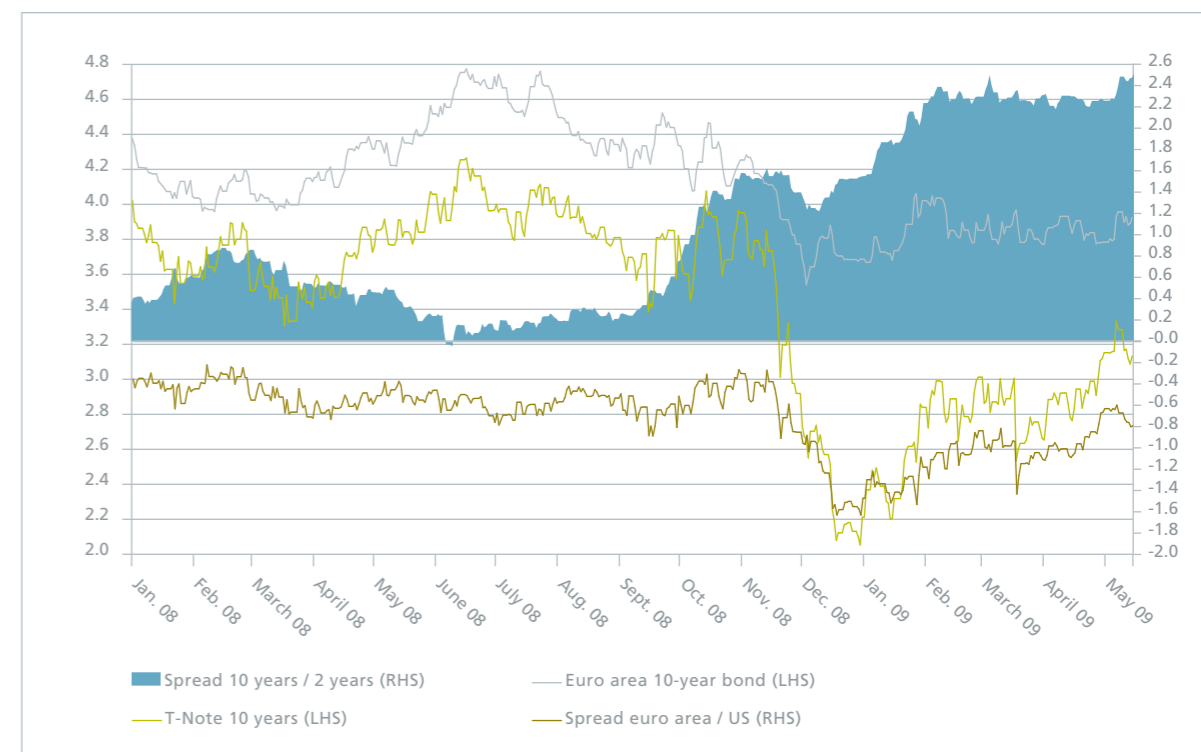
However, the downward trend of the respective year-on-year growth rates – visible since end-2007 – largely continued in 2009. The annual growth rate of M1 fell from 4% in December 2007 to 0.2% in August 2008 when an inflection point was reached and the downward trend was reversed. Other short-term deposits (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 ins-

truments (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

1. ECONOMIC AND FINANCIAL SITUATION

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.

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

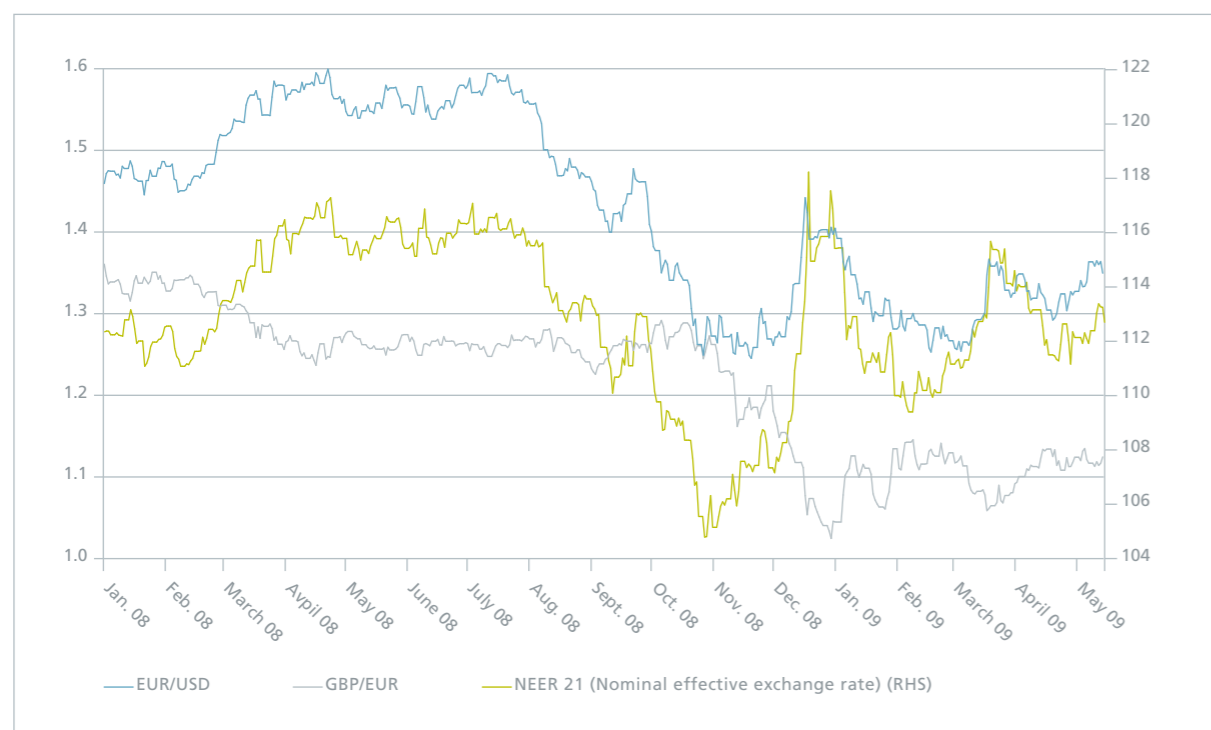
after the rescue of Bear Stearns, there were renewed concerns about Fannie Mae and Freddie Mac; until July 2008, the rapid rise in oil prices exerted further downward pressure on stock markets.

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

1. ECONOMIC AND FINANCIAL SITUATION

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.

1. ECONOMIC AND FINANCIAL SITUATION

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. 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.

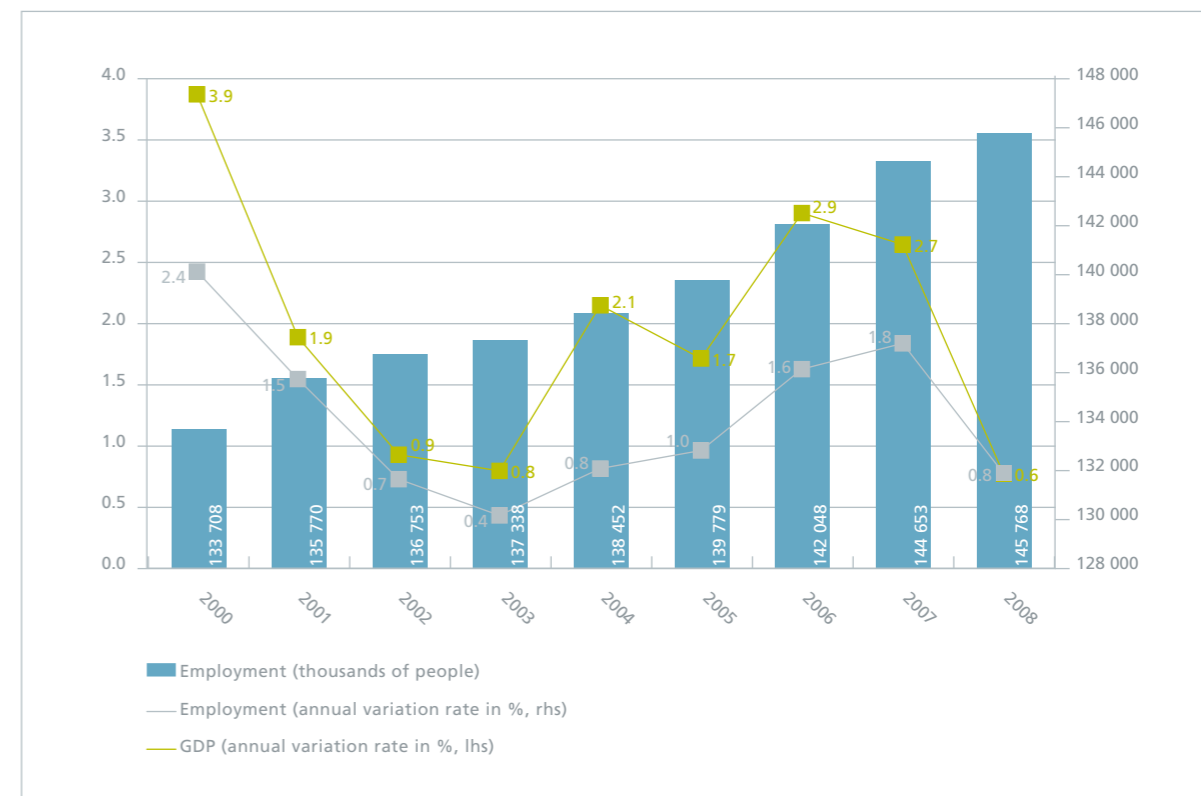
Besides exports, investment reflects particularly well the gravity of the current crisis as well as the morose outlook. Until late 2008, private consumption seemed to stand up relatively well to the crisis. Consumers' reaction as observed in early 2009 also seems to be relatively limited, if one takes 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

1. ECONOMIC AND FINANCIAL SITUATION

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.

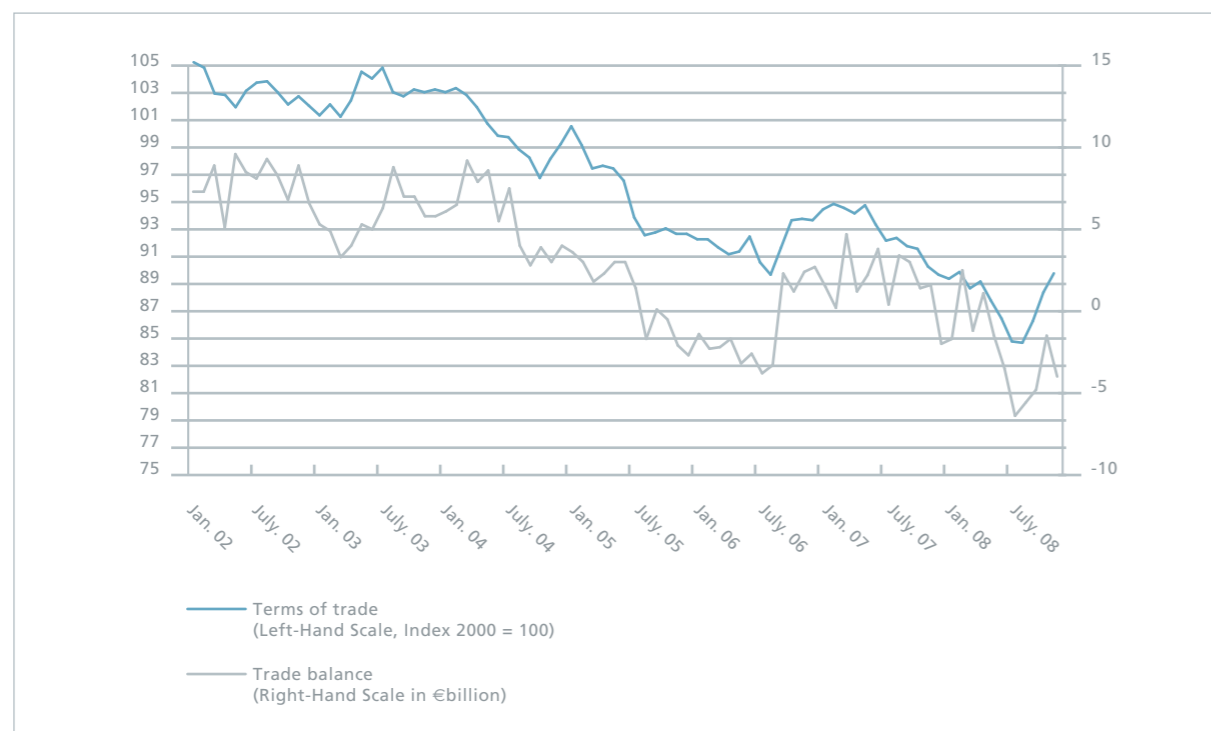
1.1.7 External trade

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

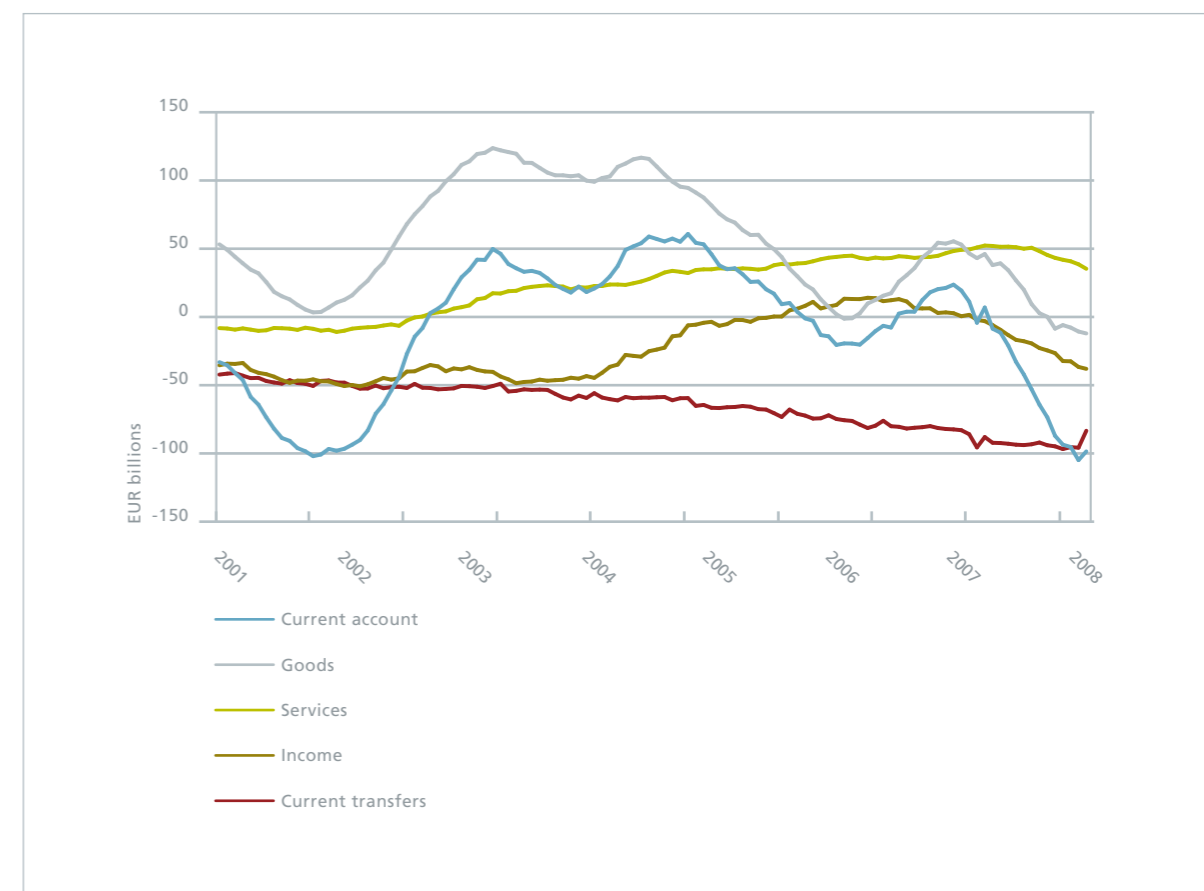
1.1.8 Balance of payments

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

1. ECONOMIC AND FINANCIAL SITUATION

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

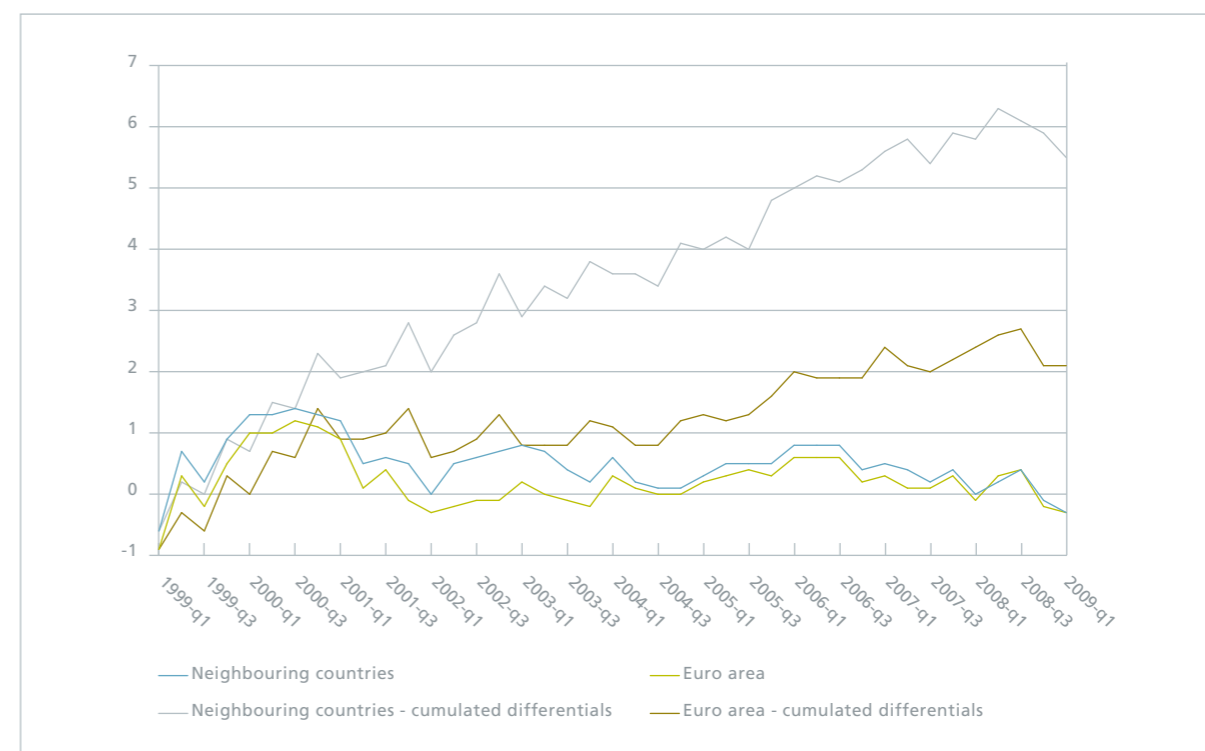
peak of 30% in mid-2008 to turn negative in November 2008 and to fall to -24% in April 2009. The inflation rate for other goods and services fell from 2.7% in August 2008 to 2.3% in April 2009.

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 tur-

ned 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

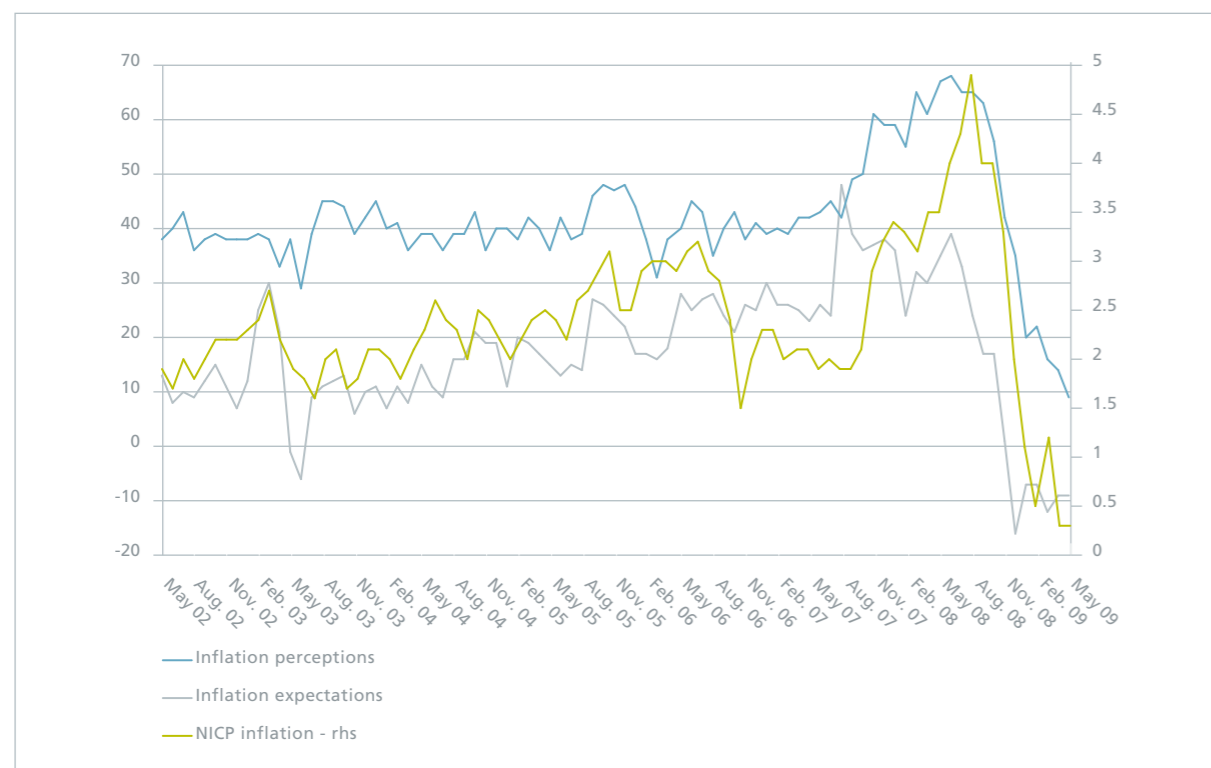
According to the BCL's consumer survey, qualitative inflation perceptions have fallen sharply since mid-2008 to a new record low in May 2009. These developments seem to be in line with the sharp fall in the observed inflation rates.

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

1. ECONOMIC AND FINANCIAL SITUATION

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 exercise¹. 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

1. ECONOMIC AND FINANCIAL SITUATION

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	2009-1 st half	2009-2 nd half	2010-1 st 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.

1. ECONOMIC AND FINANCIAL SITUATION

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 of 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 partners², 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 projections³. 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%.

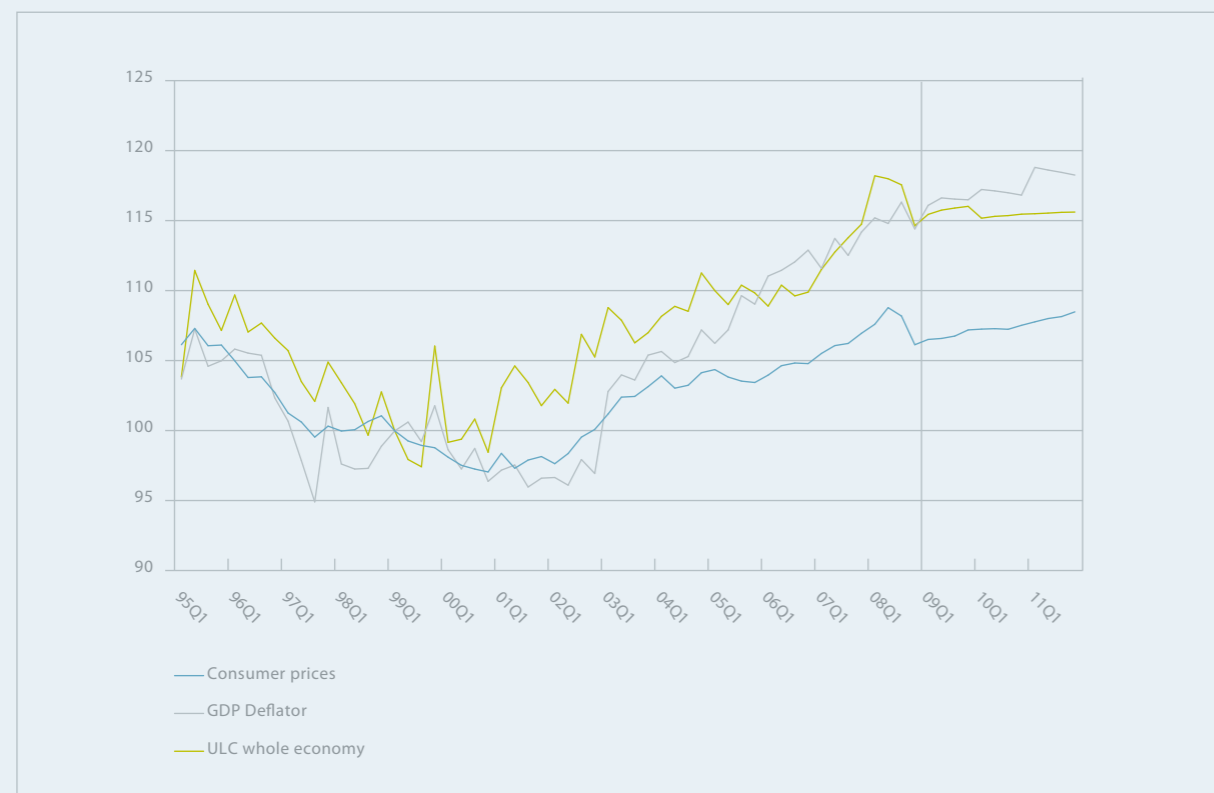
The indicator based on unit labour costs in the whole economy indicates a competitiveness deterioration of +3.46% in 2008, far above the +1.74% expected a year ago. This difference is linked to an important fall in apparent labour productivity all along the year. However, 2008Q4 (latest available observation) 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.

1. ECONOMIC AND FINANCIAL SITUATION

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. ECONOMIC AND FINANCIAL SITUATION

1.2.3 Consumer survey

Consumer confidence⁴ has been in a downtrend since mid-2007, which coincided with the apparition of the financial turmoil. It has reached its 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
(SEASONALLY 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

1. ECONOMIC AND FINANCIAL SITUATION

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)

Assets	Amounts in million euros			Variation in million euros and in %				Relative weight ¹
	2007/12	2008/12	2009/04	2007/12 - 2008/12		2008/12 - 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
Portfolio 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)

Liabilities	Amounts in million euros			Variation in million euros and in %				Relative weight ¹
	2007/12	2008/12	2009/04	2007/12 - 2008/12		2008/12 - 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 inter-bank 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 softening 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).

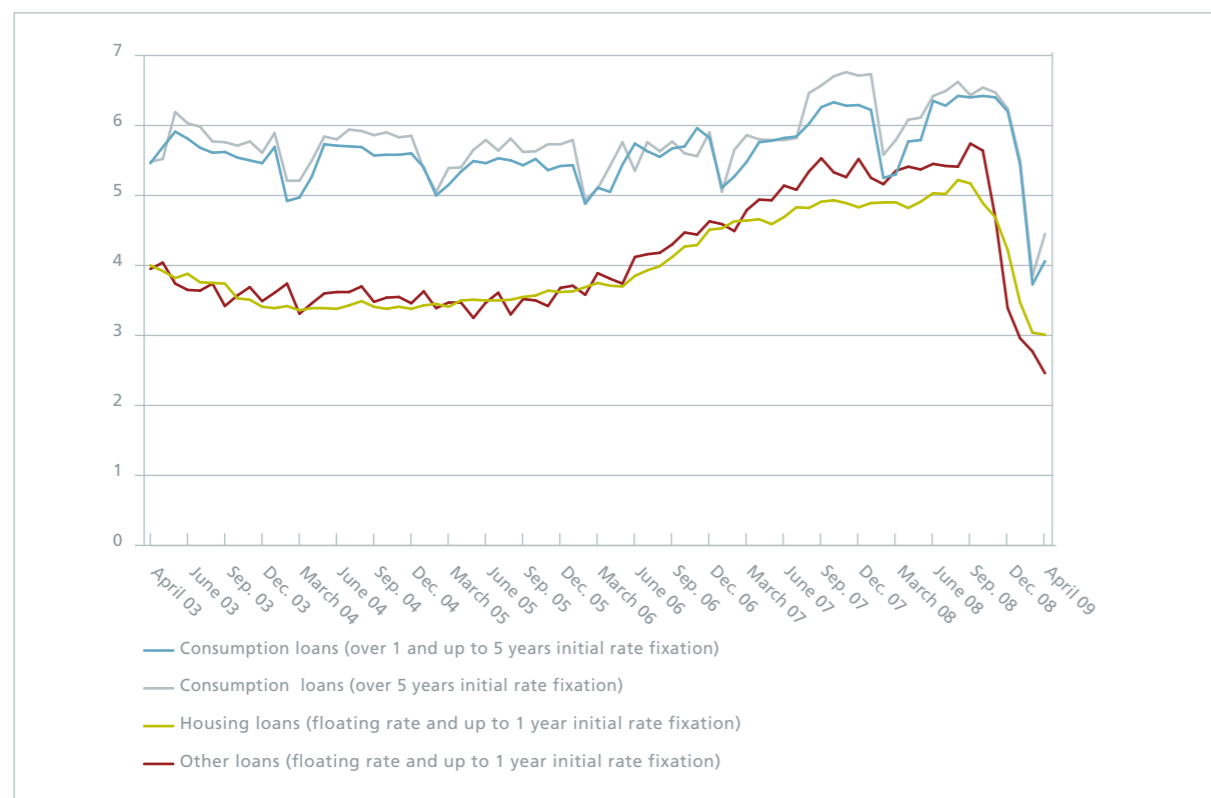
2008 was a year characterised by a slow downward trend for consumption loans rates. During first quarter of 2009, the observed decline was much more significant due to the so-called Luxembourgish "festival de l'automobile". Between December 2007 and December 2008, the cost of new business consumption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

1. ECONOMIC AND FINANCIAL SITUATION

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.

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



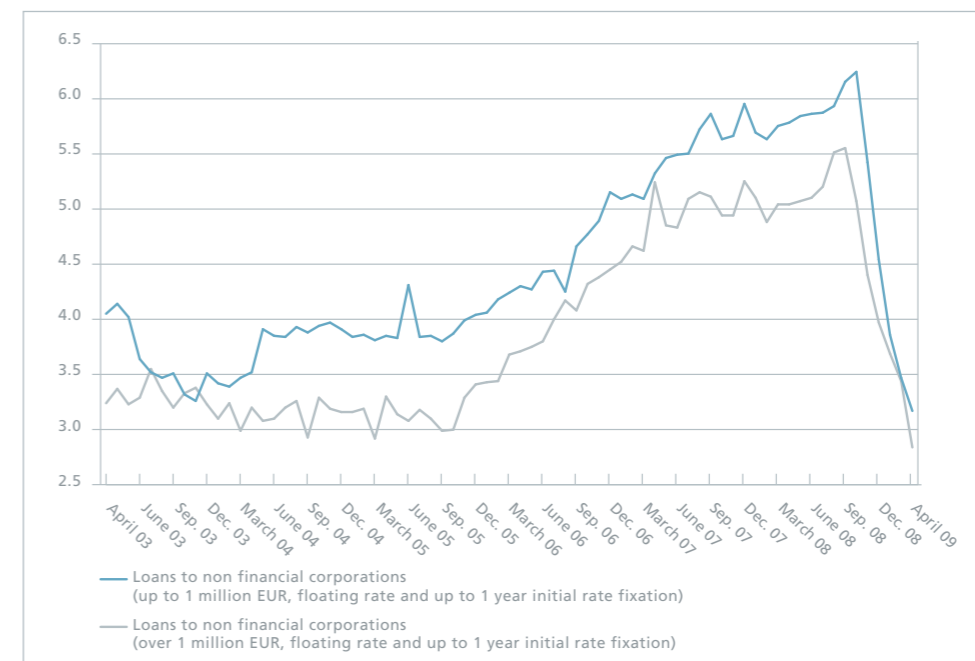
Source : BCL

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%).

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).

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 %)

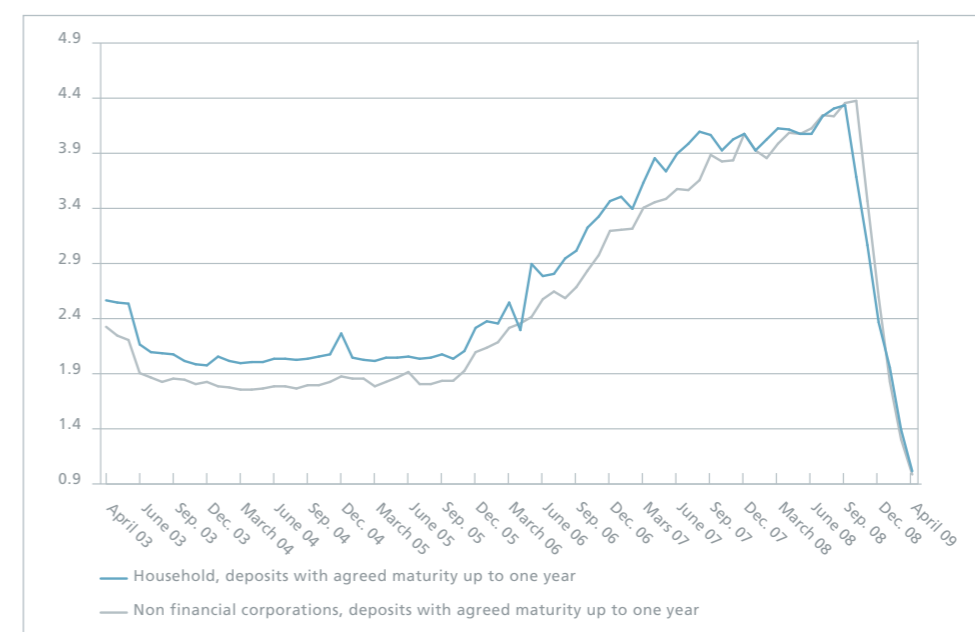


Source : BCL

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 priority 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 %)



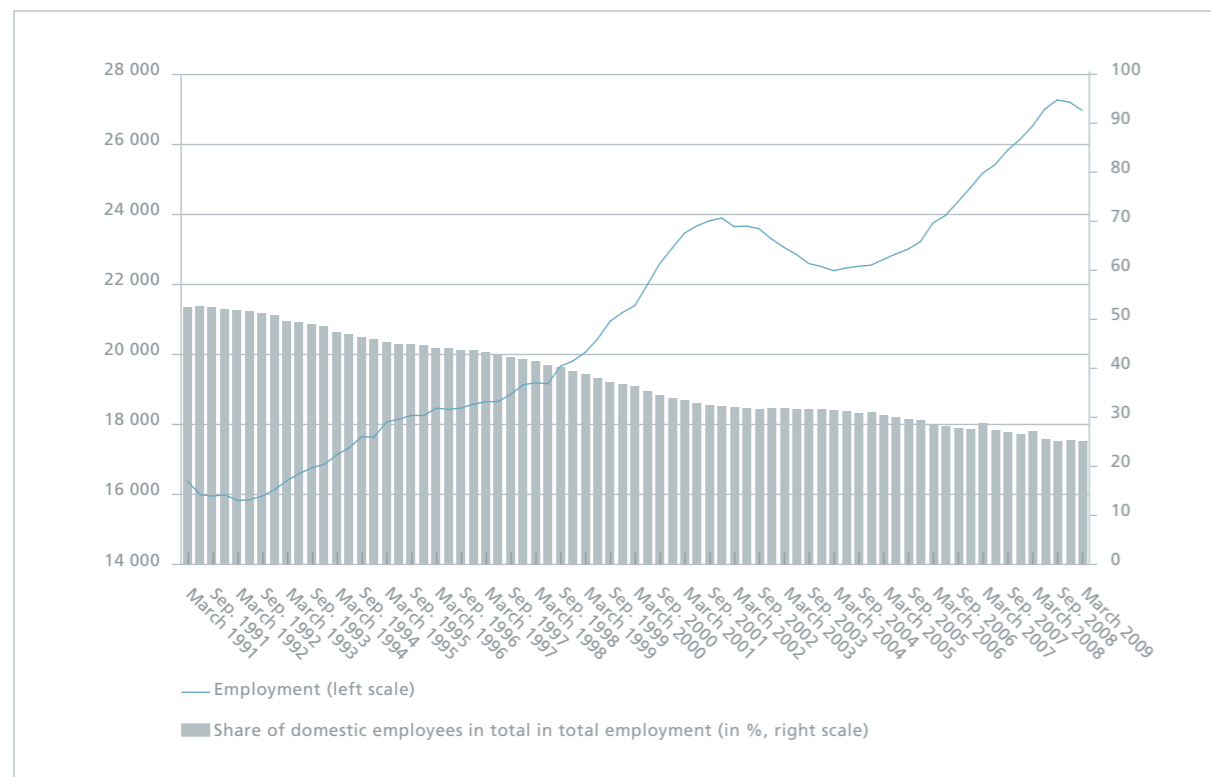
Source : BCL

1. ECONOMIC AND FINANCIAL SITUATION

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	%
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

1. ECONOMIC AND FINANCIAL SITUATION

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 & 2008¹

	Description	2008 03	2009 03	Annual variation	
				mill. €	%
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 exchange 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

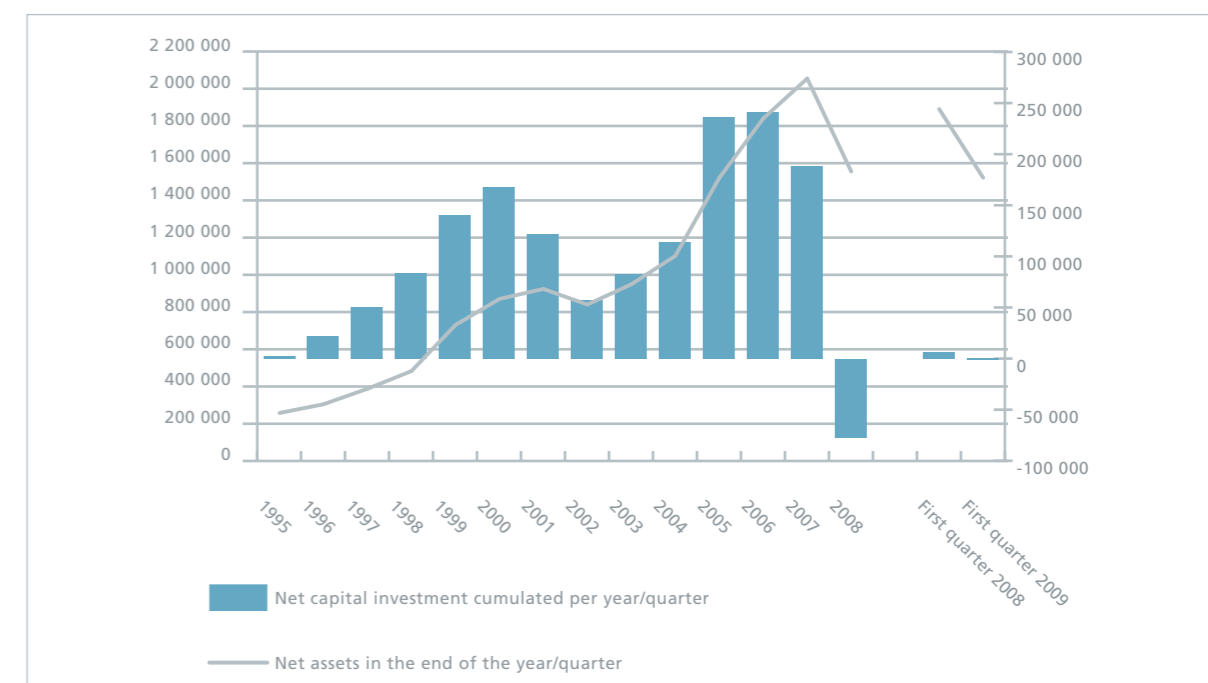
Source: BCL

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.

1. ECONOMIC AND FINANCIAL SITUATION

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.

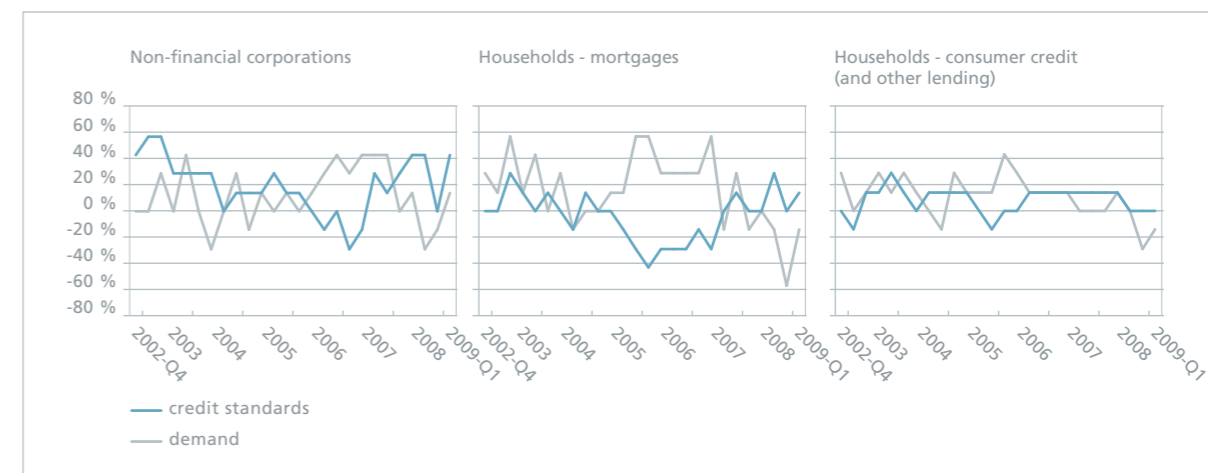
The balance sheet of money market funds

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. ECONOMIC AND FINANCIAL SITUATION

1.2.5.7 The Bank Lending Survey

The Bank Lending Survey (BLS) carried out by the Euro-system 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 of 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.

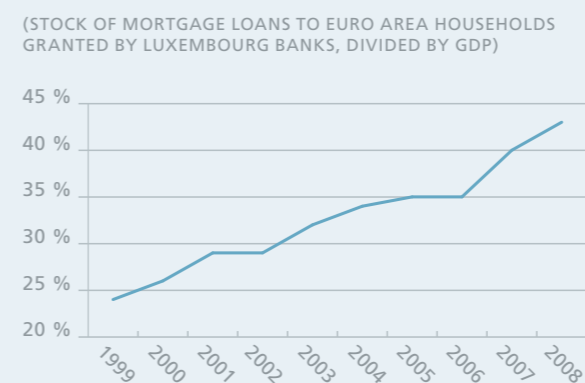
Net demand in Luxembourg turned negative in the fourth quarter of 2008, while in the euro area at large it has been negative since the fourth quarter of 2007. The fall in net demand in Luxembourg is owing to a deterioration in consumer confidence, most notably in the final quarter of 2008. Lower financing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



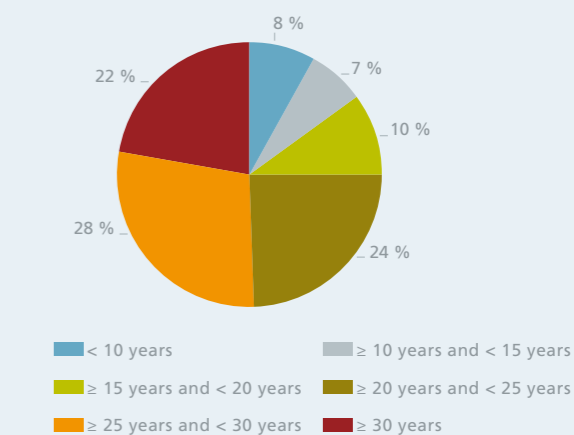
Source : BCL

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

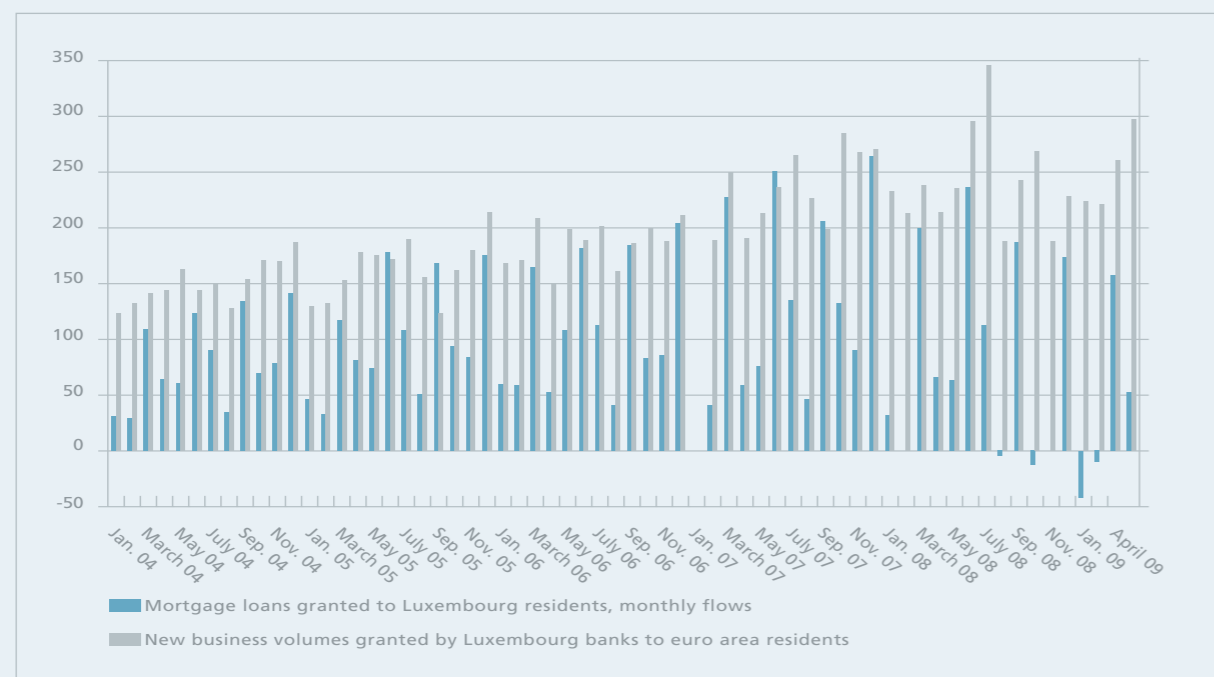


Source : BCL

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

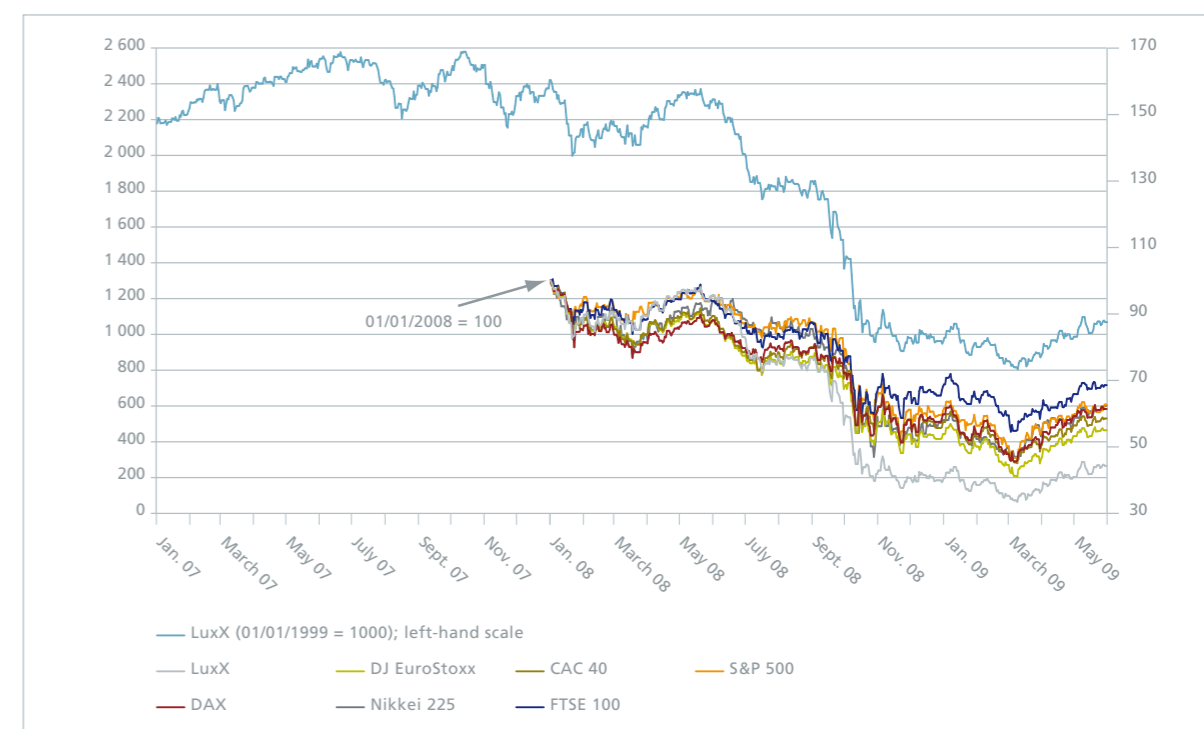
2009 should be seen against the backdrop of the afore-mentioned slowdown, or whether they signal a rebound, considering the underlying volatility of the series and the fact that the series are not seasonally adjusted.

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 Cegebel S.A. which progressed by 46.4%.

In early-2009, the index composition was revised: Reinet Investments S.C.A. (a securitisation vehicle) and Inter-

cultures 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%.

1. ECONOMIC AND FINANCIAL SITUATION

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.

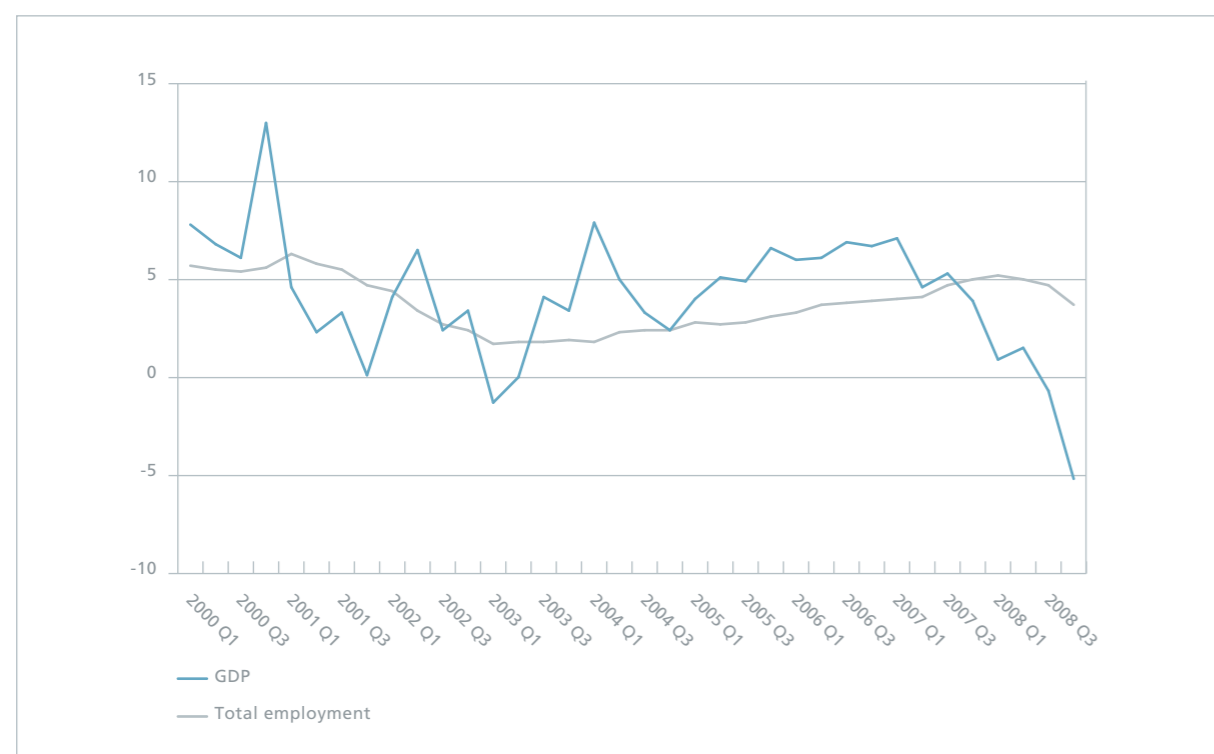
1.2.7 The labour market

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

	Em- ployees *	Self-em- ployed*	Total do- mestic employ- ment*	Incoming cross-bor- der com- muters*	National employ- ment*	Active popula- tion*	Unem- ployment (narrow defini- tion)	Unem- ployment (narrow), seasonally adjusted	Unem- ployment (broad defini- tion)	Harmo- nised unemploy- ment 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.

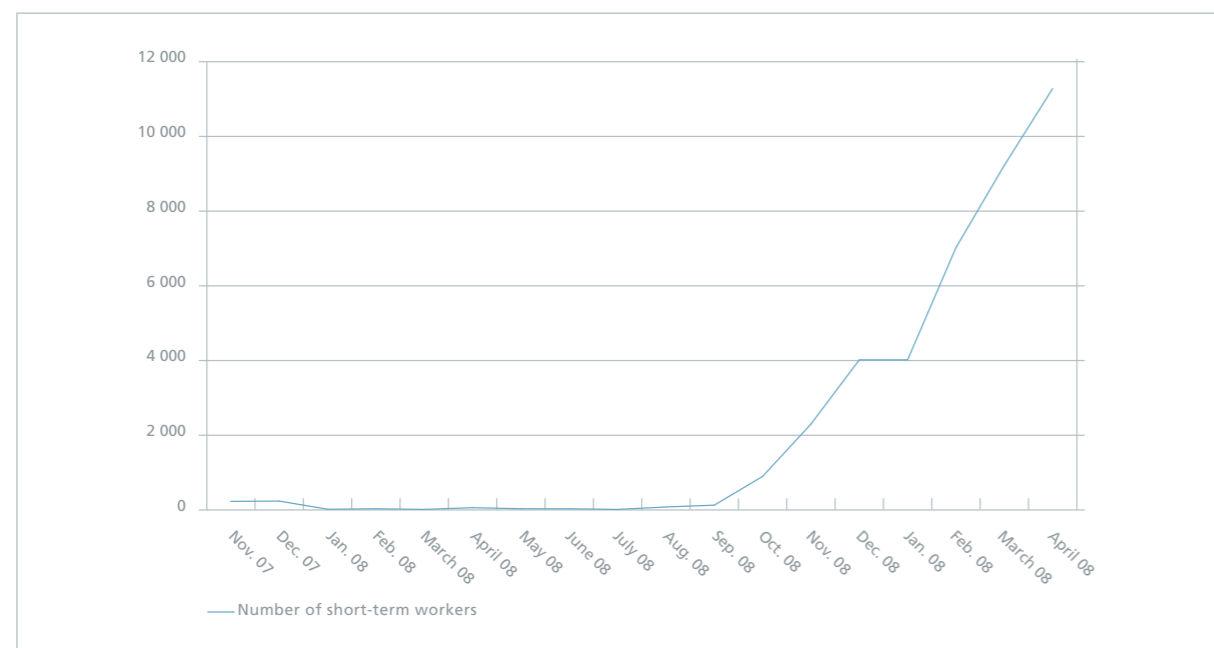
Sources: IGSS, STATEC, Eurostat and BCL calculations

* Data from January to April 2009 are estimates

1. ECONOMIC AND FINANCIAL SITUATION

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



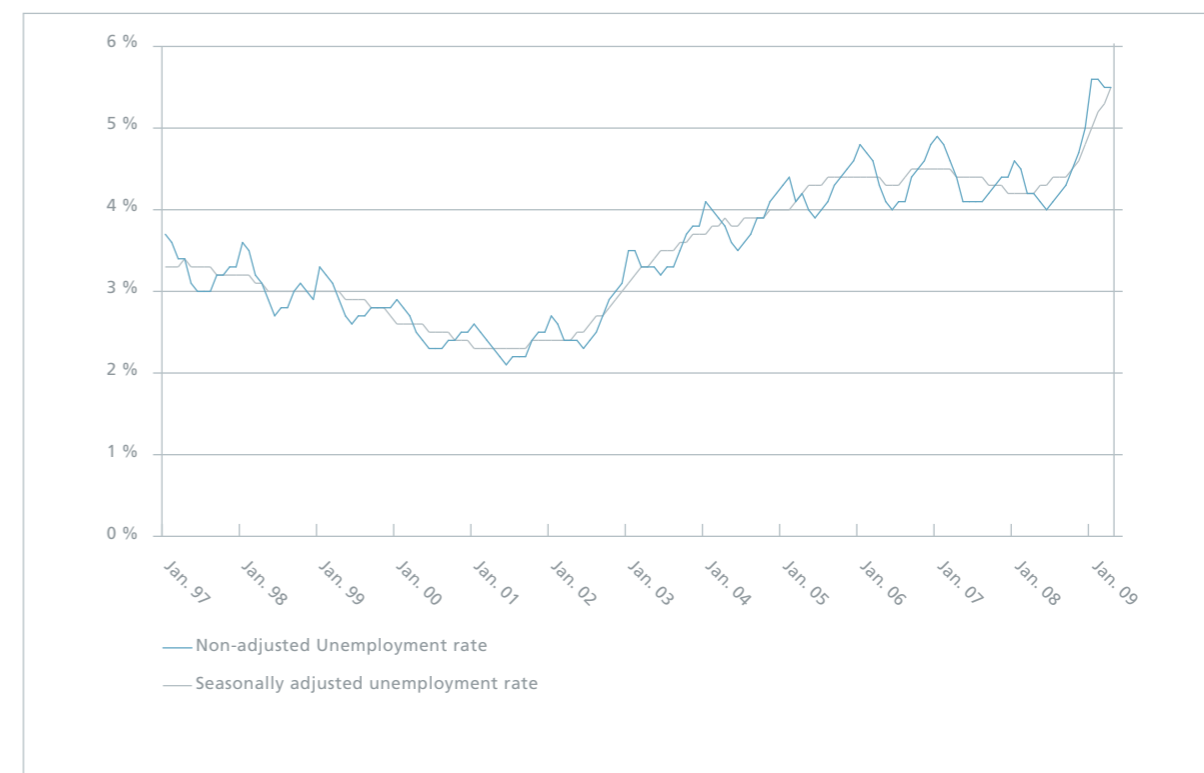
Source : STATEC

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)



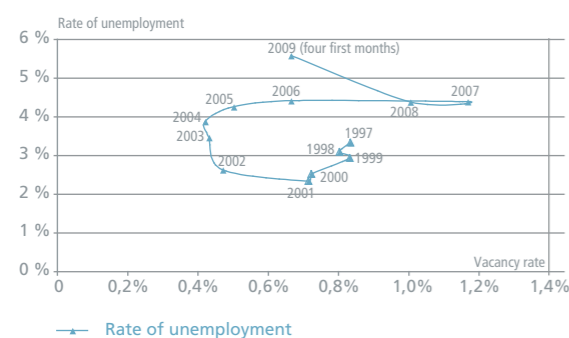
Source : ADEM

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.

1. ECONOMIC AND FINANCIAL SITUATION

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 lose 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.

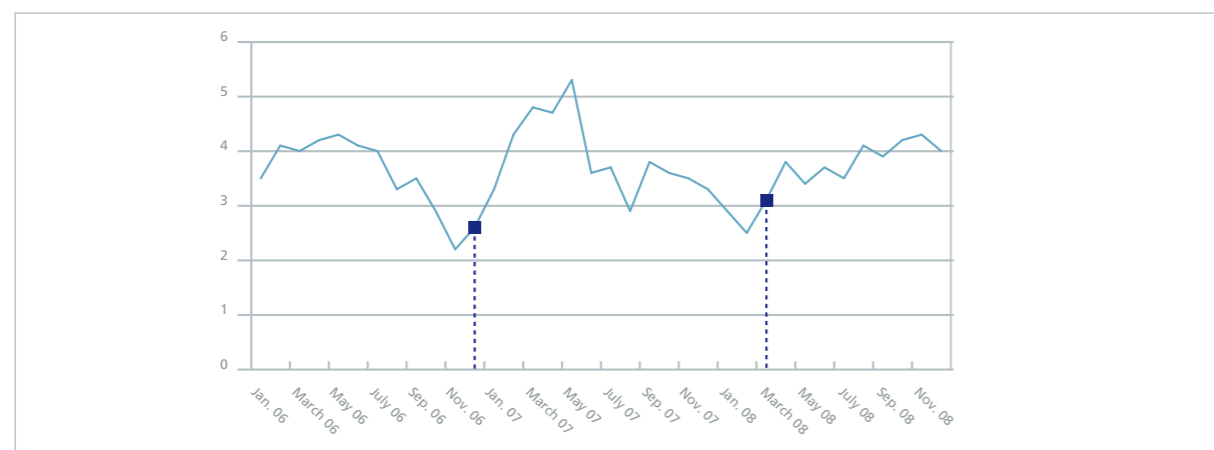
Until today, while an impact of the recession on employment and unemployment figures is already

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, fell 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.

1. ECONOMIC AND FINANCIAL SITUATION

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 be 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

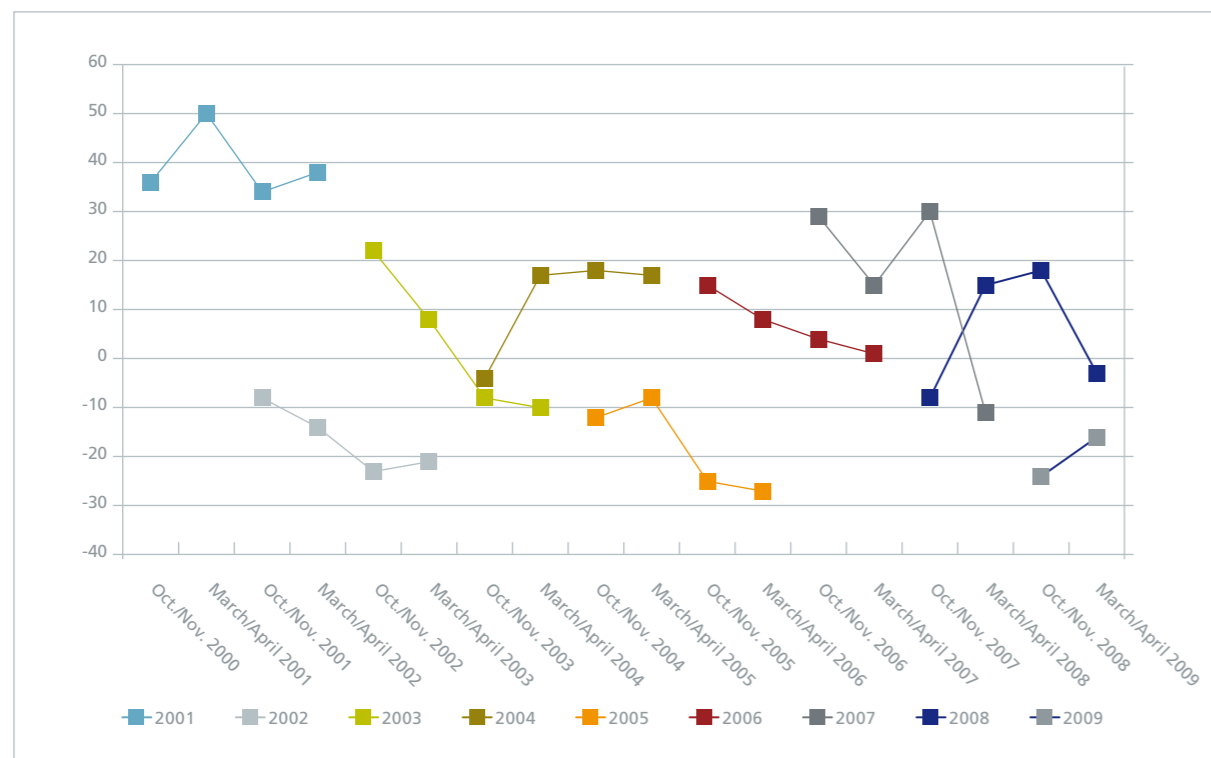
Luxembourg is in the midst of a severe recession, a scenario much worse than previously expected. Real GDP growth is now expected in a range between -5.0% and -4.4%, a scenario somewhere in-between the recessions of 1975 and 1980/1981. The subsequent recovery should be very muted and take longer than 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 become 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).

1. ECONOMIC AND FINANCIAL SITUATION

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 ad-

justment 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

1. ECONOMIC AND FINANCIAL SITUATION

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 characteri-

zed 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

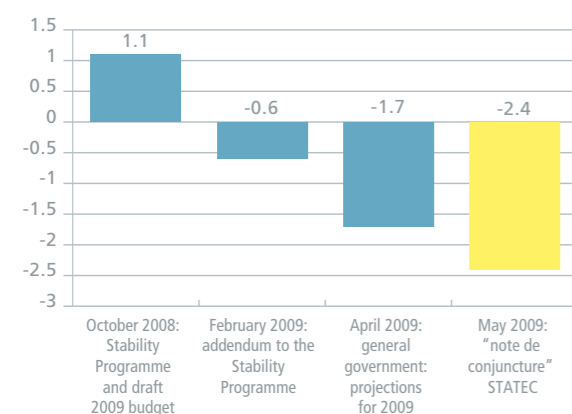
1. ECONOMIC AND FINANCIAL SITUATION

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. With 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.

1. ECONOMIC AND FINANCIAL SITUATION

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 part 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.

1. ECONOMIC AND FINANCIAL SITUATION

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

	Effective 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 - February 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 a 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.

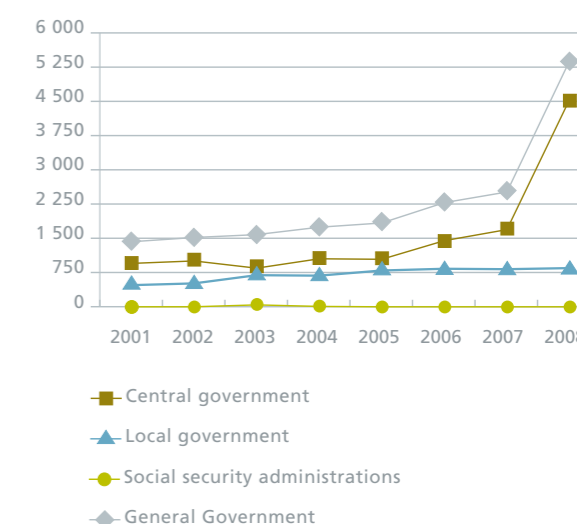
An additional explanation for the pronounced increase of debt relies on the fact that government has borrowed a total of 200 million Euros in order to finance investments in facilities through the Fond du rail and the Fond des routes. Concerning 2009, 2 new loans for a total amount of 400 millions Euros, 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

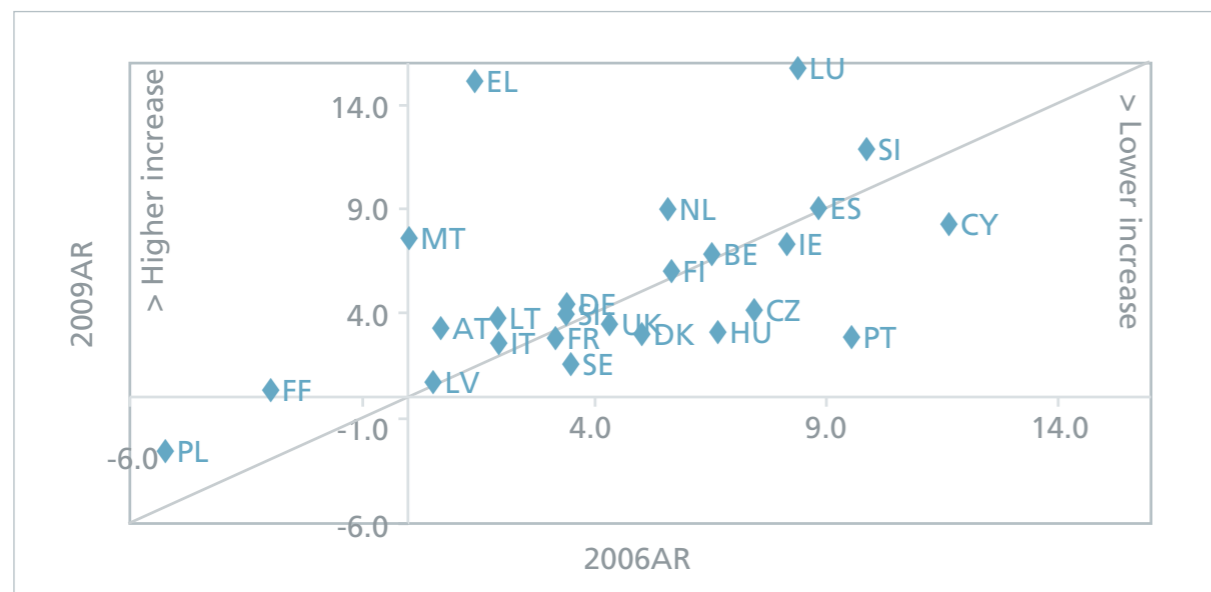
1. ECONOMIC AND FINANCIAL SITUATION

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 with 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

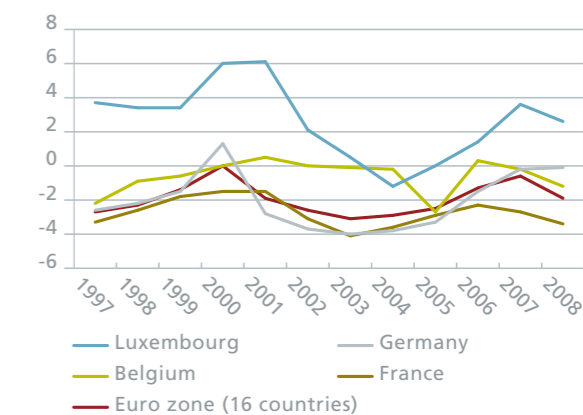
The first section of the analysis outlines the most determinant evolutions of Luxembourg public finances, by confronting them to similar evolutions observed in other European countries. Afterwards, the patrimonial situation of general government, which is characterized by low liabilities compared to 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.

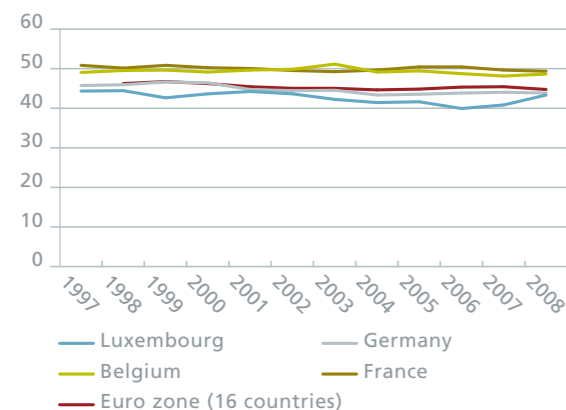
The ratio of total expenditure remains lower than the corresponding ratios in contiguous countries, as well as compared to the euro zone ratio. This reflects a growth rate of nominal GDP which is distinctly more

1. ECONOMIC AND FINANCIAL SITUATION

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)

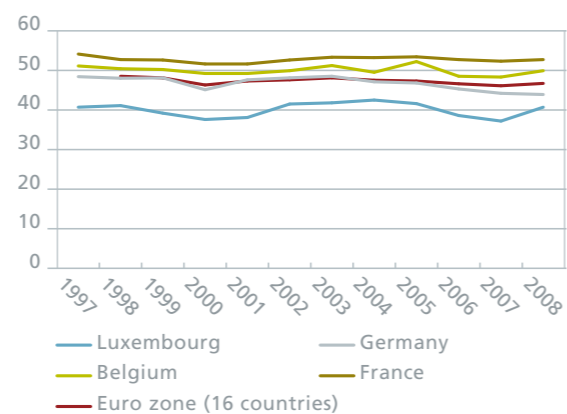


Source : Eurostat, BCL calculations

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)

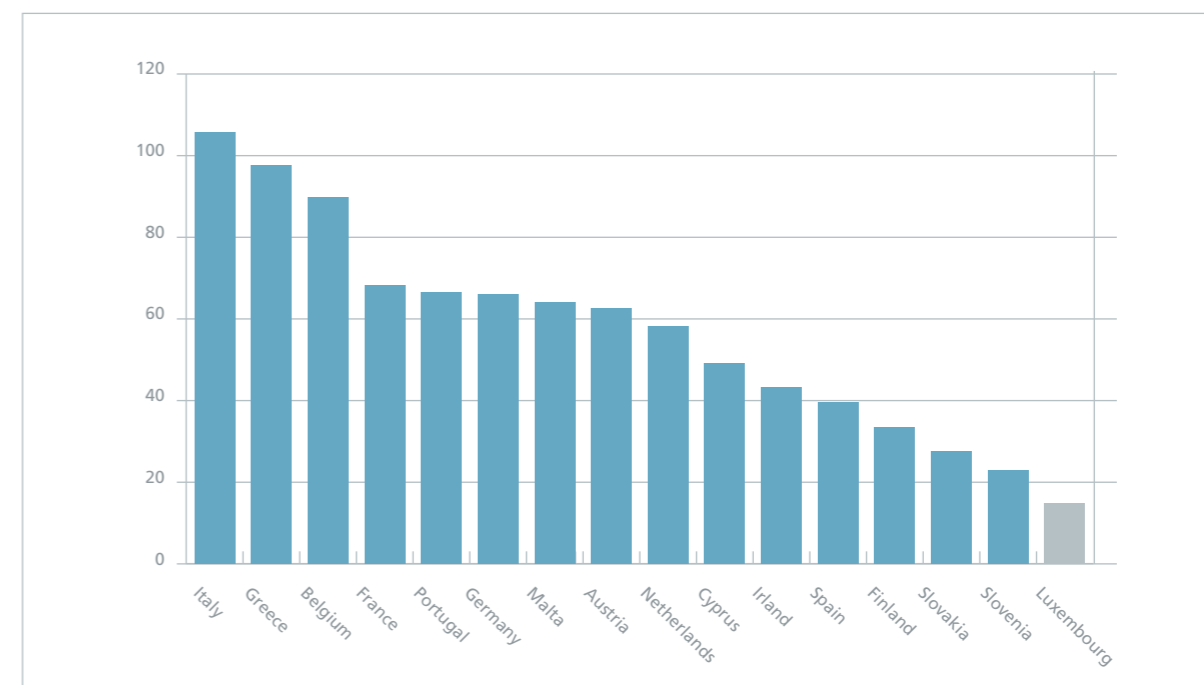


Source: Eurostat, BCL calculations

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)



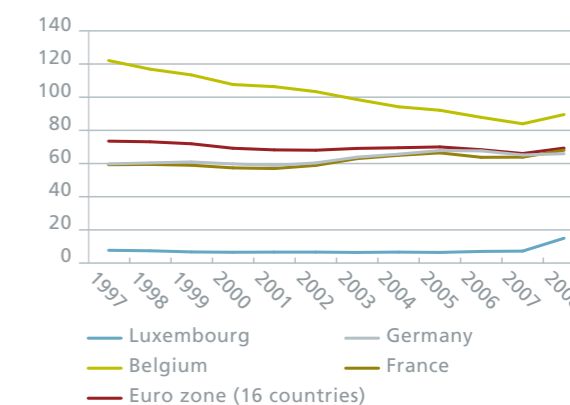
Sources: Eurostat, BCL calculations.

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

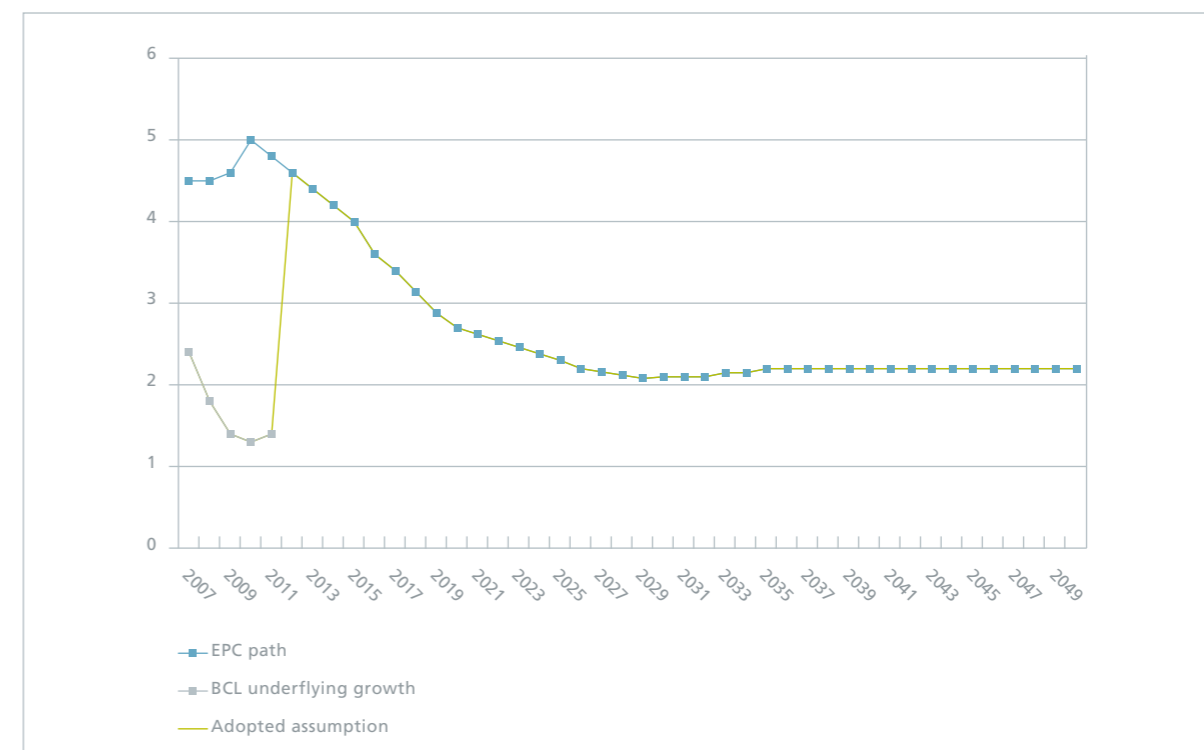
Assumptions

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 "clea-

1. ECONOMIC AND FINANCIAL SITUATION

red" 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 frozen 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.

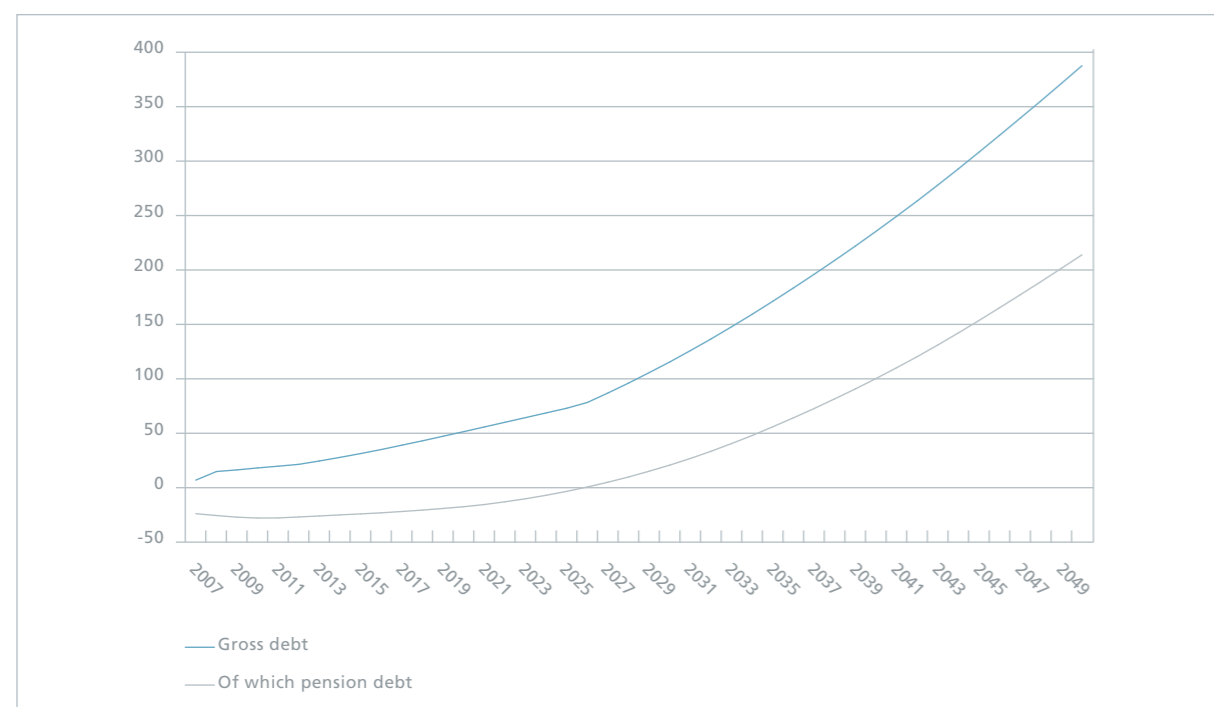
1. ECONOMIC AND FINANCIAL SITUATION

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 dan-

gers 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, Stateg; 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 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

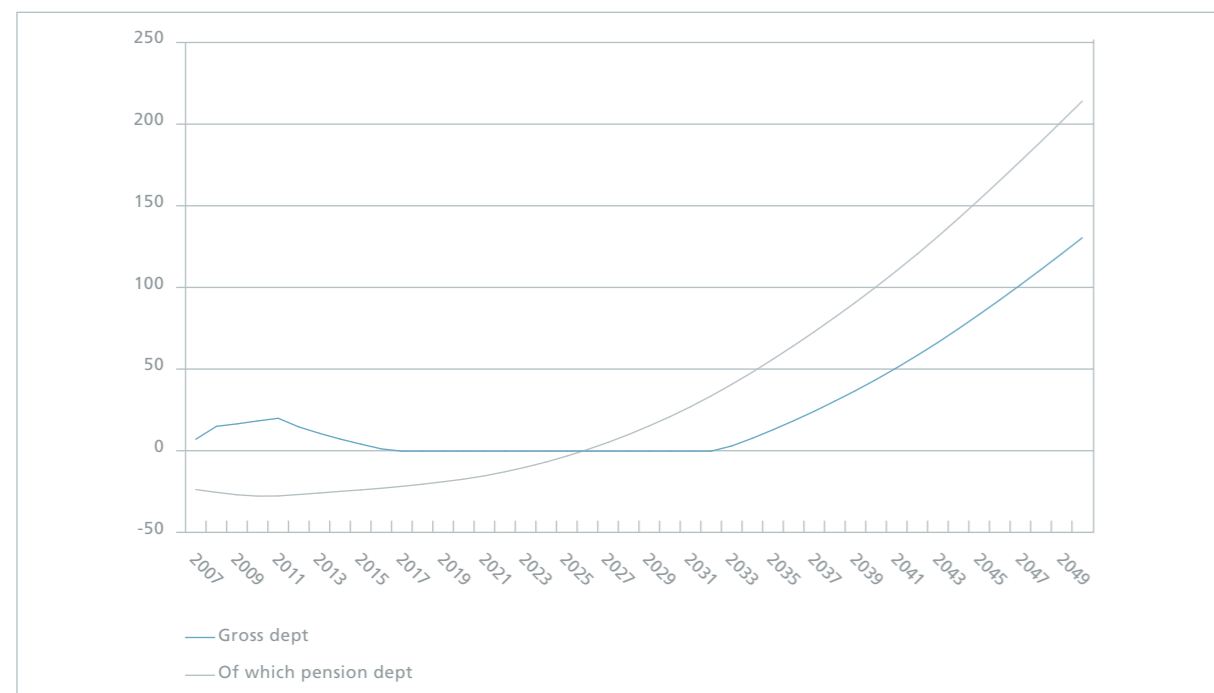
Sources: Ageing Working Group, IGSS, Stateg, BCL calculations.

1. ECONOMIC AND FINANCIAL SITUATION

Deficits should be largely lower than 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)

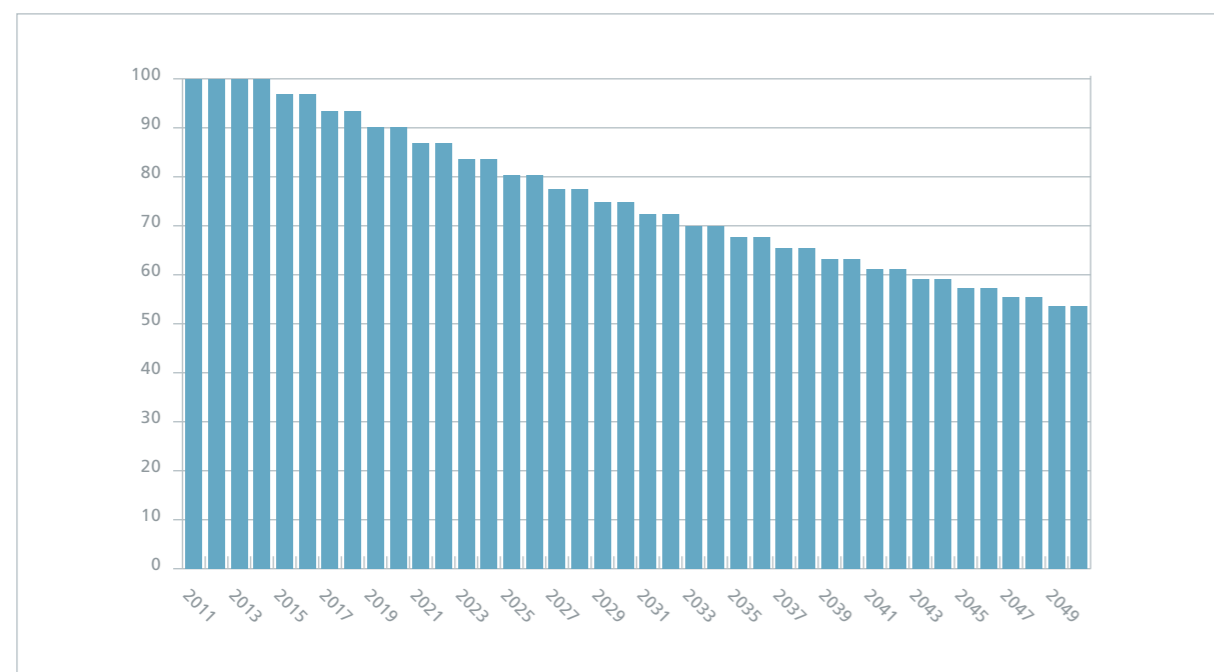
	2011	2015	2020	2025	2030	2035	2040	2045	2050
Total revenue	40.1	39.7	39.6	39.5	39.4	39.1	39.2	39.2	39.1
Direct taxes	12.5	12.9	12.9	13.0	13.0	13.1	13.1	13.1	13.1
Indirect taxes	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4
Social contributions	11.3	11.3	11.3	11.3	11.4	11.4	11.4	11.4	11.4
Interest revenue	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.

1. ECONOMIC AND FINANCIAL SITUATION

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 SURPLUS 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.

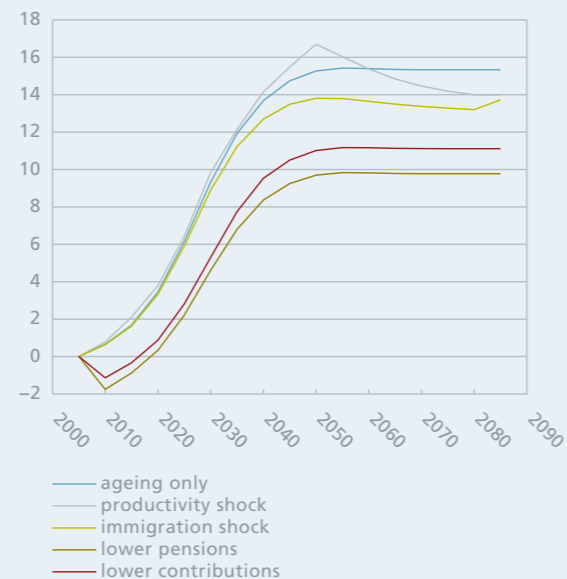
Demographics, pensions and structural reforms

In most European countries, pension payments represent the largest share of the public expenses. With the ageing of the population, this share is 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

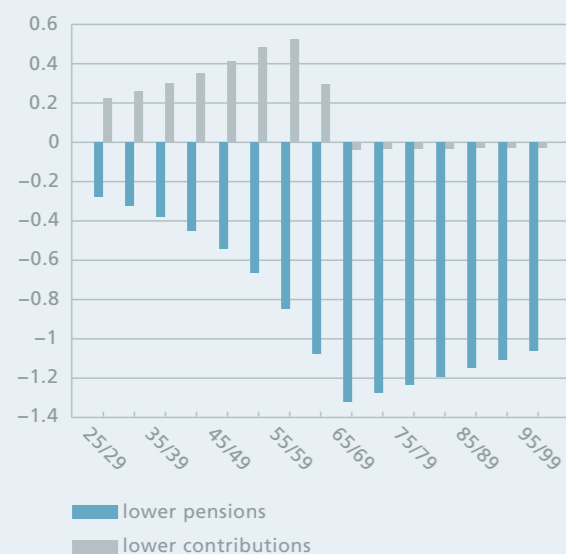
to changes in calibration (especially to changes in the activity rate elasticity).

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, 2009b, 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

1. ECONOMIC AND FINANCIAL SITUATION

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.

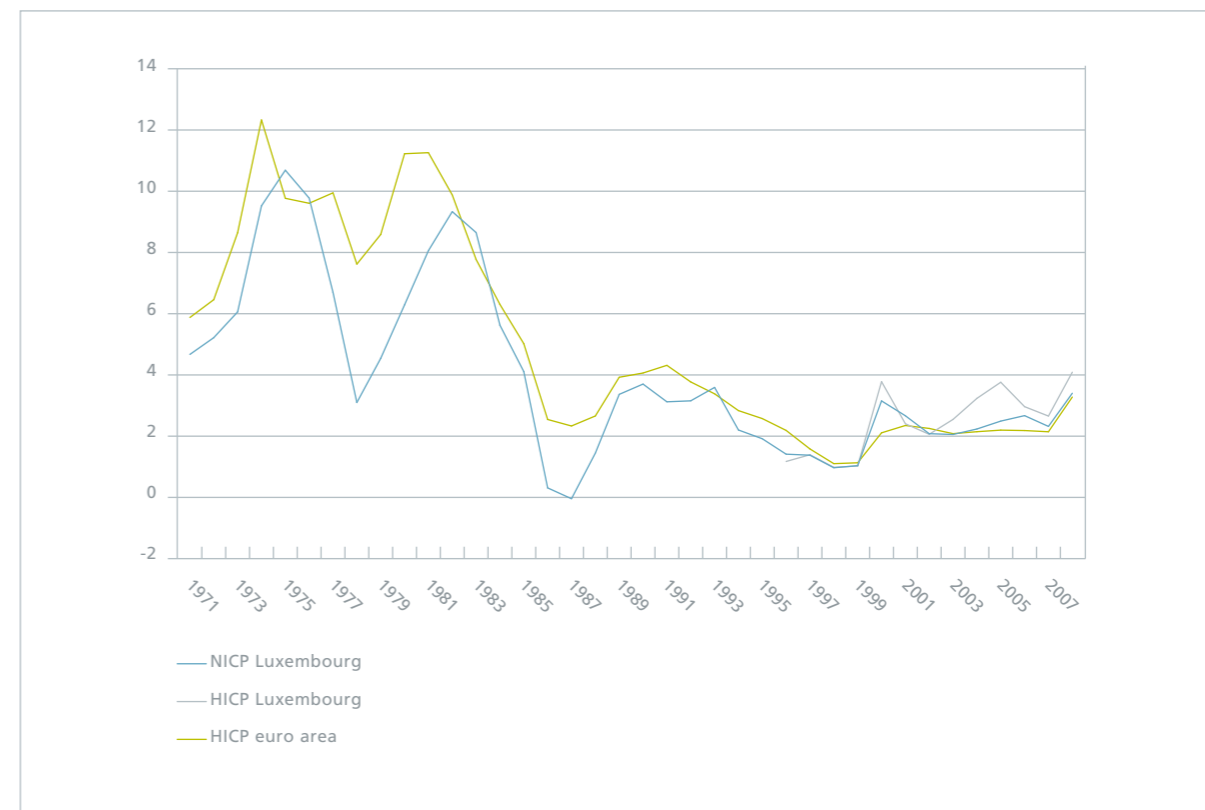
Finally, BCL plays an essential role in the collection, analysis and publication of economic information and statistical data. On the statistical side, it is particularly active as regards the financial sector, monetary institutions and balances of payment. The central bank uses these data for its own 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

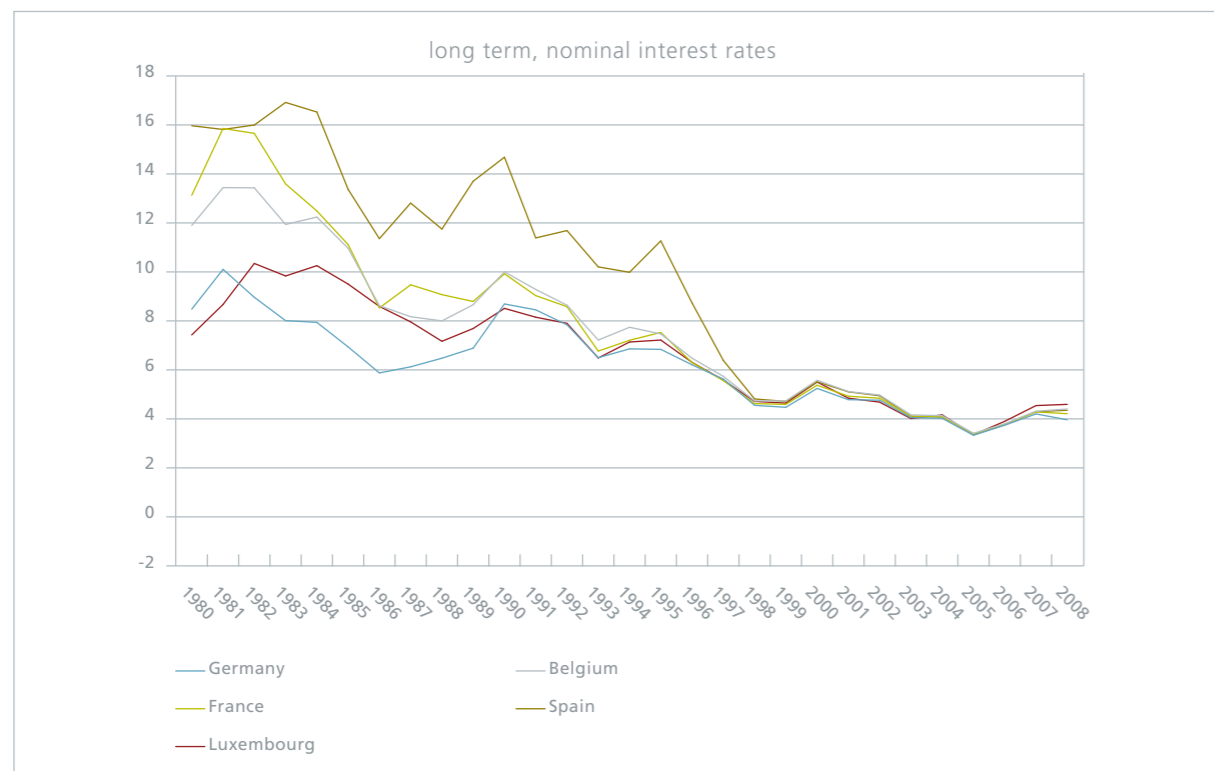
The lower inflation achieved in Luxembourg and even more in the euro area since the advent of the euro contributed to a general decrease of interest rates. Moreover, the latter became less volatile than before.

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

1. ECONOMIC AND FINANCIAL SITUATION

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.

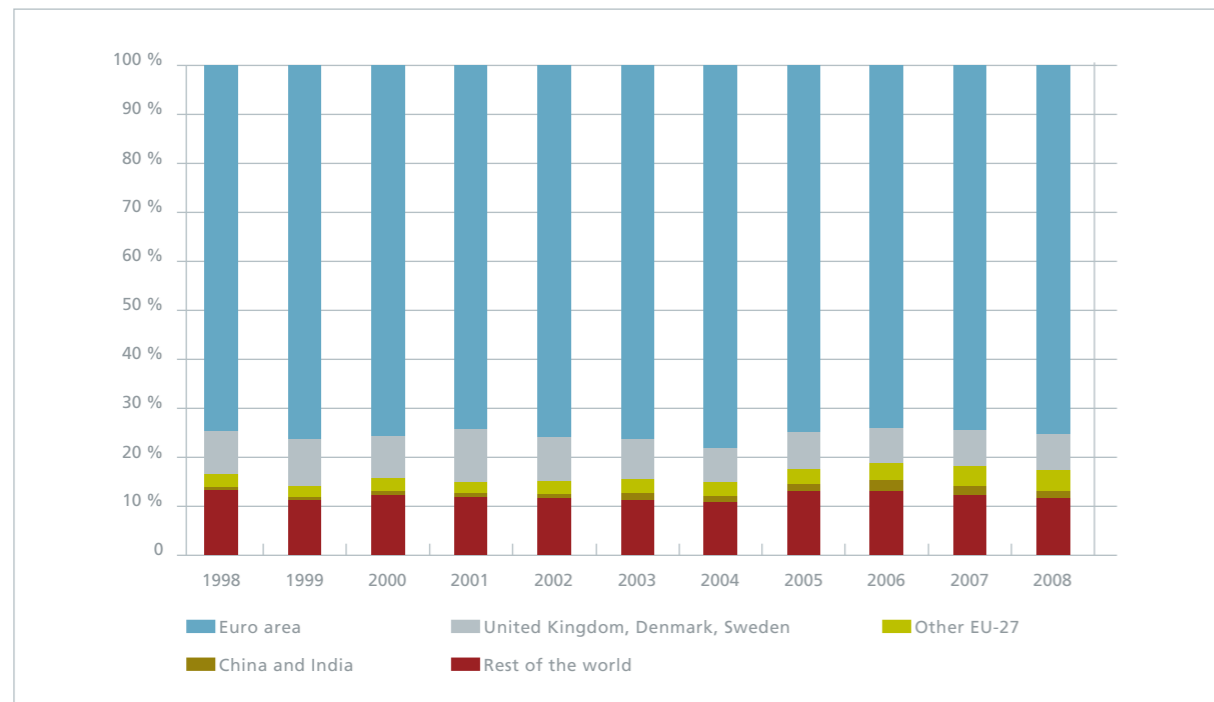
1. ECONOMIC AND FINANCIAL SITUATION

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% in 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.

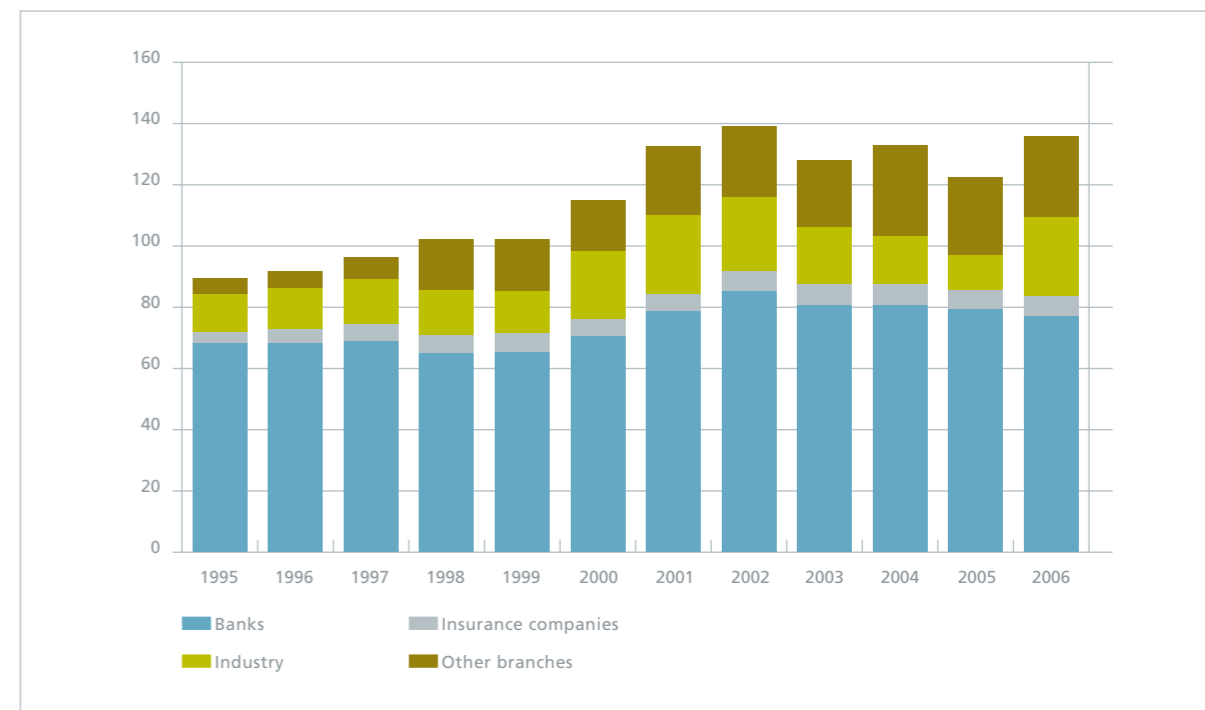
The slight discrepancy between imports and exports is also apparent in terms of growth rates. The Luxembourg merchandise imports from euro area countries increased by 6.3% a year, on average, over the 1998-2008 period, whereas the exports of goods from Luxembourg to the same area went up

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 companies and Soparfi are not included in the chart data.

1. ECONOMIC AND FINANCIAL SITUATION

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.

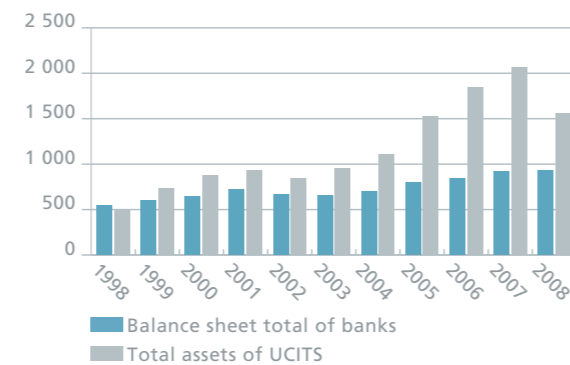
According to a recent ECB study⁵, integration is particular deep on the euro money market, given its proximity with the common monetary policy. The development of infrastructures such as TARGET and TARGET-2 eased this integration process, as they reinforced the standardisation of payment services within 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
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
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.

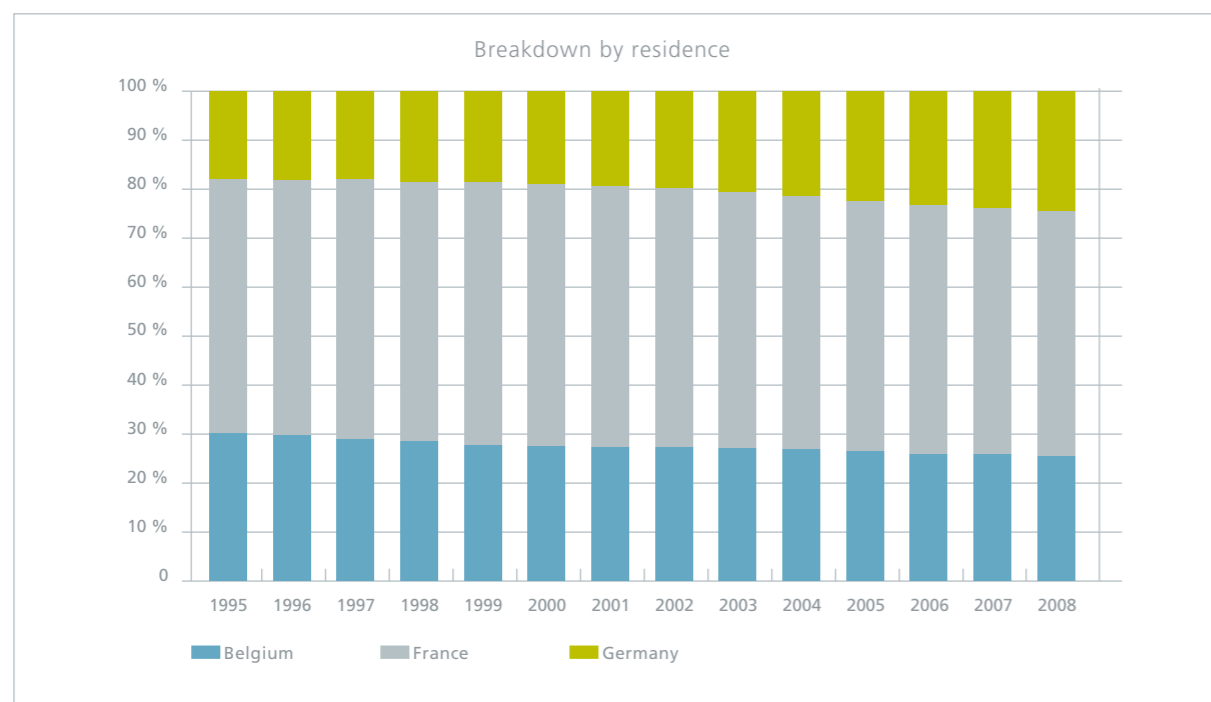
The euro stimulated total employment through another channel than increased labour demand by companies. The labour market is of course at the crossroad of labour demand and supply. In Luxembourg, labour supply rests to a large extent on cross-border workers. And it seems that this crucial segment was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

1. ECONOMIC AND FINANCIAL SITUATION

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.

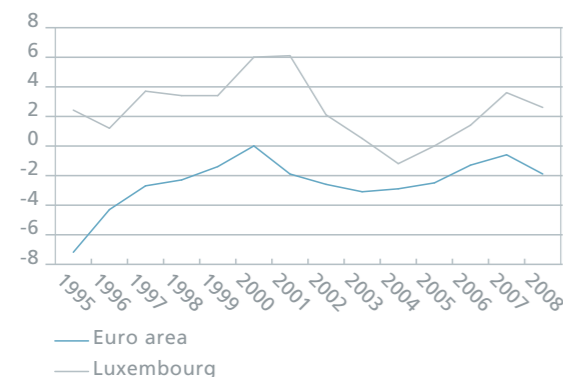
Compliance with the 3% reference value in all circumstances presupposes that Member States fulfil the so-called "Medium-term budgetary objectives" (MTOs). MTOs are defined in a structural way, as they correspond to general government balances corrected for the impact of economic cycles and of temporary 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.

1. ECONOMIC AND FINANCIAL SITUATION

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

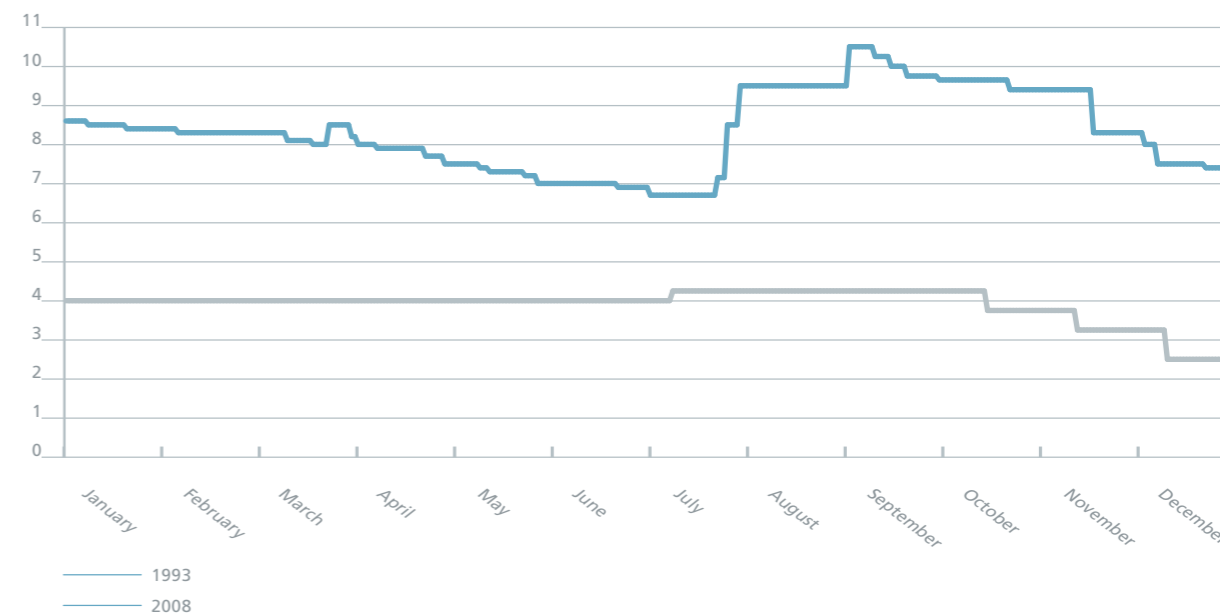
Without the euro, the current crisis would probably have been exacerbated by a similar instability of exchange rates and interest rates, or by even more pronounced fluctuations given the acuteness of this crisis. In these circumstances, interest rate conditions would probably have deteriorated in countries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

⁶ Source : AMECO database of the European Commission.

economic recovery plans of these countries. They could even have prevented the adoption of these plans.

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

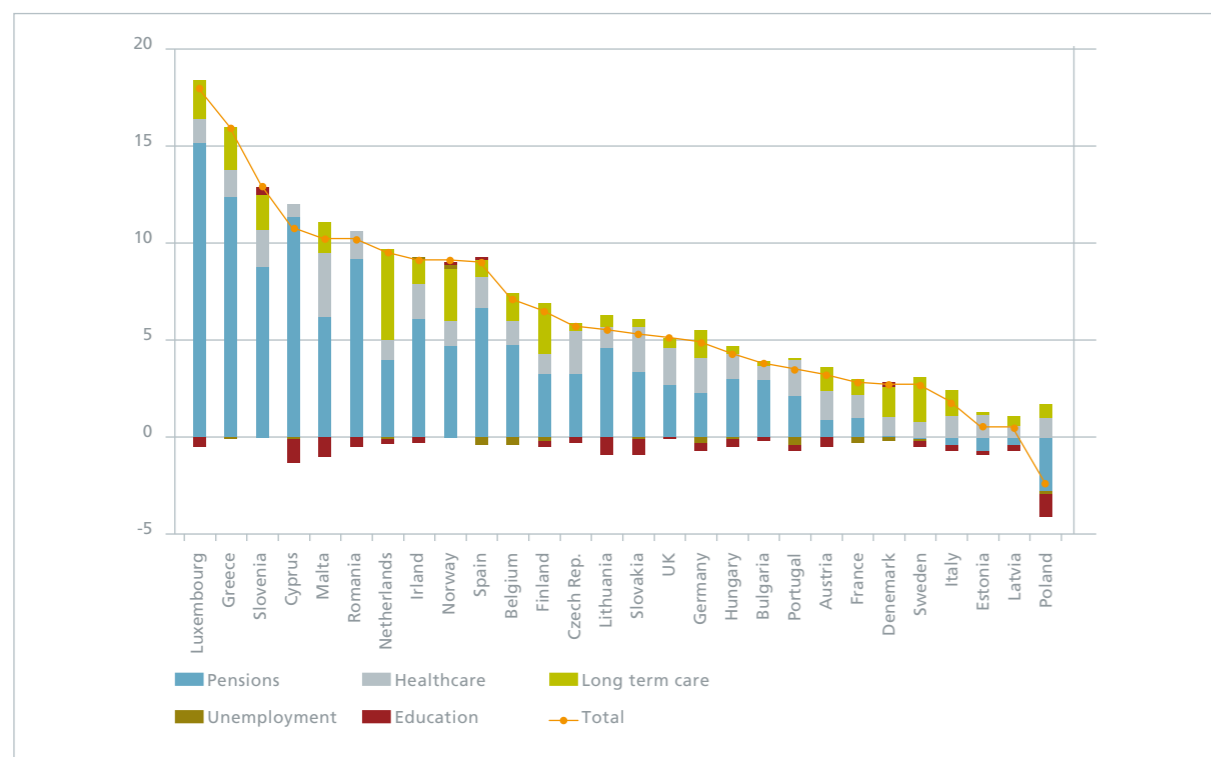
1.3.9.1 Public finances : ensure long term sustainability, especially of the pension system

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).

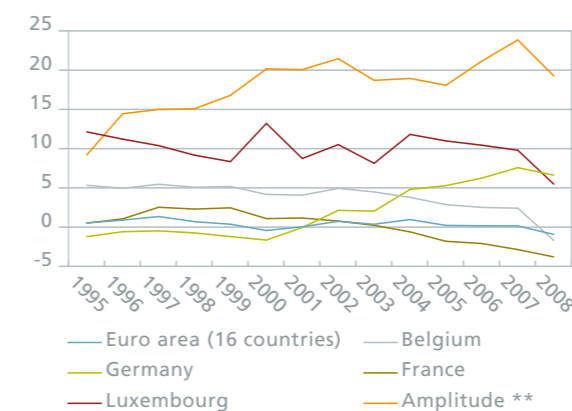
This would give way to an unprecedented increase in public debt, which would be particularly damaging within a monetary union. This clearly highlights the need for major structural reforms as regards in particular pensions and healthcare.

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

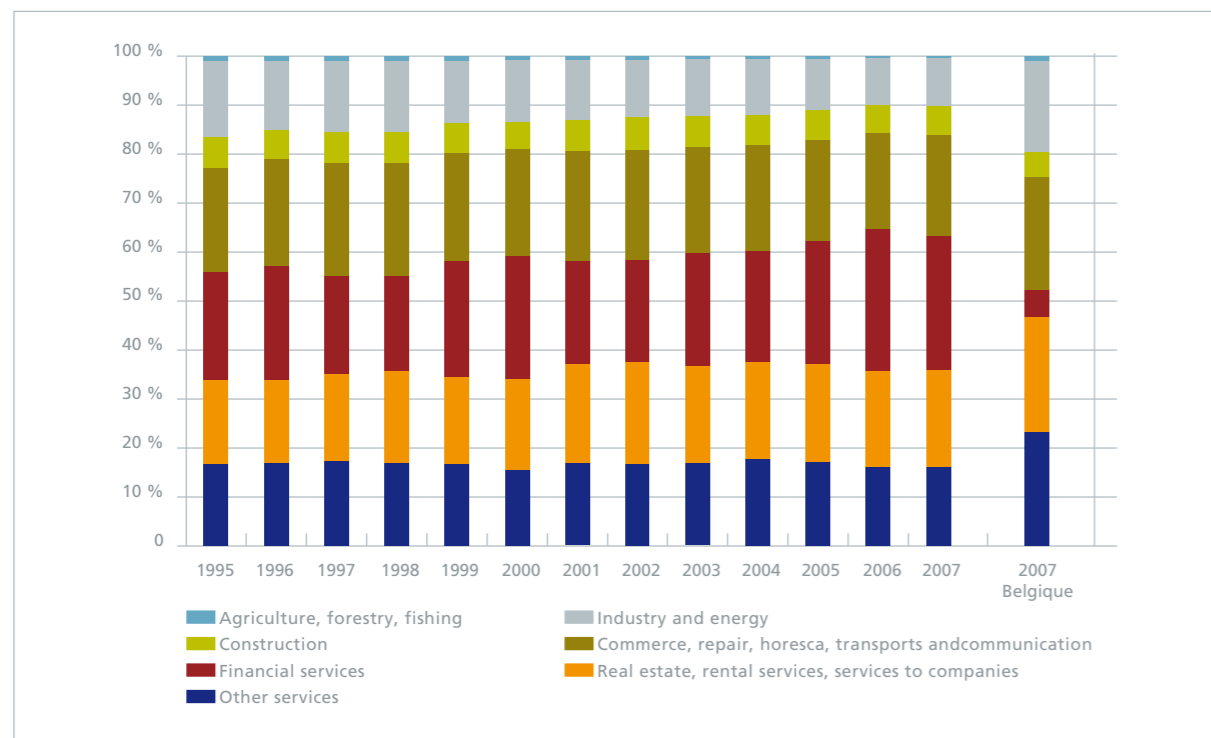
Research and development (R&D) is a key aspect of the Lisbon strategy. The objective in this field, defined at the European level, is to increase total R&D expenditure – both private and public – to 3% of GDP. The Luxembourg authorities have adopted this 3% value as the national target.

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.

1. ECONOMIC AND FINANCIAL SITUATION

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)

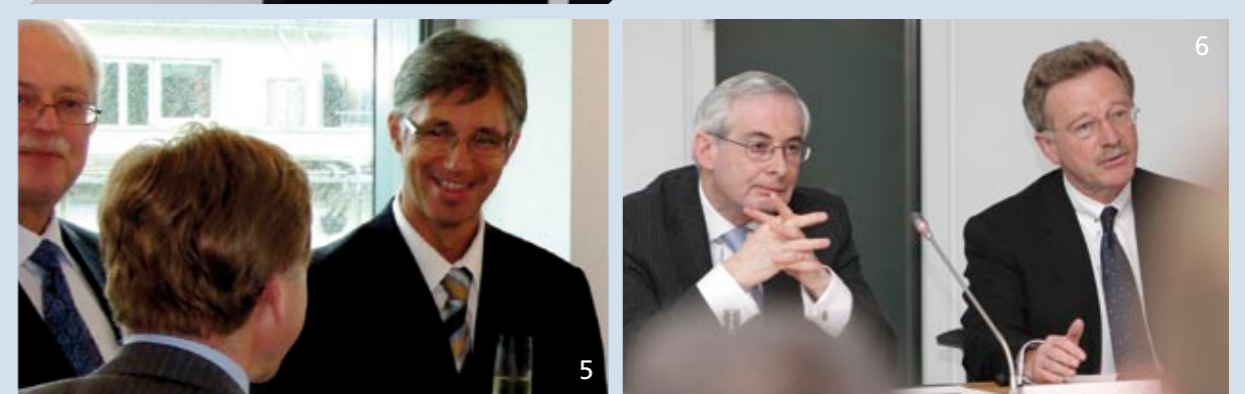
	15 to 64 year		50 to 64 year		Women, 15 to 64 year
Netherlands	78.7	Finland	59.4	Finland	74.1
Germany	76.2	Cyprus	57.6	Netherlands	72.4
Finland	75.8	Germany	57.3	Germany	70.2
Austria	74.8	Ireland	55.1	Portugal	68.9
Portugal	74.1	Portugal	54.5	Austria	68.0
Cyprus	72.9	Netherlands	53.3	Slovenia	66.7
Ireland	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.



- 1+2 *March 2008: Visit of Prof. Dr. Axel Weber, President of the Deutsche Bundesbank (1) and Prof. Dr. Ewald Nowotny, Governor of the Oesterreichische Nationalbank (2), at the BCL*
- 3 *December 2008: Visit of Mr. Michael Bonello, Governor of the Bank of Malta, at the BCL*
- 4 *June 2008: Visit of Mrs. Gertrude Tumpel-Gugerell, member of the Executive Board of the ECB, at the BCL*
- 5 *July 2008: Visit of M. Marko Kranjec, Governor of the Bank of Slovenia, at the BCL*
- 6 *April 2008: Visit of M. John Hurley, Governor of the Central Bank and Financial Services Authority of Ireland, at the BCL*

2. THE BCL'S OPERATIONS

2.1 Monetary policy operations

In Luxembourg, BCL is responsible for executing the monetary policy operations as defined by the ECB for the entire euro zone.

The objective of monetary policy is to steer interest rates and to control the liquidity in the money markets. To achieve these goals, the Eurosystem uses instruments from three different categories:

Open Market Operations

The refinancing operations conducted by the BCL (open market operations), consist of funds granted by the BCL against eligible collateral submitted by its counterparties, the financial institutions in Luxembourg.

Open market operations are split into:

- Main refinancing operations (MRO), carried out by the Eurosystem on a regular basis. MROs are realised through weekly tenders, with a one-week maturity. Those operations play a leading role in steering interest rates (thanks to the minimum bid rate), in the management of banking liquidity and in signalling the trend of monetary policy.
- Longer term refinancing operations (LTRO), carried out by the Eurosystem on a regular basis. LTRO are normally conducted through monthly tenders. They mostly have a three month-maturity. Those operations aim at providing additional longer term funding to the financial sector. They do not aim at giving signals about the orientation of the monetary policy.
- Fine tuning operations, executed by the Eurosystem on an ad hoc basis in order to counter temporary imbalances.

Standing Facilities

This instrument allows for the injection and withdrawal of liquidities on a day to day basis.

There are two types of standing facilities:

- the marginal lending facility: the counterparties benefit from a marginal lending facility at BCL, which they can use in the form of a current account overdraft (against a guarantee) until the following working day.
- the deposit facility: the counterparties benefit from the possibility to make deposits with BCL at the end of the day.

Minimum Reserves

The financial institutions of the Euro zone are subject to a system of mandatory minimum reserves to be held on accounts opened at their national central bank.

Those reserves aim at stabilising money market interest rates, and at creating a structural liquidity deficit.

Temporary currency tenders operations

Since the end of 2007, financial institutions in the euro zone have been experiencing a shortage of liquidities in dollars. To address this issue, the ECB set up a swap agreement with the Federal Reserve (US dollar term auction facility), through which the ECB, via the National Central Banks, provides dollars to counterparties through tender operations (against usual eligible collateral denominated in euros) and through EUR/USD swap operations (such operations were discontinued in January 2009).

Similar operations were also set up with the Swiss National Bank (EUR/CHF swap operations). These operations had no direct impact on the liquidity conditions in the euro zone.

2.1.1 Open market operations

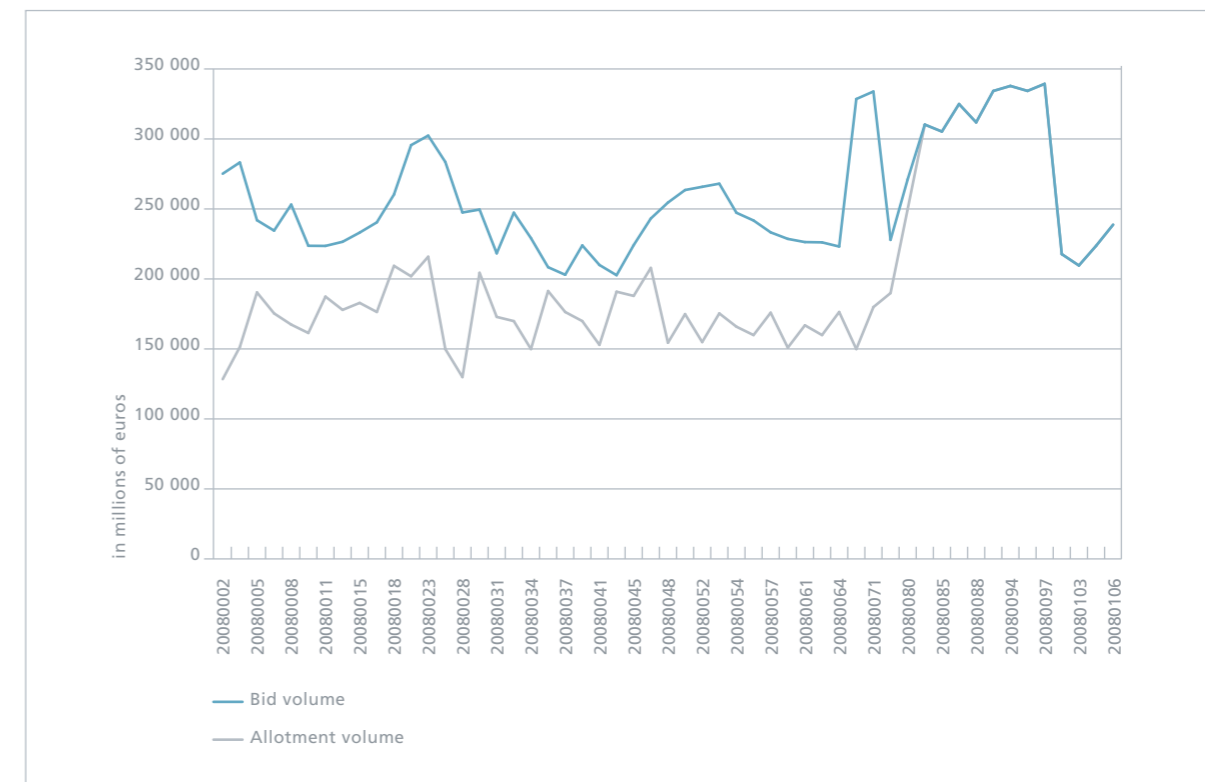
2.1.1.1 Main refinancing operations (MRO) in 2008

During the first half of 2008, very few changes were noticed as far as MROs are concerned. But the situation deteriorated dramatically as of mid-September, after the bankruptcy of Lehman Brothers. As a reaction, the ECB took numerous measures in order to provide banks with a continuous access to liquidity in a context of disrupted markets. The ECB started its actions by allocating substantially higher amounts in its refinancing operations than projected in the normal benchmark allotment. At the beginning of October 2008 (tender 20080084), the ECB announced that the bid

amounts in its MROs will be allocated in full and at a fixed interest rate. This measure will remain valid until end 2009 at least.

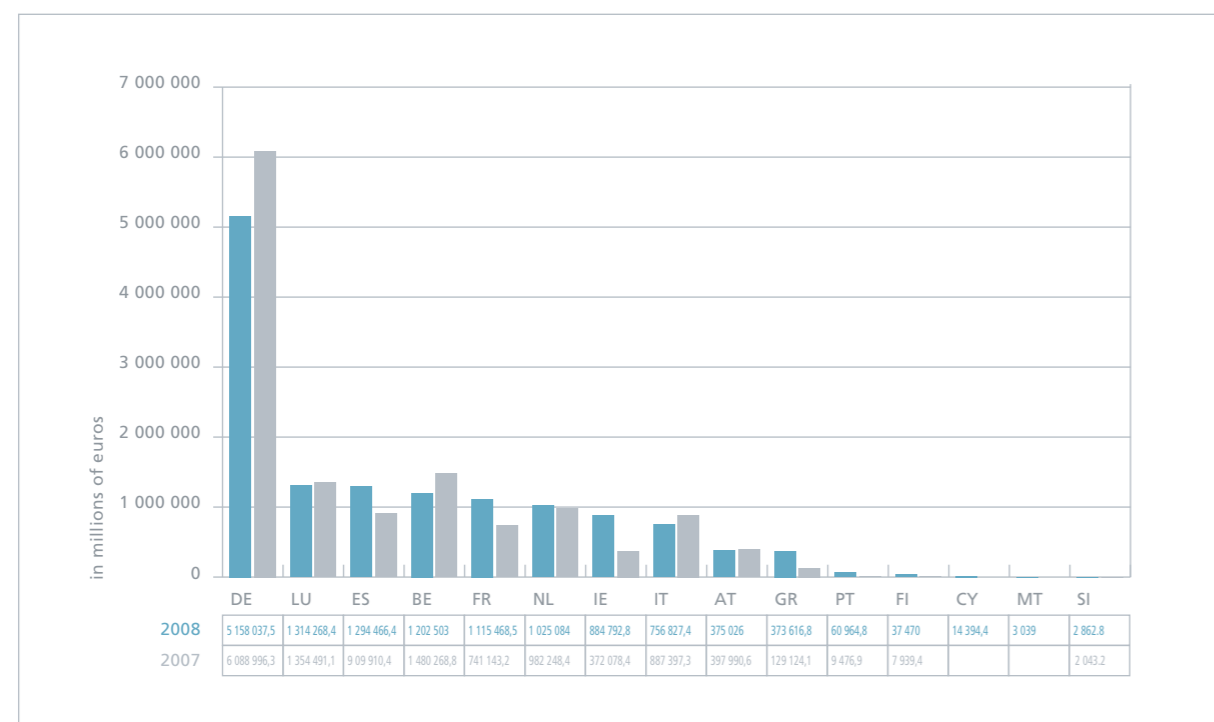
Luxembourgish counterparties continued to participate actively in the main refinancing operations, thereby placing Luxembourg on average at the second place in terms of allotment volume, ranking only behind Germany.

FIGURE 1 :
MRO 2008 BIDS AND ALLOTMENTS IN THE EURO ZONE



2. THE BCL'S OPERATIONS

FIGURE 2 :
MRO 2008 COUNTRY ALLOCATION OF LIQUIDITIES ALLOTTED IN THE EURO ZONE



2.1.1.2. Longer-term refinancing operations (LTRO) in 2008

As of August 2007, to help the financial markets to recover, the ECB set up supplementary longer-term operations (3 and 6 months) in addition to the regular 3-month operations.

Moreover, operations with a duration matching exactly one maintenance period were set up at the end of September 2008.

As with the main refinancing operations, all bids were allocated in full and at a fixed interest rate as from October 2008 (tender 20080087).

Participation of domestic counterparties in longer-term operations levelled off in 2008. While Luxembourg still ranked in fourth position in 2007, it was relegated to eighth place in 2008.

The ECB intensively used longer-term operations in order to restore confidence in the money markets. For example, only 16 longer-term operations (total allotted volume: 833 mio) had been initiated in 2007 compared to 53 in 2008 (total allotted volume: 1.543 mio). Participation in the euro zone varied significantly, with many countries more than doubling their share in comparison to 2007.

FIGURE 3 :
LTRO 2008 BID AND ALLOTMENT AMOUNT IN THE EURO ZONE (IN MILLIONS OF EUROS)

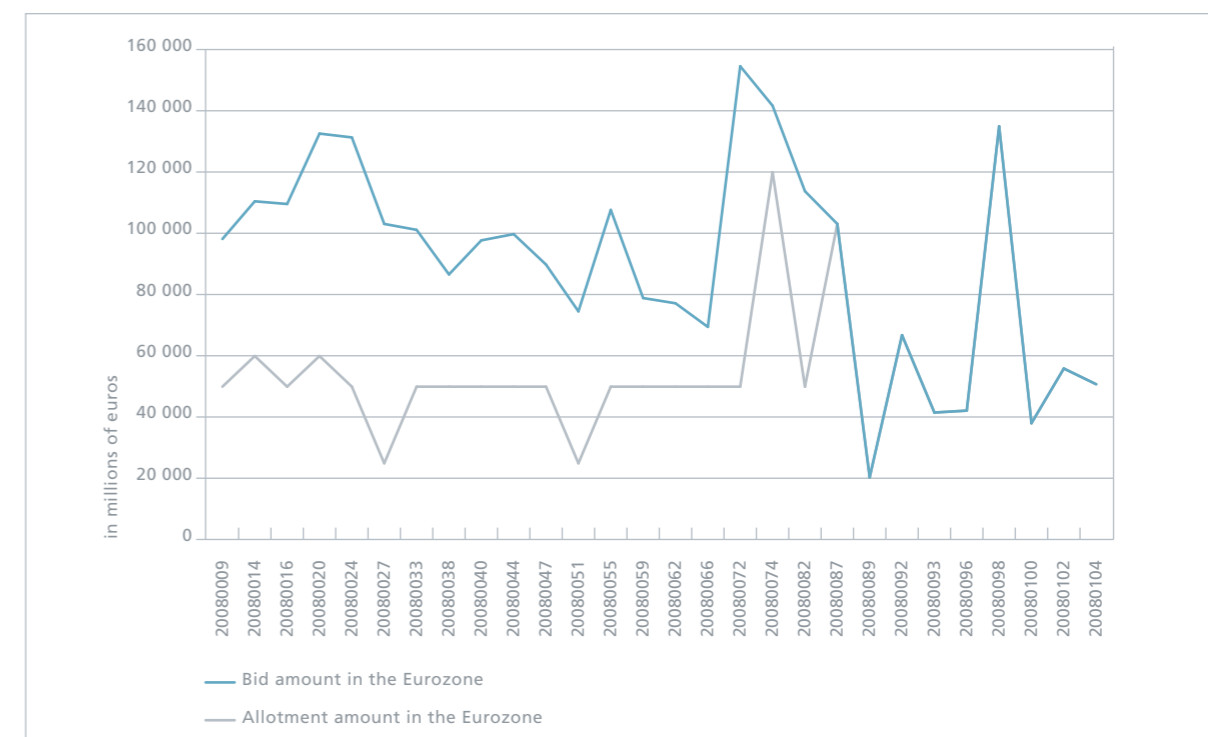
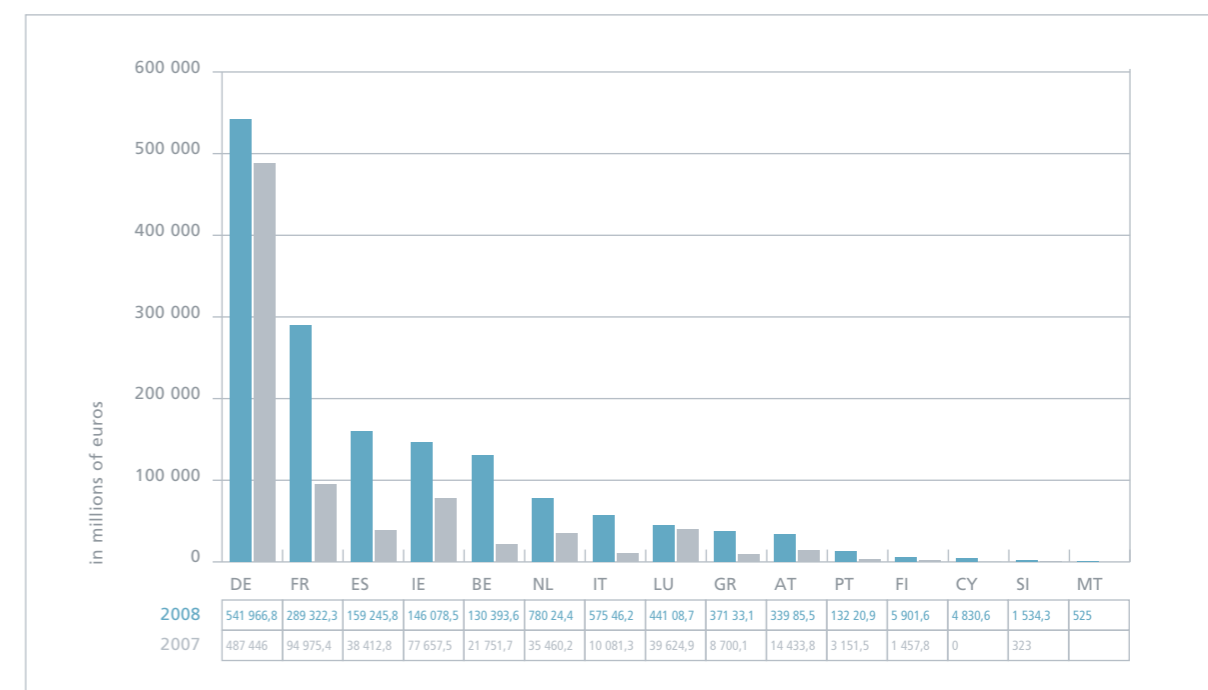


FIGURE 4 :
LTRO 2008 TOTAL ALLOTMENT AMOUNT IN THE EURO ZONE COMPARED TO 2007



2. THE BCL'S OPERATIONS

2.1.1.3. Fine tuning operations in 2008

As from October 2008, the list of fine-tuning counterparties was enlarged to all counterparties eligible for the main refinancing operations. Prior to this change, the access to fine tuning operations was restricted to a limited number of counterparties respecting specific eligibility criteria.

This measure is still applicable but has a limited impact on the participation in Luxembourg.

2.1.2 Standing facilities

Luxembourg counterparties may have recourse to standing facilities offered by BCL, either through the deposit facility or through the marginal lending facility. Recourse to these facilities is made against predefined interest rates, which are directly related to the reference rate of the European Central Bank.

In the context of the money market turmoil in 2008 and the subsequent confidence crisis, standing facilities were used much more extensively than during the previous years.

The excess liquidities generated by the decision allot all operation in full, was mainly reabsorbed by an extensive use of the deposit facility. For security reasons many counterparties preferred to deposit their overnight excess liquidities at the BCL instead of in the interbank market.

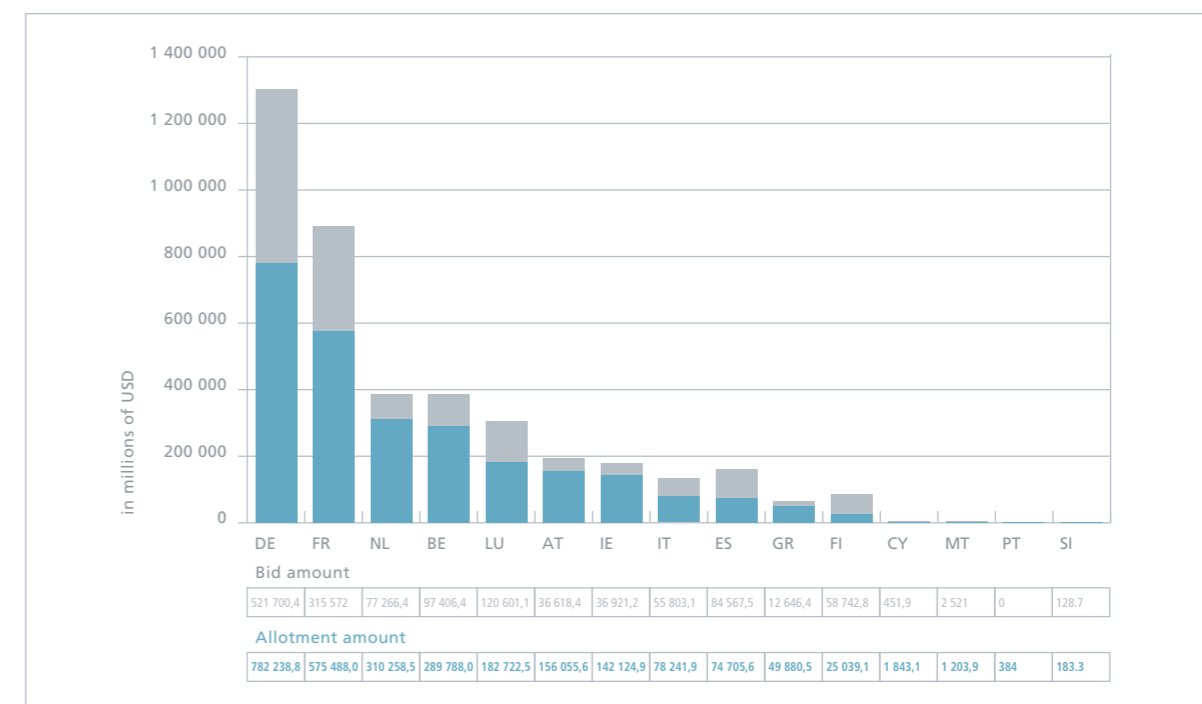
2.1.3 Minimum reserves

The counterparties of the Euro zone are required to deposit reserves at the national central bank of their country of residence. This requirement has to be met on average over a fixed period of time, a feature which allows counterparties to make free use of their liquidities over the period. This feature helps stabilizing the money market.

In 2008, the excess reserves held by counterparties were significantly higher than in the previous years. This indicates that financial institutions have managed their available liquidities less efficiently than in the past.

The counterparties of BCL have rarely failed to meet their reserves requirements during 2008.

FIGURE 5 :
USD TENDERS IN 2008 - TOTAL BID AND ALLOTMENT AMOUNT IN THE EURO ZONE



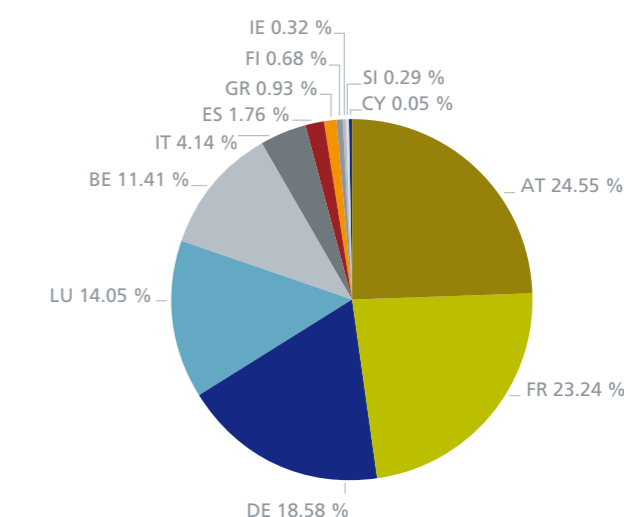
2.1.4. Temporary currency auction facilities

In 2008, the ECB continued with providing USD liquidity, in co-operation with the FED, to banks in the euro zone.

In October 2008, the USD facility was enlarged with the introduction of the full allotment at a pre-announced fixed rate.

Concerning EUR/CHF swaps, the amount allotted in 2008 was fixed to 20 billions per operation. This instrument will be maintained at least until the end of July 2009.

FIGURE 6 :
CHF OPERATIONS IN 2008 -
AVERAGE PERCENTAGE ALLOTTED IN THE EURO ZONE



2. THE BCL'S OPERATIONS

2.2 Foreign exchange reserves management by the BCL

In accordance with the Statute of the Eurosystem and in line with its share in the ECB's capital key, the BCL transferred €74.6 million in foreign exchange assets to the ECB.

The ECB's foreign exchange reserves have been managed in a decentralised way by the national central banks since January 1999. Since the EU's enlargement and the relative growth of GDP and population in Luxembourg, the BCL's share in the ECB's capital key has been 0.1575. As of 31 December 2008, the total market value of the ECB's reserves (including accrued interest) managed by the BCL corresponded to €255.6 million.

One goal of the foreign exchange reserves management of the ECB is to ensure that the ECB has sufficient available liquidity to intervene in the foreign exchange markets if needed. Security and liquidity are, therefore, basic requirements in managing reserves.

This tactical benchmark reflects the ECB's risk/return medium-term preference as regards market conditions. A change in the tactical benchmark may affect different risk categories (for example, modified duration or liquidity risk). The Value at Risk of the tactical benchmark may differ from that of the strategic benchmark in the context of fluctuation margins announced, in advance, by the ECB.

Regarding the management of this portfolio, the prime task of the BCL is to invest foreign exchange reserves on behalf of the ECB within the prescribed fluctuation bands and fixed risk limits, with the objective being return maximisation. The amount of actively managed assets in gold is specified by the ECB, taking into account strategic considerations and market conditions.

The BCL manages a USD portfolio on behalf of the ECB.

2.3 Management of the BCL's assets

2.3.1 Institutional structure

Asset management is based on a five-level intervention structure, in addition to risk control:

- The Council (level 1),
- The Executive Board (level 2),
- The Asset and Liability Management Committee (ALCO) (level 3),
- The tactical committees (level 4),
- The portfolio managers (level 5).

- Level 1: The Council

The Council approves the guidelines of the asset management framework. Thus, the Council has granted the BCL the possibility to provide asset management services to third parties and to hold own funds asset portfolios in order to diversify the Bank's income. The guidelines also include mitigation of the risk framework applied to asset management.

- Level 2: The Executive Board

The Executive Board defines the risk management framework. Thus, it determines the maximum risk allowance (MRA) in the management of the Bank's own assets. It also specifies the risk management measures, like the Value at Risk (VaR) method and the application of stress-testing scenarios. The Executive Board also sets warning thresholds, which can lead to the calling of emergency meetings for assessment and arbitrage purposes. The Executive Board sets the limits of the framework annually.

- Level 3: The Asset and Liability Management Committee ALCO

ALCO determines the strategic benchmark according to the framework fixed annually by the Executive Board by examining the impact of each risk profile (market, credit and liquidity risk) which would result from the proposed investment policies, in respect of both the overall balance sheet and the profit and loss account of the BCL. During the year, ALCO regularly assesses the results of the investment policy.

- Level 4: The tactical committees

The tactical committees monitor the evolution of the portfolios on a shorter-term basis and work out proposals for tactical benchmarks that comply with the limits laid down by the strategic benchmark.

The tactical committees consist of the following:

- The *Comité de gestion*, for the BCL's own funds,
- The *Comité réserves de change* for the pooled reserves of the ECB,
- The *Comité tactical benchmark* for the pension fund of the BCL.

- Level 5: The portfolio managers

The transactions are executed by the portfolio managers, in strict compliance with the limits set, covering both the overall and specific investment limits.

2.3.2 Risk control

In addition, the important role played in the asset management framework by the Organisation and Risk Management unit (OR) and the Internal Audit unit (IA) should be mentioned.

The Risk Manager of the OR unit monitors the positions of all the portfolios in order to assess risks and to verify compliance with the pre-defined limits. This monitoring is carried out daily, independently of the Front Office. The IA unit complements the monitoring structure with specific missions at different levels of the organisation. In addition, the Middle and Back Offices also take part in the monitoring process.

2.3.3 Conceptual framework

The investment policy objectives

The main objectives are to generate a high income on a regular basis and to ensure a total return over the long term by taking into account considerations such as capital safety, stability of securities and liquidity. In order to achieve these goals and in accordance with the principle of risk diversification, the BCL implements a coordinated, progressive and pro-active investment policy based on modern portfolio theory.

The investment approach takes into account:

- the analysis of economies and international financial markets;
- the asset allocation decisions by assessing the returns on different international markets;
- the drawing-up of a clearly defined strategy;
- the capital value preservation of the assets under management by a policy of risk diversification and the application of specific qualitative requirements with regard to investments;
- the application of strict risk control measures.

Investment decisions are based on:

- market risks (interest rates, exchange rates, equity prices, commodity prices);
- credit risks (minimum credit ratings criteria by international rating agencies);
- liquidity risks (concentration limits by sector, by issuer, by issue and by geographical diversification).

Performance measurement

The quality of the investment decisions is measured by comparing the performance with the external benchmarks of leading investment banks. This allows a given performance to be assigned to a decision level (strategic, tactical) as well as to daily management.

2.3.4 Structure of portfolios

The bulk of the BCL's own funds are invested in fixed income securities denominated in euro. The strategic orientation allows a diversification into other asset categories.

The BCL manages five kinds of portfolios: the Investment Portfolio, the Liquidity Portfolio, the Domestic Reserves Portfolio, the Pension Fund Portfolio and Portfolios from third parties.

Investment Portfolio (Portfolio 1)

This portfolio consists of assets (equity and bonds), which can be deemed to represent its own funds (with a longer-term investment profile). The main goal of the portfolio is to maximise the return by taking into account the above-mentioned risk constraints (see

2. THE BCL'S OPERATIONS

section 2.3.2). As of 31 December 2008 the total market value (including accrued interest) amounted to €1 571.8 million.

In 2008 the share of this portfolio invested in fixed income securities with a maturity above three years was increased from 28% to 34%, whereas the percentage of bonds with a one to three year maturity declined from 29% to 28%. Moreover, by the end of 2008, variable rate and fixed rate bonds with maturity under one year represented 38% of Portfolio 1.

The securities included in this portfolio are widely diversified, not only geographically but also in terms of sectors and issuers.

Liquidity Portfolio (Portfolio 2)

This portfolio comprises the other assets that are largely attributable to a Eurosystem arrangement (Agreement on Net Financial Assets) and mirrors TARGET accounts and other liabilities. This portfolio, whose liability profile covers certain liquidity needs, also aims to maximise income. The instruments used are mainly fixed-income short-term bonds, variable rate bonds and certificates of deposits (ECP), provided that they comply with strict and predefined rating criteria. As of 31 December 2008, the total market value (including accrued interest) amounted to €4 055.6 million.

BREAK-DOWN OF RESERVES AS OF 31 DECEMBER 2008

Maturity	Portfolio 1	Portfolio 2
0-1 year	38%	75%
1-3 years	28%	19%
3-10 years	34%	6%

Domestic Reserves Portfolio

This portfolio aims to maintain an intervention portfolio in addition to the pooled foreign exchange reserves transferred to the ECB. Thus, the main requirements

for this portfolio are security and liquidity. As of 31 December 2008, the total market value (including accrued interest) of this portfolio in foreign currencies amounted to €183.8 million.

Pension Fund Portfolio

The management of this fund is described further in section 4.3.4 of this report.

Investments Portfolios

The BCL provides non-standardised discretionary management services to institutional clients (central banks and international organisations). The Bank belongs to the Eurosystem service providers. Six central banks within the Eurosystem offer institutional clients (central banks, public authorities and international organisations) a comprehensive range of services for managing Euro-denominated reserve assets under a new framework of harmonised services defined by the ECB.

2.4 Banknotes and coins

Euro banknotes are produced to meet all the NCBs' banknote requirements, which are aggregated by the ECB. The production of one denomination is assigned to, at most, two NCBs. In 2008, the BCL was responsible for producing €13.2 million €20 banknotes for its own requirements. The production of these banknotes was entrusted to the specialised security printer *De La Rue International* in Britain.

According to an agreement with the Luxembourg government, the BCL is in charge of the production of Luxembourg's euro coins. Following an invitation to tender, the BCL put the *Monnaie de Paris* (Mint of France) in charge of the production in 2008 of 53.5 million coins for its own requirements.

2.4.1 Circulation of banknotes and coins

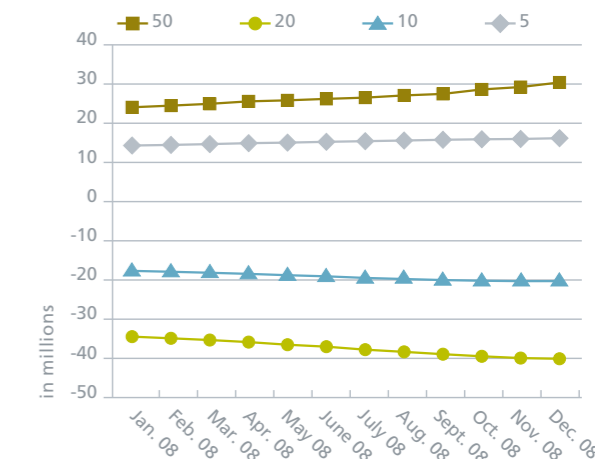
2.4.1.1 Euro banknotes and coins

The volume of euro banknotes and coins put into circulation by the BCL exceeds, in the case of certain denominations, the volume effectively in circulation in Luxembourg, i.e. those used in the payment systems of Luxembourg, because of the movement of banknotes and coins inside the euro area.

The total net volume of euro banknotes put into circulation by the BCL in 2008 amounted to 23 million notes, compared with 17.7 million banknotes in 2007, an increase of 16.6%. The volume of €10 and €20 denominations lodged with the BCL exceeds the volume issued. Credit institutions, which are BCL clients, deposited more banknotes than they withdrew from the BCL. This phenomenon can be explained by the fact that tourists and cross-border workers brought in these denominations in large quantities for their daily expenditures in Luxembourg.

The chart below shows the change in the number of euro banknote denominations used for everyday expenditures.

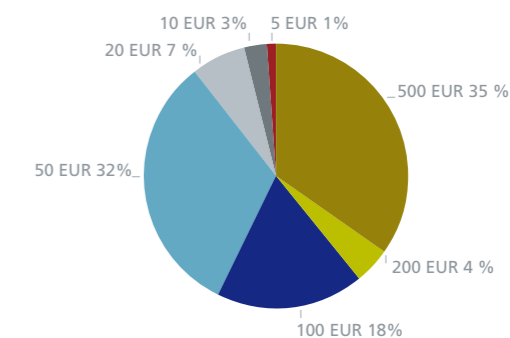
FIGURE 7: CHANGE IN THE NUMBER OF EURO BANKNOTES USED FOR EVERYDAY TRANSACTIONS PUT INTO CIRCULATION BY THE BCL



In comparison with other national central banks in the euro area, the BCL maintained its contribution to the total volume of banknotes put into circulation by the Eurosystem at 1.3%, in comparison with 1.2% in December 2007.

In Luxembourg and in the rest of the euro area, the year 2008, like 2007, was marked by a steady demand for higher denominations. The total value of euro banknotes put into circulation by the Eurosystem increased by 12.7% and amounted to €762.78 billion at the end of 2008, with the following value breakdown by denomination:

FIGURE 8: VALUE BREAKDOWN BY DENOMINATION OF EURO BANKNOTES PUT INTO CIRCULATION BY THE EUROSYSTEM

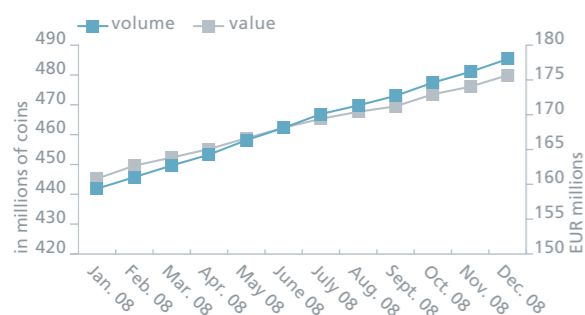


2. THE BCL'S OPERATIONS

Public demand for euro coins issued by Luxembourg has remained strong. The total value of the coins put into circulation increased by 9.2% in 2008, compared with 13.9% in 2007. The total value rose from €160.9 million to €175.7 million. The volume of Luxembourg's euro coins issued in 2008 increased by 46.6 million coins, a rise of 10.6%, and amounted to 485.4 million coins at the end of 2008. As in previous years, the country's coins continued to be much sought after by collectors.

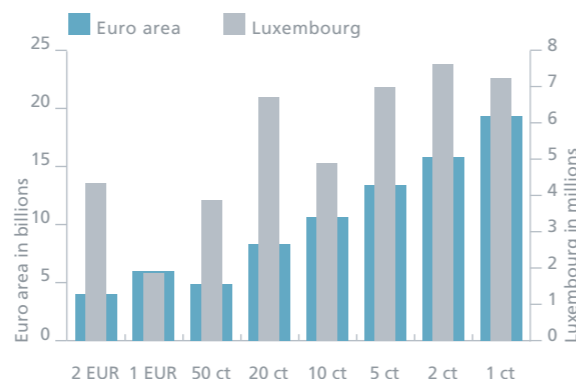
The average monthly volume of coins in circulation rose to 436.7 million. The following chart shows the changing volume and value of Luxembourg's euro coins in circulation throughout 2008. The demand for coins grew steadily in the year under review.

FIGURE 9 :
TOTAL VOLUME AND VALUE OF LUXEMBOURG EURO COINS IN CIRCULATION



Luxembourg contributes 0.9% of the total value issued by all the issuing authorities of the euro area. The average value of its euro coins in circulation amounts to 36 cent in comparison with an average of 25 cent for the other euro area coins. The following chart compares the volume of the different coin denominations put into circulation by Luxembourg with the volume corresponding to the rest of the euro area.

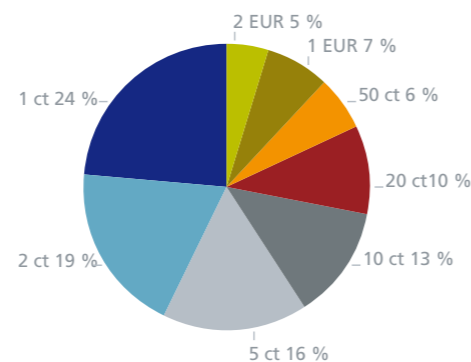
FIGURE 10 :
COMPARISON OF THE CIRCULATION VOLUME OF THE DIFFERENT EURO COIN DENOMINATIONS IN LUXEMBOURG TO THAT OF THE EURO AREA



Concerning Luxembourg's coins, the 2-cent denomination remained the most common in 2008. One can notice that the circulation volume of the € 2 coin is higher in Luxembourg than in the euro area whereas the circulation volume of € 1 coin in the euro area is higher than in Luxembourg.

The total value of euro coins put into circulation by the Eurosystem increased from €19.2 billion at the end of 2007 to €20.4 billion at the end of 2008, whereas the total volume of coins reached €82.31 billion. The following chart shows the volume breakdown by denomination:

FIGURE 11 :
BREAKDOWN BY DENOMINATION OF THE VOLUME OF COINS OF THE EURO AREA IN CIRCULATION



2.4.1.2 Luxembourg franc banknotes and coins

In 2008, the total value of Luxembourg francs not yet exchanged fell by 0.5% from LUF 431.5 million to 429.5 million. This decline was due exclusively to the return of franc banknotes, the franc coins having ceased to be exchangeable at the end of December 2004. The volume of 5.000-Luxembourg-franc banknotes not yet returned underwent the most pronounced decline (- 2.3%), while that of 1.000-franc banknotes fell by 0.8%. The volume of unreturned 100-franc banknotes only decreased by 0.1%.

Numismatic products and collector coins still not exchanged amounted to LUF 33.5 million.

2.4.2 Handling of banknotes and coins

The number of euro banknotes returned by financial institutions to the BCL – 79.4 million – had an increase of 19.4% compared with the previous year.

The number of euro banknotes processed by sorting machines rose noticeably, by some 30.4%, from 61.4 million notes in 2007 to 82 million in 2008. The sorting machines carry out both authenticity tests and soiling tests. Nearly 19.8 million notes of all denominations had to be destroyed as they were unfit for circulation. The reject/destruction rate remained unchanged at 24% of the total number of euro banknotes sorted in 2008. Moreover, this percentage varied greatly from one denomination to another: 6% for the €500 banknote to 53% for the €5 note.

In the field of counterfeit monitoring, the BCL continued to work closely with the ECB and the national authorities in analysing discovered counterfeits.

2.4.3 Numismatic issues

Due to the ongoing collectors' interest for Luxembourg numismatic products, the BCL continued to offer its products through several distribution channels in 2008. The retail to the public is located in the numismatic premises of the BCL, at avenue Monterey 43, Luxembourg. The number of retail operations was close to 6 000. Furthermore, the BCL offers a mail order facility and an Internet shop (eShop).

In 2008, the BCL issued the following numismatic products:

One €2 commemorative coin with a distinctive national side, put on sale in February 2008, depicts the castle of Berg, official residence of the Grand Duke. This issue has been minted with 15 000 coins in « Brilliant Uncirculated » quality (packed as coin cards) and with 1 million coins in circulation quality.

The « 2008 BU set » comprises Luxembourg's euro coins (from 1 cent to €2, including the €2 commemorative coin), struck in « Brilliant Uncirculated » quality and dated 2008. The mintage is limited to 10 000 sets. This set is the fourth one of a series of 7 sets dedicated to the different architectural periods as depicted on the euro banknotes.

The « 2008 BENELUX set » contains the 2008 series of eight euro coins of the three BENELUX countries struck in « Brilliant Uncirculated » quality. It also includes a specially designed cupronickel medal.

The « 2008 Proof set » features Luxembourg's euro coins (ranging from 1 cent to €2, plus the €2 commemorative coin), all struck in "Proof" quality and dated 2008. The mintage amounts to 2 500 sets.

The « €2 commemorative Proof set » features Luxembourg's 6 commemorative euro coins year-dated 2004-2008, all struck in "Proof" quality. The mintage amounts to 2 500 sets.

2. THE BCL'S OPERATIONS

The silver coin dedicated to the 50th anniversary of the European Investment Bank was issued at the beginning of January 2008 and represents the seventh collector coin in the silver series "European Institutions". The mintage amounts to 4 000 coins. This coin has a face value of €25 and is minted with a silver grade of 925. It has a diameter of 37 mm and a weight of 22.85 g.

The collector coin set of all silver and gold coins issued between 2002 and 2008 by the BCL was dedicated to close the series "European Institutions". This set was issued on June 1, 2008 and its mintage amounts to 500 sets.

A gold coin dedicated to the 10th anniversary of the BCL was issued at the beginning of June 2008. The mintage amounts to 1 250 coins. This coin has a face value of €10 and is minted in Proof quality with a gold fineness of 999. It has a diameter of 23 mm and a weight of 10.37 g. As all collector coins in precious metal issued by a member of the euro area, the gold coin is legal tender only in the issuing country.

Two sets of each Maltese and Cypriot euro coins in circulation quality (ranging from 1 cent to €2) were issued in February 2008. These sets commemorate the adhesion of Malta and Cyprus to the euro area on January 1, 2008 and extend the "cube" collection issued in 2002 by the BCL.

2.5 Developments in the area of statistics

2.5.1 Money and banking statistics

During 2008 the Eurosystem finalised the revision of the regulations ECB/2001/13 and ECB/2001/18 concerning the consolidated balance sheet as well as interest rate statistics of monetary financial institutions in order to improve the availability of euro area statistics. In addition, the Eurosystem adopted a new regulation on the collection of statistics on assets and liabilities of financial vehicle corporations engaged in securitisation. These three regulations also address the statistical requirements generated by the financial crisis in particular as far as concerns the measurement of credit risk transfer. It should be noted that the update of the

existing regulations for credit institutions as well as the new regulation for financial vehicle corporations engaged in securitisation involved a costs / merits assessment with the objective to ensure that the high priority data is collected at reasonable cost for both national central banks and reporting agents. The first reporting of this statistical data is foreseen for 2010 in order to provide reporting agents and national central banks with the necessary time to implement these new reporting schemes.

The BCL also participates in the statistical work of the Bank for International Settlements (BIS) and contributes to the international banking statistics collected and published by the BIS.

Furthermore, the BCL provides information on the Luxembourg financial system to the International Monetary Fund (IMF) in order to publish them in the monthly International Financial Statistics review of the IMF as well as in the framework of the Special Data dissemination Standard (SDDS).

The BCL publishes on its website, as well as in its periodical Bulletin, monthly and quarterly statistics on the balance sheet of Luxembourg monetary financial institutions (MFIs) and Luxembourg credit institutions as well as the interest rates applied by credit institutions on loans and deposits.

2.5.2 External statistics

The BCL publishes on its website quarterly statistics of the Luxembourg balance of payments as well as International investment position, External debt and Reserve assets statistics. The BCL and the STATEC disseminate, after availability of a new dataset, on a quarterly basis, a joint press statement that aims at informing the public of the large evolutions touching the balance of payments.

The BCL participates in the annual Coordinated Portfolio Investment Survey of the IMF (the so-called CPIS). The results of this survey are available on the BCL website. In the course of the year under review, the BCL has increased, jointly with the STATEC, as from July 2008 onwards, the exemption threshold from 12 500 euro to

50 000 euro thus decreasing the reporting costs supported by banks.

2.5.3 Economic and financial statistics

During 2008 the BCL finalised the implementation of the organisational and IT structures that are necessary to implement the new reporting requirements addressed to undertakings for collective investment that will submit their first reporting in January 2009.

This effort has been undertaken in close cooperation with the Luxembourg investment fund industry through the intermediary of the Luxembourg Investment Fund Association (ALFI), and the Bourse de Luxembourg that will act as an intermediary for the data transmission to the BCL.

Finally, the BCL publishes information on the situation of undertakings for collective investment in its periodic Bulletin and on its website.

2.5.4 Other statistics

Since some fifteen years, central banks of the ESCB collect in their respective jurisdictions statistics for the use of different means of payments and on the activity of payment systems and securities settlement. These statistics are published on an annual basis in the so-called "Blue Book".

The European System of Central Banks has largely harmonised the described data collection.

Finally, the BCL publishes, on its website, aggregated data on employment as well as the profit and loss accounts of credits institutions as well as various statistical series on other professionals of the financial sector.

1 Real Time Gross Settlement System (RTGS)

2 The first group of countries was composed of Austria, Cyprus, Germany, Latvia, Lithuania, Luxembourg, Malta and Slovenia.

3 Domestic payment : payment exchanged between two participants in TARGET2-LU

2.6 Payment and securities settlement systems

2.6.1 Real-time gross settlement systems

On 19 November 2007, the real-time gross settlement system, LIPS-Gross¹, migrated its activities to the new TARGET2-LU system. Luxembourg was part of the first group of countries to migrate² to the new Single Shared Platform of TARGET2 developed and operated jointly by the national central banks of the Eurosystem. Two other migration groups followed on 18 February and 19 May 2008. The Luxembourgish component of TARGET2 counts at present 25 direct participants and one ancillary system.

The RTGS-L Gie, owner of the LIPS-Gross system, was dissolved by an Extraordinary General Assembly on 16 October 2008. The figures of the activity in TARGET2-LU are based on publications by the European Central Bank for the Eurosystem.

2.6.1.1 The activity of TARGET2-LU in 2008

Domestic payments³

In 2008, participants in TARGET2-LU exchanged a monthly average of 21 015 payments (against 27 795 in 2007 in LIPS-Gross/TARGET2-LU) for a value of 681.5 billion euros (against 274.0 billion euros in 2007). In comparison to 2007, the volume declined by 24% whereas the value exchanged increased by 149%. The decrease in volume is explained by two facts: on one hand, not all participants in LIPS-Gross participate in TARGET2-LU, and on the other, part of the traffic in LIPS-Net migrated in 2007 temporary to LIPS-Gross is again channelled through other systems. Since the stopping of the LIPS-Net system, wire transfers and domestic standing payment orders are treated by the pan-European STEP2 system, operated by the European banking Association for the Euro (EBA).

The increase in values exchanged is basically explained by a change in the methods. Whereas in TARGET2-LU end-of-day and start-of-day balances of participants are transferred between TARGET2-LU and the internal

The concepts of legal tender and contractual freedom

Since the introduction of the euro in 2002, the question of the meaning and the scope of the notion of legal tender is regularly coming up to the Eurosystem's national central banks. Against the increase of commercial practices limiting the use of certain euro banknote denominations in daily payments, the public may wonder about the practical effects of the legal tender concept while the legal tender characteristic is exclusively given by the European legislator to euro banknotes and coins.

With the introduction of the common currency, in its scriptural or fiduciary form, a certain number of legal acts at European level have been adopted to regulate the euro changeover or the fight against counterfeiting. On the other hand, the daily use of the euro is not much regulated at European level, leaving to Member States the competence to legislate, but with the increasing risk of divergences. Thus it appears necessary to define common rules for the use of euro banknotes and coins as means of payment. Before the start of any legislative process, a working group, mainly composed of legal experts belonging to central banks and ministries, was established at the beginning of 2009 under the common chairmanship of the European Central Bank and the European Commission.

This working group is not in charge of drafting a proposal for a European regulation but has to evaluate the existing legal situation and the necessity for a common legal framework.

The notion of legal tender exists in all Member States but is interpreted differently. Some consider that it includes the obligation to accept banknotes and coins as means of payment in the absence of any other means of payment agreed beforehand. Others limit the notion to the obligation to accept banknotes and coins for their face value. Two concepts of legal tender coexist: the first refers to public law, the second one is based on private law.

The public law notion of legal tender refers to the idea that fiduciary money is a means of payment which must be commonly accepted so that the econ-

omy is able to function well. This idea is reinforced by the fact that in a certain number of countries, penal provisions sanction the refusal of banknotes and coins as means of payment. For instance, the Luxembourg penal code comprises an article 556-4 which stipulates that in the absence of any contrary agreement, the refusal of coins as means of payment is punished by a fine of €25 up to €250. The term of coins is here understood as comprising banknotes and coins.

The private law notion of legal tender puts the emphasis on one of the general principles of law, the contractual freedom. This principle is taken up by the first paragraph of article 1134 of the Luxembourg civil code: the agreements legally formed are considered as legislation for those who have made them. According to contractual freedom the contracting parties may convene the use of other means of payment than banknotes and coins through an agreement.

All euro area Member States admit that the notion of legal tender is part of public law and in particular of monetary law. If in the past it was considered as an element of public order as a result of public authority and national sovereignty, this is today no longer the case. Today contractual exceptions are admitted. However, opinions diverge on the reasons for these contractual exceptions. For some experts, the scope of legal tender depends on the moment when the monetary debt arises, that is to say before or after concluding the contract. For other experts, the concept of legal tender must be understood as an element of consumer protection and not anymore as an element of monetary law. Others question the scope of contractual freedom. In many cases, restrictions to the use of euro banknotes and coins, of high denomination banknotes or the pure and simple refusal of cash as means of payment, result from a unilateral decision of the shopkeeper and do not result from the will of both contracting parties on the means of payment to be used. In such a case the only freedom remaining for a consumer is to enter or not the contract.

In order to try to reconcile the notion of legal tender with the principle of contractual freedom, the European Commission takes into account the aspect of public service of banknotes and coins by considering the regulation of the relations "business to consumer" in the sense that a restriction to the use

of cash could only be justified by objective reasons such as the cashiers' safety or mail order selling. Furthermore, one must not forget that half of the European population, in particular in the new Member States, does not have a bank account. It is thus essential that public authorities protect the concept of legal tender and the universal acceptance of banknotes and coins as means of payment.

The initiative of the European Commission does not aim at challenging the national and European provisions adopted for fighting money laundering and financing of terrorism. The upper limits for cash payments will remain applicable as precisely justified by objective reasons, such as the public order. All Member States of the euro area agree that the concept of legal tender comprise three elements: the mandatory acceptance of cash to free someone from his monetary debt, except in the case where a contrary agreement has been concluded, the nominal value shown on the notes and coins, and finally, the "pouvoir libérateur" from the obligation to pay.

The combination of these three elements confers the nature of legal tender to banknotes and coins. Thus, Dutch law admits the "pouvoir libérateur" of bank transfers but this does not mean that legal tender status is conferred to bank transfers.

Thus, the legal tender status is generally conferred by law to banknotes and coins. Concretely the act by which the legal tender status is acquired is that of the issuing of notes and coins against payment. The issued notes and coins appear from then on the balance sheet of the issuing authority as a debt towards the person who holds the notes and coins. The issuance is considered as an authority act which cannot be delegated. On the other hand the putting into circulation, which is considered as a simple fact, can be delegated to another entity than the issuing authority.

If, on the one hand, the Eurosystem, in its quality of issuing authority for notes, and the Member States, in their quality of issuing authority for coins, have the duty not to promote the use of cash against other means of payment - like for instance credit and debit cards, central banks and national authorities have on the other hand to defend banknotes and coins as a means of payment accessible to everyone; if not, the public may blame them later. Indeed, even

if commercial banks tend to promote other means of payment than cash, the European public continues to favour using cash in its daily transactions. According to the policy line defined by the Eurosystem, the public is free to choose the means of payment it wants to use depending on the circumstances and its personal considerations.

In the absence of provisions at European level, some countries have nevertheless legislated at national level. Thus, the Netherlands and Finland have introduced restrictions to the notion of legal tender by regulating the use of one and two cent coins. These provisions foresee rounding rules which confer legal status to de facto habits. Of course the concerned coins continue to have legal tender in these countries but their use is affected.

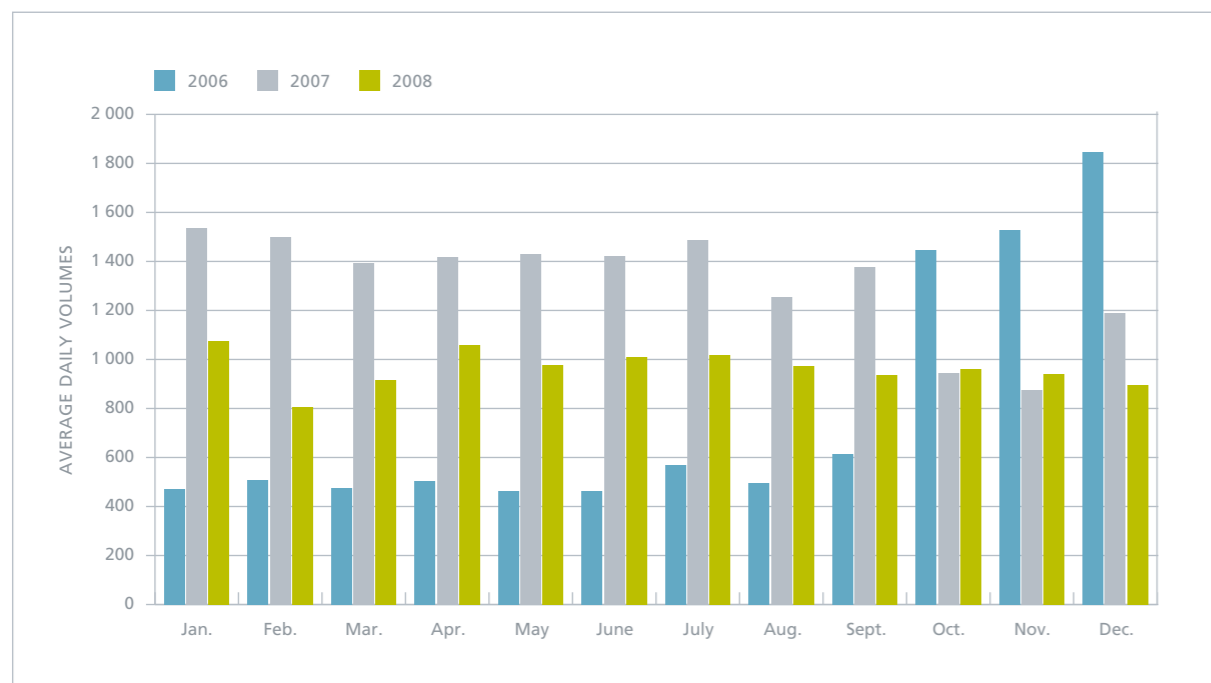
If national and European authorities wish to maintain all the advantages of banknotes and coins for which they have been promoted to the public since more than ten years, the adoption of a European legislation related to the notion of legal tender and its contractual restrictions appears necessary.

2. THE BCL'S OPERATIONS

General Ledger systems of the BCL, such transfers did not exist in LIPS-Gross.

The following figure illustrates the evolution of average daily volumes in domestic payments.

FIGURE 12 :
DOMESTIC PAYMENTS : EVOLUTION OF AVERAGE DAILY VOLUMES



Cross-border Payments⁴

In 2008, participants in TARGET2-LU sent an average monthly 43 772 payments towards other countries of the EU (against 44 202 payments in 2007) for an average value of 600.8 billion euros (against 547 billion euros in 2007). The volume decreased thus marginally (-1%), whereas the value increased by 10%. The average value per transaction sent was 13.7 million euros (an increase of 13%). With 35 983 payments in monthly average, participants in TARGET2-LU received less payments than they sent. However, the total value of payments received was higher than the value sent.

The following figures display the evolution of average daily volumes and values in cross-border payments sent by Luxembourgish participants.

⁴ Cross-border Payment: a payment exchange between a participant in TARGET2-LU and a participant in another composing system of TARGET2

FIGURE 13 :
CROSS-BORDER PAYMENTS SENT : EVOLUTION OF DAILY AVERAGE VOLUMES

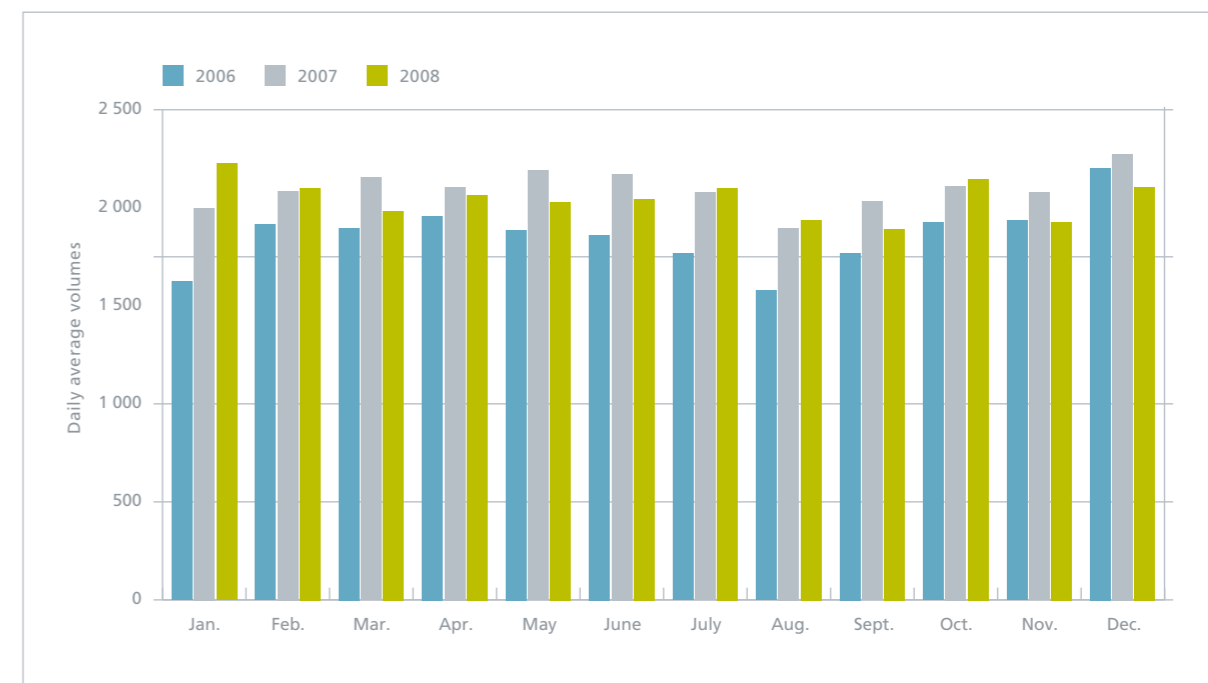
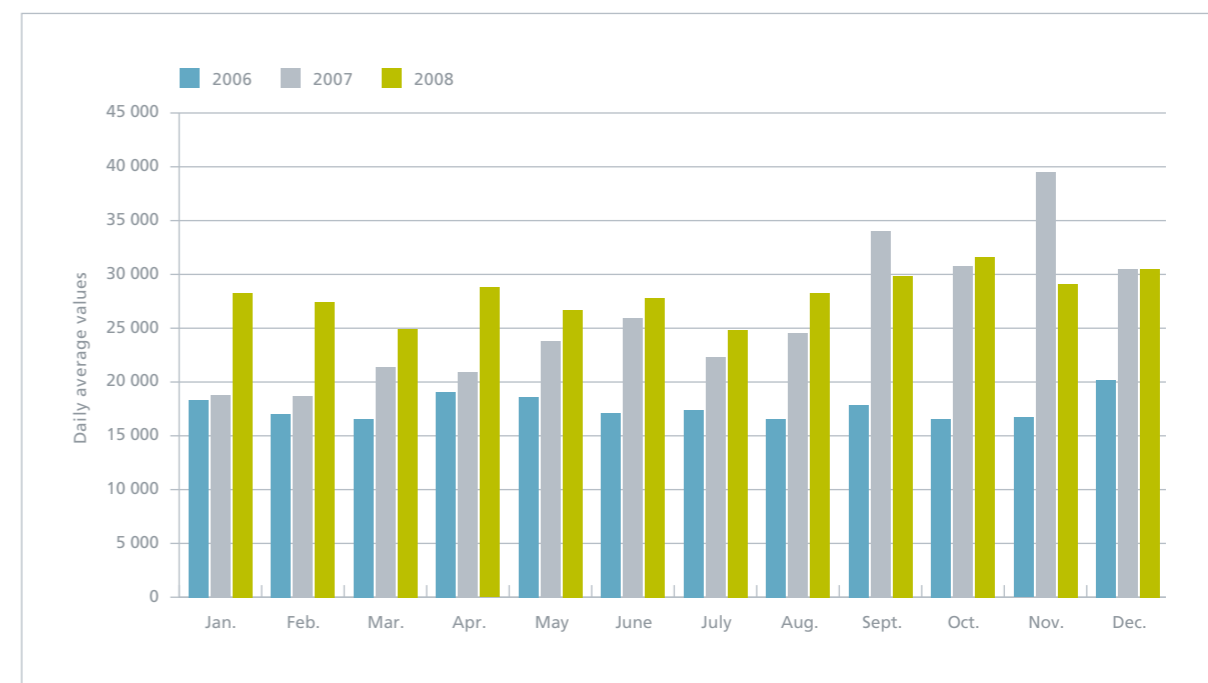


FIGURE 14 :
CROSS-BORDER PAYMENTS SENT : EVOLUTION OF DAILY AVERAGE VALUES
(MILLIONS EUROS)



2. THE BCL'S OPERATIONS

Aggregated figures of domestic and cross-border payments

The total number of payments sent by participants in TARGET2-LU in 2008 amounted to 777 445. This figure represents a decrease of 10% in comparison to 2007.

The following table provides a global view of average daily volumes of payments per year. In general, volumes exchanged in 2008 have decreased in comparison to 2007, above all in domestic payments.

VOLUME OF PAYMENTS (DAILY AVERAGES)

	DOMESTIC		CROSS-BORDER SENT		TOTAL SENT	CROSS-BORDER RECEIVED	
	Volume	(% volume sent)	Volume	(% volume sent)	Volume	Volume	(% volume)
2006	775	(29.46%)	1 856	(70.54%)	2 631	1 585	37.59%
2007	1 344	(39.33%)	2 073	(60.67%)	3 417	1 681	32.97%
2008	963	(31.97%)	2 049	(68.03%)	3 012	1 687	35.90%
Change 2007-2008	-28%		-1.2%		-12%	+0,3%	

TARGET2-LU compared to other systems participating in TARGET2

In 2008, all systems participating in TARGET2 transferred a monthly average of 5.77 million domestic payments (against 6.05 million in 2007). The part of Luxembourg represented 0.4% of this volume.

In addition, 2.12 million of cross-border payments (1.73 million in 2007) for a value of 17 997 billion euros (18 443 billion euros in 2007) were executed on a monthly average. Luxembourg contributed for 2.1% in the volume and for 3.3% in the value exchanged cross-border.

Availability of TARGET2-LU

The availability of TARGET2-LU was 99.96% in 2008. In LIPS-Gross the availability was 99.98% in 2007 and 99.73% for the entire life-time of the system.

2.6.2 Retail payments in Luxembourg

2.6.2.1 Luxembourg participants' activity in STEP2 :

As of October 2006 LIPS-Net, the Luxembourgish retail payment system ceased its activities. The bulk of Luxembourg credit transfers and standing orders are now processed on the pan-European platform STEP2. Transactions that are not processed in STEP2 are settled either in TARGET2 or on a bilateral basis.

In 2008, Luxembourg participants sent 66 300 transactions for a value of €132.4 million on a daily average through the STEP2 system. Domestic transactions accounted for 73% in volume (close to 48 200 operations a day) and 65% in value (€85.4 million). The remaining volume is cross-border.

The payments sent by the Luxembourgish community in STEP2 strongly increased in 2008 with a growth of respectively 16% in the daily average volume and 50% in the daily average value as compared to 2007. The yearly growth of the domestic activity was 10% in volume and 40% in value on a daily average.

2.6.2.2 The implementation of the SEPA⁵ project for non-cash payments:

The SEPA project is consistent with the setting up of the Euro as a single currency. It foresees the creation of a single Euro payments area in which all payments are considered domestic, without any distinction between national and cross-border payments.

The SEPA project is being implemented by the European banking industry through the European Payments Council (EPC)⁶. It consists in particular in the harmonisation of the legal framework with the transposition of the Directive 2007/64/CE up to the 1st November 2009 and in the creation of new payment instruments.

The development of a single set of payment instruments will enable payments in euro to be realised as easily and under the same conditions, independently of the country of destination:

- the *SEPA Credit Transfer* (SCT) started to apply on 28 January 2008.
- the *SEPA Direct Debit* (SDD) is foreseen for the 1st November 2009.
- the *SEPA Cards framework*: SEPA for payment cards foresees that a card holder is able to use its card in the SEPA area and that all merchants are able to accept all SEPA compliant cards, as far as it is economically justified. Common standards are being elaborated at the European level; their implementation is foreseen for 2010-2012.

In Luxembourg, the SEPA project is being implemented by the Association des Banques et Banquiers Luxembourgeois (ABBL) through a committee regrouping the representatives of the main credit institutions active in retail banking as well as representatives of the supervising authorities of the financial place.

2.6.3 The general framework of eligible collateral in the Eurosystem credit operations

2.6.3.1 The list of eligible assets

All credit operations of the ECB and national central banks are based on "adequate collateral"⁷. Consequently, each counterparty of the Eurosystem guarantees the credit received from a Eurosystem central bank by providing assets as collateral. These assets have to fulfil specific eligibility criteria specified by the Eurosystem in the General Documentation on Eurosystem monetary policy instruments and procedures. The list of eligible assets is published on the website of the ECB. This single list for Eurosystem credit operations comprises two different asset classes, marketable assets (securities) and non-marketable assets (in particular credit claims).

In October 2008, the Governing Council decided to expand the list of eligible assets until end 2009. The following assets have been added to the list of eligible assets:

- Marketable debt securities denominated in USD, GBP, and JPY, provided that they are issued and settled in the euro area, that the issuer is established in the European Economic Area (EEA), and that the securities fulfil all other eligibility criteria.

⁵ Single Euro Payment Area

⁶ For more information regarding the I'EPC: www.europeanpaymentscouncil.eu

⁷ Article 18 of the Statute of the ESCB and the ECB, article 22 of the founding law of the BCL.

2. THE BCL'S OPERATIONS

- Debt instruments issued by credit institutions, which are traded on accepted non-regulated markets specified on the website of the ECB.
- Subordinated debt instruments when they are protected by an acceptable guarantee as specified in the General Documentation.
- Marketable and non-marketable assets with a credit assessment lower than A- and above or equivalent to BBB-, with the exception of asset-backed securities.

Specific haircut add-ons will be applied to these instruments. Subject to positive eligibility assessment such assets will be included in the list of eligible assets published and updated on a daily basis on the website of the ECB.

Eligible assets can be used throughout the whole euro area in order to collateralise credit operations with the Eurosystem. According to the nature of the assets and to the country in which they are settled, counterparties use different channels and procedures to mobilise collateral. Non-marketable assets are either mobilised via appropriate handling procedures developed by each NCB (domestic mobilisation) or via intermediation of a correspondent central bank (cross-border mobilisation). The mobilisation of marketable assets requires the involvement of one or of several securities settlement systems.

2.6.3.2 Eurosystem as a user of securities settlement systems

Selection of central securities depositories at the domestic level

In order to meet the requirement of "adequate collateral"⁸, the Eurosystem also assesses against specific safety criteria securities settlement systems operated by central securities depositories (CSDs) that are settling securities used in the framework of central bank credit operations. Thus, the system of a national CSD is eligible if it obtains, after a compliance check with the Eurosystem user standards, the formal approval of the Governing Council. In this context, the Governing

Council approved in December 2008 the use of the new Luxembourg system VP Lux for the settlement of collateral in the framework of Eurosystem credit operations.

Moreover, the Governing Council approved the development and implementation of new procedures for the safekeeping and settlement of international debt securities in registered global note form. These procedures are used by Clearstream Banking Luxembourg (CBL), Euroclear Bank, and other market participants. Furthermore, the Eurosystem decided to withdraw international debt securities in definitive form from the list of eligible assets, due to their diminishing importance. Concerning international debt securities in bearer global note form, the Eurosystem had already approved a new procedure for safekeeping and settlement in 2006.

Cross-border use of collateral

Besides using eligible domestic securities settled via the national depository, which is Clearstream Banking S.A. (CBL) for Luxembourg counterparties, all Eurosystem counterparties can receive credit from their local national central bank by using collateral issued in a depository located elsewhere in the euro area. The Eurosystem sets two procedures for such cross-border use of collateral. Counterparties may use

- the CCBM⁹; and
- links established between securities settlement systems of CSDs.

Currently two types of links are eligible: direct links and relayed links. In a given securities settlement system located in a country of the euro area, direct links make available securities issued in a system of another euro area country, thanks to bilateral accounts that the two systems maintain with each other. Relayed links enable the transfer of securities between two systems without

⁸ Article 18 of the Statute of the ESCB and the ECB, article 22 of the founding law of the BCL.

⁹ Correspondent Central Banking Model, see section 2.6.4.

bilateral accounts by using a third system with which the first two systems have bilateral accounts. Links have to be approved by the Governing Council before being used for the collateralisation of central bank credit operations. In 2008, Luxembourg counterparties had the possibility to use the direct links between CBL and Clearstream Banking Frankfurt A.G., Euroclear, the SSS operated by National Bank of Belgium, Monte Titoli (Italy), OeKB (Austria), Euroclear Netherlands, and Euroclear France.

Securities settlement in central bank money: TARGET2-Securities

In view of a fragmented post trade market infrastructure comprising a multitude of securities settlement systems, and in view of the need to have a European securities settlement infrastructure, the Eurosystem continued its work for the development of the system TARGET2-Securities (T2S) in 2008. Go-live of T2S, which will deliver securities settlement services to CSDs, is scheduled for 2013. The project consists of the implementation of a single platform that deals with securities settlement operations of the different CSDs in a harmonised way, with simultaneous settlement of the securities leg and of the cash leg in central bank money. It is a part of the more general process of European financial integration leading to a harmonisation of procedures and to a substantial reduction of costs.

In 2008, approval of the User Requirements by the Governing Council was an important milestone in the project. These requirements were elaborated by a team of experts consisting of representatives from the Eurosystem, CSDs, as well as from banks. Comments from market participants raised within public consultations were likewise considered.

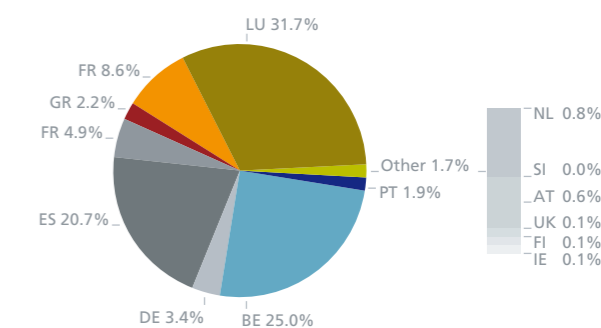
Another important milestone in 2008 was the Governing Council's proposal to CSDs to join the T2S initiative. The Governing Council invited CSDs to express their intention to use T2S, on the basis of detailed documentation comprising amongst others the User Requirements, an economic impact analysis, and a legal evaluation of T2S.

The CSDs of the euro area having expressed their support for the T2S project in July 2008, the Governing Council decided to launch the T2S project and to provide the resources required until its completion. In close cooperation with the market the Eurosystem has started to define the general functional specifications of the system. European CSDs of non-euro area countries have likewise expressed their intention to use the services of T2S.

2.6.4 Correspondent Central Banking Model (CCBM)

The main objective of the CCBM is to enable counterparties of the Eurosystem to use securities on a cross-border basis even if there is no eligible link between the national depository and the foreign depository in which the counterparty holds securities. For this purpose, in the CCBM each national central bank acts on behalf of the other central banks as a custodian for securities held at the national depository. This procedure involves first of all a central bank called a correspondent central bank (CCB), which differs from the central bank granting the credit to the counterparty. The CCB holds the account at the depository in which the deposited securities are registered. The home central bank (HCB) grants the credit to its counterparty on the basis of confirmations it receives from the CCB. The CCBM has been a success with the counterparties and it remains the main channel for the cross-border mobilisation of collateral used in the Eurosystem's credit operations.

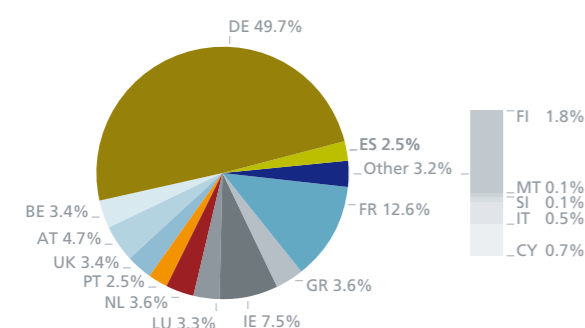
FIGURE 15 : CORRESPONDENT CENTRAL BANKS IN 2008



2. THE BCL'S OPERATIONS

The most active correspondent central banks in 2008 have been those from Luxembourg (31.7%), Belgium (25.0%), Spain (20.7%), and Italy (8.6%). The most active home central banks have been those from Germany (49.7%), France (12.6%), Ireland (7.5%), and from Austria (4.7%).

FIGURE 16 :
HOME CENTRAL BANKS IN 2008



2.6.5 The Eurosystem's future management of collateral

In July 2008 the Governing Council decided to develop and to implement a single platform for the management of collateral received from Eurosystem counterparties. This platform will be called CCBM2 (Collateral Central Bank Management) and will offer central banks the necessary functionalities for the management of securities and credit claims, both for domestic and for cross-border collateral. The operations of the platform will start before or at the latest at the same time as T2S.

The Governing Council approved the User Requirements in July 2008, taking into account comments received from market participants in the framework of a public consultation. The User Requirements describe the functionalities of CCBM2 and constitute the basic document for the elaboration of the technical specifications of CCBM2. These specifications describe in a detailed way the technical functioning of the platform.

CCBM2 will closely interact with the other infrastructures operated by the Eurosystem in the area of liquid-

ity, TARGET2 and T2S. The three systems will provide complementary services. For instance, on the basis of securities settled in T2S, CCBM2 will update a counterparty's credit line in TARGET2. Thus, for Eurosystem counterparties, CCBM2 also facilitates the realisation of benefits from TARGET2 and T2S. In this context, the Eurosystem is also analysing the development of a single and harmonised technical access to the three infrastructures through a "Eurosystem Single Interface".

2.7 Financial stability

2.7.1. Macro-prudential surveillance and liquidity surveillance

In the conduct of its regular studies, the BCL assesses the stability of the financial system from a macro-prudential perspective. The studies pertaining to the financial sector rely to a large extent on quantitative information provided by credit institutions in the context of the prudential and statistical reporting requirements of domestic authorities. In particular, the BCL has been publishing for a number of years a vulnerability index of the domestic banking sector.

During the financial crisis, BCL has devoted a large part of its resources relating to financial stability to issues such as liquidity, procyclicality and the general vulnerabilities of the banking sector in times of crisis.

Besides regular assessments, BCL conducts ad-hoc studies and surveys which try to highlight issues that are linked to the stability of the financial system. These ad-hoc studies and surveys conducted in 2008 related to the interaction between the financial stability and the real economy in the context of a dynamic general equilibrium model, to the underlying risk factors deriving from the activity of monetary funds and finally to the evaluation of stress test scenarios and contingency funding plans of domestic credit institutions during periods of liquidity stress.

As regards, the situation of the Luxembourg financial centre, 2008 was characterized by the effects of the financial crisis. From an overall perspective, the Luxembourg banking sector has resisted to the financial crisis, but this statement is not homogenous across the whole sector. Furthermore, the decline of the general economic environment and the uncertainties surrounding the recovery of economic activity have increased the upwards risks to financial stability which needs to be closely monitored in 2009.

The financial difficulties witnessed during the crisis by some domestic subsidiaries of foreign credit institutions have highlighted the spill-over effects that

financial or reputational problems at the level of the parent company may have for the local subsidiaries. This experience has underlined the need for reinforcing the cooperation between central banks and supervisory authorities both at national and international level.

The Luxembourg legislator has recognized this need for enhanced cooperation by entrusting the BCL in October 2008 with the liquidity surveillance of both market and market operators. These new competences have been introduced into the law of BCL. The amended law of BCL further provides for cooperation agreements to be entered into by the BCL with the prudential supervisory authorities in charge of banks (Commission de Surveillance du Secteur Financier) and of insurance companies (Commissariat aux Assurances). In order to define the framework of its liquidity supervision, the BCL has published a regulation in April 2009. This liquidity supervision framework has also been presented to all domestic credit institutions. The cooperation agreements with the prudential supervisory authorities are currently under discussion.

In the context of its responsibilities, BCL has operated a functional separation between the Financial Stability Unit in charge of monitoring developments from a macro-prudential perspective and the Liquidity Surveillance Unit, which focuses on the surveillance of individual market operators.

On the international side, BCL continues to contribute to the work of the Banking Supervision Committee of the European Central Bank as well as its sub-structures. BCL also participates in the work of the Committee of European Banking Supervisors (CEBS), which works under the umbrella of the European Commission. As a result of its new competences in the field of liquidity supervision, BCL now also participates in the working groups dealing with liquidity issues in place at the level of the CEBS and Basel Committee on Banking Supervision.

2.7.2 The oversight of payment and securities settlement systems

One mission of the Banque centrale du Luxembourg as a member of the European System of Central Banks,

2. THE BCL'S OPERATIONS

is to contribute to the smooth functioning of payment and securities settlement systems. Through its oversight activity, BCL aims at fostering financial stability and maintaining confidence of participants and users. Indeed, financial infrastructures play a central role in the financial system's architecture, enabling a quick and effective settlement of financial transactions between actors. Central banks should therefore promote the security and efficiency of those infrastructures, so as to limit the potential systemic nature of a system failure as well as a deterioration of user confidence in payment instruments. This objective is all the more important during periods of market turbulences when operational reliability and resilience of market infrastructures are essential.

The period of financial turbulences, which started in August 2007 and became more pronounced in 2008 following the bankruptcy of Lehman Brothers, was also challenging for market infrastructures. Some infrastructures had to handle increased volumes of transactions due to the uncertainty, the high volatility in certain markets and an increased participation in monetary policy operations. Nevertheless, infrastructures showed a strong degree of operational robustness, supporting financial activity in a secure and efficient manner and thus implicitly, the liquidity situation of their participants.

BCL's oversight is based on two complementary activities. On the one hand, BCL oversees systems based in Luxembourg. On the other hand, BCL contributes at the Eurosystem level to the common oversight of systems with no clear national anchorage.

The oversight of Luxembourg-based systems mostly relies on the oversight framework defined in BCL's Policy and procedures for the oversight of payment and securities settlement systems, which might be complemented in future by specific BCL regulations. The oversight is based on information of general, statistical, financial and internal control nature, required on a regular basis from the operators of the systems. The collected information is analysed, followed-up and complemented through regular contacts with the operators. The oversight aims at an assessment of the policies, practices and internal control procedures so as to maintain an adequate level of security and efficiency

in the systems. In this respect, a particular focus is put on liquidity risk, credit risk, operational risk, legal risk and governance risk. This national oversight framework is also in line with European and international recommendations, standards and principles.

Among the systems based in Luxembourg, the oversight of BCL covers the securities settlement systems, i.e. the system operated by Clearstream Banking Luxembourg (CBL), and starting from 2008, the new system operated by VP Lux.

The securities settlement system operated by Clearstream Banking Luxembourg is subject to the oversight of BCL since 2001. CBL, which has also a bank licence, acts as a national and international central securities depository. CBL offers also securities lending and collateral management facilities. Securities are settled in commercial bank money in the accounts of the participants with Clearstream.

VP Lux established itself in 2008 as a central securities depository in Luxembourg. Consequently, the Banque centrale du Luxembourg notified the new securities settlement system to the European Commission in line with the procedure foreseen by the settlement finality Directive 98/26/EC. VP Lux, which is a fully-owned subsidiary of the Danish central securities depository VP Securities Services, intends to offer clearing, deposits and issuing services for Luxembourg and Danish participants. The latter will now have the possibility to issue, within a Euro zone country, securities eligible as collateral for Eurosystem monetary policy operations.

The Banque centrale du Luxembourg and the Danmarks Nationalbank signed in 2008 a cooperation agreement (Memorandum of understanding) related to the oversight of the system operated by VP Lux. This agreement defines the cooperation framework between the two central banks, in particular the aspects related to the coordination and exchange of information between the two authorities. It is indeed important to avoid any loophole in the oversight of systems with an operational architecture based on technical agents located in another country.

The national oversight framework which applies to the securities settlement systems will shortly be completed

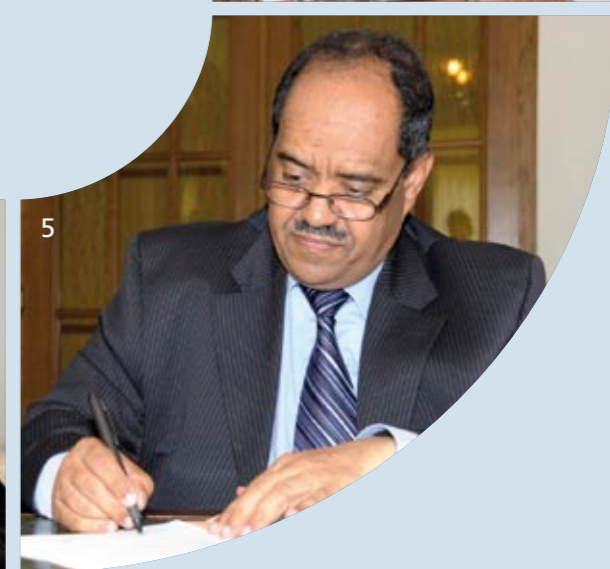
with a new European framework. At the EU level, new recommendations will be adopted for the securities settlement systems and the central counterparties. These recommendations have been prepared jointly by the European System of Central Banks and the Committee of European Securities Regulators (ESCB-CESR). They shall contribute to the harmonisation of the national oversight practices and will be adopted by the Governing Council in 2009.

The national environment for payment systems has seen considerable changes during the recent years with the migration of the retail payment system LipsNet to Step2 (operated by the European Banking Association) in 2006 and the migration of the real time gross payment system LipsGross to TARGET2, the common platform of the Eurosystem, in November 2007. The BCL now takes part, at the Eurosystem level, in the common oversight of TARGET2, as coordinated by the European Central Bank.

Following the adoption by the Governing Council in January 2008 of an oversight framework and standards for card payment schemes, the Eurosystem launched a common assessment exercise of the debit and credit card schemes in Europe. The BCL is, in this context, performing an assessment of the Luxembourg debit card payment scheme, Bancomat. The oversight of card payment schemes by central banks is in line with their objective of promoting public confidence in payment instruments. The framework adopted by the Governing Council is based on five standards relating to legal aspects, transparency, operational reliability, adequacy of governance and soundness of clearing and settlement processes. The oversight framework also comprises a harmonised assessment methodology to be followed by central banks as well as a common oversight reporting scheme for operational and fraud statistics.

These five common standards are now being used as a basis for the development of specific oversight frameworks for other payment instruments such as SEPA (Single Euro Payment Area) direct debits and SEPA credit transfers. A similar framework may also be considered for the oversight of electronic money instruments.

Finally, new arrangements regarding BCL's oversight mission are being included in BCL's organic law in the context of the transposition of the 2007/64/CE Directive.



1+2+3 *Bridge Forum Dialogue Conference under the chairmanship of the Governor of the BCL on "Globalisation: can Europe manage it?". Speakers were Mr. Lucas Papademos, Vice-President of the ECB (1), Mr. Kenneth Rogoff, professor of Economics at Harvard University (2) and Mr. Lars Heikensten, Member of the European Court of Auditors (3).*

4 *April 2008: Visit of Mr. Slawomir Skrzypek, Governor of the National Bank of Poland, at the BCL*

5 *May 2008: Visit of Mr. Mohammed Laksaci, Governor of the Bank of Algeria, at the BCL*

6 *Mai 2008: Visit of Mr. Phouphet Khamphounvong, Governor of the National Bank of Laos, at the BCL*

3. EXTERNAL ACTIVITIES

3.1 Activities with the International Monetary Fund (IMF) and other organisations

The BCL handles Luxembourg's financial transactions with the IMF. For this purpose, it manages Luxembourg's assets and liabilities vis-à-vis the IMF in both the general account and the special drawing rights (SDR) account. As of 31 December 2008, Luxembourg's quota, recorded in full on the BCL's balance sheet, amounted to SRD 279.1 million, whereas the reserve position (the difference between Luxembourg's total quota at the IMF and the euro-denominated assets held by the IMF at the BCL) represented 12.93% of Luxembourg's quota.

On 28 April 2008, the IMF Board of Governors adopted Resolution 63-2 by an overwhelming margin. This resolution, proposed by the Executive Board, plans a large-scale reform of the institution's governance, including a modification of quotas and of voting rights in order to enhance both participation and representation of emerging and developing countries. At the same time, the reform proposes to realign members' relative quotas on their respective role and weight in the world's economy.

However, the quota increases will only be effective once the amendments to the IMF Statutes come into force, as proposed in Resolution 63-2, and once countries benefiting by this increase take appropriate additional measures. In particular, the amendment to the IMF Statutes proposed in this Resolution will have to be accepted by at least three fifths of the members of the institution, representing 85% of attributed voting rights. To this end, most member states will need to obtain an approval from the national legislator to accept the amendment bill.

According to Resolution 63-2, Luxembourg's quota would increase from DTS 279.1 million to DTS 418.7 million.

The 19 December 2008 Law approved the amendment to the IMF Statutes and allows the Luxembourg

government to take all necessary measures in view of the quota increase.

The IMF's operational budget defines the currencies to be made available to its members on a quarterly basis and the distribution of reimbursements among its members. During 2008, the BCL granted credits amounting to €24.8 million and was reimbursed to the tune of €11.8 million.

At the end of 2008, Luxembourg held 79.1% of its DTS allocation (75.2% in 2007) following the accumulation of net interest received on the SDR account and on the reserve position. As at 31 December 2008, the amount recorded on the SDR account was SDR 13.4 million.

One BCL member is on secondment to the IMF.

The BCL also attended the meetings of several working groups at the Organisation for Economic Cooperation and Development (OECD) and at the Bank of International Settlements (BIS), contributing, in particular, to the work of the OECD's Financial Markets Committee (FMC) and that of the BIS' Committee on the Global Financial System (CGFS).

The BCL President attended the BIS Annual General Meeting.

The BCL President, being also Alternate Governor of the IMF, attended the Annual Meeting of the IMF and the meetings of the International Monetary and Financial Committee.

3.2 Activity at the European level

3.2.1 Activity at the level of the ECB

During 2008, the Governor of the BCL participated in all 28 meetings of the Governing Council and in all five meetings of the General Council.

The Governing Council meetings are held twice a month at the ECB's headquarters in Frankfurt. While the first meeting is exclusively devoted to the analysis of economic and monetary evolutions and to monetary policy decisions, the second meeting deals with issues related to the other missions of the Eurosystem. Besides these meetings, the Governing Council also takes decisions via written procedures. In 2008, some 400 Executive Board's proposals were adopted by the Governing Council following this procedure ; among these proposals, many were opinions related to draft laws at the European or national level, according to article 105 paragraph 4 of the Treaty.

The General Council meetings, that gather the ECB President, the ECB Vice-President, and the ESCB Governors together, are also held in Frankfurt. The General Council fulfils the missions that the ECB has taken over from the EMI (European Monetary Institute).

Committees assist the decision-making bodies of the ECB in the fulfillment of their tasks. The Governing Council or the Executive Board can ask Committees to carry out analyses on precise topics. The Committees report to the Governing Council through the ECB Executive Board.

Committees were created by the enforcement of article 9.1 of the ECB's rules of procedure. There are currently 16 committees, which are essentially composed of members of the Eurosystem but can also include, for some issues, ESCB members. Each member is appointed by the Governor of his/her national central bank or, in special cases, by the ECB's Executive Board. Under the aegis of Committees, working groups or task forces are established, with specific objectives, but in conformity with their Committee's mandate. The Governing Council also created High Level Groups to help solve particular issues.

The BCL contributes to the Eurosystem's and the ESBC's work at this level through the participation in the meetings of committees, working groups and task forces of around 60 members of its staff.

3.2.2 The enlargement of the euro area

On January, 1, 2009, exactly two years after Slovenia and one year after Cyprus and Malta, Slovakia introduced the euro, bringing the number of member states having adopted the single currency to 16. On that date the national bank of Slovakia became fully integrated to the Eurosystem, with the same rights and duties as the fifteen national central banks of the other member states having adopted the euro.

3.2.3 The Economic and Financial Committee (EFC)

A BCL representative participates in meetings of the Economic and Financial Committee (EFC). The EFC is composed of representatives from the finance ministries and central banks of EU Member states, the European Commission and the ECB. According to the treaty, one of the tasks of the EFC is to "review the economic and financial situation of the Member states and of the Community and to report regularly thereon to the Council and to the Commission."

In 2008, the EFC analysed the evolution of financial stability in the EU, the risks weighing on this stability and possible answers to those risks. In this context, the EFC prepared the conclusion of the new MoU on financial stability¹, on 16 June 2008. The MoU deals with issues such as financial supervision in the EU, deposit guarantee schemes and rules on state aid and procedures in the context of the current crisis.

The EFC also works on economic policy issues discussed at informal ECOFIN meetings, which are attended by the BCL's President and which were strongly marked, in 2008, by the financial crisis and its impact on the real economy, and by the possible remedies brought by governments. In this context, the Committee also dealt with the analysis and the management of the liquidity risk as well as with the capital requirements directive.

¹ Memorandum of Understanding on Co-operation between the Financial Supervisory Authorities, Central Banks and Finance Ministries of the EU on Cross-Border Financial Stability² CON/2008/17.

3. EXTERNAL ACTIVITIES

3.2.4 The Committee on Monetary, Financial and Balance of Payments Statistics

In the context of the mission of the Statistical Office of the European Communities (Eurostat), the Committee of Monetary, Finance and Balance of Payments Statistics (CMFB) works on the development and coordination of statistical categories that are required under the policy implemented by the Council, the Commission and various committees assisting them. Central Banks, National Statistics Institutes as well as the Commission and the ECB are represented in the CMFB. Under the leadership of this Committee, different "task forces" operate with specific duties assigned to them.

The BCL has contributed actively in 2008 to this framework. Progress has been made particularly in terms of financial accounts, balance of payments, financial services and public finance statistics as well as national accounts.

3.3 National activities

3.3.1 Legal developments

3.3.1.1 The Law of 24 October 2008 improving the legislative framework for Luxembourg as a financial centre and amending the Law of 23 December 1998 on the monetary status and on the Central Bank of Luxembourg

1 Introduction

The law of 24 October 2008 improving the legislative framework for Luxembourg as a financial centre (the Law of 24 October 2008) modifies many aspects of the Law of 23 December concerning the monetary status and the Central Bank of Luxembourg (the BCL's Organic Law).

The draft law² preceding the Law of 24 October 2008 was subject to two opinions of the European Central Bank (the ECB): The opinion of 15 April 2008, at the request of the Luxembourg Minister for the Treasury and the Budget, on a draft law improving the legislative

framework for Luxembourg as a financial centre and on a draft law relating to social insurance contributions, led to governmental amendments³. As a result of these amendments the ECB rendered its second opinion⁴.

The Law of 24 October 2008 marks a decisive step in the history of the BCL as it finally recognises, through the attribution of new core competences, the fundamental role of the BCL in the field of financial stability.

The new Law thus takes into account the provisions of the Treaty establishing the European Community (the EC Treaty) and of the Statute of the European System of Central Banks and of the European Central Bank (the ESCB Statute), which require central banks to be involved in maintaining financial stability⁵. The new Law also reflects the stance taken by the ECB in the aforementioned opinions.

The attribution to the BCL of a regulatory power, as well as the strengthening of its financial situation, are the result of the legislator's intention to confer upon the BCL the necessary legal and financial means to accomplish its new role.

The BCL and the other authorities in charge of maintaining financial stability can only satisfy their objectives through a clearly determined legal framework accompanied by the necessary executive powers.

The Law of 24 October 2008 contains two kinds of provisions: first, the institutional provisions determining the BCL's functioning and second the new missions conferring upon the BCL a key role in maintaining financial stability.

² Draft law number 5842 improving the legislative framework for Luxembourg as a financial centre; submitted to the Parliament on 28 February 2008.

³ CON/2008/17.

⁴ ECB opinion of 10 September 2008 at the request of the Banque centrale du Luxembourg on amendments to the draft law improving the legislative framework for Luxembourg as a financial centre and amending the Law of 23 December 1998 on monetary status and on the Banque centrale du Luxembourg, (CON/2008/42).

⁵ See Article 105 (5) of the EC Treaty and 3.3 of the ESCB Statute.

2 The provisions determining the BCL's functioning

The following provisions are inserted into the BCL's Organic Law:

- 1) the BCL's capital increase through the incorporation of reserves on the basis of a grand-ducal regulation (Article 4 paragraph 1);
- 2) the pension scheme of the BCL's agents (Article 14 paragraph 4 letter b);
- 3) the mandatory character of minimum reserves (Article 23);
- 4) taking participations in public institutions, undertakings, or public or private associations (Article 26-1);
- 5) the BCL's regulatory power (Article 34 paragraph 1)

The underlined passages below highlight the main modifications.

2.1 The BCL's capital increase through the incorporation of reserves

Paragraph 1 of Article 4 of the BCL's Organic Law is amended as follows: "The State is the sole shareholder of the Central Bank, whose capital is fixed at twenty-five million euro. A grand-ducal regulation may increase this capital through the incorporation of reserves, on a proposal from the Central Bank".

As a consequence the BCL's capital may be increased periodically through the incorporation of reserves without having recourse to the legislator, who will however maintain his role in the event of an increase in capital through new funds.

In 1998, during the preparation of the BCL's Organic Law, the Central Bank had proposed increasing its capital to EUR 150 million and providing for the creation of a general reserve fund, to which the net profits of its activities would be transferred, up to a limit equal to 100% of the capital (as such is the case under Article 33(1) (a) of the ESCB Statute). The BCL's proposal was partly followed. Article 31 of the Law on the BCL provides for the creation of a general reserve fund and the BCL's duty to transfer into it its profits, as long as the total of the capital and the reserve fund falls short of

the total of its assets which do not yield freely-available income, after deducting liabilities which form the direct counterpart to such assets. In this perspective, the possibility offered to the BCL of increasing its capital by incorporating reserves will indirectly contribute to reinforcing its financial position⁶.

In its opinion of 15 April 2008, the ECB emphasised that "The ECB would, nevertheless, recommend that it should be verified whether the BCL's capital, as increased by incorporating such reserves, would be sufficient to effectively perform all its tasks and cover properly its administrative and operational expenses, as they have evolved since its establishment"⁷.

2.2 The pension scheme of the BCL's agents

According to Article 14 paragraph 4 letter b of the BCL's Organic Law "The Central Bank may have recourse to the decision-making bodies and services of the pension agencies according to the pension regime of the agent in question".

As the BCL operates its own pension fund it must be in a position to determine for instance the level of infirmity required to give access to an invalidity pension and to avail itself of the opinions required by law. Taking into account the limited number of cases, it is not appropriate to create a separate agency in charge of attributing acquired rights to the BCL's agents. Thus the new provision extends the competence of the existing pension agencies to the BCL's agents' pensions.

⁶ See, ECB opinion of 15 April 2008 at the request of the Luxembourg Minister for the Treasury and the Budget on a draft law improving the legislative framework for Luxembourg as a financial centre and on a draft law relating to social insurance contributions, (CON/2008/17), paragraphs 2.2 and 2.3, p. 2-3.

⁷ See, ECB opinion of 15 April 2008 at the request of the Luxembourg Minister for the Treasury and the Budget on a draft law improving the legislative framework for Luxembourg as a financial centre and on a draft law relating to social insurance contributions, (CON/2008/17), paragraph 2.3, p. 3.

3. EXTERNAL ACTIVITIES

2.3 The mandatory character of minimum reserves

Article 23 of the BCL's Organic Law provides that "The Central Bank is the depository for amounts that credit institutions are obliged to maintain by monetary control measures based on Article 19 of the Statute of the European System of Central Banks and of the European Central Bank".

In its initial version the draft law did not provide for the mandatory character of minimum reserves. Subsequent to the ECB opinion of 15 April 2008, the formula "may" has been replaced by "obliged", transforming thus a possibility into an obligation. The explanatory memorandum highlights that "the terms that are to be replaced at this stage were appropriate in 1998 but this wording has become obsolete since the mandatory minimum reserves became a frequently used instrument of the ECB's monetary policy framework"⁸.

The Law of 24 October 2008 thus transposes into national law a fundamental requirement of the Eurosystem.

2.4 Taking participations in public institutions, undertakings, or public or private associations

Article 26-1 of the BCL's Organic Law states that "Within its powers and tasks, the Central Bank may take and dispose of participations in public institutions, undertakings or public or private associations".

This Article provides the legal basis for the BCL's participation in various types of external organisations. Similar provisions are contained in the statutes of other central banks of the Eurosystem. The Article envisages a twofold objective: On the one hand it takes into account the existing situation and on the other hand it is necessary to guarantee the BCL's participation in future activities of the Eurosystem and other activities which could be of special interest for the BCL. The BCL has indeed succeeded the *Institut monétaire luxembourgeois* (IML) as a member of two economic interest groups (*Groupe d'intérêt économique G.I.E.*), SYPAL and RTGS-L (both under liquidation). The BCL currently participates in the Society for Worldwide

Interbank Financial Telecommunication (SWIFT) and the Financial Technology Transfer Agency (ATTF). Such participations may be useful for various reasons. SWIFT for instance, allows the BCL to use its services for the execution of the BCL's missions. ATTF permits the BCL to contribute to the cooperation with third countries through technical assistance opportunities offered *inter alia* to other central banks.

Within the Eurosystem, it is envisaged to use the legal status of commercial companies as a framework for central bank cooperation in the field of various projects. For the time being the Eurosystem regulates common facilities (TARGET 2) *via* ECB regulations. For TARGET 2 Securities it is considered that national central banks should create new legal entities and in this respect, the new provision would enable the BCL to participate in such entities.

2.5 The BCL's regulatory power

Article 34 paragraph 1 of the BCL's Organic Law provides that "Within the limits imposed on its powers and tasks, the Central Bank may adopt regulations. The Central Bank's regulations shall be published in the Mémorial"⁹.

A similar provision foreseen under the Law of 24 October 2008 confers upon the *Commission de surveillance du secteur financier* (CSSF) the power to adopt regulations. These modifications derive from Article 108bis of Luxembourg's Constitution according to which "The Law may create public institutions, vested with civil personality, and with a clearly defined organisation and purpose. Within the limits of their missions the Law may confer upon them the power to adopt regulations..."¹⁰.

⁸ See draft law n°5842 « portant amélioration du cadre législatif de la place financière de Luxembourg », Commentaires des articles, 28 Februray 2008, paragraph 3, p. 18, http://www.chd.lu/wps/PA_1_084AIVIMRA06I432DO10000000/FTSShowAttachment?mime=application%2fpdf&id=972453&fn=972453.pdf; also see, Commentaires des amendements, 5 June 2008, paragraph 1, p. 3, http://www.chd.lu/wps/PA_1_084AIVIMRA06I432DO10000000/MergeServlet?lot=J-2007-O-0694.

⁹ The Official Journal of the Grand Duchy of Luxembourg.

¹⁰ Unofficial translation.

Article 34 paragraph 1 is a fundamental provision as it offers the BCL the possibility to fulfill its missions through the adoption of legally binding means. The BCL exercises its regulatory power in addition to its mandate to execute, as a member of the ESCB, ECB decisions.

By using this new legal basis, the BCL recently adopted a regulation concerning certain aspects of the implementation of the monetary policy in the Eurozone¹¹.

The regulatory power is also destined to be used on other levels. For instance, in its opinion of 15 April 2008, the ECB stresses that "The BCL's regulatory power, potentially combined with a sanctioning power, is especially welcome in the collection, compilation and reporting of statistical data"¹².

Moreover, the regulatory power enables the BCL to replace its general terms and conditions for monetary policy operations by a regulation¹³.

In the field of financial stability, the Law of 24 October 2008 confers upon the BCL the competence to supervise the general liquidity situation on the markets as well as evaluate market operators for that purpose. This regulatory power enables the BCL to determine the conditions relating to liquidity management and to the supervision of such management.

¹¹ See, règlement de la Banque centrale du Luxembourg 2008/N° 1 du 28 novembre 2008 contenant des modifications temporaires aux règles applicables à l'éligibilité des garanties; http://www.bcl.lu/fr/publications/R_glements_de_la_Banque_centrale_du_Luxembourg/2008-1.pdf.

¹² See, ECB opinion of 15 April 2008 at the request of the Luxembourg Minister for the Treasury and the Budget on a draft law improving the legislative framework for Luxembourg as a financial centre and on a draft law relating to social insurance contributions, (CON/2008/17), paragraph 4.3, p. 4.

¹³ ECB opinion of 15 April 2008 at the request of the Luxembourg Minister for the Treasury and the Budget on a draft law improving the legislative framework for Luxembourg as a financial centre and on a draft law relating to social insurance contributions, (CON/2008/17), paragraph 4.5, p.6.

3 The BCL's new missions

The Law of 24 October 2008 confers upon the BCL three core tasks in the field of financial stability:

- 1) supervising the general liquidity situation on the markets as well as evaluating market operators for this purpose (Article 2 paragraph 4);
- 2) cooperating with the competent authorities in the field of prudential supervision and the stability of the financial system (Article 2 paragraph 5);
- 3) emergency liquidity assistance (Article 27-2).

The underlined passages below highlight the main modifications.

3.1 The supervision of liquidity

Article 2 entitled "Tasks and legal status of the Central Bank of Luxembourg" of the BCL's Organic Law is completed by a new paragraph 4 providing that "The Central Bank shall be responsible for supervising the general liquidity situation on the markets as well as evaluating market operators for this purpose. The coordination and cooperation procedure for performing this task shall be subject to agreements between the Central Bank and the Commission de surveillance du secteur financier as well as the Commissariat aux assurances in accordance with the parties' legal powers".

The first sentence of this Article defines the supervisory role played by the BCL with respect to the market operator's liquidity risk management and with special focus on banks. The supervision embraces the general liquidity situation on the markets as well as the individual liquidity situation of market operators. The BCL's new supervisory role grounds on its competence to provide liquidity in both normal times (monetary policy operations, Article 22 of the BCL's Organic Law) and in times of financial distress (emergency liquidity assistance, Article 27-2, of the BCL's Organic Law, discussed below).

From a financial stability point of view the supervision of liquidity is of particular interest for a central bank, as it may together with solvency requirements and the

3. EXTERNAL ACTIVITIES

provision of emergency liquidity assistance, prevent the markets from a negative chain reaction and hence protect the economy from systemic risk.

Indeed a bank's liquidity management must be subject to stronger regulations for, *inter alia* following reasons:

- the financial turmoil has shown the need for liquidity regulation of banks together with solvency requirements (Basel II);
- real time gross settlement systems (RTGS) settle large volumes of liquidity. A failure of one participant in such a system might impair the functioning of the financial system as a whole;
- a sound management of banks' exposures to derivative products must be guaranteed as such products are opaque and might require, as the recent turmoil has proved, considerable volumes of liquidity.

The permanent supervision of liquidity should allow the BCL to verify through on-site inspections liquidity management and the availability of adequate collateral.

The second aspect of paragraph 4 relates to the cooperation and coordination between prudential supervisory authorities in the field of liquidity management. This cooperation will be based on agreements concluded with the CSSF and the *Commissariat aux Assurances*.

Supervisory authorities should avoid, through cooperation, to impose an unnecessary reporting burden on market operators.

3.2 Cooperation between authorities in charge of maintaining financial stability

The Law of 24 October 2008 completes Article 2 of the BCL's Organic Law with a new paragraph 5 stating that "In view of its tasks relating to monetary policy and to the promotion of the smooth functioning of payment systems, as well as contributing to the good management of policies implemented by the competent authorities concerning prudential supervision of credit institutions and the financial system's stability, while respecting its independence and the parties'

legal powers, the Central Bank shall cooperate with the Government and with prudential supervision authorities at national level, as well as with the other central banks at Community and international level, to contribute to ensuring financial stability, notably within committees set up for this purpose".

This paragraph allows on the one hand the implementation of Article 105 (5) of the EC Treaty, according to which "The ESCB shall contribute to the smooth conduct of policies pursued by the competent authorities relating to the prudential supervision of credit institutions and the stability of the financial system". On the other hand the new provision transposes into national law the Memorandum of Understanding on cooperation between the financial supervisory authorities, central banks and finance ministries of the European Union on cross-border financial stability¹⁴ which is of special interest in the event of a financial crisis.

3.3 The lender of last resort role

The Law of 24 October 2008 inserts a new Article 27-2 into the BCL's Organic Law stating that "The Central Bank may, in exceptional circumstances, grant short-term loans to its counterparts while respecting its independence and the provisions prohibiting monetary financing. It shall grant loans on the basis of adequate collateral which may consist of a State guarantee under the conditions previously agreed between the State and the Central Bank. The Central Bank's privilege in Article 27-1(1) shall apply to these loans".

The lender of last resort lends in exceptional circumstances, above all to solvent banks that face a temporary liquidity shortfall. Such loans are backed by adequate collateral and take into account systemic risk.

Until then the BCL's lender of last resort role was grounded on Article 22 of its Organic Law according to which "To enable it to achieve its objectives and fulfill its tasks, the Central Bank may: operate in the financial markets by buying and selling outright (spot and forward) or under repurchase agreement and by

¹⁴ Signed on 1st June 2008, Brussels, ECFIN/CEFCPE (2008) REP/53106 REV REV.

lending or borrowing claims and marketable instruments denominated in all monetary units as well as precious metals; conduct credit operations with credit institutions and other market participants, with lending being based on adequate collateral". The use of this Article for that purpose seemed inappropriate since Article 22 applies to monetary policy operations foreseen under the EC Treaty and the Statute of the ESCB. On the contrary the lender of last resort role is considered as being a national competence.

It was thus important, especially in the context of the financial turmoil, to modify the Organic Law by conferring upon the BCL a mission that, since the 19th century, has been considered as being a core central bank competence in the field of financial stability.

In its opinion of 10 September 2008, the ECB welcomed the new provision enabling the BCL to provide emergency liquidity assistance: "...the ECB strongly welcomes the draft law, which establishes the legal basis for the possible extension of emergency liquidity assistance by the BCL in the form of short-term loans extended to its counterparts, while at the same time providing for appropriate legal safeguards of central bank independence and compliance with the monetary financing prohibition under Article 101 of the Treaty..."¹⁵. The prohibition foreseen under Article 101 applies in the event that a central bank supports an insolvent financial institution whereas this competence should lie with the State and be subject to the competition rules of the European Community with respect to State aid.

3.3.1.2 Law of 3 July 2008 approving the Treaty of Lisbon and amending the Treaty on European Union and the Treaty establishing the European Community, signed at Lisbon, 13 December 2007

¹⁵ ECB opinion of 10 September 2008 at the request of the Banque centrale du Luxembourg on amendments to the draft law improving the legislative framework for Luxembourg as a financial centre and amending the Law of 23 December 1998 on monetary status and on the Banque centrale du Luxembourg, (CON/2008/42), paragraph 4.11, p. 6.

The law of 3 July 2008 (published in the Mémorial 99 of 11 July 2008, page 1302) has approved the Treaty of Lisbon. In this Treaty, price stability and the Economic and Monetary Union (EMU), with the euro as currency, have been expressly recognized as an objective of the European Union. The ECB becomes an Institution of the Union. The independence of the ECB, the ESCB and the NCBs, as well as the legal personality, regulatory powers and financial independence of the ECB are confirmed.

The ECB issued an opinion on 5 July 2007.

The Treaty of Lisbon shall enter into force on the first day of the month following its ratification by the last Member State. By the end of 2008, the Czech Republic, Ireland, Germany and Poland did not formally ratify yet the Treaty of Lisbon.

3.3.1.3. Legislation relating to the crisis of the financial sector

By a grand ducal regulation of 10 October 2008, the Government has been authorized to issue a financial guarantee for the benefit of the Dexia Banking Group. The Government is authorized to guarantee, under certain conditions, for the State, the entirety of the financing collected by the Dexia Banking Group from credit institutions and institutional depositors as well as bonds and debt instruments issued by the Dexia Banking Group for institutional investors. This guarantee is provided by the Grand Duchy of Luxembourg jointly but not in solidum with the Kingdom of Belgium and the French Republic.

The Eurosystem has adopted in October 2008 Recommendations on government guarantees on bank debt, in accordance with Section (8) of the "Declaration on a concerted European Action Plan of the euro area countries" of 12 October 2008 and with Section (4) of the conclusions of the Presidency of the European Council of 15 and 16 October 2008. The Eurosystem opposes, *inter alia*, to guarantees on interbank deposits as they could entail a substantial distortion in the various national segments of the euro area money market.

3. EXTERNAL ACTIVITIES

In addition, the Eurosystem has adopted in November 2008 Recommendations concerning the pricing of recapitalizations, which are without prejudice to the guidance and assessment of recapitalization measures by the European Commission in accordance with Article 87 EC.

In its capacity as member of the Eurosystem, BCL ensures compliance with these rules within the limits of its competences as conferred upon it by law. Given its competence regarding the supervision of the general liquidity situation on the markets as well as the evaluation of market operators for this purpose, BCL may be required to evaluate, as the case may be, the need for special measures of prudence in relation to its monetary policy counterparties.

Furthermore, the aforementioned law of 24 October 2008 has introduced a specific article VII providing for the authorization of the State to issue medium and long term loans. In order to ensure the stability of the financial system, the Minister in charge of the Treasury is authorized to issue loans, if needed, in one or several tranches, up to an overall amount of three billion euro. The proceeds will be used to reinforce the financial situation of financial establishments, notably by participating in their share capital, acquiring securities issued by these establishments, by entering into lending or borrowing operations for their benefit as well as by making placements with these establishments.

The State has also contributed to restore the situation of another credit institution by providing a loan which was converted into share capital in second stage.

Based on the proposal for a directive deposited by the Commission on 15 October 2008 and because many Member States of the European Union have already increased the guaranteed amount for deposits to 100.000 euro, the Government intends to apply this amount as from 1 January 2009 with the entry into force of the budgetary law for the year 2009 (article 44, paragraph 2 of the law of 19 December 2008, Mémorial A, no 200 of 23 December 2008). Relevant amendments have been introduced to the 2nd and 3rd paragraph of article 62-2 of the law of 5 April 1993 relating to the financial sector (as amended).

However, the budgetary law does not amend the present system; it is for the national Deposit Guarantee Association to take the adequate implementation measures. These measures have not been taken so far. The increase of the guaranteed amount must be considered as a first stage - an urgent measure - in anticipation of a more fundamental revision of the deposit guarantee system presently applied in Luxembourg. It is envisaged notably to apply a pre-financing system in the future.

3.3.1.4 Legal rate of interest

The rate was fixed at 5.75 per cent for the year 2008 by a grand-ducal regulation of 13 December 2007 (published in the Mémorial A no. 226 of 19 December 2007). For 2009, this rate has been fixed at 4.25 per cent. It is observed that these rates, being determined by regulatory means, do not correspond to specific rates of reference of the money or capital markets.

3.3.1.5 Developments in the eligible collateral framework

Article 18.1 of the Statute of the ESCB sets forth that all lending operations conducted by the Eurosystem shall be based on adequate collateral. The assets to be collateralised must meet precise criteria to constitute eligible collateral for such operations. The single list of eligible collateral comprises two categories of assets, marketable and non-marketable assets.

In 2008, the Governing Council of the European Central Bank took a number of important measures concerning eligible collateral. Certain such measures are permanent, while others are just temporary.

3.3.1.5.1 Permanent amendments decided in 2008

Every two years, the Eurosystem conducts a review of the risk control measures applied to assets that are eligible as collateral for the purpose of credit operations of the Eurosystem.

This biennial review resulted in the adoption of the ECB Guideline of 23 October 2008 amending Guideline ECB/2000/7 on monetary policy instruments and procedures of the Eurosystem (ECB/2008/13). The contemplated amendments had been disclosed to the public by a press release of 4 September 2008.

Within the framework of its biennial review, the Eurosystem introduced a number of technical improvements to its risk control measures, which can be summarized as follows:

1. Concerning risk control measures applied to marketable assets, a new liquidity category was introduced. This new category is composed of debt certificates issued by credit institutions (other than issued Jumbo and traditional covered bank bonds) that were previously part of category III. The old category IV, which included asset-backed securities, has become the new category V. Assets in the new category V shall be subject to a haircut of 12% regardless of their residual maturity and coupon structure. Furthermore, assets in this liquidity category that are given a theoretical value shall be subject to an additional valuation haircut.
2. The definition of "close links" was extended to include situations in which a counterparty submits an asset-backed security as collateral when it (or any third party that has close links to it) provides support to that asset-backed security by entering into a currency hedge with the issuer or guarantor of the asset-backed security or by providing liquidity support of more than 20% of the nominal value of the asset-backed security.
3. With regard to the ECAI (External Credit Assessment Institutions), for an asset to be eligible as collateral, the related credit assessment must be based on a public rating. In the case of asset-backed securities, ratings must be explained in a publicly available credit-rating report (either a detailed pre-sale report or a new issue report). This report must include a comprehensive analysis of the structural and legal aspects, a detailed collateral pool analysis, an analysis of the transaction participants and any other relevant particularities of the transaction. Moreover, ECAIs must publish regular rating reviews for asset-

backed securities at least on a quarterly basis. These reviews must at least contain an update of the key transaction data (e.g. composition of the collateral pool, transaction participants and capital structure) and performance data.

Finally, it is noted that the Eurosystem has the possibility to limit or exclude the use of certain assets as collateral for its credit operations, also at the level of individual counterparties, if required, to ensure adequate risk protection of the Eurosystem in line with Article 18.1 of the Protocol on the Statute of the European System of Central Banks and of the European Central Bank.

All the above-mentioned changes adopted on 23 October 2008 shall enter into force on 1 February 2009.

3.3.1.5.2 Temporary amendments decided in 2008 and applying until 31 December 2009

On 21 November 2008, the European Central Bank adopted a Guideline on temporary changes to the rules relating to eligibility of collateral (ECB/2008/18) following the ECB Regulation of 23 October 2008 having the same title. The latter regulation had been detailed by the Decision ECB/2008/15 of 14 November 2008. The purpose of this intervention was to widen the range of assets that Eurosystem counterparties could use as eligible collateral.

The BCL implemented the ECB Guideline of 21 November 2008 by way of a BCL Regulation 2008/N°1 of 28 November 2008.

The objective of these various legal acts is to add the following instruments to the list of eligible assets:

- Marketable debt instruments denominated in other currencies than the euro, namely US dollars, British pounds and Japanese yen. An additional haircut of 8% shall apply to these instruments.
- Syndicated loans denominated in euros and governed by the laws of England and Wales became

3. EXTERNAL ACTIVITIES

eligible according to the above-mentioned ECB Regulation of 23 October 2008. However, further to the assessment of the costs and benefits associated with accepting such assets, the ECB withdrew them from the eligible assets list by the ECB Guideline of 21 November 2008.

- Debt instruments issued by credit institutions, which are traded on certain non-regulated markets as specified by the ECB. This measure implies that certificates of deposit (CDs) are also eligible when traded on a non-regulated market accepted by the ECB. An additional haircut of 5 % shall be imposed on all such debt instruments.
- Subordinated debt instruments are eligible when protected by an unconditional and irrevocable guarantee payable on first demand, issued by a guarantor whose financial soundness raises no reserve. These instruments will be subject to a haircut add-on of 10%, with a further 5% valuation markdown in case of theoretical valuation.

Furthermore, the Eurosystem decided to lower the credit threshold for eligible assets from A- to BBB-, with the exception of asset-backed securities (ABS), and impose a haircut add-on on all eligible assets rated less than A-.

Moreover, fixed term deposits held with the Eurosystem by counterparties are eligible collateral for all Eurosystem refinancing operations.

The BCL regulation implementing these various measures entered into force on 1 December 2008 and will be applicable until 31 December 2009.

3.3.1.6 Miscellaneous

Grand-Ducal Regulation of 8 February 2008 concerning the issuance of commemorative coins on the occasion of the 10th anniversary of the BCL [developments already included under the title "numismatics issuance" in previous reports, section 2.4.3 (B 3.1)].

The current reforms:

a) *Implementation of Directive 2007/64/EC of 13 November 2007 on payment services in the internal market*

The BCL contributed to the work on the implementation in Luxembourg of the Directive 2007/64/EC of 13 November 2007 on payment services in the internal market within a working group established by the Ministry of Finance.

The BCL's Organic Law shall be amended in the near future in order to add a mission of oversight of payment systems, securities settlement systems and payment instruments. Currently, the BCL's competence is limited to the systems in which it participates. The draft law implementing the Directive shall extend this competence to all payment systems, securities settlement systems and payment instruments.

On the basis of Article 105 (2) of the EC Treaty and Article 3 (1) of the Statute of the European system of central banks (ESCB), the promotion of the smooth operation of payment systems is one of the fundamental tasks of the Eurosystem central banks. Moreover, on the basis of Article 22 of the ESCB Statute, the ECB and the national central banks may provide facilities and the ECB may make regulations to ensure efficient and sound clearing and payment systems within the Community and with other countries. Article 25 of the BCL's Organic Law mirrors on the national level Article 22 of the ESCB Statute.

These articles provide a legal basis for the oversight activities by national central banks exercised in accordance with the common oversight policy framework defined for the Eurosystem by the ECB Governing Council. It is also crucial for the Eurosystem to collect information as regards the evolution in the field of payments and in general as regards market infrastructures. The ECB considers that the scope of the oversight competence also covers systems such as e-money schemes and payment instruments.

Furthermore, the draft law provides that the coordination and cooperation modalities for the performance of this new task shall be agreed between the BCL and

the CSSF while respecting the legal competences of each party.

b) *The draft law organising the National institute for statistics and economic research*¹⁶

This draft law confers upon the BCL and the National institute for statistics and economic research (STATEC) the mission to jointly establish the balance of payments and the financial accounts. The methods of cooperation are laid down in an agreement to be concluded between the STATEC and the BCL.

The ECB rendered an opinion on this draft law in which it insists in particular on the financial and institutional aspects of the BCL's independence¹⁷.

3.3.2 External Committees

3.3.2.1 The Economic Committee (Comité de conjoncture)

The Economic Committee acts on the basis of the legislation which authorises the government to take measures to stabilise employment. Thus, the Committee provides a framework for examining business cycle fluctuations in the country's economy and for monitoring economic policy issues as they arise.

The BCL belongs to the Economic Committee for two reasons: it collects information on Luxembourg's cyclical position and it contributes to the Committee's work by monitoring and commenting on the latest developments in the monetary domain and in the financial sector.

¹⁶ Draft law number 5972, submitted to the Parliament on 10 December 2008.

¹⁷ ECB opinion of 27 January 2009 at the request of the Banque centrale du Luxembourg on the legal framework for the compilation of statistics and the role of the Banque centrale du Luxembourg in the fields of balance of payments and quarterly financial accounts statistics, (CON/2009/7).

3.3.2.2 The Consumer Price Index Commission (Commission de l'indice des prix à la consommation)

The BCL has observer status at the meetings of the Consumer Price Index Commission (CPIC), which is in charge of advising and assisting STATEC in the preparation of consumer price indices. This Commission also issues technical opinions on the design of the monthly consumer price index and supervises the compliance of this index with national and European regulations. The BCL presents its inflation projections for Luxembourg to the CPIC and provides explanations related to BCL work in the area of consumer prices.

3.3.2.3 Committee "Comptabilité bancaire"

The committee "Comptabilité Bancaire" set up by the Commission de surveillance du secteur financier (CSSF), aims at ensuring an exchange of views between the supervisory authority, the BCL and players of the Luxembourg financial centre. The committee is consulted during the preparation CSSF circulars concerning bank accounting issues.

The committee members met several times in 2007 to discuss the implementation of the accounting standards IAS / IFRS, the new regulatory capital adequacy, financial reporting (FINREP) and the common reporting (COREP) defined by the Committee of European Banking Supervisors.

3.3.2.4 Higher Council for Statistics of Luxembourg

The Higher Council for Statistics carries out advisory functions on behalf of the national statistical institute of Luxembourg (STATEC) and is mandated to provide appraisal on the STATEC's annual programme.

The BCL contributes in two ways to the work of the Higher Council for Statistics: on the one hand, it provides its opinion on the documents elaborated during meetings and submitted to it and, secondly, it provides

3. EXTERNAL ACTIVITIES

the STATEC with data collected on the financial centre to enable the latter to achieve its work Programme.

3.3.2.5 XBRL Luxembourg asbl

XBRL (eXtensible Business Reporting Language) is a financial reporting standard based on XML, which main objective it is to improve the correct character, transparency and efficiency of internal and external reporting. The non-profit association XBRL Luxembourg asbl includes some twenty organisations using XBRL and / or providing services related to XBRL technology. The role of the association is to promote the XBRL standard within Luxembourg's economy.

The BCL, as a founding member of XBRL Luxembourg, will analyse the potential to adopt the XBRL standard in the context of the statistical reporting it collects from companies of the Luxembourg financial sector.

3.3.3 BCL Committees

3.3.3.1 The Statistics Committee

The Statistics Committee has been set up by the BCL to ensure a constant dialogue between the actors of the financial centre that are subject to statistical reporting requirements and the main users of this data.

During 2008, the committee's advice has been sought for the definition of a security by security reporting for credit institutions and undertakings for collective investment (UCIs) as well as for the new data collection for investment funds.

3.3.3.2 The Monetary and banking statistics consultative commission

The Monetary and banking statistics consultative commission has been set up by the BCL to enhance the dialogue between reporting agents and the central bank. The commission also ensures the efficiency of the reporting procedures in the area of monetary and banking statistics. During 2008, the Commission has been informed and consulted on various conceptual issues in relation with the revision of statistical data

collection for credit institutions, the security by security reporting for credit institutions as well as the revision of the statistical data collection on interest rates applied by credit institutions.

3.3.3.3 The Balance of payments statistics consultative commission

The Balance of payments statistics consultative commission acts as an advisory group and assists the BCL in its mission to collect data in the areas of balance of payments and international investment position. The Commission ensures an efficient organisation of data collection in order to avoid redundancies and to limit the collection charge for the entities requested to submit statistical data.

3.3.3.4 The Economic and financial statistics consultative commission

The Economic and financial statistics consultative commission has been set up by the BCL in order to ensure an efficient organisation of the data collection in the area of economic and financial statistics as well as to enhance the dialogue between financial intermediaries and the central bank.

Since the Economic and financial statistics consultative commission has been set up at the end of the year, it did not yet meet during 2008.

3.3.4 BCL research activities

In 2008, the BCL established a research programme fixing the main axes for research activities. These were grouped into five themes:

- Business cycles and long-term trends
- Competitiveness and productivity
- Labour markets
- Monetary analysis, credit and financial markets
- Other subjects

These main themes were confirmed in 2009 and provide a structure for research activities at the BCL, as well as helping to raise their visibility. Research output is regularly disseminated through BCL publications but

some were also published in peer-reviewed scientific journals (Scottish Journal of Political Economy, Regional Science and Urban Economics). BCL researchers also presented their work in many seminars and workshops organised by the Eurosystem Research Networks (Wage Dynamics Network, Household Finance and Consumption Network) as well as those organised by more academic associations such as the Euro Area Business Cycle Network (EABCN), the Centre for Economic Policy Research (CEPR) and the European Economic Association (EEA). Furthermore, during November 2008, the BCL held a conference in Luxembourg on the productivity of financial services, jointly organised with the Société Universitaire Européenne de Recherches Financières (SUERF). Lastly, the BCL has developed several collaborations with external researchers in order to benefit its research projects and to share its competences. In particular, the Perfilux project, grouping the BCL with the Luxembourg School of Finance (University of Luxembourg) as well as STATEC, and partially financed by the Fonds National de la Recherche, aims to study the performance of the financial services industry in Luxembourg. This has made possible the recruitment of two post-doctoral researchers specialised in this domain.

3.3.5 Training at the BCL

The BCL furthered its cooperation with the young University of Luxembourg, where a staff member gave lectures on institutional aspects of the Eurosystem. Other staff members taught economics at the Université catholique de Louvain and at the Dolibois European Campus of the Miami University (MUDEC) in Luxembourg.

The BCL is shareholder of the Agence de Transfert de Technologie Financière (ATTF). This agency, established in 1999 at the initiative of the Luxembourg government, shares with mostly emerging countries Luxembourg's know-how in financial matters. In July 2008, in the context of a study visit, the BCL held a lecture for twenty members of the Banking and Finance academy of Uzbekistan.

The BCL organises presentations on the Eurosystem and the BCL for high school students (usually in the course

of their last two years) following economics classes. Classes are greeted, along with their economics teachers, at the auditorium of the Monterey building, for an educational and interactive presentation on the organisation and on the missions of the BCL and of the Eurosystem. Immediately after the presentation, students are invited to test their knowledge with an interactive quiz. Other topics can also be tackled according to teachers' requests and students' questions.

The course and the content of those visits were adapted following the feedback given in winter 2007-2008 by teachers and students from the Lycée technique de Bonnevoie, Lycée Technique Michel Lucius and the Ecole de Commerce et de Gestion. In September 2008, the Minister for Education and professional training thanked the BCL for its involvement and informed economics and social sciences teachers about the possibility to visit the BCL with their classes. Both teachers and students have expressed their interest for this type of programme.

3.3.6 External events

3.3.6.1 Conferences and international meetings

The Governor of the BCL attended the IMF and the World Bank's spring meetings that were held in Washington in April.

The Governor of the BCL also attended the half-yearly informal ECOFIN Council of Ministers.

In May 2008, the BCL hosted the 15th annual meeting of Governors of French-speaking central banks. Around thirty delegations from Africa, North America, Asia, the Caribbean, Europe, the Middle-East and the Pacific participated in the meeting, which took place in Echternach. Working sessions were devoted to the topic of governance. Governors and other delegates had a hearing with H.R.H. Grand-Duke Henri.

The « open day » at the BCL, organised on 1 June 2008 in the Monterey building, attracted around 500 people. A particular emphasis was put on numismatic

3. EXTERNAL ACTIVITIES

activities, with the issuance of new products (gold collector coin 2008 « The BCL - 10th anniversary » and casket containing all gold and silver coins from the series « European institutions ») and the exhibition of the finest samples of banknotes from Luxembourg; and didactic activities, with a series of presentations that were given at the auditorium, and which explained the functioning of the Eurosystem and the BCL. A counter installed by the Post and Telecommunications office also offered philatelists a special postmark for the stamp « 10th anniversary of the Eurosystem » issued on 18 March 2008.

The BCL was represented by its President and a delegation of staff members for the tenth anniversary of the ECB, on 2 June 2008, in Frankfurt.

In order to celebrate this anniversary, the ECB's cultural days, from 14 May to 2 June 2008, had included contributions from the central banks of the EU's 27 member states. The BCL was represented, along with the central banks of Malta, Slovakia and the Czech Republic, by the concert « Family of Europe » given by the European Soloists, Luxembourg, on 30 May 2008. Among the musical pieces played was the Family of Man, composed by the Czech Milan Slavicky and commissioned by the BCL for the celebration of its own tenth anniversary.

The official festivities for the celebration of the BCL's tenth anniversary were held in November 2008 in Luxembourg. A series of conferences jointly organised by the BCL and the SUERF (Société Universitaire Européenne de Recherches Financières) were given on 11 and 12 November 2008. The Governor of the BCL, on this occasion, greeted the members of the SUERF. The official celebration, on 12 November, included a panel discussion on the topic « Growth and productivity in the financial sector: challenges for monetary policy ». This discussion, held in the framework of the traditional Pierre Werner Lecture, gathered Mr. Jürgen Stark, member of the ECB's Executive Board, Mr. Donald L. Kohn, Vice-President of the Board of Governors of the Federal Reserve System, and Mr. Akinari Horii, Deputy Governor of the Bank of Japan, together. The Governor of the BCL then opened the official ceremony in the presence of Mr. Jean-Claude Juncker, Prime Minister of Luxembourg, and Mr. Jean-Claude Trichet, President of the European Central Bank. In the context of its tenth

anniversary, the BCL also published a commemorative book entitled « Emergence of a central bank in Luxembourg, 1998-2008 ».

The Governor of the BCL was represented by Mr. Jacques F. Poos, member of the BCL Council, on the occasion of the 50th anniversary of the Central bank of Tunisia, in November 2008.

Within the Bridge Forum Dialogue (www.forum-dialogue.lu), an association chaired by the BCL's Governor and composed of representatives from European institutions and bodies and the nation's resources, two conferences were organised. The first was held in January, under the chairmanship of the BCL's Governor, and was entitled: « Globalisation : can Europe manage it ? » Speakers included Mr. Kenneth S. Rogoff, Professor of Economics at Harvard University, Mr. Lucas Papademos, Vice-President of the ECB, and Mr. Lars Heikensten, Member of the European Court of Auditors. The second conference, in October, dealt with the topic: « Incidence of globalisation on the European economic regulation ». It gathered Mr Vassilios Skouris, President of the Court of Justice of the European Communities and Vice-President of the Bridge Forum Dialogue, and Mr Paolo Mengozzi, Advocate General at the Court of Justice of the European Communities, together. Besides, the Board of the Forum took place in July 2008 at the BCL's headquarters.

In March 2008, the Governor of the BCL participated in the annual conference of the ALFI (Association for Investment funds in Luxembourg). His speech focused on the recent subprimes turmoil and its consequences for Luxembourg.

The Governor of the BCL also took part of the symposium organised by the Federal Reserve of Kansas City in Jackson Hole, in August. This event has taken place on a yearly basis since 1978. Discussions dealt with the topic « Maintaining stability in a changing world ».

In November 2008, the Governor of the BCL participated in a high-level Eurosystem seminar, jointly organised by the European Central Bank and by the Bank of Egypt, in Alexandria. Several sessions, chaired by the governors of the central banks of Mediterranean countries,

focused on the region's prospects on an economic, financial and monetary point of view.

On the cultural scene, the BCL inaugurated in March 2008 the philatelic exhibition « Finance and philately in Luxembourg », in the context of the issuance of a stamp commemorating the tenth anniversary of the BCL, the ECB and the Eurosystem. In December 2008, the BCL also inaugurated the numismatic exhibition « A walk through the history of the Maltese currency », which was jointly organised by the BCL and the Central Bank of Malta.

3.3.6.2 Bilateral relations

On 17 January 2008, the Governor of the BCL took part in a conference organised by the Bank of Greece in Athens, dealing with « The ageing of Europe's population: consequences and reforms. » On this occasion, he made a speech on the topic « The Luxembourg experience, resistance to reform and main avenues for change in Europe ».

On 18 January 2008 the Governor of the BCL went to Cyprus to take part in the official festivities organised by the Republic of Cyprus to celebrate the introduction of the euro.

On 28 and 29 March 2008, the Governor of the BCL received Mr. Axel Weber, Governor of the Bundesbank, and Mr. Ewald Nowotny, Governor of the Oesterreichische Nationalbank as from 1 September 2009.

On 16 and 17 April 2008, the Governor of the BCL had a working visit from Mr. Slawomir Skrzypek, Governor of the Bank of Poland.

From 26 April to 28 April 2008, the Governor of the BCL received Mr. John Hurley, Governor of the Central Bank & Financial Services Authority of Ireland, for a working visit at the BCL. Mr. Hurley, on this occasion, made a speech on the topic: « Arrangements for Managing Financial Stability: The Irish Case », in the framework of the presentation of the Financial stability review.

In the context of bilateral cooperation, a delegation of the Bank of the Lao PDR, led by its Governor, Mr. Phouphet Khamphounvong, visited the BCL for a working session on 28 May 2008. On this occasion, the two Governors signed a Memorandum of Understanding on technical assistance and training.

Outside the 15th meeting of French-speaking central banks, a cooperation agreement was signed between the Bank of Algeria, represented by its Governor Mr. Mohammed Laksaci, and the BCL, represented by Mr. Yves Mersch, on 30 May 2008. This agreement formalises the cooperation between the two central banks in the field of financial relations, technical assistance and training.

On 16 June 2008, the Governor of the BCL received Ms Gertrude Tumpel-Gugerell, member of the Executive Board of the European Central Bank, for a working visit allowing to discuss Eurosystem current issues.

In the context of the official visit of Luxembourg Prime Minister Jean-Claude Juncker in the Republic of Kazakhstan, from 26 to 28 June 2008, the Governor of the BCL met the Governor of the National Bank of the Republic of Kazakhstan, Mr. Saidenov Anvar Galimulaevich.

The annual meeting between the BCL and the BNB took place on 18 July in Brussels, at the invitation of Governor Mr. Guy Quaden. These annual meetings at the level of Governors and other members of the decision-making bodies, aim at fostering a sound cooperation between the two central banks ; they also aim at taking stock of current issues in the Eurosystem and in international relations.

At the invitation of Mr. Durmus Yilmaz, Governor of the Central Bank of the Republic of Turkey, the Governor of the BCL went to Ankara on 21 October 2008, and made a speech entitled : « Financial stability : Quo vadis ? » for members of the Central Bank of Turkey.

On 8 December 2008, the Governor of the BCL received Mr. Michael Bonello, Governor of the Central Bank of Malta, for a work session, and on the occasion of the inauguration at the BCL of the numismatic

3. EXTERNAL ACTIVITIES

exhibition « A walk through the history of the Maltese currency ».

3.3.6.3 Relations with the Luxembourg Parliament

On 14 November 2008, the Governor of the BCL presented the opinion of the Bank on the state budget motion to the Financial and Budget Commission of the Luxembourg Parliament.

3.4 Communication activities

3.4.1 Annual reports

As required by its statutes, the BCL publishes each year a report on its activities. This annual report is published in French and in English.

3.4.2 Periodical bulletins

Beside its presentations on the economic and financial situation in Luxembourg and bulletins issued on current topics, the following papers and analyses have been published.

Financial stability review:

- Indice de vulnérabilité financière des banques luxembourgeoises
- Mesures de la production et de la productivité du secteur bancaire luxembourgeois : réactualisation
- L'extraction des anticipations des acteurs du marché à partir des prix des options
- Mesure de l'attitude des investisseurs face aux risques : analyse du marché des actions de la zone euro

Bulletin No 2008/1

- Compétitivité et exportations
- Revenu des investissements dans la balance des paiements du Luxembourg

- Résumé non technique du cahier d'études « Communication de l'Eurosystème et anticipations des marchés financiers »
- Résumé non technique du cahier d'études « Recherche et appariement dans le marché des biens et modèles de cycles réels standards »
- Résumé non technique du cahier d'études « Négociation séquentielle dans un modèle néo-keynésien avec chômage frictionnel et salaires rigides »

Bulletin No 2008/2

- L'impact des turbulences financières sur les crédits
- La position extérieure globale du Luxembourg
- Résumé non technique du cahier d'études « (In) stabilité financière, supervision et injection de liquidités : une approche d'équilibre général dynamique »

Articles are published in their original language.

3.4.3 Working papers

In its working papers the BCL publishes the results of research conducted by its staff. Each working paper contains a non-technical summary.

In 2008, seven working papers were published :

- N°29 : Les taux d'intérêt des banques luxembourgeoises : une étude sur bases agrégée et individuelle, by Yann Wicky, February 2008 ;
- N°30 : Eurosystem communication and financial market expectations, by Patrick Lünemann and Dirk Mevis, March 2008 ;
- N°31: A monthly indicator of economic activity for Luxembourg, by Muriel Nguiffo-Boyom, March 2008 ;
- N°32: Search in the product market and the real business cycle, by Thomas Y. Mathä and Olivier Pierrard, July 2008;
- N°33: Sequential bargaining in a new-Keynesian model with frictional unemployment and staggered wage negotiation, by Gregory de Walque, Olivier Pierrard, Henri Sneessens and Raf Wouters, July 2008;

- N°34: Regional MC parity: do common pricing points reduce deviations from the law of one price?, by Thomas Y. Mathä, September 2008;
- N°35: Financial (in)stability, supervision and liquidity injections: a dynamic general equilibrium approach, by Gregory de Walque, Olivier Pierrard, Abdelaziz Rouabah, October 2008.

3.4.4 The BCL's website

The BCL's website, www.bcl.lu, provides information about the Bank's activities and services, its internal organisation, as well as statistics about Luxembourg and the Eurosystem. It also contains links to the ECB's website and to other central banks of the ESCB.

Based on its search engine and its configurable mailing list, the site offers to each visitor a clearly structured information package, suitable for professionals as well as private individuals.

All BCL publications can be viewed and downloaded from the Publications and the media section. Hard copies are available from the BCL on request, as long as stocks last.

The website exists in English and French. Publications are displayed in their original language (English, French and German).

Overall, 137 337 people visited the website in 2008 (118 000 in 2007), with 14 978 129 hits. The numismatic programme witnessed more than 15 000 downloads (11 500 in 2007).

The numismatic products electronic shop (eshop.bcl.lu), directly accessible through the BCL website, has attracted more than 21 000 visitors since its launch in October 2007.

3.4.5 The library

The library, opened in 2005, uses the ALEPH library management systems as do a number of other central banks. The system is electronically linked with the other public libraries in Luxembourg.

The library is open to the public upon request, either by fax (+352 4774 4910) or by email (bibliotheque@bcl.lu). The library is open on Monday, Wednesday and Friday from 9am to 12pm and from 3pm to 5pm.

3.4.6 Press relations

The Governor of the BCL gave 24 interviews to the international and national press. Five press conferences were held, on the occasion of the presentation of the BCL's financial accounts, of the Annual Report and of the BCL's Bulletins. Two seminars for representatives of the press, during which the authors of the Bulletin's analyses presented their contribution, were organised. In total, 101 press releases were published.



- 1 Gold commemorative Coin "10th anniversary of the BCL"
- 2 Commemorative stamp "10 years BCL-BCE- Euro-system"
- 3 + 4 June 2008: Open doors at the BCL
- 5 Handover of the 1st stamp "10 years BCL-BCE- Eurosystem" to the President of the BCL by Mr. Marcel Gross, general Director of P&T
- 6 December 2008: Inauguration of the numismatic exhibition: "A walk trough the history of the Maltese currency", in presence of Mr. Michael Bonello, Governor of the Bank of Malta

4. THE BCL AS AN ORGANISATION



Row 1, from l. to r.: Mr Jacques F. Poos, Mr Yves Mersch, Mr Serge Kolb, Mr Romain Schintgen

Row 2, from l. to r.: Mr Patrice Pieretti, Mr Pit Hentgen, Mr Michel Wurth, Mr Claude Zimmer, Mr Pierre Beck

4.1 THE STRUCTURE OF THE BCL

4.1.1 The Council

Article 6 of the Founding Law of 23 December 1998 defines the powers of the Council of the Bank. In 2008, the Council consisted of the following members:

Governor: Yves Mersch

Members: Pierre Beck (as from 1 June 2009)

Andrée Billon (until 30 April 2009)

Jean Hamilius (until 1 August 2008)

Pit Hentgen

Mathias Hinterscheid (until 1 August 2008)

Serge Kolb

Patrice Pieretti

Jacques F. Poos

Romain Schintgen (as from 1 August 2008)

Michel Wurth

Claude Zimmer (as from 1 August 2008)

During 2008, the Council held six meetings. Within the framework of monitoring the financial situation of the Bank, the Council approved the financial accounts as per 31 December 2007, the budgetary trends and subsequently, the budget for the 2009 financial exercise.

The Council also observed and commented on economic and financial developments on a national and international basis and was kept informed of the decisions taken by the Governing Council of the ECB.

The Audit Committee

Since 2001, the Audit Committee, composed of members of the Council, assists the Council in its choice of the statutory auditor to be proposed to the Government, in specifying the scope of the potential specific controls to be performed by the statutory auditor and in the approval of the financial accounts by the Council. It is kept informed on the internal audit plan.

It may invite the head of the internal audit unit and the statutory auditor of the Bank to participate in its work. At its meeting on 11 December 2008, the Council nominated the non-executive members of the Audit Committee for 2009: Mr. Pit Hentgen, Mr. Patrice Pieretti and Mr. Jacques F. Poos. Mr. Yves Mersch is an ex officio member in his function as President of the Council. The Audit Committee is chaired by one of its non-executive members, Mr. Pit Hentgen. In 2008, the Audit Committee held five meetings.

4.1.2 The Executive Board

The Executive Board is the superior executive authority of the BCL. It takes the decisions and draws up the measures necessary for the Banque centrale du Luxembourg to carry out its tasks. Without prejudice to the independence of the Director-General with regard to all instructions in his capacity as a member of the Governing Council of the ECB, the decisions of the Executive Board shall be taken collectively.

The Executive Board consists of a Director-General and two Directors:

The organisation chart of the BCL (as from 1 January 2009)

Executive Board		
Internal audit AI - Internal audit	General secretariat SG - General secretariat	Financial stability and risk control SR - Financial stability and risk control
Eurosystem procurement co-ordination office EPCO - Eurosystem procurement co-ordination office	Sections SG1 Governor's office SG2 Legal services SG3 External relations and communication	Sections SR1 Market and operation analysis SR2 Financial and operational risks
2 Board members' secretaries		
General departments		
General department A	General department B	General department C
Department A1 Economics and research	Department B1 Human resources	Department C1 Information technology
Sections A1.1 Research A1.2 Business cycle		Sections C1.1 Infrastructure C1.2 Software and development C1.3 IT security, planning and support
Department A2 Currency	Department B2 Internal finance	Department C2 Statistics
Sections A2.1 Currency operations A2.2 Banking documentation		Sections C2.1 Banking and monetary statistics C2.2 External statistics C2.3 Economic and financial statistics
Department A3 Operations	Department B3 Numismatics and logistics	Department C3 Prudential surveillance
Sections A3.1 Front office: monetary policy operations A3.2 Front office: asset management A3.3 Back office - securities A3.4 Payments	Sections B3.1 Numismatics B3.2 Administration and supply B3.3 Security	Sections C3.1 Liquidity surveillance C3.2 Oversight C3.3 Infrastructures and payment systems
	Section B4.1 Procurement	



Mr Serge Kolb, Mr Yves Mersch, Mr Pierre Beck

Director-General: Yves Mersch

Directors: Serge Kolb

Pierre Beck (as from 1 June 2009)

Andrée Billon (until 30 April 2009)

The members of the Executive Board receive a salary according to the wage scale in the public sector as well as different allowances. They receive, in accordance with the legal provisions of the law of 22 June 1963 determining the salary scheme for civil servants, a family allowance depending on their domestic situation and a thirteenth month's allowance.

The salary components are subject to the current legal tax rates in Luxembourg. Contributions to the pension system are neither due with regard to the thirteenth month's allowance nor with the representation and BCL's Council allowances.

The basic salary paid to the board members is as follows:

	2008 €	2007 €
Yves Mersch (Director-General)	155 004	151 788
Andrée Billon (Director)	144 108	141 118
Serge Kolb (Director)	144 108	141 118
Total	443 220	434 024

4. THE BCL AS AN ORGANISATION

Besides, in relation to their function within the Bank, Executive Board members are entitled to the payment of a representation allowance (for a total amount of 68 350 euro in 2008) and to a BCL's Council allowance (for a total amount of 32 044 euro in 2008).

4.2 The Corporate Governance

4.2.1 The internal supervisory mechanisms

The BCL's internal control system is based on general rules and regulations, which are widely accepted as standards by the financial sector, and also takes into consideration the BCL's specific needs as a central bank.

The first layer of the internal control system has been put in place by the Executive Board at the level of the general management of the BCL. The senior management of the BCL and their staff are responsible for the proper functioning of this supervision. Functional checks are carried out by specific administrative units, ensuring a separation of the tasks to be carried out by the BCL.

Until 31 December 2008, the Risk management function was entrusted with the Organisation and Controlling unit, and thereafter with a new unit named Financial stability and risk management. Whereas the senior supervisors from the general departments are responsible for identifying the risks linked to their fields of activities and for taking appropriate actions to mitigate these risks, the risk manager had the following responsibilities:

- Establish a common methodology for risk analysis;
- Evaluate (quantify) the risks taken;
- Check whether risks are sufficiently mitigated;
- Deliver periodic reports to the Executive Board concerning the general situation.

On a regular basis, the risk management function evaluated different types of risks (credit, liquidity, solvency, funds, operational risk, IT risks) to which the Bank was exposed and checked the mitigation measures. In this regard, the unit set up a periodical management and reporting system addressed to the Board on the Bank's risk situation. Moreover, the function was in charge of

controlling financial risks linked to investment operations. It monitored on a daily basis and independently of the Investment unit the various investment positions within the portfolios of the Bank. Reports were established and addressed to relevant business areas and hierarchical management providing the daily evolution of all of the Bank's portfolio positions regarding performance and the evolution of its risk exposure.

The Controlling function, which was also entrusted with the Organisation and Controlling unit until 2008, and which task was then taken over by the Internal Finance department, performed the following tasks:

- Ensure the good execution of the budgetary procedures
- Supervise the execution of the budget
- Authorise certain expenditure and accounting
- Evaluate new activities
- Provide budgetary and financial follow-up of projects
- Provide operational performance follow-up

The BCL's strategic orientations are defined on the basis of performance measurement according to the Balanced Scorecard method and of the principles laid out in the Official Stance, a document describing the Bank's positioning which has been approved by the Council and published on the BCL's website.

The purpose of the Compliance function is to ensure that the BCL's activities are conforming to laws, rules and professional ethical norms. It is about preventing the risk that the Bank is not conforming.

Since 2007, the Compliance Officer role covers the overall risk of the bank being nonconforming (Compliance Risk).

In addition to questions related to preventing money laundering and terrorist financing, the Compliance Officer was certified in 2007 by the Commission Nationale pour la Protection des Données (CNPD) and is from then on in charge of the protection of personal data. The Compliance Officer also intervenes in questions related to the professional code of ethics, the prevention of insider trading and market abuse, in conflicts of interest, professional secrecy and confidentiality as well as in the regulation of the public market.

An additional layer of control is performed by the Internal Audit unit, which analyses and evaluates, on the basis of predefined objectives and a precise methodology, the appropriateness and efficiency of the existing supervision. Internal Audit is a supervisory unit independent of the BCL's other administrative units and reports directly to the President of the Council. The Head of Internal Audit may also be involved in the work of the Audit Committee. Generally speaking, the Internal Audit pursues the objectives and follows the reporting procedure of the ESCB.

4.2.2 The Eurosystem Procurement Coordination Office

Following the decision of the Governing Council of the ECB in December 2007 to designate the Banque centrale du Luxembourg to host a new coordination function, the "Eurosystem Procurement Coordination Office", the office started operating on 1 January 2008. This first mandate is for a period of five years.

The objective of EPCO is to ensure a better coordination of the procurement of goods and services by the European Central Bank and the national Central Banks of the Eurosystem.

The new tasks of this office are as follows:

- to coordinate joint public procurement procedures;
- to facilitate the adoption of best practices;
- to develop the infrastructure to enable synergies to be exploited and economies of scale to be realised

A network of procurement experts from the participating Central Banks was created as a priority and seven meetings were held during the course of the year.

EPCO is under the direct responsibility of an Executive Director of the BCL and the EPCO team, comprising four staff, was recruited by 1 October 2008. Mr Thomas L. Cranfield, former Director-General of the Publications Office of the EU, acted as Chairman of the meetings of experts until Mr Stephen Kaiser took up the position of Head of EPCO.

Initially, the work focussed on the preparation of best practices in public procurement procedures. Three groups were created and, at the end of the year, a first set of best practices had been finalised. This work will be continued and developed in 2009. With respect to infrastructure, the work consisted of the integration of the network of procurement experts into the document management and administration system of the ECB "DARWIN". Work was also initiated on the preparation of models for framework and specific contracts to be used later in joint procurement procedures. For the coordination of the procurement agenda, an inventory was established of all current and foreseen procurement procedures in the participating Central Banks. On this basis, an "EPCO Procurement Plan 2009" was proposed by the network of experts and, following approval by the "EPCO Steering Committee" and the "Executive Board" was approved by the Governing Council of the ECB in December 2008. This programme is much more ambitious than originally foreseen when EPCO was launched and consists of four specific areas which were identified for joint procurement and four other areas which must be studied in order to identify specific joint procurement projects and set priorities.

In November 2008, the Governing Council of the ECB adopted a Decision (ECB/2008/17) laying down the framework for joint Eurosystem procurement, with the objective of fostering the participation of the ECB and the national Central Banks that have adopted the euro in joint procurement actions. The Decision came into force on 1 December 2008.

In December 2008, the Governing Council of the ECB approved 1.12 € Mio as the Budget for 2009 for EPCO.

4.3 The BCL staff

4.3.1 Quantitative evolution

During 2008, the BCL staff increased by 8.68 % to reach a total of 238 members of staff on 31 December 2008, equivalent to 220.75 full time positions and representing a 7.95 % increase compared to 2007. Staff members belong to twelve different nations, thus

4. THE BCL AS AN ORGANISATION

contributing to the diversity of the human capital and to the cultural enrichment of the BCL.

On December 31, 2008, twenty-nine staff members worked part-time:

- Part-time work (50%) : 11 staff members
- Part-time work (75%) : 7 staff members
- Leave for part-time work : 11 staff members

Three staff members were on full-time parental leave and three staff members were on part-time parental leave.

Finally, two staff members were on unpaid leave and three staff members were on special leave.

The average number of staff members working at the BCL in 2008 was 229, compared to 211 in 2007.

The overall approved headcount ceiling for the year 2008 was 226 full time equivalent positions. This ceiling has been increased to 238 full time equivalent positions for the year 2009.

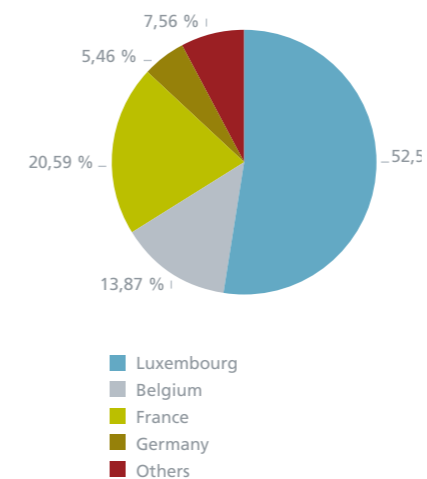
During 2008, five staff members left the bank. On the other hand, twenty-four new staff members joined the bank. There were some 300 applications to job advertisements. Furthermore, the BCL received 300 spontaneous job applications and 210 applications for internships or student jobs.

The BCL offered internships for a period from six weeks to two months to eleven students attending university studies related to the bank's activities and, furthermore, a subsidized internship to three students and an internship of one year within the Economic and Research Department to one PhD registered student.

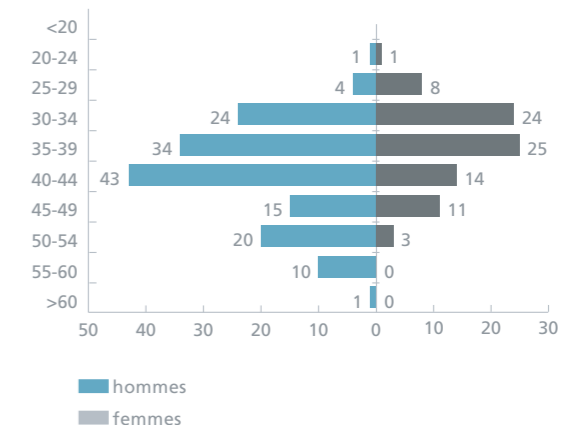
The staff evolution in full time equivalent during 2008 appears as follows:

	2008	2007
On 1st of January	207,50	196,00
Recruitments	23,50	17,25
Resignations ¹	7,25	5,75
On 31 December	223,75	207,50
Average head-count	214,19	197,96

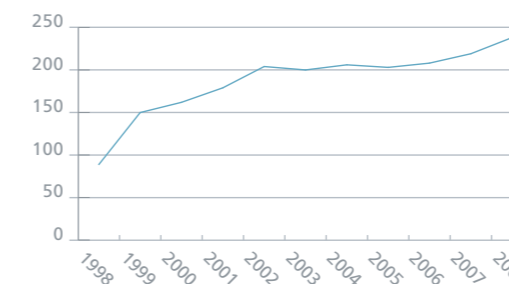
**FIGURE 1 :
STAFF MEMBERS BY NATIONALITY**



**FIGURE 2 :
DISTRIBUTION OF STAFF MEMBERS
PER AGE GROUP**



**FIGURE 3 :
EVOLUTION IN STAFF MEMBERS SINCE 1998**



The average age of BCL staff members has increased from 39.31 years in 2007 to 40.05 years on December 31, 2008. Staff comprised 36 % of women and 64 % of men.

¹ This item also takes into account the effects in relation to changes from full time work to part-time work.

4. THE BCL AS AN ORGANISATION

4.3.2 Human resource management

During the year 2008 we focused on the elaboration of several human resource management tools. First of all, stress was laid on the establishment of a professional mobility protocol applicable to managers, which is in line with the competences management – considered to be the central tool of human capital management. Mobility not only improves the bank's performance, but also increases staff versatility and therefore also limits the risks to loose skills.

Moreover, it improves the staff's adaptability and flexibility. Mobility offers development perspectives to staff members inside the bank.

A second tool for staff management elaborated during 2008 concerns the reform of the existing framework for additional remuneration related to qualified skills. In the framework of the fundamental restructuring of the European Higher Education Area initiated by the Bologna process, it became necessary to adapt the existing system for additional remuneration to the new structure of Higher Education (degree course) based on a three cycle system and applying the European Credit Transfer and Accumulation System (ECTS).

Finally, during 2008, much emphasis was laid on the recruitment process as it became necessary to recruit highly specialized staff members enabling the bank to assert its position among the Luxembourgish institutions and permitting the bank to fully satisfy its national, European and international obligations, as formulated in the official stance of the BCL. It should be pointed out as well that, following the decision of the Governing Council of the European Central Bank to award the Eurosystem Procurement Coordination Office (EPCO) to BCL, it was essential to recruit specialized staff members in this very specific area. The recently revised recruitment process had the opportunity to be tested. Nevertheless, to check whether the expected results were met, the process will be subject to a critical evaluation during 2009.

4.3.3 Staff training

BCL's internal training program is focused on its competences area, namely monetary policy and its implementation, payment systems, financial stability (instruments and strategy), as well as the European institutional aspects. On demand the training courses can also be provided externally, depending on the speakers' availability.

Beside life-long training programs, which are consistently offered to staff members during their professional career, the first measures of the training policy were implemented, more specifically in the field of qualified training. In this context, the conditions enabling staff members to attend a qualified training at the Luxembourg School of Finance (LSF) have been established. BCL will give financial and organisational assistance to staff members eager to attend a two years part time Master studies program at the LSF.

BCL intends to go further in this field. In fact, in case of a positive feedback to the facilities made available, it will be studied to extend them to other qualified training programs.

Finally, it should be noted that the internal training program was further developed during 2008. It aims at helping new staff members to integrate more easily the bank's structure and to make them more familiar with the bank's activities.

4.3.4 The Pension Fund

Article 14 of Founding Law of 23 December 1998 relating to the monetary status and the Banque centrale du Luxembourg provides that legal pension entitlements of BCL agents are determined by their status (i.e., civil servant, State employee, private employee or worker).

Paragraph 4(b) of this article provides that:

"The pensions of the Bank's agents shall be paid by the Bank. These costs shall be financed by a pension

fund of the Bank. The pension fund shall be financed on the one hand by statutory deductions from agents' salaries in accordance with the rules governing the pension scheme corresponding to their status, on the other hand by contributions made by the Bank itself."

The BCL's pension fund, which started operating in 2001, has two committees, one executive and one consultative and is ruled by a bylaw. The executive committee is the Comité directeur composed of the BCL's Board of Directors, two elected representatives from the staff, two co-opted members acting as delegated managers and one member designated by the Staff Committee. The consultative committee is the Tactical Benchmark Committee.

The Bank has been involved in the preparatory works, in particular amending the law of 28 July 2000 coordinating the different national pension schemes, which led to the recognition of the BCL' pension fund as social security body within the law of 19 December 2008.

The Bank meets the representatives of social security bodies as well as civil servants and administrative coordination Administration in order to determine the modalities of the cooperation agreements.

4.4 Facilities

A study of space occupation was realized in 2008 in order to allow an average term planning of the usage and the needs of office space.

Besides, the 3rd floor of the Monterey building was set up in order to host the staff of EPCO (European Procurement Coordination Office).

The BCL received the quality label of the "Superdrecks-këscht fir Betriber" regarding prevention and recycling of waste.

The electronic treatment of documents was facilitated by setting up the most recent generation of multifunctional printers grouping copy, scanner, email and fax functions. This project was realized in collaboration with the IT department.

The efforts to reduce the energy consumption were continued in 2008, while trying to find the right

balance between the personnel requirements, the technical requirements as well as the budget constraints.

4.5 Internal Finance

BCL continued to update its accounting system and its procedures in order to meet its internal quality standards and those of the Eurosystem. In 2008, BCL continued to take part in the working groups relating to the accounting framework of the Eurosystem and adopted these accounting techniques in the BCL's systems.

The Eurosystem requires the daily reporting of balance sheet data according to harmonised rules. The control mechanisms in place proved to be effective during the year.

The Bank regularly checks the evolution of balance sheet, off-balance-sheet and profit and loss account. Investments, revenues and expenses are in particular closely monitored with special attention paid to signing power.

The cost accounting system gives an indication concerning costs and invoicing of services. The methodology follows the rules recommended by the Eurosystem. It consists of allocating BCL's operational expenses according to their destination, i.e. according to the respective sections and units, and it permits to allocate the costs of each of the Bank's activities. In 2009, harmonised techniques relative to project costs will continue to be developed in the Eurosystem.

The monthly balance sheet of the Bank is published on its web site.

The management information system meets the need to monitor the Bank's activities. It is based on a set of indicators, which are calculated daily, weekly, monthly, quarterly and annually. The analysis of the profit and loss items is complemented by an analysis concerning the net profit of the various activities. The Bank strictly controls the development of the interest margin and compares the profitability of its investments to benchmarks.

4. THE BCL AS AN ORGANISATION

The Bank performs static and dynamic assessments of its long-term financial situation. It carries out prospective analyses of external factors like interest rates, exchange rates and other variables of the Eurosystem and of the economic situation.

The Bank's decision-making bodies are regularly informed of the results in order to be in a position to decide on the future directions and actions to take.

The asset/liability committee closely follows the risk exposure and the financial situation during the year, and in particular the risk resulting from the appropriateness of assets and liabilities. It checks the investment limits imposed by the balance sheet positions of the NCBs and the ECB.

In 2008, research to select a new software of follow-up portfolio of securities started.

As at 1 January 2009, following the five-year revision of the capital key and the entry of Slovakia into the Eurosystem, the BCL's key in this system changed from 0.22598% to 0.25032%.

4.6 The budget

The setting-up of the annual budget of the BCL is part of a long term planning exercise to ensure the financial balance of the accounts of the bank over a long term horizon. The budget of the BCL reflects the corporate values of the Bank, which are:

- professionalism;
- quality in the services provided;
- stability ensured by a long-term perspective;
- objectivity resulting from an impartial application of precise rules;
- integrity resulting from the transparency of its internal operations and the respect of professional ethics.

The 2008 budget of the bank has been drawn up according to the orientations established by the Council on 12th July 2007. The 2008 budget has been approved by the Council on 14th December 2007.

Main orientations for 2008:

- An optimal output of the portfolio is targeted through diversified and high quality investments managed by a reinforced team of portfolio and risk managers;
- The development of new activities, generating revenues for the bank, is emphasized. In this context, BCL was candidate to host EPCO in Luxembourg. At the end of 2007, the decision taken by the Governing Council of the ECB was in favor of BCL. The costs generated by EPCO are charged to the members of the Eurosystem;
- The recruitment of new staff is linked to the development of new activities generating revenues for the bank. An absolute priority is given to the missions relating to the activities of the ESCB;
- The increase of operational charges, excluding staff costs, has to stay below the inflation rate, which is measured by the general consumer price index (CPI) estimated at +2,1% for 2008. However, increases which are directly linked to approved projects are not affected by this orientation.

During 2008, BCL complied to the orientations set up by the Council and the figures of the profit and loss account confirm that the operational costs have stayed well within the budgetary limits. The department 'Internal Finance' establishes annually an analysis of the deviations observed between the approved budget and the actual expenditure. This analysis is submitted to the Management and the Council for information and approval and the outcome is used to establish the following budgets.

4.7 The Internal Audit activities

In accordance with the internationally accepted professional standards, the internal audit is an independent, objective assurance and consulting activity designed to add value and improve an organisation's operations.

The Internal Audit helps the Bank to accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and management processes.

The Internal Audit unit reports directly to the President of the Bank.

The annual internal audit plan comprises audit engagements on a national level, as well as audit objects that are coordinated by the Internal Auditors Committee of the ESCB in compliance with the ESCB audit policy.

During the year 2008, the Internal Audit unit performed various reviews in the areas of foreign exchange reserve management and portfolio management services, euro banknotes, statistics, payment systems and information systems, as well as in the context of various projects.

4. THE BCL AS AN ORGANISATION

4.8 Financial statements as at 31 December 2008

4.8.1 Key figures as at year-end (in euro unless otherwise indicated)

The Internal Audit unit is in charge of following-up on the recommendations issued during its audit activities.

Furthermore, an external assessment of the internal audit activity against the professional standards set out by the 'The Institute of Internal Auditors (IIA)' was performed in June/July 2008.

	2007	2008	Change in % 2008/2007
Total assets	59 009 304 594	100 645 076 227	71%
Banks' current accounts	10 779 720 531	45 531 698 234	322%
Claims on credit institutions	32 914 774 230	40 080 417 423	22%
Own funds (1), revaluation accounts, administrative provisions and specific banking risks	586 004 467	407 930 091	-30%
Net result of banking activities (2)	54 540 273	-147 779 763	-371%
Total net revenues	42 366 352	47 153 802	11%
Administrative expenses	32 504 561	39 286 085	21%
Net profit	4 421 374	2 830 126	-36%
Cash Flow (3)	93 670 323	139 262 942	49%
Staff	219	238	9%
BCL's part in the capital of the ECB	0.1575%	0.1575%	
BCL's part in the Eurosystem's monetary policy opérations	5.166%	4.674%	

1) Capital, reserves, provisions for general banking risks and net profit to be affected to the reserves

2) Net interest income, net result from fees and commissions, net result on financial operations

3) Net profit plus depreciation of tangible / intangible assets and write-downs on financial assets, as well as net transfers to administrative provisions and provisions for banking risks

4.8.2. Report of the Independent Auditor

To the Council of the Banque centrale du Luxembourg / To the Government / To the Chamber of Representatives

March 6, 2009

We have audited the accompanying financial statements of Banque centrale du Luxembourg, which comprise the balance sheet as at December 31, 2008 and the profit and loss account for the year then ended, and a summary of significant accounting policies and other explanatory notes.

Directors' responsibility for the financial accounts

The financial statements are the responsibility of the Directors and are approved by the Council. The Directors are responsible for the preparation and fair presentation of these financial statements in accordance with generally accepted accounting principles and those defined by the European System of central banks. This responsibility includes: designing, implementing and maintaining internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

Responsibility of the réviseur d'entreprises

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing as adopted by the Institut des réviseurs d'entreprises. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the judgment of the réviseur d'entreprises, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the réviseur d'entreprises considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control.

An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the Directors, as well as evaluating the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements give a true and fair view of the financial position of Banque centrale du Luxembourg as of December 31, 2008, and of the results of its operations for the year then ended in accordance with generally accepted accounting principles and those defined by the European System of central banks.

Deloitte S.A.
Réviseur d'entreprises
Pascal Pincemin
Partner

Vafa Moayed
Partner

4. THE BCL AS AN ORGANISATION

4.8.3 Balance sheet as at 31 December 2008

ASSET	Note	2008 EUR	2007 EUR
Gold and gold receivables	3	45 352 938	42 228 333
Claims on non-euro area residents denominated in foreign currency	4	239 317 662	97 132 215
- Receivables from the IMF		54 694 836	33 809 923
- Balances with banks, security investments, external loans and other external assets		184 622 826	63 322 292
Claims on euro area residents denominated in foreign currency	5	10 825 738 929	1 305 521 707
Claims on non-euro area residents denominated in euro	6	2 235 151 662	1 888 162 621
- Balances with banks, security investments and loans		2 235 151 662	1 888 162 621
Lending to euro area credit institutions related to monetary policy operations denominated in euro	7	40 080 417 423	32 914 774 230
- Main refinancing operations	7.1	23 465 778 885	24 125 912 740
- Long-term refinancing operations	7.2	16 614 638 538	8 788 861 490
Other claims on euro area credit institutions denominated in euro	8	579 866 874	730 661 572
Securities of euro area residents denominated in euro	9	3 727 912 441	3 180 754 060
Intra-Eurosystem claims	10	42 167 907 000	18 399 192 673
- Participating interest in ECB	10.1	10 668 158	10 668 158
- Claims related to the transfer of foreign reserves	10.2	90 730 275	90 730 275
- Other claims within the Eurosystem	10.3	42 066 508 567	18 297 794 240
Items in course of settlement		43 666	-
Other assets	11	743 367 631	450 877 183
- Tangible and intangible fixed assets	11.1	61 835 471	65 289 790
- Other financial assets	11.2	88 117 397	89 157 972
- Off-balance sheet instruments revaluation differences		303 493 840	21 010 787
- Accruals and prepaid expenses	11.3	269 921 336	255 827 288
- Sundry	11.4	19 999 587	19 591 346
Total assets		100 645 076 226	59 009 304 594

The accompanying notes form an integral part of the financial statements.

LIABILITIES	Note	2008 EUR	2007 EUR
Banknotes in circulation	12	1 586 572 000	1 414 171 330
Liabilities to euro area credit institutions related to monetary policy operations denominated in euro	13	45 531 698 234	10 779 720 531
- Current accounts (covering the minimum reserve system)	13.1	16 513 643 449	10 779 720 531
- Deposit facility	13.2.	29 018 054 785	-
Liabilities to other euro area residents denominated in euro	14	386 914 979	433 531 161
- General government	14.1	386 914 979	433 531 161
Liabilities to non-euro area residents denominated in euro	15	1 011 538 123	81 828 278
Liabilities to non-euro area residents denominated in foreign currency	16	58 164 107	296 404 985
Counterpart of special drawing rights allocated by the IMF	17	18 731 884	18 209 670
Intra-Eurosystem liabilities	18	51 035 405 545	44 786 358 600
- Net liabilities related to the allocation of euro banknotes within the Eurosystem	18.1	51 035 405 545	44 786 358 600
Items in course of settlement	19	11	23
Other liabilities	20	514 129 564	524 643 538
- Accruals and income collected in advance		480 965 514	492 407 914
- Sundry	-	33 164 050	32 235 624
Provisions	21	242 276 198	470 849 312
Revaluation accounts	22	84 474 183	31 245 895
Capital and reserves	23	172 341 272	167 919 897
- capitaC	23.1	25 000 000	25 000 000
- Reserves	23.2	147 341 272	142 919 897
Profit for the year		2 830 126	4 421 374
Total liabilities		100 645 076 226	59 009 304 594

The accompanying notes form an integral part of the financial statements.

4. THE BCL AS AN ORGANISATION

4.8.4 Off-balance sheet as at 31 December 2008

	Note	2008 EUR	2007 EUR
Foreign exchange swap	24	15 002 234 740	944 569 699
Custody deposits	25	265 077 244 845	219 720 485 682
Foreign currency reserve assets managed on behalf of the ECB	26	255 797 786	236 640 755
Forward transactions	27	83 248 000	-
Numismatic collection		205 012	181 470
		280 418 730 383	220 901 877 606

4.8.5 Profit and loss account for the year 2008

	Note	2008 EUR	2007 EUR
Interest income	28	2 786 935 844	2 165 460 459
Interest expense	28	(2 555 941 232)	(2 028 764 753)
Net interest income	28	230 994 612	136 695 706
Realised gains / (losses) arising from financial operations	29	(2 584 464)	2 059 326
Write-downs on financial assets and positions	30	(377 639 979)	(85 351 506)
Transfer to/from provisions for foreign exchange rate and price risks	31	246 244 754	1 542 974
Net result of financial operations, write-downs and risk provisions		(133 979 689)	(81 749 206)
Fees and commissions incomes	32	16 879 833	14 820 860
Fees and commissions expense	32	(15 429 765)	(13 684 113)
Net result from fees and commissions	32	1 450 068	1 136 747
Income from participating interest	33	2 724 591	-
Net result of pooling of monetary income	34	(70 197 318)	(28 534 340)
Other income	35	16 161 538	14 817 445
Total net income		47 153 803	42 366 352
Staff costs	36	(23 226 084)	(20 965 916)
Other administrative expenses	37	(8 861 201)	(8 348 065)
Depreciation of tangible and intangible fixed assets	11.1., 38	(5 037 591)	(5 440 417)
Banknote production services	39	(722 786)	(901 044)
Other expenses	40	(6 476 015)	(2 289 536)
PROFIT FOR THE YEAR		2 830 126	4 421 374

The accompanying notes form an integral part of the financial statements

4.8.6 Notes to the financial statements as at 31 December 2008

Note 1 - General

The Banque centrale du Luxembourg ("BCL") was founded in accordance with the law of 22 April 1998. The Founding Law of 23 December 1998 as modified on 24 October 2008 stipulates that the main task of the BCL shall be to contribute to the accomplishment of the tasks of the European System of Central Banks (ESCB) so as to achieve the objectives of the ESCB. The BCL is now also responsible for the oversight of the general market liquidity situation and the evaluation of the market operators in this respect. The BCL is authorised to take and sell participating as well as, in exceptional circumstances, to make short-term lending to counterparties with appropriate guarantees. The BCL is a public institution, endowed with legal personality and financial independence.

Note 2 - Accounting policies

The accounting policies applied in preparing the financial statements are described below :

2.1 Layout of the financial statements

The financial statements of the BCL have been prepared and drawn up in accordance with the generally accepted accounting principles and the rules adopted by the ESCB.

2.2 Accounting principles

The following accounting principles have been applied:

- economic reality and transparency;
- prudence;
- recognition of post-balance sheet events;
- accruals principle;
- consistency and comparability.

2.3 Basic principles

The financial statements are based on historical cost and are adjusted to take account of the valuation at market prices of securities, financial instruments, gold and of all the elements, both on-balance-sheet and off-balance-sheet, denominated in foreign currencies.

Transactions in financial assets and liabilities are reflected in the accounts of BCL on their settlement date.

2.4 Gold, assets and liabilities in foreign currencies

Assets and liabilities denominated in foreign currencies (including gold) are converted into euro at the exchange rate in force on the balance sheet closing date. Income and expenses are converted at the exchange rate prevailing on the date of the transaction.

Foreign currencies are revalued on a currency-by-currency basis including on-balance-sheet and off-balance-sheet items.

Securities are revalued separately from the revaluation of foreign exchange for securities denominated in foreign currencies.

Gold is revalued on the basis of the euro price per fine ounce as derived from the quotation in US dollars established at the time of the London fixing on the last working day of the year.

2.5 Securities

Negotiable securities denominated in foreign currencies and in euro are valued at the market price prevailing on the balance sheet date. Securities held to maturity are valued at purchase or transfer price adjusted by premiums and discounts. Write-downs are done on securities held to maturity in case of impairment.

The revaluation took place item-by-item on the basis of their ISIN code.

2.6 Recognition of gains and losses

Income and expenses are assigned to the financial year during which they are earned or incurred.

Realised gains and losses on foreign exchange transactions, securities and financial instruments linked to interest rates and market prices are taken to the profit and loss account.

At the end of the year, unrealised revaluation gains on foreign currencies, securities and financial instruments are not considered in the profit and loss account, but

4. THE BCL AS AN ORGANISATION

transferred to a revaluation account on the liabilities side of the balance sheet.

Unrealised losses are recognised in the profit and loss account when they exceed previous revaluation gains registered in the corresponding revaluation account. They may not be reversed against new unrealised gains in subsequent years. Unrealised losses regarding a specific security, financial instrument, currency or in gold holdings are not netted with unrealised gains in other securities, financial instruments, currencies or gold holdings.

In order to calculate the acquisition cost of securities or currencies that are sold, the average cost method is used on a daily basis. If any negative revaluation differences are taken to the profit and loss account, the average cost of the asset in question is adjusted downwards to the level of the current exchange rate or market price thereof.

For fixed-income securities, the premiums or discounts arising from the difference between the average acquisition cost and the redemption price are calculated and presented on a prorata basis as part of the interest positions and amortised over the remaining life of the securities.

2.7 Post-balance-sheet events

Assets and liabilities are adjusted to take account of events occurring between the balance sheet date and the date on which the BCL's Council approves the annual accounts if such events have a material effect on the assets and liabilities on the balance sheet date.

2.8 Banknotes in circulation

The European Central Bank (ECB) and the participating National Central Banks (NCBs), which together comprise the Eurosystem, have issued euro banknotes as from 1 January 2002. The total value of euro banknotes in circulation is allocated on the last working day of each month in accordance with the banknote allocation key.

The ECB has been allocated a share of 8% of the total value of euro banknotes in circulation from 2002, whereas the remaining 92% has been allocated to NCBs according to their weightings in the capital key

of the ECB. The share of banknotes allocated to each NCB is disclosed under the balance sheet liability item "Banknotes in circulation".

The difference between the value of the euro banknotes allocated to each NCB in accordance with the banknote allocation key and the value of the euro banknotes that it actually puts into circulation gives rise to remunerated intra-Eurosystem balances. These claims or liabilities, which incur interest, are disclosed under the sub-item "Intra-Eurosystem: Net claim/liability related to the allocation of euro banknotes within the Eurosystem".

The interest income and expense on these balances is cleared through the accounts of the ECB and is disclosed under "Net interest income."

The Governing Council of the ECB has decided that the seigniorage income of the ECB, which arises from the 8% share of euro banknotes allocated to the ECB, shall be partly distributed in 2008. The non-distributed part has been transferred, in the ECB's accounts, to the provision for foreign exchange rate, interest rate and gold price risks. The distributed amount is shown under the caption "Income from participating interest" in the profit and loss account.

2.9 Intra-Eurosystem claims and liabilities

Intra-Eurosystem balances arising from the allocation of euro banknotes within the Eurosystem are included as a net single asset or liability under "Net claim/liability related to the allocation of euro banknotes within the Eurosystem".

Intra-Eurosystem claims and liabilities arising from TARGET balances and counterparties accounts are shown as a single net asset or liability on the balance sheet.

2.10 Treatment of tangible and intangible assets

The tangible and intangible assets are recorded at their acquisition cost less depreciation. Depreciation was calculated on a straight-line basis over the expected economic lifetime of the assets :

	Years
Buildings	25
Renovation of buildings	10
Furniture and equipment	3-5
Computer hardware and software	4

2.11 Pension fund

As at 1 January 1999, after the entry into force of the Founding Law of 23 December 1998, the pension claims of the BCL's staff members are fully supported by the BCL. The pension fund aims to cover the risks related to ageing, infirmity and survival, was set up in 2000. The actuarial method for determining the BCL's liabilities towards its agents was approved by the pension fund's Management Committee as at 12 February 2001.

The actuarial method determines the pension fund's liability related to ageing, infirmity or survival for each agent. The model is based on each agent's personal and career data, on the level of inflation for the next 60 years as well as on an average rate of return generated by the fund's assets.

The BCL's liabilities related to pensions are shown in the account "Provisions for pensions". The provision increases as a result of regular transfers by the agent and by the BCL as employer. In addition, if necessary, periodic transfers from the account "Booking reserve of the pension fund", equivalent to the revenues generated by the fund's assets, to adjust the account "Provision for pensions" to its actuarial value are booked. In cases where transfers are insufficient cover the BCL's pension liabilities, the difference between the existing provision and the effective claim is covered by a special transfer to be supported by the BCL.

2.12 Provision for banking risks

The BCL's provision policy is intended to cover specific and general risks resulting from the Bank's activities.

Note 3 - Gold and gold receivables

As at 31 December 2008, BCL held 968.42 ounces of fine gold amounting to 0.6 million euro (2,314.78 ounces of fine gold amounting to 1.3 million euro as at 31 December 2007) and a top-rated gold bond issued by the International Bank for Reconstruction and Development purchased in 2002 and valued at 44.8 million euro (40.9 million euro as at 31 December 2007).

On the balance sheet date, gold is valued on the basis of the euro price per fine ounce derived from the quotation in US dollars established at the London fixing on 31 December 2008.

Note 4 - Claims on non-euro area residents denominated in foreign currency

	2008 EUR	2007 EUR
Receivables from the IMF	54 694 836	33 809 923
Balances with banks, security investments, external loans and other external assets	184 622 826	63 322 292
	239 317 662	97 132 215

Under this item are recorded the BCL's foreign exchange reserve holdings with counterparties situated outside the euro area (including international and supranational institutions and central banks that are not members of the Eurosystem).

- receivables from the International Monetary Fund (IMF) are made up of reserve tranche position and SDR holdings. SDR are reserve assets created ex nihilo by the IMF and allocated by it to its members. A country's SDR holdings initially amount to the SDR allocated. Afterwards, SDR holdings are subject to fluctuations as a result of encashments and transactions with others SDR holders. The reserve tranche position corresponds to the net amount of the quota and the IMF's currency holding and takes into account the re-evaluation of the general account.

4. THE BCL AS AN ORGANISATION

- balances held on accounts with banks outside the euro area as well as securities, loans and other foreign currency assets issued by non-residents of the euro area. This sub-item includes in particular the US dollar securities portfolio which could be used, if needed, for monetary policy operations

This portfolio, which amounts to 167.5 million euro as at 31 December 2008 (59.8 million euro as at 31 December 2007), only contains government bonds and top-rated bonds issued by international and supranational institutions denominated in US dollars. Securities are valued at market prices. As at 31 December 2008, their value at market prices included an unrealised gain amounting to 4.0 million euro (unrealised gain amounting to 1.2 million euro as at 31 December 2007).

Balances with banks amounted to 2.4 million euro as at 31 December 2008 (3.5 million euro as at 31 December 2007) and deposits amounted to 14.7 million euro (no deposits as at 31 December 2007).

Note 5 - Claims on euro area residents denominated in foreign currency

This item includes mainly a claim arising from reverse operations with Eurosystem counterparties amounting to 10,769.0 million euro (940.8 million euro as at 31 December 2007), in connection with the US dollar Term Auction Facility. Under this program, USD were provided by the Federal Reserve to the ECB by means of temporary reciprocal currency arrangement (swap line) with the aim of offering short-term US dollar funding to Eurosystem counterparties. The ECB simultaneously entered into back-to-back swap transactions with NCBs that have adopted the euro, which used the resulting funds to conduct liquidity-providing operations with the Eurosystem counterparties. These back-to-back swap transactions resulted in non-remunerated inter-Eurosystem balances between the ECB and the NCBs reported under "Other claims within the Eurosystem(net)".

This item includes also BCL's balances denominated in foreign currency with counterparties inside the euro area.

Note 6 - Claims on non-euro area residents denominated in euro

	2008 EUR	2007 EUR
Balances with banks	3 981 408	10 143 289
Securities	1 852 747 679	1 878 019 332
marketable securities	1 703 986 030	1 670 786 028
held-to-maturity securities	148 761 649	207 233 304
Deposits	378 422 575	-
	2 235 151 662	1 888 162 621

This item contains balances held on accounts with banks outside the euro area as well as securities, deposits, loans and other euro-denominated assets issued by non-residents of the euro area.

The securities portfolio recorded under this heading includes:

- 1) The marketable securities portfolio contains government bonds and first rated bonds issued by companies outside the euro area denominated in euro. Securities are valued at market prices. As at 31 December 2008, their value at market prices included an unrealised loss amounting to 261.7 million euro (unrealised loss amounting to 51.3 million euro as at 31 December 2007).
- 2) The "Held-to-maturity" portfolio was created in 2007. These securities are meant to be held until maturity.

This portfolio is valued at amortised cost, purchase or transfer price adjusted by premiums, discounts and impairment. There were no purchases in 2008. Securities already in portfolios as at 31 December 2006 were transferred at accounting value as at 1 January 2007. Securities bought in 2007 were transferred at acquisition value. Securities held to maturity are valued as described and not at market price.

As at 31 December 2008 these securities amount to 148.8 million euro. The unrealised loss amounts to 63.1 million euro as at 31 December 2008. One security was impaired and resulted in a write-down amounting to 56.0 million euro as at 31 December

2008. Other unrealised losses are not booked as at 31 December 2008 as they do not relate to impairments.

Pursuant to Eurosystem rules, reclassifying of securities was done from "other financial assets" to this item as at 31 December 2008. Comparative balances for 2007 have been adjusted to reflect the change of disclosure policy.

Note 7 - Lending to euro area credit institutions related to monetary policy operations denominated in euro

This balance sheet item represents the liquidity-providing transactions executed by the BCL with Luxembourg credit institutions.

The item is divided into various sub-items depending on the type of instrument used to provide liquidity to the financial sector: :

	2008 EUR	2007 EUR
Main refinancing operations	23 465 778 885	24 125 912 740
Longer-term refinancing operations	16 614 638 538	8 788 861 490
Fine-tuning reverse operations	-	-
Structural reverse operations	-	-
Marginal lending facility	-	-
Credits related to margin calls	-	-
	40 080 417 423	32 914 774 230

7.1 Main refinancing operations

This sub-item records the amount of liquidity provided to credit institutions by way of weekly one-week tenders.

7.2 Long-term refinancing operations

This sub-item records the amount of credit extended to credit institutions by way of monthly tenders with one, three or six month maturities.

7.3 Fine-tuning reverse operations

This sub-item records open market operations carried out on a non-regular basis, intended primarily to meet unexpected fluctuations in market liquidity.

7.4 Structural reverse operations

These are open market operations carried out with the primary intention of bringing about a lasting change in the structural liquidity position of the financial sector vis-à-vis the Eurosystem.

No such transactions were made during the year under review.

7.5 Marginal lending facility

This sub-item records a standing facility enabling counterparties to obtain 24-hour credit from the Bank at a pre-specified interest rate, against eligible collateral.

7.6 Credits related to margin calls

This sub-item records additional credit extended to credit institutions and resulting from the increase in the value of the securities pledged as collateral for other credits extended to these same institutions.

No such operation took place during the year just ended.

Note 8 - Other claims on euro area credit institutions denominated in euro

This item includes the BCL's current accounts and fixed-term deposits not related to monetary policy operation with credit institutions inside the euro area.

Note 9 - Securities of euro area residents denominated in euro

Securities	2008 EUR	2007 EUR
marketable securities	3 569 101 117	3 021 362 156
held-to-maturity securities	158 811 324	159 391 904
	3 727 912 441	3 180 754 060

4. THE BCL AS AN ORGANISATION

The securities portfolio recorded under this heading includes:

- 1) The marketable securities portfolio covers the BCL's portfolio in euro issued by residents of the euro area which could be used, if needed, for monetary policy operations. This amounted to 3,569.1 million euro as at 31 December 2008 (3,021.36 million euro as at 31 December 2007).
 - This portfolio only contains government bonds in euro issued by Member States of the European Union and first rated bonds issued by companies of the euro area.
 - Securities are valued at market prices. As at 31 December 2008, their value at market prices included an unrealised loss amounting to 81.1 million euro (unrealised loss amounting to 48.8 million euro as at 31 December 2007).
- 2) The "Held-to-maturity" portfolio was created in 2007. These securities are meant to be held until maturity.
 - This portfolio is valued at amortised cost, purchase or transfer price adjusted by premiums, discounts and impairment. There were no purchases in 2008. Securities already in portfolios as at 31 December 2006 were transferred at accounting value as at 1 January 2007. Securities bought in 2007 were transferred at acquisition value. Securities held to maturity are valued as described and not at market price. As at 31 December 2008 these securities amount to 158.8 million euro. The unrealised loss amounts to 0.6 million euro as at 31 December 2008. No unrealised losses have been booked as at 31 December 2008 as none relate to impairments.

Pursuant to Eurosystem rules, reclassifying of securities was done from "other financial assets" to this item as at 31 December 2008. Comparatives balances for 2007 have been adjusted to reflect the change of disclosure policy.

Note 10 - Intra-Eurosystem claims

10.1 Participating interest in ECB

Pursuant to Article 28 of the ESCB Statute, the ESCB national central banks are the sole subscribers to the capital of the ECB. Subscriptions depend on shares which are fixed in accordance with Article 29.3 of the ESCB Statute and which are subject to adjustment every five years. On 31 December 2008, the share that the BCL holds in the capital of the ECB is 0.1575%, which amounts to 10,668,158 euro, on a total of subscribed capital of the ECB of 5.761 billion euro (no change compared to 2007).

The share that the BCL held in the accumulated net profits of the ECB reflects the repayment of 0.9 million euro by the ECB.

10.2 Claims equivalent to the transfer of foreign reserves

This sub-item represents the euro-denominated claims on the ECB in respect of the transfer of part of BCL's foreign reserves. The claims are denominated in euro at a value fixed at the time of their transfer. They are remunerated at the latest available marginal rate for the Eurosystem's main refinancing operations, adjusted to reflect a zero return on the gold component.

As at 31 December 2008, the claim of the BCL amounts to 90,730,275 euro (no change compared to 2007).

10.3 Other claims within the Eurosystem

This sub-item represents the BCL's net claims towards the Eurosystem, mostly from transactions resulting from cross-border payments initiated for monetary or financial operations, made via the TARGET system, between the BCL and the other NCBs as well as the ECB. This claim amounts to 42.1 billion euro as at 31 December 2008 (18.3 billion euro as at 31 December 2007) and includes seigniorage income amounting to 2.7 million euro (no seigniorage income as at 31 December 2007).

The net position vis-à-vis the ECB bears interest at the marginal interest rate applying to the main refinancing operations.

Note 11 - Other assets

11.1 Tangible and intangible assets

	Buildings EUR	Furniture and equipment EUR	Software EUR	Other EUR	Total EUR
Cost as at 1 January 2008	91 304 750	12 148 472	5 760 127	-	109 213 349
Disposals	-	4 900	-	-	4 900
Acquisitions	597 724	788 536	165 066	36 846	1 588 172
Cost as at 31 December 2008	91 902 474	12 932 108	5 925 193	36 846	110 796 621
Accumulated depreciation as at 1 January 2008	30 070 498	9 411 312	4 441 749	-	43 923 559
Disposals	-	-	-	-	-
Depreciation	3 545 103	951 192	541 296	-	5,037 591
Accumulated depreciation as at 31 December 2008	33 615 601	10 362 504	4 983 045	-	48 961 150
Net book value as at 31 December 2008	58 286 873	2 569 604	942 148	36 846	61 835 471

The sub-item "Buildings" comprises the acquisition cost of the premises located on the 2, boulevard Royal, the costs incurred in relation to the reconstruction and transformation of the Pierre Werner building and the renovations made to the Siège Royal (main building). The building located on the avenue Monterey was completely written off in 2003, having been demolished in order to construct a new one. Construction of this new building was finished in 2006.

The Pierre Werner building and the Avenue Monterey building are considered as new buildings and are being amortised over a period of 25 years while the costs incurred in relation to the transformation of the Siège Royal are considered as renovations and are being amortised over 10 years.

11.2 Other financial assets

The components of this item are as follows:

	2008 EUR	2007 EUR
Other participating interests	161 850	170 226
Pension fund	87 955 547	88 987 746
	88 117 397	89 157 972

The other participating interests comprise the BCL's investments in Swift and ATTF.

The assets of the pension fund are recorded in the accounts under "Pension fund BCL". The balance of this account corresponds to the net asset value of the fund as calculated by the depositary bank as at 31 December 2008.

11.3 Accruals and prepaid expenses

Most of this item consists of the accrued interests on monetary policy operations, securities and receivables from the IMF.

Are also included under this item the commissions receivables, prepaid expenses (including salaries paid for January 2009) and other income receivable.

4. THE BCL AS AN ORGANISATION

11.4 Sundry

	2008 EUR	2007 EUR
Others	19 999 587	19 591 346
	19 999 587	19 591 346

The sub-item "Others" consists mainly of the counterpart of the unrealised loss on SDR recorded in the financial statements of the BCL which is guaranteed by the State according to the agreement signed in May 1999 establishing the financial relationship between the State of Luxembourg and the BCL as well as a claim in relation to the pension fund (17.9 million euro as at 31 December 2008).

Note 12 - Banknotes in circulation

This item includes the BCL's share of the total euro banknotes put into circulation by the central banks of the Eurosystem according to their weightings in the capital of the ECB, which totalled 1,586.6 million euro (1,414.2 million euro as at 31 December 2007).

Note 13 - Liabilities to euro area credit institutions related to monetary policy operations denominated in euro

	2008 EUR	2007 EUR
Current accounts (covering the minimum reserve reserves)	16 513 643 449	10 779 720 531
Deposit facility	29 018 054 785	-
Fixed-term deposits	-	-
Fine-tuning reverse operations	-	-
Deposits related to margin calls	-	-
	45 531 698 234	10 779 720 531

This item primarily comprises credit institutions' accounts held within the framework of the requirements of the minimum reserve system as well as deposit facilities.

13.1 Current accounts

(covering the minimum reserves)

This sub-item records accounts denominated in euro of credit institutions which mainly serve to meet minimum reserve requirements. These requirements have to be respected over an average unsettled period starting the Wednesday following the Governing Council's meeting to set the interest rate.

13.2 Deposit facility

This sub-item records the standing facility allowing credit institutions to make 24-hour deposits with the bank at a pre-specified interest rate.

13.3 Fixed-term deposits

This sub-item records deposits made at the Bank for the purpose of absorbing market liquidity in connection with fine-tuning operation in the Eurosystem.

13.4 Fine-tuning reverse operations

This sub-item records other monetary policy operations aimed at tightening liquidity.

No such operation took place in 2008.

13.5 Deposits related to margin calls

This sub-item records deposits made by credit institutions to compensate for the decrease in the value of securities pledged as collateral for other credits granted to these same institutions.

Note 14 - Liabilities to other euro area residents denominated in euro

14.1 Liabilities to general government

This item records the amounts as follows:

	2008 EUR	2007 EUR
Current accounts	14 306	2 204 291
Account related to euro coins issued by the Treasury	176 900 673	161 326 870
Fixed-term deposit	210 000 000	270 000 000
	386 914 979	433 531 161

The item current accounts records an amount of 14,281 euro owed to the Luxembourg Treasury and an amount of 25 euro owed to the CCPL.

In accordance with the amendment of 10 April 2003 to the agreement between the State of Luxembourg and the BCL establishing their financial relationship, the "Account related to euro coins issued by the Treasury" corresponds to the amount of coins issued by the BCL in the name and for the account of the Treasury.

The fixed-term deposit renewed on a monthly basis relates to the above-mentioned agreement.

Note 15 - Liabilities to non-euro area residents denominated in euro

This item includes current accounts held by central banks, international and supranational institutions and other account holders outside the euro area.

Note 16 - Liabilities to non-euro area residents denominated in foreign currency

This item includes current accounts in foreign currency held by central banks outside the euro area.

Note 17 - Contrepartie des droits de tirage spéciaux alloués par le FMI

The amount shown under this item represents the countervalue of SDR, converted to euro at the same rate as applied to the SDR assets, which should be returned to the IMF if SDR are cancelled, if the SDR Department established by the IMF is closed or if Luxembourg decides to withdraw from it. This liability, of unlimited duration, amounts to SDR 17.0 million, or 18.7 million euro as at 31 December 2008 (SDR 17.0 million, or 18.2 million euro as at 31 December 2007).

Note 18 - Intra-Eurosystem liabilities

18.1 Net liabilities related to the allocation of euro banknotes within the Eurosystem

This item consists of the liabilities of the BCL vis-à-vis the Eurosystem relating to the allocation of euro banknotes within the Eurosystem. The net position bears interest at the marginal interest rate applying to the main refinancing operation.

Note 19 - Items in course of settlement

This item contains cash desk's differences as at 31 December 2008.

Note 20 - Other liabilities

This item comprises mainly the negative revaluation differences on financial instruments linked to interest rates and market prices, accrued interest, including accrued interest on intra-Eurosystem liabilities, as well as miscellaneous expenses payable, including suppliers, and the Luxembourg banknotes not yet returned.

The Luxembourg banknotes still circulating as at 31 December 2008 amount to 5.2 million euro (5.3 million euro as at 31 December 2007).

Note 21 - Provisions

Provisions developed as follows :

	2008 EUR	2007 EUR
Provisions for banking risks	146 692 892	379 975 432
Provisions for pensions	95 533 306	90 823 880
Other provisions	50 000	50 000
	242 276 198	470 849 312

4. THE BCL AS AN ORGANISATION

21.1 Provisions for banking risks

Provisions for banking risks include the following items:

	2008 EUR	2007 EUR
Provision covering credit and market risk	27 757 214	176 811 696
Buffer against counterparty risks in Eurosystem	12 962 213	-
Provision covering operational risk	7 710 000	8 840 000
Provision covering liquidity risk	15 141 461	14 829 513
Provision covering interest rate risk	-	200 000
Provision for doubtful debts	42 827 781	-
	106 398 669	200 681 209

Provisions for general banking risks

	2008 EUR	2007 EUR
Provision for liabilities resulting from monetary agreement	32 341 954	32 341 954
Other provision for general banking risks	7 952 269	146 952 269
	40 294 223	179 294 223
	146 692 892	379 975 432

Due to market evolution in 2008, a part of the provisions previously created had to be used to offset the inherent risk on monetary policy operations as well as write-downs related to the application of the prudent Eurosystem accounting rules.

21.1.1 Provision covering credit and market risk

As at 31 December 2008, the provision amounts to 27.8 million euro (176.8 million euro as at 31 December 2007).

In 2008, the BCL did not pursue its existing provision policy. However, the BCL's aim is to target a rate of 4% on all items in the medium term.

21.1.2 Buffer against counterparty risks in Eurosystem

In accordance with the general accounting principle of prudence, the Governing Council has deemed it appropriate to establish a buffer totaling 5,736,000,000 euro against counterparty risks in monetary policy operations. In accordance with Article 32.4 of the ESCB Statute, this buffer will be funded among all national central banks of participating Member States in proportion to their subscribed capital key shares in the ECB prevailing in 2008. As a result, the BCL created, as at 31 December 2008, a provision amounting to 12,962,213 euro equivalent to 0.22598% of the total provision.

21.1.3 Provision covering operational risk

This provision is intended to cover the risk of losses resulting from the inadequacy or fault attributable to procedures, to the human factor or to the BCL's systems or to external causes. Because of a lack of relevant statistics on the dimension of risk, the transfer to the provision is based on the Basic Indicator Approach described in the consultative working paper of the Basel Committee as being 15% of the average for the last three years of the net banking product (including payments allocated on monetary income).

In 2008, the average has been based on previous years in accordance with the rules.

21.1.4 Provision for doubtful debts

The provision for doubtful debts was created as at 31 December 2008 to cover non paid interests amounting to 41.0 million euro and non paid coupons amounting to 1.8 million euro.

21.1.5 Provision for liabilities resulting from monetary agreements

The provision for liabilities resulting from monetary treaties created in order to face any future monetary liabilities monetary liabilities did not changed in 2008.

21.1.6 Other provision for general banking risks

As described in note 21.1, for prudence's sake and to safeguard its assets, the BCL reversed a part of its pro-

vision for general banking risks in 2008 for an amount of 139 million euro.

21.2 Provisions for pensions

Provisions for pensions include the following items:

	2008 EUR	2007 EUR
Provision for pensions	93 991 688	88 432 010
Provision for equalisation and financial risks	-	850 252
Provision for increase of PBO	1 541 618	1 541 618
	95 533 306	90 823 880

21.2.1 Provision for pensions

The pensions claims of its agents are fully supported by the BCL. The corresponding liability is calculated on the basis of the actuarial method described in note 2.11 in consideration of current factors and amounted to 94.0 million euro as at 31 December 2008 (88.4 million euro as at 31 December 2007).

The increase of the provision during the year results from:

- monthly deductions from the gross salaries of BCL agents (employee's part) as well as the employer's share ;
- pension payments to retirees
- periodic transfers from the account "Booking reserve of the pension fund" to adjust the account "Provision for pensions" to its actuarial value ;
- a transfer, if needed, to adjust the account "Provision for pensions" to its actuarial value.

21.2.2 Provision for equalisation and financial risks

This provision for equalisation and financial risks was intended to cover fluctuations in the pension fund's liabilities in its early years and/or to compensate for a lower return on assets. The provision was totally used in 2008.

21.2.3 Provision for increase of Projected Benefit Obligation

This provision was intended to cover the liability (Projected Benefit Obligation or PBO) for new agents or the changes of present value of potential payments taking into account individual parameters and the actuarial method used. The provision did not changed in 2008.

Note 22 - Revaluation accounts

This item includes positive revaluation differences related to the spread between the exchange rate as at year-end and the average exchange rate of BCL's currency and gold positions, as well as positive revaluation differences related to the spread between the market value as at year-end and the amortised cost for securities positions.

Note 23 - Capital and reserves

23.1 Capital

The State of Luxembourg is the sole shareholder of the BCL's capital, which is fixed at 25 million euro.

23.2 Réserves

The reserves amount to 147.3 million euro (142.9 million euro as at 31 December 2007). This amount was increased by 4.4 million euro in 2008 following the allocation of profit for 2007 according to the decision of the BCL's Council and its Founding Law (Article 31).

Note 24 - Foreign exchange swap

This item includes forward liabilities to the ECB as at 31 December 2008 which arose in connection with the US dollar Term Auction Facility established by the Federal Reserve (see also note 5 "Claims on euro area residents denominated in foreign currency").

4. THE BCL AS AN ORGANISATION

In connection with the same programme, forward claims arising from the swap transactions with Eurosystem counterparties for the provision of US dollar liquidity against euro cash, were also outstanding. In addition, off-balance-sheet items include forward liabilities to the ECB and forward claims against Eurosystem counterparties outstanding as at 31 December 2008, which arose in connection with the provision of Swiss franc funding to Eurosystem counterparties. Swiss francs were provided by the Swiss National Bank to the ECB by means of swap arrangement. The ECB simultaneously entered into swap transactions with NCBs that have adopted the euro, which used the resulting funds to conduct Swiss franc liquidity-providing operations with the Eurosystem counterparties against euro cash in the form of swap transactions. The swap transactions between the ECB and NCBs resulted in intra-Eurosystem balances reported under "Other claims within the Eurosystem(net)".

Note 25 - Custody deposits

This item includes the securities given into custody by Luxembourg credit institutions to cover their liabilities related to refinancing operations, marginal lending facilities and intra-day credits.

This item also includes the securities given into custody in Luxembourg and used as a guarantee by commercial banks incorporated in other member states according to the Correspondent Central Banking Model (CCBM). This agreement allows commercial banks to obtain funding from their country of residence's central bank by using the securities held in another Member State as a guarantee.

As at 31 December 2008, the market value of these securities amounts to 265.1 billion euro (219.7 billion euro as at 31 December 2007).

Note 26 - Foreign currency reserve assets administered on behalf of the ECB

This item includes the foreign currency reserves at market value managed by BCL on behalf of the ECB.

Note 27 - Forward contracts

BCL can be engaged in bond and stock index futures. These instruments are mainly held for hedging purposes of interest rate risks related to the securities portfolio and for the purpose of adjusting the duration of the existing portfolio depending on market conditions.

As at 31 December 2008, the total liabilities related to these forward contracts amount to 83.2 million euro (no such liabilities existed in 2007). One security has been given as a guarantee in order to cover the initial margin deposit. This security remains on the BCL's balance sheet for an amount of 10.0 million euro as at 31 December 2008, no change compared to 2007.

Note 28 - Net interest income

This item includes interest income, after deduction of interest expense, on assets and liabilities in foreign currency and in euro. Interest income and expense are as follows:

Composition of interest income

	Amounts in foreign currency EUR		Amounts in euro EUR	
	2008	2007	2008	2007
IMF	788 239	1 273 454	-	-
Monetary policy	-	-	1 362 854 926	1 468 637 585
Intra-Eurosystem claims	-	-	988 580 261	456 897 715
Securities	4 722 149	4 899 994	266 088 544	221 992 931
Gold	315 713	331 612	-	-
Other	137 756 418	7 550 781	25 829 595	3 876 387
Total	143 582 519	14 055 841	2 643 353 326	2 151 404 618

Composition of interest expense

	Amounts in foreign currency EUR		Amounts in euro EUR	
	2008	2007	2008	2007
IMF	(476 292)	(762 600)	-	-
Current accounts (including minimum reserves) and deposits related to monetary policy operations	-	-	(470 702 816)	(341 757 536)
Liabilities related to the reallocation of euro banknotes in the Eurosystem	-	-	(1 937 193 702)	(1 667 852 566)
Other intra-Eurosystem liabilities	-	-	(99 331)	(41 847)
Interests on term deposits	-	-	(7 532 465)	(8 597 639)
Other liabilities	(12 120 431)	(5 755 533)	(3 433 167)	(3 042 037)
Interest on swap operation	(124 383 028)	(954 995)	-	-
Total	(136 979 751)	(7 473 128)	(2 418 961 481)	(2 021 291 625)

The increase in net interest income is due to the increase of "spreads" and of average volumes during the year.

4. THE BCL AS AN ORGANISATION

Note 29 - Realised gains / (losses) arising from financial operations

This item includes the result from transactions in foreign currencies, from securities and from financial instruments linked to interest rates and market prices, i.e. gains realised minus loss realised on these transactions. In 2008, they amounted to 18.4 million euro (26.0 million euro as at 31 December 2007) and to 21.0 million euro (23.9 million euro as at 31 December 2007) respectively, making a net loss of 2.6 million euro (a net income of 2.1 million euro as at 31 December 2007).

Note 30 - Write-downs on financial assets and positions

This item includes revaluation losses on securities for 377.5 million euro, on currency for 0.002 million euro and on futures for 0.2 million euro (revaluation losses on securities for 74.6 million and on currency for 10.7 million euro in 2007).

Note 31 - Transfer to/from provisions for foreign exchange rate and price risks

This item includes the transfers to and from provisions for banking risks excluding the buffer against counterparty risks in Eurosystem (see note 34).

Note 32 - Net result from fees and commissions

Fees and commissions income and expense are as follows :

	Fees and commissions income		Fees and commissions expense	
	EUR		EUR	
	2008	2007	2008	2007
Securities	15 543 097	13 705 964	(15 374 090)	(13 556 025)
Other	1 336 736	1 114 896	(55 675)	(128 088)
Total	16 879 833	14 820 860	(15 429 765)	(13 684 113)

Note 33 - Income from participating interest

This item includes the dividend distributed by the European Central Bank.

In 2008, the ECB's income on euro banknotes in circulation was partly distributed (no distribution in 2007). BCL's part amounted to 2.7 million euro as at 31 December 2008.

Note 34 - Net result of pooling of monetary income

The monetary income of each Eurosystem NCB is determined by measuring the actual annual income that derives from the earmarkable assets held against its liability base. The liability base consists of the following items:

- banknotes in circulation;
- liabilities to credit institutions related to monetary policy operations denominated in euro;
- net intra-Eurosystem liabilities resulting from TARGET transactions;
- net intra-Eurosystem liabilities related to the allocation of euro banknotes within the Eurosystem..

Any interest paid on liabilities included within the liability base is to be deducted from the monetary income to be pooled.

The earmarkable assets consist of the following items:

- lending to euro area credit institutions related to monetary policy operations denominated in euro;
- intra-Eurosystem claims equivalent to the transfer of foreign reserve assets to the ECB;
- net intra-Eurosystem claims resulting from TARGET transactions;
- net intra-Eurosystem claims related to the allocation of euro banknotes within the Eurosystem;
- a limited amount of each NCBs' gold holdings in proportion to its capital key.

Gold is considered as generating no income.

Where the value of an NCB's earmarkable assets exceeds or falls short of the value of its liability base, the difference shall be offset by applying to that difference the average rate of return on the earmarkable assets of all NCBs taken together.

The monetary income pooled by the Eurosystem is allocated among NCBs according to the subscribed capital key (0.22598% for the BCL in 2008).

Calculation of net monetary income allocated to the BCL:

	2008	2007
Monetary income pooled by BCL	(119.4)	(81.0)
Monetary income reallocated to BCL	62.2	52.5
Net result arising from the calculation of monetary income	(57.2)	(28.5)

As at 31 December 2008, this item also includes the transfer to the buffer against counterparty risks in Eurosystem amounting to 12.9 million euro, as described in note 21.1.2.

Note 35 - Other income

Other income includes revenue for services rendered to third parties, transfers from administrative provisions, income from "Monterey building" renting and income from numismatic activities.

Other income includes also BCL's revenue from financial agreement between the State of Luxembourg and BCL.

Since 2008, this item also includes the recovered functioning costs of EPCO (Eurosystem Procurement Co-ordination Office).

Note 36 - Staff costs

This item includes the salaries and compensations as well as the employer's share of contributions to the pension and social security schemes. The compensations paid to the Board of Directors amounted to 511,570 euro for the year 2008 (500,980 euro for the year 2007).

As at 31 December 2008, the BCL employed 238 persons (219 as at 31 December 2007). The average number

of persons working for the BCL from 1 January to 31 December 2008 was 226 (211 for the year 2007).

Note 37 - Administrative expenses

This item includes all general and recurring expenses, meaning leasing, cleaning and repair of buildings and equipment, small goods and materials, fees paid and other services and supplies as well as training expenses. The compensations paid to the members of the Council amounted to 76,019 euro in 2008 (74,493 euro in 2007).

Note 38 - Depreciation of tangible and intangible fixed assets

This item shows the depreciation applied on buildings, renovations on buildings, furniture and office equipment, computer hardware and software.

Note 39 - Banknote production services

This item shows mainly the costs related to the production and issue of banknotes denominated in euro.

Note 40 - Other expenses

This item shows mainly the transfer to the administrative provisions and costs related to numismatic activities.

Note 41 - Post-balance-sheet events

On 1 January 2009 due to quinquennial changes in Eurosystem and the entry of national central bank of Slovakia in Eurosystem, the BCL's Eurosystem participation key changed from 0.22598% to 0.25032%. BCL's key in ESCB changed from 0.1575% to 0.1747%.

4. THE BCL AS AN ORGANISATION

BCNs participations are as follows:

Country	Capital key	Capital key	Eurosystem key	Eurosystem key
	1 January 2009	1 January 2008	1 January 2009	1 January 2008
	%	%	%	%
Belgium	2.4256	2.708	3.47549487	3.54509493
Danmark	1.4835	1.5138		
Germany	18.9373	20.5211	27.13410659	29.44360031
Greece	1.9649	1.8168	2.81538583	2.60673809
Spain	8.3040	7.5498	11.89829707	10.83242582
France	14.2212	14.3875	20.37669344	20.64313314
Ireland	1.1107	0.8885	1.59145455	1.27481660
Italy	12.4966	12.5297	17.90561888	17.97756839
Luxembourg	0.1747	0.1575	0.25031702	0.22598043
Netherlands	3.9882	3.8937	5.71444947	5.58666672
Austria	1.9417	2.0159	2.78214396	2.89240605
Portugal	1.7504	1.7137	2.50804181	2.45881058
Finland	1.2539	1.2448	1.79663713	1.78603455
Sweden	2.2582	2.3313		
United Kingdom	14.5172	13.9337		
Czech Republic	1.4472	1.3880		
Estonia	0.1790	0.1703		
Cyprus	0.1369	0.1249	0.19615569	0.17920607
Latvia	0.2837	0.2813		
Lituania	0.4256	0.4178		
Hungary	1.3856	1.3141		
Malta	0.0632	0.0622	0.09055544	0.08924434
Poland	4.8954	4.8748		
Slovenia	0.3288	0.3194	0.47111754	0.45827397
Slovak Republic	0.6934	0.6765	0.99353073	
Bulgaria	0.8686	0.8833		
Romania	2.4645	2.5188		
Total	100.0000	100.0000	100.00000000	100.00000000



In Mai 2008, the BCL organised the 15th annual meeting of the governors of the French-speaking central banks, in Luxembourg. About 30 delegations from Africa, North-America, Asia, Caribbean, Europe, Middle East and Pacific participated in the meeting organised in Echternach.

- 1 *Mr. Jean-Claude Trichet, President of the ECB*
- 2 *Mr. Christian Noyer, Governor of the Banque de France*
- 3+4 *15 meeting of the governors of the French speaking central banks in Luxembourg*
- 5 *Group picture of all the participants at the 15th meeting of the governors of the French-speaking central banks in Luxembourg*

5. ANNEXES

5.1 List of BCL circulars published in 2008

- **BCL Circular No 2008/217 of 21 April 2008** : Surveys on foreign direct investment – sent to all credit institutions as well as to the financial services of the Postal and Telecommunications Services Company (giro accounts service).
- **BCL Circular No 2008/218 of 5 September 2008** : Slovakia's adoption of the Euro, as from 1st January 2009 - sent to all Undertakings for Collective Investment (UCI).
- **BCL Circular No 2008/219 of 5 September 2008** : Slovakia's adoption of the Euro, as from 1st January 2009 - sent to all credit institutions.
- **BCL Circular No 2008/220 of 5 Septembre 2008** : Slovakia's adoption of the Euro, as from 1st January 2009: Impact over the statistical statements referring to the balance of payments – sent to all credit institutions as well as to the financial services of the Postal and Telecommunications Services Company (giro accounts service).
- **BCL Circular No 2008/221 of 8 October 2008** : Suspension of payments - Landsbanki Luxembourg S.A. and Glitnir Bank Luxembourg S.A. - sent to all credit institutions.
- **BCL Circular No 2008/222 of 9 October 2008** : Suspension of payments – Kaupthing Bank Luxembourg S.A. - sent to all credit institutions.

5.2 List of BCL regulations published in 2008

2008/N°1 of 28 November 2008

BCL regulation 2008/N°1 of 28 November 2008 containing temporary changes in rules applicable to the eligibility of collateral

Domain: implementation of the monetary policy in the Euro zone

5.3 List of BCL publications published in 2008

BCL bulletins

Revue de stabilité financière, April 2008
Bulletin BCL 2008/1, September 2008
Bulletin BCL 2008/2, December 2008

BCL Annual Report

Rapport Annuel 2007, June 2008
Annual Report 2007, August 2008

BCL Working papers

- Working Paper N°29, February 2008
Les taux d'intérêt des banques luxembourgeoises: une étude sur base agrégée et individuelle, by Yann Wicky
- Working Paper N°30, March 2008
Eurosystem Communication and Financial Market Expectations, by Patrick Luennemann and Dirk Mevis
- Working Paper N°31, March 2008
A Monthly Indicator of Economic Activity for Luxembourg, by Muriel Nguiffo-Boyom
- Working Paper N°32, March 2008
Search in the Product Market and the Real Business Cycle, by Thomas Y. Mathä and Olivier Pierrard
- Working Paper N°33, July 2008
Sequential bargaining in a new-Keynesian model with frictional unemployment and staggered wage negotiation, by Gregory de Walque, Olivier Pierrard, Henri Sneessens and Raf Wouters
- Working Paper N°34, September 2008
Regional Mc Parity: do common pricing points reduce deviations from the law of one price? by Thomas Y. Mathä
- Working Paper N°35, October 2008
Financial (in)stability, supervision and liquidity injections: a dynamic general equilibrium approach, by Gregory de Walque, Olivier Pierrard, Abdelaziz Rouabah

BCL Brochures

- 1998-2008 - Emergence d'une banque centrale au Luxembourg (brochure published on the occasion of the 10th anniversary of the BCL), June 2008

Publications and external presentations of BCL Staff

Publications

- *Olivier Pierrard and Henri Sneessens "Biased Technological Shocks, Wage Rigidities and Low-skilled Unemployment" Scottish Journal of Political Economy, Vol. 55, N°3, pp 330-352.*
- *Olivier Pierrard "Commuters, residents and job competition" in Regional Science and Urban Economics, Vol. 38, N°6, November 2008, pp 565-577.*

External presentations

- January 2008, Presentation BCL research project, CEPS / INSTEAD Differdange
- February 2008, Wage Dynamics Network Workshop, ECB, Frankfurt
- June 2008, Presentation of BCL research on inflation to CES members and other national experts
- June 2008, 25th International Symposium on Money, Banking and Finance, Luxembourg
- June 2008, North American Productivity Workshop, Stern School of Business, New York
- June 2008, International Symposium on Forecasting, Nice
- July 2008, CCBS workshop on "Financial sector in macro-forecasting", London
- August 2008, Annual meeting of the European Regional Science Association, Liverpool
- August 2008, European Economic Association annual congress, Milan
- September 2008, 4th annual Dynare conference, Boston Federal Reserve Bank
- October 2008, 5th international NBB colloquium, Brussels
- October 2008, Non-Supervisory Central Banks workshop, Mexico
- November 2008, ECB-CFS-Bundesbank Joint Seminar, Frankfurt

- November 2008, CEPR-EABCN conference, Universitat Pompeu Fabra, Barcelona
- November 2008, BCL-SUERF Conference on "Productivity in the Financial Services Sector"Commande

Order

Paper copies of publications can be obtained at the BCL's counters as long as stocks last and according to the BCL's conditions. The BCL's publications may be downloaded from the website www.bcl.lu.

5.4 European Central Bank (ECB) publications

For a complete list of the documents published by the European Central Bank (ECB) and for the versions in all official languages of the European Union, please visit the ECB's website www.ecb.int

Order

BCE / ECB
Postfach 160319
D-60066 Frankfurt am Main
www.ecb.int

5. ANNEXES

Statistical tables listed under are available on the BCL's website ("Statistics") and are regularly updated. These tables are also published in the BCL's bulletin in French.

5.5 Monetary, economic and financial statistics

1 Monetary policy statistics

- 1.1 Consolidated financial situation of the Eurosystem
- 1.2 Financial statement of the Banque centrale du Luxembourg
- 1.3 KEX ECB interest rates
- 1.4 Eurosystem monetary policy operations allotted through tenders
- 1.5 Euro area minimum reserve statistics
- 1.6 Luxembourg minimum reserve statistics
- 1.7 Banking system liquidity statistics

2 Monetary and financial developments in the euro area and Luxembourg

- 2.1 Aggregated balance sheet of euro area MFI (except Eurosystem)
- 2.2 Aggregated balance sheet of the Luxembourg MFIs (excluding the Banque centrale du Luxembourg)
- 2.3 Euro area monetary aggregates
- 2.4 Liabilities of the Luxembourg MFIs included in the euro area monetary aggregates

3 Capital markets and interest rates

- 3.1 Euro area MFI interest rates on euro-denominated deposits and loans by euro area residents - new business
- 3.2 Euro area MFI interest rates on euro-denominated deposits and loans by euro area residents - outstanding amounts
- 3.3 Luxembourg bank interest rates on euro-denominated deposits and loans by euro area residents - new business
- 3.4 Luxembourg bank interest rates on euro-denominated deposits and loans by euro area residents - outstanding amounts
- 3.5 Money market interest rates
- 3.6 Government bond yields
- 3.7 Stock market indices
- 3.8 Exchange rates

4 General data on the Luxembourg financial system

- 4.1 Employment in the Luxembourg credit institutions and financial sector professionals
- 4.2 Employment in the Luxembourg credit institutions
- 4.3 Geographic origin of credit institutions established in Luxembourg
- 4.4 Interim aggregated profit and loss account of Luxembourg banks
- 4.5 Aggregated profit and loss account of the Luxembourg banks as at year-end
- 4.6 Long term aggregated profit and loss account of the Luxembourg banks as at year-end
- 4.7 Aggregated balance sheet of the Luxembourg banks
- 4.8 Luxembourg banks loans by counterpart and original maturity
- 4.9 Luxembourg banks loans to euro area households and NPISH by type and original maturity
- 4.10 Luxembourg banks loans by currency of transaction
- 4.11 Lending for purchase of houses located in Luxembourg
- 4.12 Banks holdings of securities other than shares by counterpart and maturity
- 4.13 Banks holdings of securities other than shares by currency
- 4.14 Number of Undertaking for collective investment
- 4.15 Global situation of undertakings for collective investment
- 4.16 Aggregated balance sheet of Luxembourg Money market funds
- 4.17 MMF holdings of securities other than shares by counterpart and initial maturity
- 4.18 MMF holdings of securities other than shares by currency
- 4.19 Employment in the professionals of the Luxembourg financial sector
- 4.20 Number of the professionals of the Luxembourg financial sector

- 4.21 Aggregated net result of the professionals of the Luxembourg financial sector
- 4.22 Aggregated balance sheet of the professionals of the Luxembourg financial sector
- 4.23 Employment in the Luxembourg management companies

5. International banking activity

- 5.1 International banking activity: geographic breakdown
- 5.2 International banking activity: currency breakdown
- 5.3 International banking activity: share of Luxembourg

6. Inflation in Luxembourg

- 6.1 Developments in the Harmonised Index of Consumer Prices (HICP) and the National Index of Consumer Prices (NICP)
- 6.2 Industrial goods and commodity prices
- 6.3 Costs indicators and terms of trade

7. Luxembourg real economy indicators

- 7.1 GDP at market prices and its components (ESA95 version)
- 7.2 Selected other real economy indicators
- 7.3 Labour market indicators - Employment and unemployment
- 7.4 Labour market indicators - Employment and unemployment
- 7.5 Consumer confidence survey

8. Luxembourg public finances

- 8.1 General government budgetary outcome in Luxembourg

9. Luxembourg trade balance

- 9.1 External trade of Luxembourg

10. Luxembourg balance of payments

- 10.1 Luxembourg balance of payments: summary
- 10.2 Luxembourg balance of payments: current account
- 10.3 Luxembourg balance of payments: direct investment
- 10.3.1 Luxembourg balance of payments: direct investment by Luxembourg abroad - by sector
- 10.3.2 Luxembourg balance of payments: foreign direct investment in Luxembourg - by sector
- 10.4 Luxembourg balance of payments: portfolio investment - by type of instrument
- 10.5 Luxembourg balance of payments: other investment - by sector
- 10.6 Reserves and related assets of the Banque centrale du Luxembourg
- 10.7 Reserve assets held by the BCL and Central Administration: extended data model of the Internal Monetary Fund

11. International investment position of Luxembourg

- 11.1 International investment position of Luxembourg: summary
- 11.2 International investment position of Luxembourg: direct investment
- 11.3 International investment position of Luxembourg: portfolio investment - by type of instrument
- 11.4 International investment position of Luxembourg: other investment - by sector
- 11.5 International investment position of Luxembourg: Gross External Debt
- 11.6 International investment position of Luxembourg: geographic breakdown of portfolio investment assets held by Luxembourg residents

5. ANNEXES

5.6 List of abbreviations

ABBL	Association des Banques et Banquiers, Luxembourg
AGDL	Association pour la garantie de dépôts, Luxembourg
ALCO	Asset and liability management committee
BCL	Banque centrale du Luxembourg
BIS	Bank of international settlements
BLEU	Belgian Luxembourg Economic Union
BNB	Banque Nationale de Belgique
CBL	Clearstream Banking Luxembourg
CCBM	Correspondent central banking model
CERS	Committee European Securities Regulators
CPI	Consumer Price Index
CMFB	Committee on monetary, financial and balance of payment statistics
CSSF	Commission de surveillance du secteur financier
EBRD	European Bank for Reconstruction and Development
ECB	European Central Bank
EFC	Economic and Financial Committee
EIB	European Investment Bank
EMI	European Monetary Institute (1994-1998)
EMS	European Monetary System
ESCB	European System of Central Banks
ESP	European Service Providers
EU	European Union
EUR	Euro
Eurostat	Statistical office of the European Communities
FATF	Financial Action Task Force against money laundering
FASP	Financial sector Assessment Program
GDP	Gross domestic product
HICP	Harmonised Index of Consumers Prices
IADB	Inter American Development Bank
IGC	Intergovernmental conference

IMF	International Monetary Fund
IML	Institut Monétaire Luxembourgeois (1983-1998)
LIPS-Gross	Luxembourg inter bank payment system real-time Gross Settlement System
LIPS-Net	Luxembourg Interbank Payment System Real-Time Net Settlement System
MFI	monetary financial institution
MRA	maximum risk allowance
MRO	main refinancing operation
NAV	net asset value
NCB	National central bank
OECD	Organisation for Economic Cooperation and Development
OFI	Other Financial Intermediaries
OPEC	Organisation of Petroleum Exporting Countries
LTRO	Longer term refinancing operation
PBO	Projected Benefit Obligation
ROA	Return on Assets
ROE	Return on Equity
RTGS system	Real-Time Gross Settlement system
RTGS-L GIE	Economic interest grouping for real-time gross settlement of payments in Luxembourg
SDDS	Special Data Dissemination Standard
SDR	Special Drawing Rights
SEC	European System of National Accounts
SWIFT	Society for Worldwide Interbank Financial Telecommunication s.c.
SYPAL-GIE	Economic interest grouping for the promotion and management of payments systems in Luxembourg
STATEC	Central service for statistics and economic studies
Target System	Trans-European Automated Real-time Gross settlement Express Transfer system
UCI	Undertaking for Collective Investment
UCITS	Undertaking for Collective Investments in Transferable Securities
VaR	Value at Risk

5.7 Glossary

Base effect: When analysing business cycles, the evolution of annual variation rates of a variable are often explained by "base effects". A base effect occurs when the evolution of a variable's annual rate from month t+1 varies because of the evolution of the variable's level 12 months before and not because of the variation of the variable's level between month n and month n+1.

Balance of payments (b.o.p.): a statistical statement that summarises, for a specific period of time, the economic transactions of an economy with the rest of the world. The transactions considered are those involving goods, services and income; those involving financial claims on, and liabilities to, the rest of the world; and those (such as debt forgiveness) that are classified as transfers.

Central counterparty: an entity that interposes itself between the counterparties to the contracts traded in one or more financial markets, becoming the buyer to every seller and the seller to every buyer.

Central securities depository (CSD): an entity that i) enables securities transactions to be processed and settled by book entry, and ii) plays an active role in ensuring the integrity of securities issues. Securities can be held in physical (but immobilized) or dematerialized form (i.e. so that they exist only as electronic records).

Consolidated balance sheet of the MFI sector: a balance sheet obtained by netting out inter-MFI positions (e.g. inter-MFI loans and deposits) in the aggregated MFI balance sheet. It provides statistical information on the MFI sector's assets and liabilities vis-à-vis residents of the euro area not belonging to this sector (i.e. the general government and other euro area residents) and vis-à-vis non-euro area residents. It is the main statistical source for the calculation of monetary aggregates, and it provides the basis for the regular analysis of the counterparts of M3.

Consolidated balance sheet of the MFI sector: a balance sheet obtained by netting out inter-MFI positions (e.g. inter-MFI loans and deposits) in the

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Counterparty: the opposite party in a financial transaction (e.g. any party transacting with a central bank).

Correspondent central banking model (CCBM): a mechanism established by the Eurosystem with the aim of enabling counterparties to use eligible assets on a cross-border basis. In the CCBM, NCBs act as custodians for one another. Each NCB has a securities account in its securities administration for each of the other NCBs (and for the European Central Bank).

Credit institution: 1) an undertaking whose business is to receive deposits or other repayable funds from the public and to grant credits for its own account; or 2) an undertaking or any other legal person, other than those under (1), which issues means of payment in the form of electronic money. The most common types of credit institutions are banks and savings banks. See also electronic money (e-money).

Credit risk: the risk that a counterparty will not settle an obligation for full value, either when due or at any time thereafter. Credit risk includes replacement cost risk and principal risk. It also includes the risk of the failure of the settlement bank.

Deposit facility: a standing facility of the Eurosystem which counterparties may use to make overnight deposits, remunerated at a pre-specified interest rate, at an NCB (see also key ECB interest rates).

ECOFIN Council: the EU Council meeting in the composition of the ministers of economy and finance.

Economic and Monetary Union (EMU): the process that led to the single currency, the euro, and the single monetary policy in the euro area, as well as to the coordination of the economic policies of the EU Member States. This process, as laid down in the Tre-

5. ANNEXES

aty, took place in three stages. Stage Three, the final stage, started on 1 January 1999 with the transfer of monetary competence to the European Central Bank and the introduction of the euro. The cash changeover on 1 January 2002 completed the process of setting up EMU.

Economic analysis: one pillar of the European Central Bank's framework for conducting a comprehensive analysis of the risks to price stability, which forms the basis for the Governing Council's monetary policy decisions. The economic analysis focuses mainly on the assessment of current economic and financial developments and the implied short to medium-term risks to price stability from the perspective of the interplay between supply and demand in goods, services and factor markets at those horizons. Due attention is paid to the need to identify the nature of shocks affecting the economy, their effects on cost and pricing behavior, and the short to medium-term prospects for their propagation in the economy (see also monetary analysis).

Economic and Financial Committee (EFC): a consultative Community body which contributes to the preparation of the work of the ECOFIN Council and the European Commission. Its tasks include reviewing the economic and financial situation of the Member States and of the Community, and budgetary surveillance.

Effective exchange rate (EER) of the euro (nominal/real): a weighted average of bilateral euro exchange rates against the currencies of the euro area's main trading partners. The European Central Bank publishes nominal EER indices for the euro against two groups of trading partners: the EER-21 (comprising the 11 non-euro area EU Member States and 10 main trading partners outside the EU) and the EER-41 (composed of the EER-21 and 20 additional countries). The weights used reflect the share of each partner country in euro area trade and account for competition in third markets. Real EERs are nominal EERs deflated by a weighted average of foreign, relative to domestic, prices or costs. They are thus measures of price and cost competitiveness.

Electronic money (e-money): An electronic store of monetary value on a technical device that may be

widely used as prepaid bearer instrument for making payments to undertakings other than the issuer, without necessarily involving bank accounts in the transactions.

EONIA (euro overnight index average): a measure of the effective interest rate prevailing in the euro interbank overnight market. It is calculated as a weighted average of the interest rates on unsecured overnight lending transactions denominated in euro, as reported by a panel of contributing banks.

ERM II (exchange rate mechanism II): the exchange rate mechanism which provides the framework for exchange rate policy cooperation between the euro area countries and the non-euro area EU Member States. ERM II is a multilateral arrangement with fixed, but adjustable, central rates and a standard fluctuation band of $\pm 15\%$. Decisions concerning central rates and, possibly, narrower fluctuation bands are taken by mutual agreement between the EU Member State concerned, the euro area countries, the European Central Bank (ECB) and the other EU Member States participating in the mechanism. All participants in ERM II, including the ECB, have the right to initiate a confidential procedure aimed at changing the central rates (realignment).

EURIBOR (euro interbank offered rate): the rate at which a prime bank is willing to lend funds in euro to another prime bank, as reported by a panel of contributing banks, computed daily for interbank deposits with different maturities of up to 12 months.

Euro: The name of the European single currency adopted by the European Council at its meeting in Madrid on 15 and 16 December 1995 and used instead of the term ECU originally employed in the Treaty.

Euro area: the area encompassing those Member States which have adopted the euro as the single currency in accordance with the Treaty and in which a single monetary policy is conducted under the responsibility of the Governing Council of the European Central Bank. The euro area currently comprises Belgium, Germany, Ireland, Greece, Spain, France, Italy, Cyprus, Luxembourg, Malta, the Netherlands, Austria, Portugal, Slovenia, Slovakia and Finland.

European Central Bank (ECB): the ECB lies at the centre of the Eurosystem and the European System of Central Banks (ESCB) and has its own legal personality in accordance with the Treaty (Article 107(2)). It ensures that the tasks conferred upon the Eurosystem and the ESCB are implemented either through its own activities or through those of the NCBs, pursuant to the Statute of the ESCB. The ECB is governed by the Governing Council and the Executive Board, and, as a third decision-making body, by the General Council.

European Monetary Institute (EMI): A temporary institution established at the start of stage two of Economic and Monetary Union on 1 January 1994. The two main tasks of the EMI were to strengthen central bank cooperation and monetary policy coordination and to make the preparations required for establishment of the European System of Central Banks, for the conduct of the single monetary policy and for the creation of a single currency in stage three. It went into liquidation upon the establishment of the European Central Banks on 1 June 1998.

European System of Accounts 1995 (ESA 95): a comprehensive and integrated system of macroeconomic accounts based on a set of internationally agreed statistical concepts, definitions, classifications and accounting rules aimed at achieving a harmonized quantitative description of the economies of the EU Member States. The ESA 95 is the Community's version of the world System of National Accounts 1993 (SNA 93).

Eurosystem: the central banking system of the euro area. It comprises the European Central Bank and the NCBs of the Member States that have adopted the euro.

Eurosystem's international reserves: These comprise the reserve assets of the European Central Bank (ECB) and the reserve assets held by the national central banks (NCBs) of the participating Member States. Reserve assets must 1) be under the effective control of the relevant monetary authority, whether the ECB or the NCB of one of the participating Member States, and 2) comprise highly liquid, marketable and credit-worthy foreign (i.e. non-euro) currency-denominated claims on non-Euro area residents, plus gold, special

drawing rights and the reserve positions in the International Monetary Fund of the participating NCBs.

Executive Board: one of the decision-making bodies of the European Central Bank (ECB). It comprises the President and the Vice-President of the ECB and four other members appointed by common accord by the Heads of State or Government of the Member States that have adopted the euro.

Fiduciary money: banknotes and coins having the status of legal tender.

Financial stability: condition in which the financial system – comprising financial intermediaries, markets and market infrastructures – is capable of withstanding shocks and the unraveling of financial imbalances, thereby mitigating the likelihood of disruptions in the financial intermediation process which are severe enough to significantly impair the allocation of savings to profitable investment opportunities.

Fine-tuning operation: an open market operation executed by the Eurosystem in order to deal with unexpected liquidity fluctuations in the market. The frequency and maturity of fine-tuning operations are not standardised.

Foreign exchange swap: Simultaneous spot and forward transactions exchanging one currency against another. The Eurosystem can execute open market operations in the form of foreign exchange swaps, where the national central banks (or the European central bank) buy or sell Euro spot against a foreign currency and, at the same time, sell or buy them back in forward transaction.

General Council: one of the decision-making bodies of the European Central Bank (ECB). It comprises the President and the Vice-President of the ECB and the governors of all the NCBs of the European System of Central Banks.

Governing Council: the supreme decision-making body of the European Central Bank (ECB). It comprises all the members of the Executive Board of the ECB and the governors of the NCBs of the Member States that have adopted the euro.

5. ANNEXES

Harmonized index of the consumer prices (HICP): a measure of the development of consumer prices that is compiled by Eurostat and harmonized for all EU Member states.

Key ECB interest rates: the interest rates, set by the Governing Council, which reflect the monetary policy stance of the European Central Bank. They are the rates on the main refinancing operations, the marginal lending facility and the deposit facility.

Longer-term refinancing operation: a regular open market operation executed by the Eurosystem in the form of reverse transactions. Such operations are carried out through a monthly standard tender and normally have a maturity of three months.

Main refinancing operation: a regular open market operation executed by the Eurosystem in the form of reverse transactions. Such operations are carried out through a weekly standard tender and normally have a maturity of one week.

Market liquidity risk: the risk that transactions on the financial market cannot be concluded or can only be concluded at worse than expected conditions owing to inadequate market depth or market disruption.

Market risk: the risk of losses (in both on and off-balance-sheet positions) arising from movements in market prices.

Marginal lending facility: a standing facility of the Eurosystem which counterparties may use to receive overnight credit from an NCB at a pre-specified interest rate against eligible assets (see also key ECB interest rates).

MFIs (monetary financial institutions): financial institutions which together form the money issuing sector of the euro area. These include the Eurosystem, resident credit institutions (as defined in Community law) and all other resident financial institutions whose business is to receive deposits and/or close substitutes for deposits from entities other than MFIs and, for their own account (at least in economic terms), to grant credit and/or invest in securities. The latter group consists predominantly of money market funds.

Monetary aggregates: Currency in circulation, plus outstanding amounts of certain liabilities of monetary financial institutions and central governments that have a relatively high degree of liquidity and are held by non-MFI Euro area residents outside the central government sector. The narrow monetary aggregate M1 has been defined as currency in circulation plus overnight deposits. The "intermediate" monetary aggregate M2 comprises of M1 plus deposits with agreed maturity of up to two years and deposits redeemable at notice of up to three months. The broad monetary aggregate M3 includes M2 plus repurchase agreements, money market funds shares and units, money market paper and debt securities with a maturity of up to two years. In October 1998 the Governing Council announced a reference value for the growth of M3, which it has since reconfirmed (see also reference value for monetary growth).

M1: a narrow monetary aggregate that comprises currency in circulation plus overnight deposits held with MFIs and central government (e.g. at the post office or treasury).

M2: an intermediate monetary aggregate that comprises M1 plus deposits redeemable at a period of notice of up to and including three months (i.e. short-term savings deposits) and deposits with an agreed maturity of up to and including two years (i.e. short-term time deposits) held with MFIs and central government.

M3: a broad monetary aggregate that comprises M2 plus marketable instruments, in particular repurchase agreements, money market fund shares/units, and debt securities with a maturity of up to and including two years issued by MFIs.

Monetary analysis: one pillar of the European Central Bank's framework for conducting a comprehensive analysis of the risks to price stability, which forms the basis for the Governing Council's monetary policy decisions. The monetary analysis helps to assess medium to long-term trends in inflation, in view of the close relationship between money and prices over extended horizons. The monetary analysis takes into account developments in a wide range of monetary indicators including M3, its components and counterparts, notably credit, and various measures of excess liquidity (see also economic analysis).

Outright transaction: A transaction whereby assets are bought or sold up to their maturity (spot or forward).

Open market operation: an operation executed on the initiative of the central bank in the financial market. With regard to their aims, regularity and procedures, Eurosystem open market operations can be divided into four categories: main refinancing operations; longer-term refinancing operations; fine-tuning operations; and structural operations. As for the instruments used, reverse transactions are the main open market instrument of the Eurosystem and can be employed in all four categories of operations. In addition, the issuance of debt certificates and outright transactions are available for structural operations, while outright transactions, foreign exchange swaps and the collection of fixed-term deposits are available for the conduct of fine-tuning operations.

Price stability: the maintenance of price stability is the primary objective of the Eurosystem. The Governing Council defines price stability as a year-on-year increase in the Harmonised Index of Consumer Prices for the euro area of below 2%. The Governing Council has also made it clear that, in the pursuit of price stability, it aims to maintain inflation rates below, but close to, 2% over the medium term.

Real-time gross settlement (RTGS) system: a settlement system in which processing and settlement take place on an order-by-order basis (without netting) in real time (continuously) (see also TARGET).

Reference value for M3 growth: the annual growth rate of M3 over the medium term that is consistent with the maintenance of price stability. At present, the reference value for annual M3 growth is 4,5%.

Reserve ratio: the ratio defined by the central bank for each category of eligible balance sheet items included in the reserve base. The ratio is used to calculate reserve requirements.

Reserve requirement: the minimum amount of reserves a credit institution is required to hold with the Eurosystem over a predefined maintenance period. Compliance with the requirement is determined on the

basis of the average of the daily balances in the reserve accounts over the maintenance period.

Reverse transaction: an operation whereby the central bank buys or sells assets under a repurchase agreement or conducts credit operations against collateral.

Securities settlement system (SSS): A system which permits the holding and transfer of securities or other financial assets, either free of payment or against payment (delivery versus payment).

Securitisation: the pooling of financial assets, such as residential mortgage loans, and their subsequent sale to a special-purpose vehicle, which then issues fixed income securities for sale to investors. The principal and interest of these securities depend on the cash flows produced by the pool of underlying financial assets.

Settlement risk: the risk that settlement in a transfer system will not take place as expected, usually owing to a party defaulting on one or more settlement obligations. This risk comprises, in particular, operational risk, credit risk and liquidity risk.

Stability and Growth Pact: the Stability and Growth Pact is intended to serve as a means of safeguarding sound government finances in Stage Three of Economic and Monetary Union in order to strengthen the conditions for price stability and for strong, sustainable growth conducive to employment creation. To this end, the Pact prescribes that Member States specify medium-term budgetary objectives. It also contains concrete specifications on the excessive deficit procedure. The Pact consists of the Resolution of the Amsterdam European Council of 17 June 1997 on the Stability and Growth Pact and two Council Regulations, namely i) Regulation (EC) No 1466/97 of 7 July 1997 on the strengthening of the surveillance of budgetary positions and the surveillance and coordination of economic policies as amended by Regulation (EC) No 1055/2005 of 27 June 2005, and ii) Regulation (EC) No 1467/97 of 7 July 1997 on speeding up and clarifying the implementation of the excessive deficit procedure as amended by Regulation (EC) No 1056/2005 of 27 June 2005. The Stability and Growth Pact is complemented by the ECOFIN Council's report entitled "Improving the implementation of the Stability and

5. ANNEXES

Growth Pact”, which was endorsed by the Brussels European Council of 22 and 23 March 2005. It is also complemented by the new Code of Conduct entitled “Specifications on the implementation of the Stability and Growth Pact and Guidelines on the format and content of stability and convergence programs”, which was endorsed by the ECOFIN Council on 11 October 2005.

Standing facility: a central bank facility available to counterparties on their own initiative. The Eurosystem offers two overnight standing facilities: the marginal lending facility and the deposit facility.

Systemic risk: the risk that the inability of one participant to meet its obligations in a system will cause other participants to be unable to meet their obligations when due, with possible spillover effects such as significant liquidity or credit problems that may threaten the stability of the financial system. Such inability may be caused by operational or financial problems.

TARGET (Trans-European Automated Real-time Gross settlement Express Transfer system): the real-time gross settlement (RTGS) system for the euro.

TARGET2: a new generation of the TARGET system which replaces the former decentralized technical structure with a single shared platform offering a harmonised service with a uniform pricing scheme.

Treaty: refers to the Treaty establishing the European Community (“Treaty of Rome”). The Treaty has been amended on several occasions, in particular by the Treaty on European Union (“Maastricht Treaty”) which laid the foundations for Economic and Monetary Union and contained the Statute of the ESCB.

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