



10

ANNUAL
REPORT
2010

bcc

BANQUE CENTRALE DU LUXEMBOURG
EUROSYSTEM

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OFFICIAL STANCE

THE MISSION

The BCL is in charge of managing all the monetary and financial responsibilities granted to it as one of the National Central Banks of the ESCB.

It is also a member of the Eurosystem that gathers the European Central Bank and the National Central Banks that have adopted the euro.

On a national level, the Bank has to carry out the tasks imposed on it by the national laws and conventions.

It is developing the following fields of competence:

- Research and studies aimed at preparing, on the one hand, monetary policy decisions and, on the other hand, the development of wider knowledge concerning monetary, financial and economic issues
- Collection and analysis of statistics in the monetary, financial and balance of payments fields
- Implementation of monetary policy instruments
- Organisation and supervision of the payment and settlement systems
- Issuing and circulating banknotes and coins
- Financial asset management, both for itself and for third parties
- Participation in the prudential supervision of the financial system and the exercise of the oversight of payment and settlement systems, in order to guarantee the stability of the financial system in Luxembourg
- Advising the legislative and regulatory authorities in financial and monetary areas
- Publication of its studies and research and of the decisions in which the BCL has taken part together with explanations.

THE VISION

The BCL intends to become a centre of competence, excellence even, whose performance generates public confidence in the Central Bank.

Among Luxembourg's institutions, the BCL takes every care to be in a position to fulfil all its national, European and international obligations.

In view of the wide variety of its duties and activities, both in the public sector and in a competitive environment, the BCL must generate an income guaranteeing its institutional, functional and financial independence.

CORPORATE VALUES

As a consequence, the values associated with its action are:

- Professionalism, guaranteed by highly specialised staff, high-performance tools and high-level infrastructure
- Quality in all its services
- Stability provided by its long-term vision of all its activities
- Objectivity resulting from the establishment of precise rules that are equally applied
- Integrity, guaranteed by the transparency of its internal operation and by respect for professional ethics

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THE
GOVERNOR'S
MESSAGE

After the strong growth rates recorded in the first quarter of 2011, euro area economies are likely to slow down due to the combination of several external and internal factors. In addition, the economic and financial crisis has severely impaired the prospects of the financial sector. A deeper integration of Europe is the most effective way to deal with these adverse developments. The single monetary policy has already provided an effective protection against various attacks directed at the euro. However, EMU should be supplemented with a more effective fiscal framework, with structural reforms and with a close surveillance of macroeconomic imbalances.

The latter dimension is essential. Current account imbalances tend to have a less direct impact on national economies within a monetary union. At the same time, the accumulation of persistent internal imbalances is likely to prove extremely corrosive for the cohesion of such a union. This is the reason why current account deficits and other macroeconomic imbalances have to be monitored closely and even pre-empted and why the corrective mechanisms have to be reinforced at the European level. Stronger surveillance mechanisms are of paramount importance also for the proper function of markets. EMU presupposes the ability to intervene on financial markets, where public and private institutions finance their activities. The authorities should be able to intervene in a flexible way on these markets in order to secure the smooth financing of these activities and the good functioning of the transmission channels of monetary policy.

However, preventive action should be favoured over ex post financial interventions, which underlines once more the need for effective surveillance mechanisms, including stronger sanction mechanisms and more automatic rules. The cohesion of EMU also calls for effective action, at the European level, against national mechanisms such as the automatic indexation of wages. This is the only way to prevent adverse drifts in competitiveness, the related imbalances and the ensuing contagion of national crises.

These changes are compatible with the current legal framework. The Maastricht treaty is certainly not a frozen, static document. Already at its inception, it was considered as a minimum minimum as regards the sharing of common responsibilities between Member States. The Treaty was reinforced by the Stability and Growth Pact, whose reform in 2005 appears as a major mistake in retrospect. This relaxation of the common fiscal rules indeed undermined fiscal discipline and contributed to pave the way to the sovereign debt crisis. The latter crisis calls for a stronger fiscal surveillance framework and for the appropriate consolidation measures in several Member States. This is the only way out. Default is certainly not a solution, as it would only create insuperable problems and complicate the financing of our common future.

More generally, we should reject the "siren calls" of those who argue for a looser European union, which is a way to undermine the free movement of goods, services and citizens and to derail the indispensable structural reforms. The attacks against the Schengen agreements are another face of the same coin. Each European citizen must defend the European unification process in these difficult circumstances.

In Luxembourg, 2010 was the year of the economic rebound, which followed the worst contraction recorded since the steel crisis in 1975. Real GDP indeed decreased by 3.6% in 2009. According to our December macroeconomic projections, real GDP growth in 2011 would be in the 3.7% to 4.3% range, in line with the developments in 2010 or slightly more favourable.

However, caution is needed more than ever. One swallow doesn't make a summer. Uncertainty is still very high. Energy and commodity markets are still extremely volatile. In addition, new fiscal consolidation measures will be implemented by our trade partners and this should in turn negatively impact on our exports. Uncertainty also prevails as regards the future evolution of the financial sector, which represented no less than 26% of gross value added in 2009. According to our calculations, potential GDP growth would not exceed 2% to 3% at the current juncture.

Luxembourg should take advantage of the current economic upswing to implement the indispensable reforms related to labour markets, competitiveness and public finances. It should also put in place the required institutional measures. As regards labour markets, I note that the unemployment rate has recently stabilised at around 6%. This illustrates the end of the "Luxembourg model" in this respect. Our country achieved much better outcomes in the past, either in absolute terms or compared with the neighbouring countries. Unemployment in Luxembourg was only slightly higher than 2% in 2001 and 4% at the end of 2007. Moreover, the unemployment rate is increasingly of a structural nature, as illustrated by a growing proportion of people on the dole for more than one year and of unskilled unemployed people. In these circumstances, professional training and education should be enhanced and complemented with a more dynamic employment policy that would also fully integrate the cross-border dimension.

We should also urgently restore our competitiveness, also with a view to stronger employment. Price and cost competitiveness has markedly declined over the last ten years, due inter alia to inflation rates systematically higher in Luxembourg than in the neighbouring countries and in the euro area. The automatic wage indexation mechanism still applied in Luxembourg contributed to this drift. Under the "unchanged policy assumption", the first indexation tranche in 2012 will already be paid in March, namely less than six months after the previous tranche. Such a situation would induce a strong increase in the average wage cost, which would on average grow by 5.2% in 2012 according to our June 2011 projections. Luxembourg companies cannot afford such a penalty when they are already confronted with rising commodity prices.

The third challenge is the consolidation of public finances. The central government deficit amounted to no less than 3.2% of GDP in 2010, which is the worst result since the implementation of the ESA 95 statistical framework. The general government balance is more favourable owing to social security surpluses, but the social security accounts are bound to deteriorate in the future due to steeply increasing pension expenditure. In these circumstances, I deeply regret the lack of ambition of the recent update of the Luxembourg Stability Programme, where no credible consolidation track is spelled out, in spite of the "European semester" which was implemented for the first time this year. Luxembourg authorities should pay respect not only to the letter of the new European governance framework, but also to the spirit of this reform of paramount importance.

The crisis also highlighted the need for more effective regulation and supervision of the financial sector. Commendable inroads have already been made in this respect, but this is still an unfinished business. It is essential to implement the "Basel III" banking regulation and to ensure that it is fully compatible with monetary policy and supportive of the efficiency of credit institutions. The new European supervision architecture should also pay respect to the competences of central banks, particularly in the field of macro-prudential supervision. At the national level, the Luxembourg financial centre should be endowed with an efficient governance system, in line with the developments witnessed in other EU Member States. The BCL has taken over new competences in this field. Having been granted a new regulatory competence by the law of 24 October 2008, the Bank has become a proper supervisory authority. It has accordingly published its first directly applicable regulations and is currently preparing other such regulations. The BCL also endeavours to collaborate more closely with other supervisory authorities at the national, European and international level and contributes to the work of the European Systemic Risk Board. In 2010, it proposed legislative changes of its own organic law, inter alia, in order to clarify its competences

in the fields of macro-prudential supervision, financial stability and external representation, also with a view to guaranteeing its financial independence. The Bank made other legislative proposals, for instance in order to introduce a new bank resolution mechanism.

To sum up, the painful experience of a few other euro area members, where the indispensable structural reforms were delayed for too long, should prompt Luxembourg to implement as soon as possible far-reaching reforms. We should take advantage of the current economic upswing to do so, before the onset of the next economic deceleration.

Yves Mersch



01

THE ECONOMIC AND FINANCIAL SITUATION

1

THE ECONOMIC AND FINANCIAL SITUATION

1.1 THE ECONOMIC SITUATION AT THE INTERNATIONAL LEVEL

1.1.1 Short-term interest rates and monetary policy decisions

In April 2011, the Governing Council increased the key ECB interest rates by 25 basis points, after leaving them unchanged since May 2009. Thus as of June 2011, the interest rate on the main refinancing operations (MROs) stands at 1.25%, while those on the deposit facility and on the marginal lending facility stand at 0.50% and 2.00% respectively.

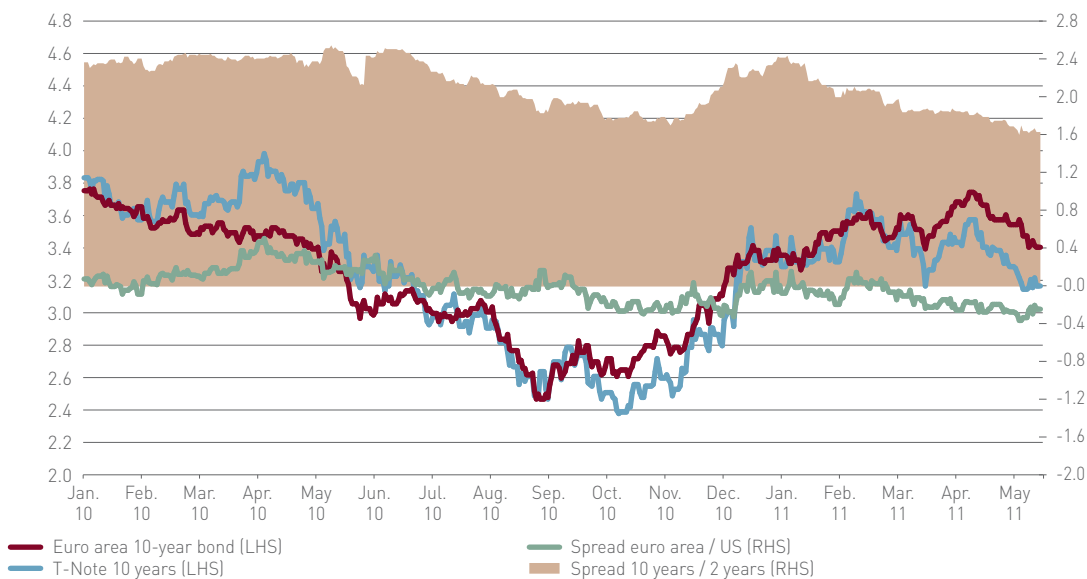
The Governing Council decided in March 2011 to continue to conduct MROs and the special-term refinancing operations with a maturity of one maintenance period as fixed rate tender procedures with full allotment for as long as necessary. Furthermore, the Governing Council decided to conduct the three-month longer-term refinancing operations (LTROs) as fixed rate tender procedures with full allotment.¹

1.1.2 Government bond markets

Over the review period, long-term yields on government bonds in the US and the euro area first decreased, reflecting tensions in some euro area sovereign debt markets. The financial support granted to Greece, the creation of the EFSF and the non-standard measures introduced by the Eurosystem in May 2010 limited the propagation of these tensions without interrupting this trend which lasted until the end of the summer. From the third quarter of 2010, government bond yields finally started to increase in a financial environment characterised by risk-seeking behaviour. The improvement of the economic outlook, market participants' inflation expectations and the expected increase in central bank interest rates over the next quarters also contributed to this upward trend, despite the second phase of the quantitative easing launched by the Fed in November 2010.

¹ This decision pertained to LTROs allotted on 27 April, 25 May and 29 June 2011.

Chart 1.1: Long-term yields on government bonds
(LHS: annual percentage; RHS: percentage points)



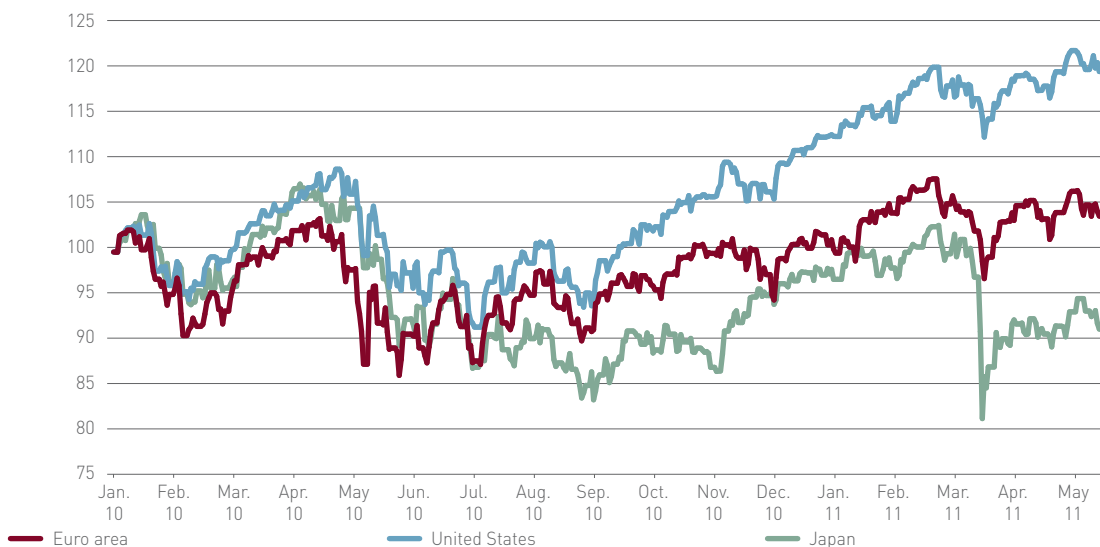
Sources: ECB, Bloomberg

The spread between 2-year and 10-year euro area government bond yields slightly decreased with the reduction of the excess liquidity in the banking system and the expected increase of short-term interest rates. Finally, the spreads of Greek, Irish and Portuguese 10-year government bonds vis-à-vis their German counterpart substantially widened forcing these countries to successively bid for international financial support.

1.1.3 Equity markets

Over the review period, the Dow Jones EURO STOXX and the S&P 500 have increased by 4.0% and 20.0% respectively, while the Nikkei 225 dropped by 8.5% as a consequence of the devastating earthquake in early March.

Chart 1.2: Major equity indices



Source: Bloomberg

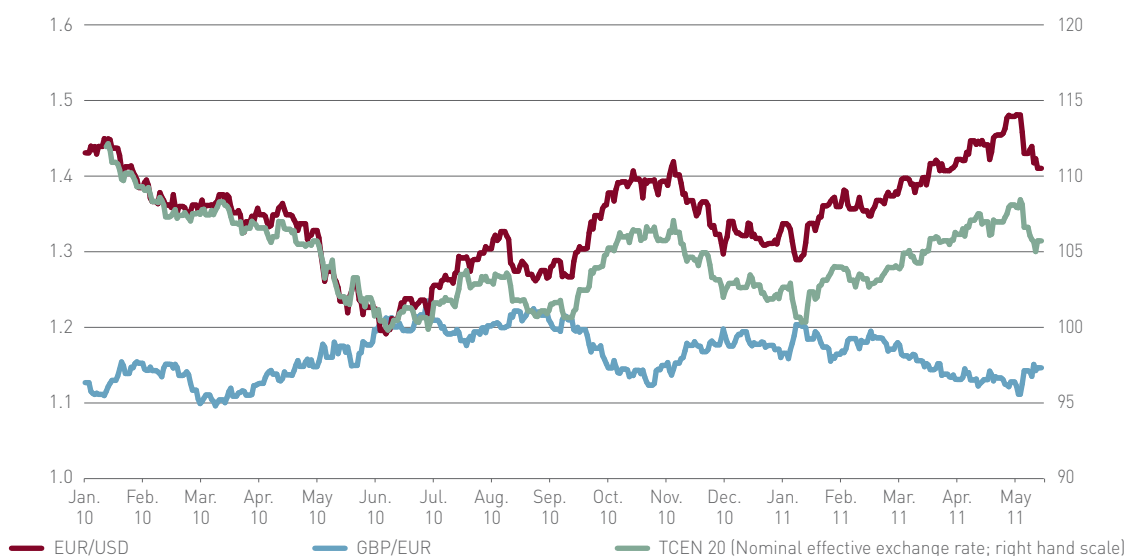
The bullish mood which prevailed in equity markets since the second half of 2009 was interrupted in the first part of 2010 due to concerns regarding the macro-financial environment. Despite the Greek sovereign debt crisis, equity markets were supported by a flow of positive economic news regarding the corporate sector and the strength of the global recovery. Overall, financials underperformed stock market returns, especially after

November 2010, with the renewal of the tensions in the peripheral euro area countries. The upward trend of the main equity indices lasted until the end of the period under review, despite the disruption generated by political tensions in the Arab countries and consequences of the earthquake in Japan.

1.1.4 Foreign exchange markets

Against the backdrop of strong market volatility, the nominal effective exchange rate of the euro, measured against the currencies of the euro area's 20 most important trading partners, reached a level slightly below the one prevailing at the beginning of 2010.

Chart 1.3: The euro exchange rates



Source: Bloomberg

Over the review period, the euro first depreciated against the US dollar to reach 1.19 USD/€ in June. The common currency then strengthened from the second half of 2010, due to the reduction in the excess liquidity in the banking sector and the expected increase in short-term interest rates in the euro area. The new round of quantitative easing in the US and the evolution of oil prices also weighed in on the US dollar. On 15 May 2011, the euro stood at 1.41 USD, 6% above its 2010 average.

As regards other currencies, the Japanese yen and the Swiss franc appreciated by 14.4% and 15.0% respectively against the euro, while the pound sterling overall traded in a fairly narrow band. The currencies participating in the ERM II have remained broadly stable against the euro. The Estonian crown continued to trade at a level close to its central rate of 15.6466 EEK/€, which was used as the reference rate for the conversion to the euro in January 2011. The currencies of the remaining European Union countries not participating in the ERM II also rose against the euro; in particular the Swedish koruna stands out in light of its appreciation of roughly 12%.

1.1.5 Consumer prices

HICP inflation has accelerated sharply since mid-2009. It rose from -0.9% in July 2009 to 2.2% at the end of 2010 and further to 2.8% in April 2011, its highest level since the end of 2008. Annual average inflation in 2010 was 1.6%.

The reversal in the inflation dynamics since mid-2009 stems almost exclusively from the sharp rise in the oil price and the subsequent acceleration in energy prices. In that context, HICP energy inflation rose from -14% in July 2009 to +11% in December 2010 and further to 13% in the first quarter of 2011. In the first stage, the inflationary impact of the sharp rise of oil prices was contained to its direct effects as the inflation rate for the ex energy inflation, receded until the beginning of 2010. This disinflation period however came to an end in mid-2010 and, since then, the inflation rate for the HICP excluding energy and unprocessed food has been

on the rise again. It increased steadily from 0.9% in the second quarter of 2010 to 1.8% in April 2011. This turnaround was also broad-based, though not perfectly synchronised. Food and non-energy industrial goods inflation accelerated already in the second quarter of 2010, somewhat earlier than services inflation.

Table 1.1: Developments in the HICP and its components (in annual percentage changes)

	2008	2009	2010	2010 Q2	2010 Q3	2010 Q4	2011 Q1	April-11
HICP	3.3	0.3	1.6	1.6	1.7	2.0	2.5	2.8
Unprocessed food	3.5	0.2	1.3	1.0	2.3	2.7	2.3	1.4
Processed food	6.1	1.1	0.9	0.8	0.9	1.3	2.1	2.8
Non-energy industrial goods	0.8	0.6	0.5	0.5	0.5	0.8	0.5	1.0
Energy	10.3	-8.1	7.4	8.1	7.3	9.2	12.7	12.5
Services	2.6	2.0	1.4	1.2	1.4	1.3	1.6	2.0
HICP ex energy and unprocessed food	2.4	1.3	1.0	0.9	1.0	1.1	1.3	1.8

Source: Eurostat

According to the Eurosystem staff projections, HICP inflation will average between 2.5% and 2.7% in 2011 and between 1.1% and 2.3% in 2012. Compared to the March 2011 exercise, these projections have been revised upwards.

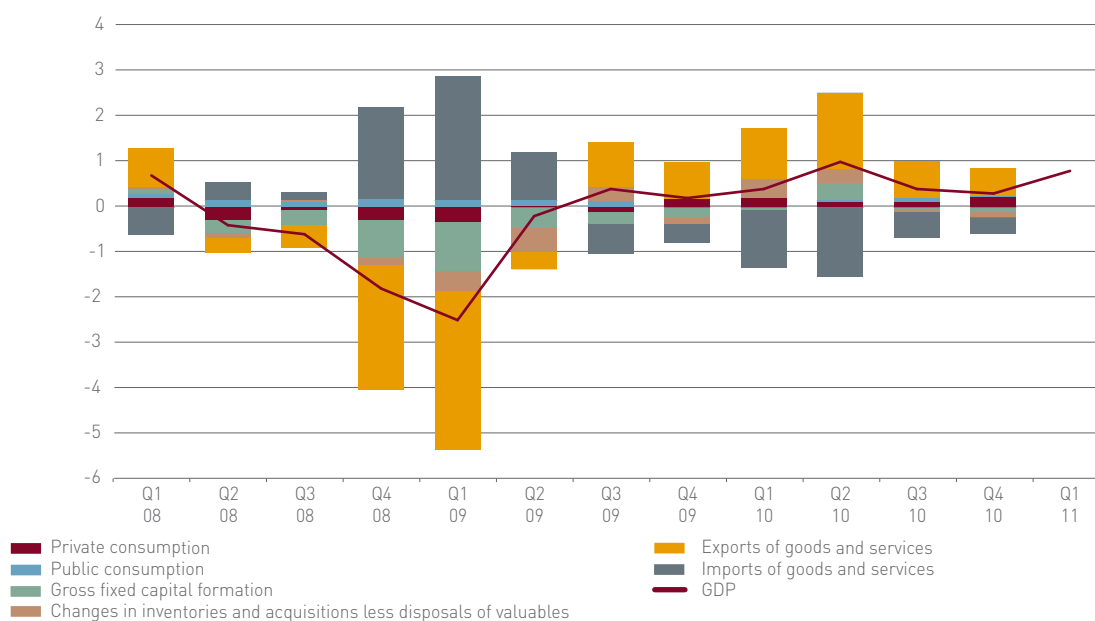
1.1.6 Output, demand and labour market developments

Economic activity in the euro area picked up in 2010 and rose by 1.8% (after -4.1% in 2009). Output grew by 2.0% on a year-on-year basis in the last quarter of 2010. The breakdown of expenditure indicates that GDP growth was mainly driven by private consumption, fixed capital formation as well as external trade. The sectoral decomposition indicates that activity evolved favourably in all economic sectors except for construction, where activity declined by -2.9% on a year-on-year basis.

According to Eurostat's flash estimate for the first quarter of 2011, euro area GDP growth accelerated to 0.8% relative to the previous quarter and to 2.5% in annual terms. Economic activity expanded in all euro area countries except for Portugal and Greece.²

Chart 1.4: Real GDP growth and contributions to growth

(quarter-on-quarter growth rate and quarterly percentage point contributions; seasonally adjusted)



Source: Eurostat

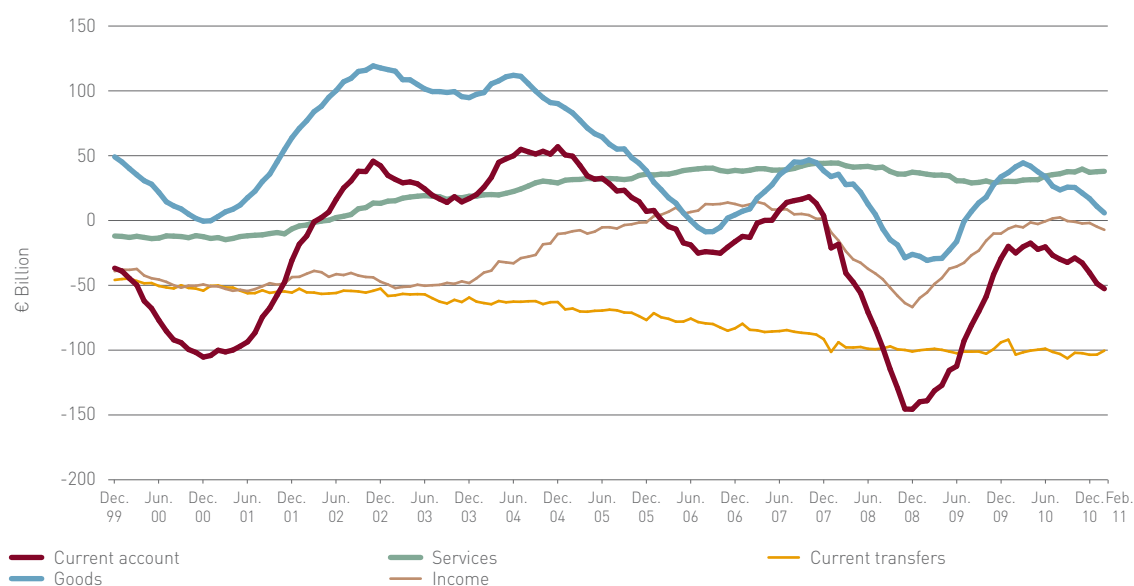
² No data for Ireland, Luxembourg, Malta and Slovenia were available at the cut-off date of this Annual Report.

Following the pick-up in economic activity, employment rose on an annual basis by 0.2% in the fourth quarter of 2010. The euro area unemployment rate reached 9.9% in March 2011 and has remained stable around 10.0% since the first quarter of 2010. Regarding labour costs, compensation per employee and negotiated wages increased moderately by 1.6% in the fourth quarter of 2010 (year-on-year growth rate). Furthermore, as labour productivity grew faster than compensation per employee, unit labour costs declined on an annual basis by 0.2% in the last quarter of 2010.

1.1.7 External trade and current account

In 2010, the current account of the euro area recorded a deficit of 37 billion euro (or 0.4% of GDP), compared with a deficit of 26 billion euro in 2009. This worsening resulted from deterioration in the goods and the current transfer balances which were, however, in part offset by significant improvement in the services and the income balances. The euro area surplus in goods, which normally contributes positively to the overall current account balance, dropped by 45% falling to 21 billion euro in 2010. Higher prices of energy and other raw materials were the main factor behind this deterioration.

Chart 1.5: Current account balance and its components (12-months cumulated transactions)



Source: ECB

1.2 THE ECONOMIC SITUATION IN LUXEMBOURG

1.2.1 Prices, costs and competitiveness

1.2.1.1 Consumer prices

In 2010, consumer price inflation was at a fairly high level and it was characterised by a steady acceleration throughout the year. The NICP inflation rate rose from 2.1% in January to 2.5% in July and further to 2.8% at the end of the year. This process continued in 2011 as the inflation rate accelerated even to 3.7% in April 2011, thus about 1.0pp above its level in the euro area. In annual average terms, prices rose by 2.3% in 2010. The HICP inflation was somewhat higher than the NICP inflation but its intra-annual profile was more stable. The annual HICP inflation rate went from 3.0% in January 2010 to 2.9% in July 2010 only to climb to 3.1% at the end of the year. The rate accelerated in the beginning of 2011 and reached 4.0% in March and in April. In annual average terms, HICP inflation was 2.8% in 2010.

Chart 1.6: Inflation indicators (annual percentage changes)



Source: Statec

The unfavourable inflation developments stem from both the acceleration in energy prices and the turnaround in the ex energy inflation. Subsequent to the sharp rise in oil prices since the beginning of 2009, energy inflation turned positive already towards the end of that year (see chart). This upward momentum continued into 2010 and, in annual average terms, energy inflation was almost 15% in 2010. Excluding energy prices, the inflation rate first receded in the beginning of 2010 only to witness a turnaround towards mid-2010. The annual inflation rate dropped from 1.9% at the end of 2009 to 1.0% in the second quarter of 2010 only to end the year at 1.7%. This acceleration continued into 2011 as the inflation rate rose to 2.5% in April. The main causes of this last inflation increase are the impacts of the automatic wage payout in July 2010 on the prices of some services as well as pronounced rises in administered prices.

Since mid-2010, inflation in Luxembourg has been steadily higher than in the euro area and in the three neighbouring countries. Over the period from the beginning of phase III of EMU in 1999 to the beginning of 2011, Luxembourg's cumulated inflation differential stood at 4.5 percentage points vis-à-vis the euro area and 8.2 percentage points vis-à-vis Luxembourg's neighbouring countries.

According to the BCL's consumer survey, consumers perceived the sharp rise in headline inflation only with a lag of several months. Qualitative inflation perceptions started only to rise towards the end of 2009 and inflation expectations - after a short period of dithering - only rebounded towards the end of 2010. As regards the latter, and unlike in the two previous years, it seems that consumers no longer expect a broad-based fall in prices.

1.2.1.2 Producer prices in industry

Industrial producer prices picked up in 2010 together with the revival of global demand for industrial goods. The price increase was especially marked for the intermediate goods. Data for the first quarter of 2011 indicate that industrial producer prices continued to rise.

Price increases of construction services decelerated in 2010, as they only increased by 0.7% (after +1.1% in 2009). This development appears to be quite moderate given the rise in prices of intermediate goods observed in 2010.

Table 1.2: Industrial producer prices (changes with respect to the previous period)

	2009	2010	2009-Q4	2010-Q1	2010-Q2	2010-Q3	2010-Q4	2011-Q1
Total	-8.3	3.7	0.4	1.7	5.0	1.1	-0.5	4.9
Intermediate goods	-14.2	7.1	0.6	2.5	9.0	3.4	-1.0	5.9
Capital goods	1.5	2.2	0.7	-1.0	1.0	2.6	1.5	4.9
Consumer goods	2.6	0.1	0.8	-0.6	-0.2	0.6	0.3	1.1
Energy	-0.8	-3.7	-0.5	-0.4	2.0	-6.7	-0.9	4.4

Source STATEC

1.2.1.3 Labour costs

The first release of national accounts data for 2010 suggests that compensation per employee grew by 1.6% in 2010, after 1.8% in 2009. The sectoral decomposition indicates that compensation per employee growth rate decelerated in the sectors "wholesale and retail trade; hotels and restaurants; transport" (2.2%) as well as in "other services" (1.2%) and accelerated in the financial sector (1.6%) and industry (3.0%). The average compensation per employee slightly decreased in construction (-0.2%), probably as a result of the bad weather conditions in early 2010 and by the end of the year.

According to IGSS data, compensation per employee rose by 2.5% in 2010 (after 2.0% in 2009). Despite the fact that these figures are not perfectly comparable to national accounts data (which are subject to various adjustments), the monthly IGSS data provide useful information on labour cost developments. National accounts are subject to future revisions and should therefore be interpreted with caution.

In 2010, real unit labour costs declined by 5.5% and nominal unit labour costs slightly decreased by 0.3% (after the sharp increase of respectively 7.0% and 6.7% registered in 2009).

According to the latest available data, compensation per employee increased by 2.0% in the last quarter of 2010 (on an annual basis).

1.2.1.4 Competitiveness

In 2010, the price and cost competitiveness indicators improved (except for the indicator based on GDP deflator). Nevertheless, according to the results of the recent Eurosystem projection exercise, the competitiveness indicators should return to their deteriorating trend throughout the projection horizon.

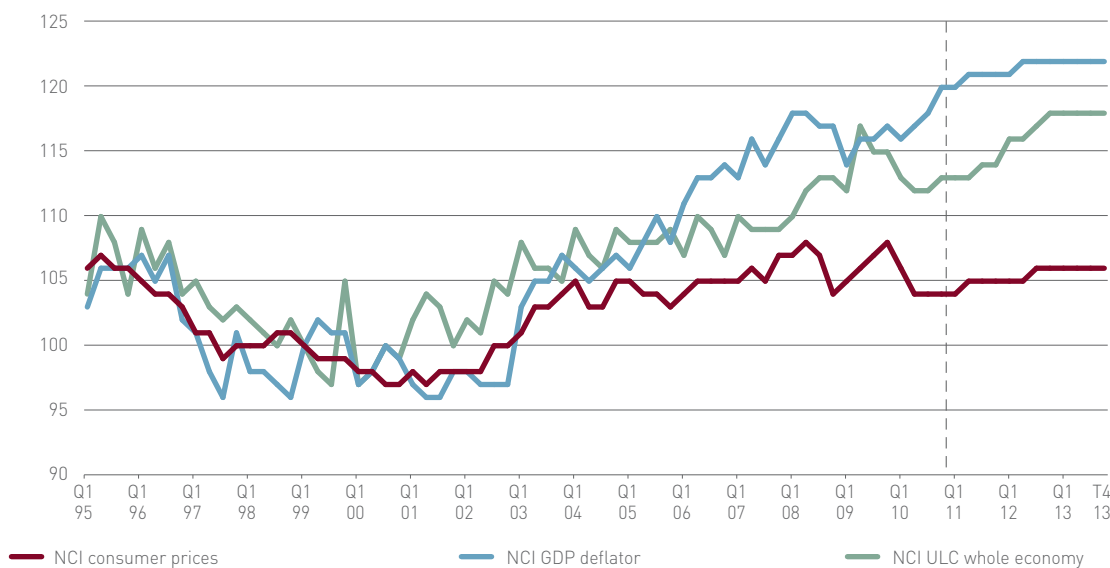
The competitiveness indicators calculated by the BCL are effective exchange rate indices deflated by different measures of prices and costs. These indicators compare prices or costs in Luxembourg to a weighted average of the same prices or costs in Luxembourg's main trading partners,³ all expressed in a common currency. The weight attached to each trading partner reflects its importance in Luxembourg's external trade.

The chart illustrates Luxembourg's competitiveness indicators extended to 2013 using the recent Eurosystem projections.⁴ For each series, an increase signals that prices or costs are growing faster in Luxembourg than abroad (deteriorating competitiveness).

³ The group of trading partners considered includes the 26 other members of the European Union and eleven additional countries: Switzerland, Norway, USA, Canada, Japan, Australia, New Zealand, South Korea, China, Hong Kong and Singapore.

⁴ The years 2011-2013 are based on projections of the deflators for the 17 euro area countries and technical assumptions for the UK, Switzerland, USA and Japan.

Chart 1.7: National Competitiveness Indicators based on consumer prices, GDP deflator and unit labour costs (ULC) for the whole economy



Sources: Eurosystem and BCL calculations

The indicator based on consumer prices improved by -1.8% in 2010 and registered a further improvement in the first quarter of 2011, the latest available observation (-1.4% on an annual basis). According to the projections, this indicator should deteriorate again in 2011 (+0.5%) and continue to deteriorate over the whole projection horizon (+0.7% in 2012 and +0.5% in 2013). The competitiveness indicator based on the GDP deflator deteriorated by +1.8% in 2010 and +2.1% in the last quarter of 2010 (latest available observation). The projections anticipate a sharp deterioration in 2011 (+2.6%) and slower deterioration in 2012 (+0.6%) and 2013 (+0.3%). The indicator based on unit labour costs in the whole economy indicates an improvement of -2.0% in 2010. According to the projections, cost-competitiveness should deteriorate by +1.1% in 2011, +2.8% in 2012 and +0.8% in 2013.

Box 1.1:

COMPETITIVENESS: SOME FUNDAMENTAL ASPECTS

In a speech at the University of Liège in February 2011, the President of the European Central Bank presented some fundamental elements underlying competitiveness. Competitiveness may be defined as “a country’s ability to achieve sustainable improvements in the economic living standards and job opportunities of its citizens in an open economy”. This is especially important within the Economic and Monetary Union (EMU), where excessive competitiveness differentials may lead to persistent imbalances among Member States. The competitiveness strategy of EMU Member States should be based on the following key elements.

1. Unit labour costs in the non-tradable sector are essential for competitiveness

Non-tradable goods and services are those not usually traded internationally because of physical barriers, national regulations or high transport

costs. Firms producing these goods and services are commonly known as the “sheltered” or “protected” sector while those producing tradable goods and services (usually those in manufacturing) are known as the “exposed” sector subject to international competition.

Non-tradable goods and services are important inputs in the production of tradable goods. Thus, unit labour cost increases in the sheltered sector may force tradable sector firms to reduce their profit margins as they cannot transmit higher input prices to international prices. In the long run this can shrink the exposed sector and harm potential growth.

Table 1 shows that between 1998 and 2010 unit labour costs in the manufacturing sector increased by 20.3% in Luxembourg against 5.0% in the neighboring countries and 8.6% in the euro area (in cumulative terms).

Table 1: Cumulated growth of unit labour costs by economic sector (1998 to 2010) (in percentage)

	Belgium	France	Germany	Italy	Netherland	Euro area	United Kingdom	Luxembourg
Whole economy	25.5	23.7	5.2	33.0	28.1	22.2	39.4	35.0
Industry	7.9	6.8	0.3	31.2	3.4	7.9	29.7	19.3
Manufacturing	8.4	6.0	0.5	35.8	2.7	8.6	21.3	20.3
Construction	19.5	57.7	14.8	69.9	66.3	40.3	97.4	51.8
Trade, transports and communication	23.2	19.5	6.0	25.6	3.8	17.1	26.0	7.2
Financial activities, real estate and business services	30.5	32.5	28.2	42.1	40.9	37.7	36.4	56.6

Remark: cumulated growth is computed by comparing the average labour cost level in 1998 to the average level in 2010

Source: OECD and BCL calculations

2. *Public wages affect competitiveness through private sector wages*

Recent empirical analyses suggest that an increase in public wages may affect private sector wages through a variety of channels influencing competitiveness.

First, an increase in public sector employment raises the probability that the unemployed will find a job, increasing their reservation wage also in the private sector. In addition, an increase in public sector wages raises the value of public sector jobs to the unemployed. Thus, public wages may exert pressure on wage bargaining and crowd out private sector employment. Secondly, if wages in the public sector grow faster than in the private sector, the latter may increase to reduce the augmented wage differential between these two sectors. This is known as a "signaling effect" from the public to the private sector. Lastly, tax increases required to finance pay increases in the public sector impose an additional tax burden on the private sector, raising labour costs beyond productivity increases.

Graph 1 indicates that between 2000 and 2010 compensation per employee (in the whole economy) increased at a higher pace in Luxembourg (3.0%) than in its neighboring countries or the euro area. In addition, compensation per employee grew faster in the public sector (3.2% on average) than in the private sector (2.9%).¹

3. *High and persistent inflation differentials undermine competitiveness*

A monetary union and the price stability objective are not incompatible with temporary deviations from average euro area inflation. Transitory

inflation differentials may reflect differences in economic development of Member States, in their degree of economic openness or their relative business cycle position. Inflation differentials represent a potential adjustment factor in the absence of nominal exchange rates. However, evidence increasingly suggests that differentials within the euro area can hardly be explained by catching-up effects, the so-called Balassa-Samuelson effect. Instead, they may indicate inappropriate macroeconomic policies in some Member States. Automatic wage indexation - as in Luxembourg - may feed persistent inflationary spirals, increasing inflation differentials and competitiveness losses. It is worth noting that Luxembourg has suffered increasing cumulated inflation differentials since the launch of EMU.²

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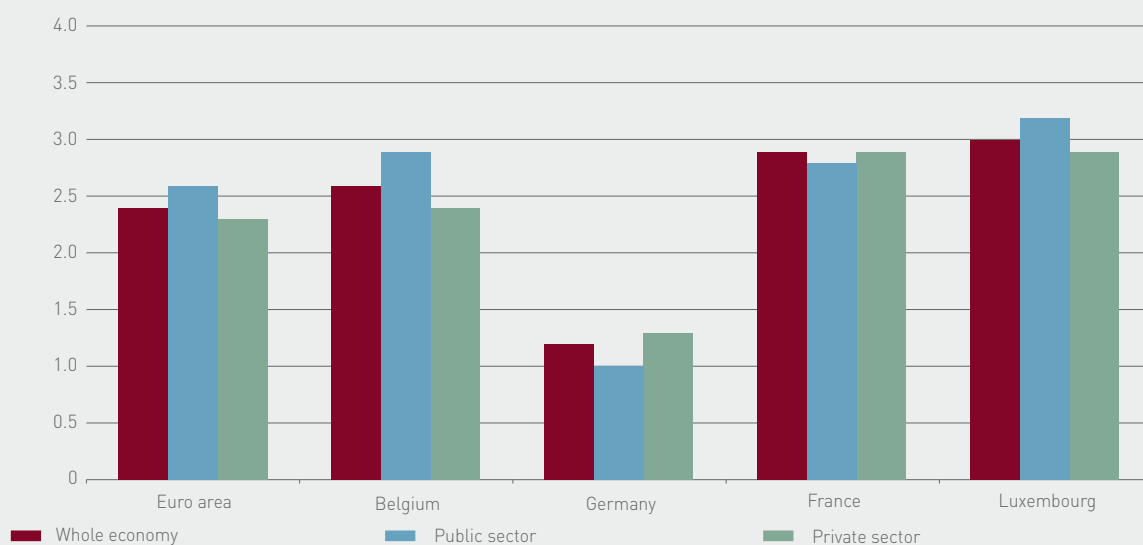
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1 Data relative to the private sector is computed by deducting the figures of the sectors L to P from the figures of the whole economy.

2 Please refer to the BCL Bulletin 2011/1

Chart 1: Average annual growth rate of compensation per employee by sector (2000-2010) (in percentage)



Remark: due to missing data on public employment, this graph refers to 2000-2009 for the euro area and 2000-2008 for France. Remaining countries refer to 2000-2010.

Source: Eurostat and BCL calculations

1.2.2 The labour market

1.2.2.1 Employment

Following the pick-up in demand, employment growth accelerated to 1.8% in 2010, after 1.1% in the previous year. Available data suggest a stabilisation of employment growth during the second half of 2010 and in early 2011.

Job vacancies increased throughout 2010, indicating improving employers' confidence. In 2010, improved labour market conditions contributed to the net creation of more than 6 100 jobs. Regarding the various components, after a sharp deceleration during the crisis, annual growth of non-resident employment has accelerated over the whole year of 2010 to 2.6% in April 2011. National annual employment growth has stabilised at around 2.0% since the third quarter of 2010.

The sectoral decomposition indicates that all economic sectors contributed positively to employment growth in 2010, except for industry (-0.1 pp).

Table 1.3: Annual employment growth (in%) and rate of unemployment

	Employees*	Self-employed*	Total domestic employment*	Incoming cross-border commuters*	National employment*	Active population*	Unemployment (narrow definition)	Unemployment (narrow definition), seasonally adjusted	Unemployment (broad definition)	Unemployment (broad definition), seasonally adjusted
2005	3.2	0.2	3.0	5.8	1.7	2.1	4.2%	4.3%	6.1%	5.3%
2006	4.1	-0.7	3.8	6.7	2.0	2.1	4.4%	4.4%	6.3%	5.5%
2007	4.6	0.5	4.4	7.9	2.4	2.3	4.4%	4.4%	6.1%	5.5%
2008	5.0	2.5	4.8	7.2	3.2	3.2	4.4%	4.4%	5.7%	5.7%
2009	1.2	1.4	1.2	1.0	1.4	2.8	5.7%	5.7%	7.0%	7.0%
2010	1.7	1.4	1.7	1.7	1.7	2.2	6.0%	6.0%	7.6%	7.6%
2010Q1	0.7	3.3	0.8	0.3	1.2	2.1	6.3%	6.0%	7.8%	7.6%
2010Q2	1.7	1.4	1.7	1.6	1.7	2.1	5.7%	6.0%	7.4%	7.6%
2010Q3	2.2	0.4	2.1	2.2	2.0	2.2	5.8%	6.1%	7.4%	7.6%
2010Q4	2.4	0.7	2.3	2.7	2.0	2.2	6.3%	6.1%	7.9%	7.8%
Jan-10	0.3	3.2	0.4	-0.2	0.9	1.9	6.4%	5.9%	7.8%	7.5%
Feb-10	0.7	3.4	0.9	0.4	1.2	2.1	6.4%	6.0%	7.9%	7.6%
Mar-10	1.0	3.2	1.2	0.8	1.5	2.2	6.2%	6.0%	7.7%	7.7%
Apr-10	1.5	1.7	1.5	1.4	1.6	2.1	5.9%	6.0%	7.5%	7.6%
May-10	1.7	1.2	1.6	1.4	1.8	2.1	5.6%	6.0%	7.3%	7.5%
June-10	1.9	1.3	1.9	1.9	1.9	2.2	5.6%	6.1%	7.3%	7.6%
July-10	2.0	0.6	1.9	2.0	1.9	2.2	5.7%	6.1%	7.3%	7.6%
Aug-10	2.3	0.5	2.2	2.3	2.0	2.3	5.8%	6.1%	7.4%	7.6%
Sep-10	2.3	0.3	2.2	2.4	2.0	2.2	5.9%	6.1%	7.6%	7.7%
Oct-10	2.4	0.8	2.3	2.6	2.1	2.3	6.1%	6.1%	7.8%	7.7%
Nov-10	2.4	0.6	2.3	2.6	2.0	2.2	6.2%	6.1%	7.9%	7.8%
Dec-10	2.4	0.6	2.3	2.8	2.0	2.2	6.5%	6.1%	8.1%	7.9%
Jan-11	2.5	0.6	2.4	2.4	2.4	2.2	6.3%	5.9%	8.0%	7.7%
Feb-11	2.4	0.6	2.3	2.6	2.1	1.8	6.2%	5.8%	7.9%	7.6%
Mar-11	2.4	0.7	2.3	2.6	2.1	1.8	5.9%	5.7%	7.7%	7.6%
Apr-11	2.2	1.6	2.2	2.6	1.9	1.9	5.9%	6.0%	7.7%	7.7%

* Data from February 2011 to April 2011 are estimates. Furthermore, data related to unemployment in April 2011 are provisional data.

Sources: ADEM, IGSS, STATEC and BCL calculations

1.2.2.2 Unemployment

Narrow unemployment reached 6.0% in 2010, after 5.7% in 2009. The seasonally adjusted narrow unemployment rate has stabilised around 6.0% since the end of 2009 and the latest available data suggests a slight decrease during early 2011. Data for April 2011 are still provisional and will probably be revised (downwards). The "broad" unemployment rate increased to 7.7% in 2010, from 7.0% in the previous year. This increase can mainly be explained by the growing number of unemployed people benefiting from "employment support measures". In fact, the average monthly number of support measures has increased by 24.1% in 2010 compared to 2009.

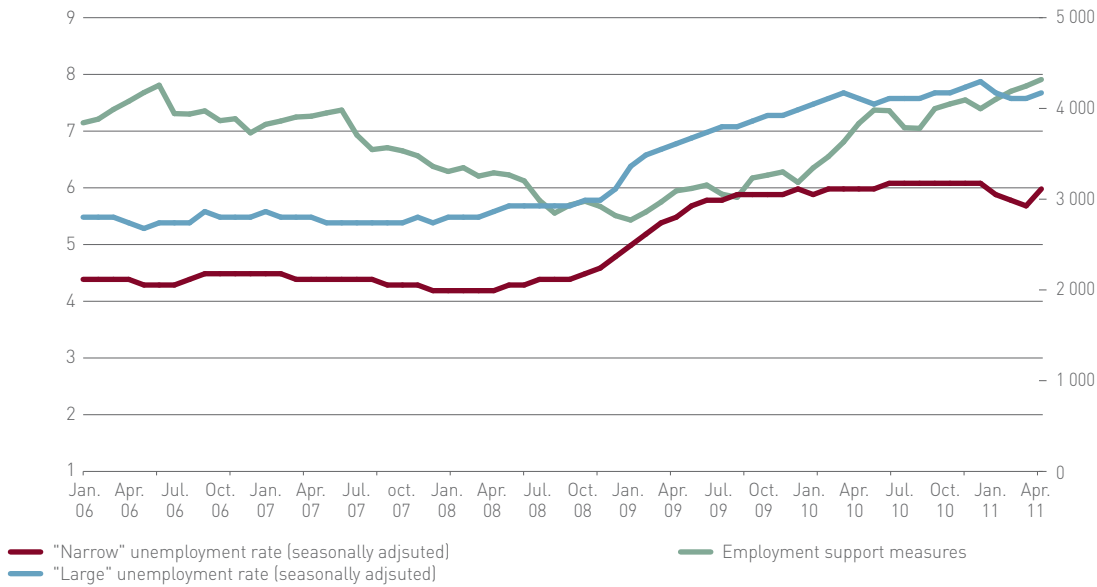
Firms continue applying for short-time work but their use has sharply decreased since mid-2009 with requests mainly stemming from the industrial sector. The favourable evolution of short-time work suggests that the phasing out (by the end of 2011) of the flexible conditions under which firms are allowed a recourse to this scheme could have a relatively limited impact on unemployment.

According to IGSS data, the number of hours worked per employee slightly increased in 2010 (by 0.2%). This moderate increase could be explained by the fact that the number of non-worked hours⁵ remained at a rela-

⁵ This indicator includes the number hours not worked by employees because of cyclical unemployment (short-time work) as well as hours not worked because of unfavourable weather conditions. It is worth noting that the bad weather conditions registered in early 2010 and at the end of the year certainly contributed to lower activity in some sectors (such as construction) and thus to decreasing working time.

tively high level (despite the decline relative to 2009). Another possible explanation relates to the fact that the number of part-time jobs increased at a higher pace than full-time jobs in 2010 (with respectively 2.2% and 1.7%).

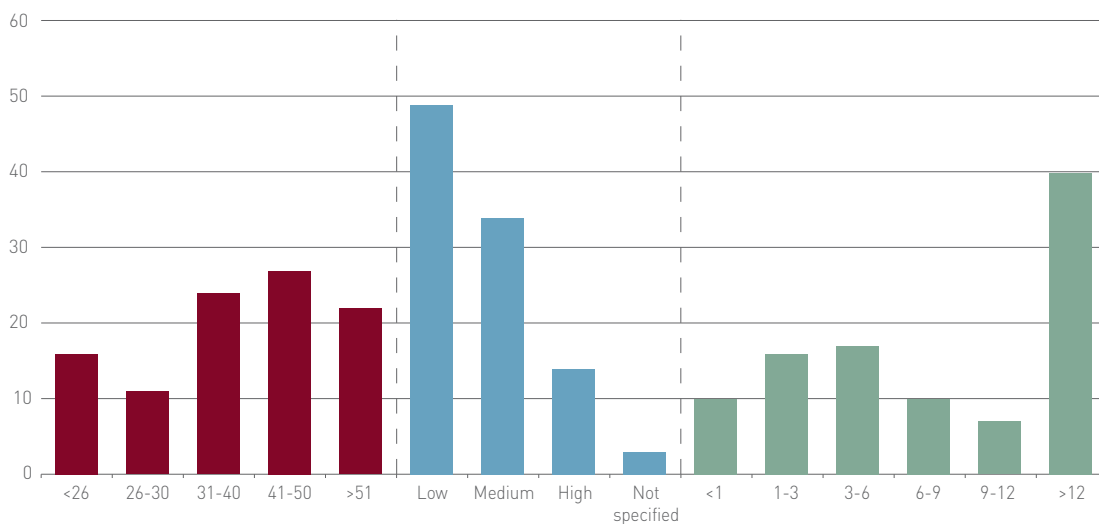
Chart 1.8: Unemployment rate and employment support measures (in percentage of active population and in units)



Sources: ADEM, IGSS, Statec

The dynamic growth of job vacancies contributed to an improvement in the matching between labour demand and labour supply. Nevertheless, as witnessed by the graph below, labour mismatch remains high, in particular for a priori more vulnerable groups of unemployed people. In fact, almost one half of all unemployed people have a lower level of education and one fifth of unemployed people are older than 51 years. Furthermore, 20.0% of resident unemployed people have reduced work ability (for example as a result of a physical handicap). These people usually face greater difficulties to (re-)enter the labour market and tend to contribute to long-term unemployment and structural unemployment. Long-term unemployment has steadily increased in the last few years and accelerated since the crisis.

Chart 1.9: Breakdown of unemployment according to various characteristics (in 2010) (in percentage of total number of unemployed people)



Sources: ADEM, IGSS, Statec and BCL calculations

The last available observations suggest improving labour market conditions. However, it is likely that the deterioration in unemployment (induced by the crisis) will partially increase structural unemployment.

1.2.3 Sectoral developments

1.2.3.1 Industry and construction

The industrial production per working day index, which is corrected for price developments, has strongly rebounded in 2010. The latest data indicate that the increase in industrial production was modest in the beginning of the year 2011 (+2.1% yoy in February 2011). The sectoral breakdown of production per working day suggests fairly heterogeneous developments in the different branches in the beginning of the current year. Production of investment goods and steel industry strongly increased in February 2011 (by respectively 18.6% and 13.1% yoy). The level of production slightly increased in the energy sector in February 2011 (+3.9%), and it decreased in both the intermediate goods sector (-1.6%) and the consumption goods sector (-2.0%).

Table 1.4: Industry-related indicators (on a yoy variation)

	2009	2010	2009-Q4	2010-Q1	2010-Q2	2010-Q3	2010-Q4
Production per working day - Total	-15.9	10.2	2.8	15.6	14.5	5.2	6.2
Intermediate goods (ppwd)	-16.6	10.0	12.8	23.3	16.6	-0.1	2.2
Capital goods (ppwd)	-29.9	12.8	-22.2	-0.7	17.9	22.1	12.4
Consumer goods (ppwd)	-5.3	11.8	7.0	17.2	6.2	11.0	13.6
Energy (ppwd)	-2.7	11.8	0.7	9.2	22.9	4.1	12.1
Industry excluding steel (ppwd)	-14.8	9.6	-0.6	13.4	12.2	6.5	6.7
Steel industry (ppwd)	-24.2	15.8	46.1	36.9	35.7	-5.7	1.7

Source: STATEC

The activity of the construction sector, which showed some signs of relative resilience in 2008 and 2009, was not very dynamic in 2010. The total number of building permits for housing was more or less stable in 2010 in comparison with 2009. The level of production in the construction sector almost stagnated in 2010, despite the increase in total hours worked. Indicators available for the beginning of the year 2011 indicate that the level of production was buoyant in both January and February 2011, after the decline observed at the end of 2010 due to adverse weather conditions.

Table 1.5: Construction sector-related indicators (on a yoy variation)

	2009	2010	2009-Q3	2009-Q4	2010-Q1	2010-Q2	2010Q3	2010-Q4
Production per working day -Total	1.1	0.2	5.6	3.1	-1.3	4.0	1.6	-3.8
Hours worked	-0.9	1.2	3.5	-5.0	-2.6	9.1	-6.0	4.9
Building permits (housing)	-8.5	0.3	-2.8	-4.4	40.4	13.7	-3.8	-21.0

Source: STATEC

1.2.4 Financial sector

1.2.4.1 Credit institutions' balance sheets

Between December 2009 and December 2010, the aggregated balance sheet of Luxembourgish banks decreased by 3.5% (28 205 million euro) to reach 769 256 million euro at the end of 2010.

Unlike in the previous quarters, this decrease is not mainly due to the fall of the interbank loans. Indeed, interbank loans fell by 19.3% between January 2009 and January 2010, while the decline between December 2009 and December 2010 amounted to 2.8% only. However, the amount of the interbank loans at the end of 2010 (364 047 million euro) has to be compared with the 509 120 million euro recorded during the third quarter of 2008.

The value of the investment portfolio fell by 26 743 million euro (-12.5%) at the end of 2010, to reach 187 683 million euro. This decline can be explained by the fall of a number of market indexes since April 2010. Moreover, in this context banks are trying to sell some of the securities that they are holding, in order to reduce the amount of their risky assets and to improve the quality of their balance sheet. The composition of their portfolio is the following: 92.4% is invested in fixed income securities, and only 7.4% in variable income securities.

Lastly, other assets, which include derivative financial instruments, rose by 28.6% in 2010.

Table 1.6: Main figures related to the asset side of the aggregate balance sheet
(in million euro, outstanding amounts at the end of the period)

Assets	Amounts in million euro			Variation in million euro and in %				Relative weight ¹⁾
	12-2009	12-2010	03-2011	12-2009 - 12-2010		12-2010 - 03-2011		03-2011
				in million euro	in %	in million euro	in %	
Interbank loans	374 389	364 047	372 689	-10 342	-2.8	8 642	2.4	48.6
Loans to non-banking customers	188 149	191 174	191 768	3 024	1.6	594	0.3	25.0
Portfolio investment	214 425	187 683	176 821	-26 743	-12.5	-10 862	-5.8	23.1
Other assets	20 497	26 353	24 851	5 856	28.6	-1 502	-5.7	3.2
Total assets	797 461	769 256	766 129	-28 205	-3.5	-3 127	-0.4	100.0

1) Relative weight in relation to total assets

Source: BCL

The conclusions derived from the asset side of the aggregated balance sheet can also be applied to the liability side. On an annual basis, outstanding interbank debts fell by 22 350 million euro to 348 243 million at the end of 2010 (-6% compared to 2009). This amount also includes the operations with the BCL which has reduced its supply of liquidity to the banking sector since September 2009.

The deposits from non-banking customers represented 270 017 million euro at the end of 2010, 0.3% less than at the end of 2009. These deposits represent the second largest source of income for banks.

Lastly, the outstanding amount of debt securities at the end of 2010 was 72 278 million euro, 11.8% less than at the end of 2009.

Table 1.7: Main figures related to the liability side of the aggregate balance sheet
(in million euro, outstanding amounts at the end of the period)

Liabilities	Amounts in million euro			Variation in million euro and in %				Relative weight ¹⁾
	12-2009	12-2010	03-2011	12-2009 - 12-2010		12-2010 - 03-2011		03-2011
				in million euro	in %	in million euro	in %	
Interbank debts	370 593	348 243	347 750	-22 350	-6.0	- 493	-0.1	45.4
Deposits to non-banking customers	266 619	265 804	270 017	- 815	-0.3	4 213	1.6	35.2
Debt securities issued	81 914	72 278	67 906	-9 636	-11.8	-4 371	-6.0	8.9
Other liabilities	78 336	82 931	80 456	4 596	5.9	-2 476	-3.0	10.5
Total liabilities	797 461	769 256	766 129	-28 205	-3.5	-3 127	-0.4	100.0

1) Relative weight in relation to total liabilities

Source: BCL

1.2.4.2 Employment in the banking sector

Employment in Luxembourg's banking sector decreased by 3.6% between December 2008 and December 2010. This represents a loss of 953 positions. Employment in the banking sector reached its peak in the third quarter of 2008 with 27 269 employees; since then this number has kept falling.

At the end of March 2011, 26 218 people were working in the banking sector in Luxembourg, compared with 26 255 at the end of December 2010.

Chart 1.10: Evolution of the employment in the banking sector between December 1994 and March 2011



Source: BCL

1.2.4.3 Retail interest rates in Luxembourg

The cost of new housing loan contracts with variable interest rate conditions decreased by 15 basis points between the end of December 2009 (2.03%) and the end of December 2010 (1.88%). At the end of the first quarter of 2011, an interest rate increase of 4 basis points was passed on to customers and drove the cost of housing loans with variable interest rates up to 1.91%. New housing loan contracts were concluded at a historical low of 1.81% at the end of February 2010.

While January and February were characterised by a slow downward trend of rates for consumption loans rates, these rates rose and stabilised around 4.8% by the end of October 2010. During the first quarter of 2011, the observed decline was much more significant due to the so-called Luxembourg "car festival". Between December 2009 and December 2010, the cost of new business consumption loans with interest rate fixation over one and up to five years decreased by 61 basis points from 5.17% down to 4.56%. Between December 2010 and March 2011, the cost further diminished by 55 basis points down to 4.01%.

The cost of consumption loans with interest rates fixation over five years increased by 30 basis points between December 2009 (4.76%) and December 2010 (5.06%). This cost was reduced by another 65 basis points to 4.41% from December 2010 until March 2011.

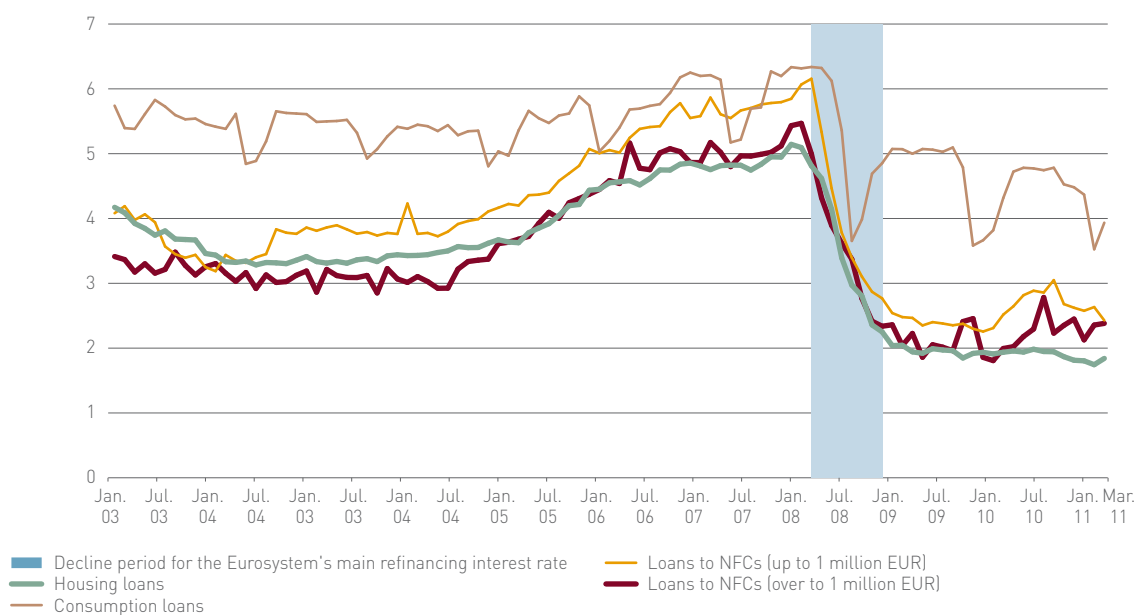
Interest rates of the other loan categories increased by 50 basis points between December 2009 (1.76%) and December 2010 (2.26%). This trend was followed by a decrease of 6 basis points observed from December 2010 to March 2011 (2.20%). A majority of the other loan categories is offered to non-domestic counterparts (mainly households out of the Monetary Union).

The cost of new loans to non-financial corporations (NFCs) up to one million euro increased by 27 basis points between December 2009 (2.42%) and December 2010 (2.69%). This was followed by a decrease of 19 basis points throughout the first three months of 2011 (to 2.50% in March 2011).

Regarding new contracts of over one million euro, interest rates increased by 49 basis points during 2010 and decreased by 7 basis points between December 2010 and March 2011 leading to a level of 2.45%.

Term deposit rates (with maturities below one year) for households increased by 32 basis points between December 2010 (0.50%) and March 2011 (0.82%). Interest rates proposed to non-financial corporations in the same category increased by 34 basis points from 0.40% in December 2009 up to 0.74% in March 2011.

Chart 1.11: Loans to households and to non financial corporations between January 2003 and March 2011 (in %)



Source: BCL

1.2.4.4 Profit and loss accounts

On the basis of provisional figures, credit institutions in Luxembourg, including their branches abroad, registered a reduction of their profit before impairment, provisions and tax by 18.5% between end-2009 and end-2010. The absolute value of the profit mentioned amounted to 5 031 million euro in 2010.

Income

The reduction in the size of banks' balance sheet combined with a decrease in possibilities to generate profit from term transformation in the years 2009 and 2010 resulted in much lower income from interest rate business. The "interest receivable" declined by 34.1% in relation to 2009 while the "interest payable" dropped by 38.9% over the same period. These developments resulted in a net interest income which amounted to 5 683 million euro in 2010, which was 14.6% below the result in the previous year. Also, the relative importance of the net interest income measured against the gross income fell to 57.0% after 69.0% in 2008 and 61.9% in 2009.

The income from securities - included in the net interest income - generated 750 million euro in 2010 which was slightly less than in 2009 (773 million euro).

Unlike the net interest income, the net income from commissions increased strongly between 2009 and 2010 and came close to its level in 2008. This development can mainly be explained by exchange traded values influencing the volume of assets under management which serve as a basis for the calculation of management commissions. The development of exchange traded values also triggers an adaptation in the volume of private banking investments. To sum up, the net income from commissions in the banking sector jumped by 19.4% between 2009 and 2010 as a result of a rebound in financial markets.

While the abating impact of the financial crisis and the reduction of the risk premia led to an increase in the market value of assets, the increase has partly been offset by a decrease in sovereign papers' values. In 2009, the recovery of financial markets had generated especially high gains in market values. As a consequence, the other net income which amounted to 169 million euro in 2010 plunged by 611 million euro or 78.3% compared to the peak in 2009. It must be noted, however, that this result was still higher than the net loss of 176 million euro in the second quarter of 2010, after a net income of 316 million euro in the first quarter of the same year.

Table 1.8: Aggregate profit and loss account of Luxembourg credit institutions 2010 in comparison to 2009
Result of Luxembourg banks, including their foreign branches
(in million euro, outstanding amounts at the end of the period)

	Debit and credit items	2009	2010	Variation in %	Variation in million euro
1	Interest receivable	27 755	18 278	-34.1%	-9 477
2	Income from securities	773	750	-3.0%	-23
3	Interest payable	21 906	13 375	-38.9%	-8 531
4	Net interest income	6 622	5 653	-14.6%	-969
5	Commission income	3 188	3 808	19.4%	620
6	Income from foreign exchange	103	288	179.6%	185
7	Other net income	780	169	-78.3%	-611
8	Net non-interest income	4 071	4 265	4.8%	194
9	Gross income	10 693	9 918	-7.2%	-775
10	Staff costs	2 491	2 669	7.1%	178
11	Other administrative expenditures	1 747	1 937	10.9%	190
12	General administrative expenditures	4 238	4 606	8.7%	368
13	Write-downs of non-financial fixed assets	279	281	0.7%	2
14	Results before provisions and tax	6 176	5 031	-18.5%	-1 145
15	Net provisions	256	21	-91.8%	-235
16	Impairment	2 432	555	-77.2%	-1 877
17	Other results	13	92	592.5%	79
18	Results before tax	3 501	4 547	29.9%	1 046
19	Tax on income and profit	875	638	-27.1%	-237
20	Net result	2 626	3 909	48.9%	1 283

Data were revised in the light of new information. Differences may appear due to rounding.
Provisional figures for 2010
Source: BCL

These figures underline that the net income is characterised by a high and constant volatility which is in addition heterogeneous across banks.

The gross income which results from the different areas of banking activity declined at a rate of 7.2% in annual comparison and amounts to 9 918 million euro in 2010.

Table 1.9: Selected income and cost items of the aggregate profit and loss account^{1) 2)}
of Luxembourg credit institutions in relation to gross income
Results of Luxembourg banks, including their foreign branches (in relation to gross income, end of period)

	Income and cost items	2008	2009	2010
I	Components of net income			
	Net interest income	69.0	61.9	57.0
	Commission income	35.2	29.8	38.4
	Income from foreign exchange	3.6	1.0	2.9
	Other net income	-7.7	7.3	1.7
II	Application of net income			
	General administrative expenditures	42.2	39.6	46.4
	Net provisions	-1.0	2.4	0.2
	Impairment	52.3	22.7	5.6
	Tax on income and profit	2.5	8.2	6.4
	Net result	1.6	24.6	39.4

1) Data were revised in the light of new information. Differences may appear due to rounding.
2) Provisional figures for 2010.
Source: BCL

Cost

The general administrative expenditure increased at a rate of 8.7% reflecting a 7.1% growth of staff costs and 10.9% growth of other administrative expenditure. The growth of this expenditure in connection with a weaker gross income implied an increasing cost income ratio amounting to 46.6% in 2010 in comparison to 39.6% in 2009.

Depreciations and net provisions significantly dropped in 2010, which can be partly explained by the abating market tensions but also by a generally improved quality of the securities held by credit institutions. This led to a drop of 91.8% of net provisions and of 77.2% in depreciations in annual comparison.

It is against this context that the net result of banks in Luxembourg must be seen. It jumped by 48.9% to 3 909 million euro in 2010 compared to 2 626 million euro in 2009.

First quarter 2011

The provisional figures for the first quarter of 2011 confirm the developments observed in 2010.

At the end of the first quarter of the current year, the net interest income of 1 453 million euro slid 1.1% below its value at the end of March 2010. The pace of diminishing net interest income – on a year-on-year basis – was slowing down in comparison to the preceding quarters.

The income net of interest business climbed at a rate of 6.6% compared to the first quarter of 2010, which was mainly due to a soaring net income from commissions (+19.8%) reaching 1 103 million euro in the first quarter of the current year.

The general administrative expenditure increased by 4.6% to 1 211 million euro. The main factor explaining this development was the position of other administrative expenditure which predominantly drove the cost. The staff cost, however, showed almost a side movement (+0.7%).

The result before depreciation, net provisions and tax, thus, stayed relatively constant (+0.7%) between the end of March 2010 and 2011 and amounted to 1 609 million euro.

Table 1.10: Aggregate profit and loss account of Luxembourg credit institutions comparing the first quarters of 2010 and 2011

Results of Luxembourg banks, including their foreign branches (in million euro, outstanding amounts at the end of the period)

	Income and cost items	March 2010	March 2011	Variation in %	Variation in million euro
1	Interest receivable	5 144	5 050	-1.8%	-94
2	Income from securities	143	118	-17.5%	-25
3	Interest payable	3 818	3 715	-2.7%	-103
4	Net interest income	1 469	1 453	-1.1%	-16
5	Commission income	921	1 103	19.8%	182
6	Income from foreign exchange	118	46	-61.0%	-72
7	Other net income	316	290	-8.2%	-26
8	Net non-interest income	1 355	1 439	6.2%	84
9	Gross income	2 824	2 892	2.4%	68
10	Staff costs	705	710	0.7%	5
11	Other administrative expenditures	453	501	10.6%	48
12	General administrative expenditures	1 158	1 211	4.6%	53
13	Write-downs of non-financial fixed assets	68	72	5.9%	4
14	Results before provisions and tax	1 598	1 609	0.7%	11

Data were revised in the light of new information. Differences may appear due to rounding. Provisional figures for 2010.

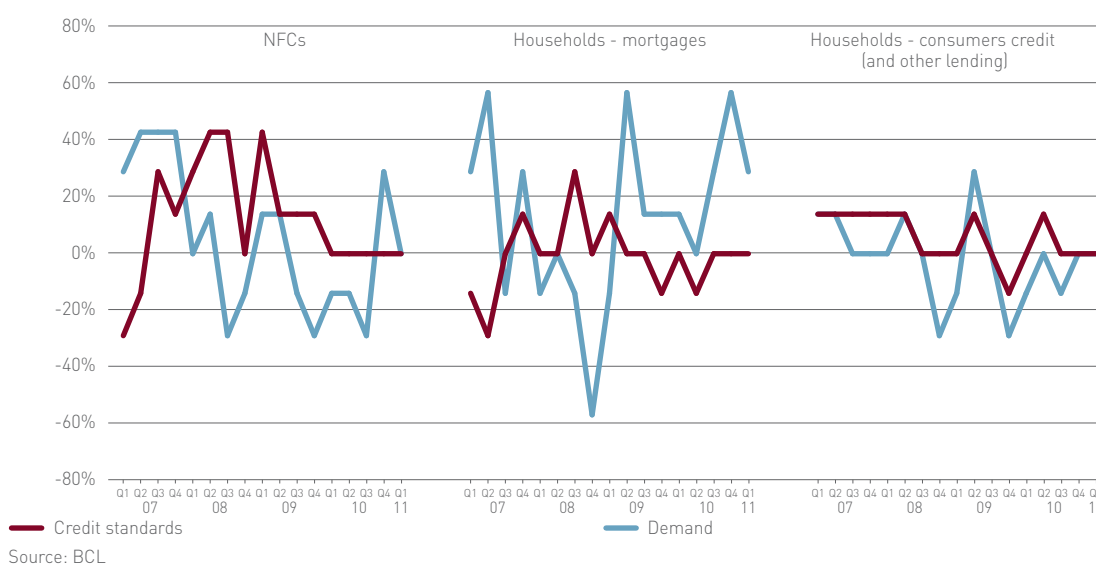
Source: BCL

The Bank Lending Survey

The Bank Lending Survey (BLS), carried out by the Eurosystem since end-2002, assesses credit conditions in the euro area. Every quarter, a questionnaire is sent out to the seven banks from the Luxembourg sample; the survey questionnaire comprises several 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". Concerning 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 lending 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 the regular key questions in terms of net percentages.

Chart 1.12: The evolution of credit standards and loan demand in Luxembourg (net percentages)



NFCs: In net terms, corporate credit standards remained unchanged in 2010 as well as in the first quarter of 2011. However, lending standards remain restrictive to the extent that the cumulated net tightening recorded since the second quarter of 2007 has not been neutralised, let alone reversed.

Net demand was fairly volatile but, overall, rather subdued or negative during the financial crisis. However, recent developments are more favourable and banks reported a rebound in the final quarter of 2010, though net percentages dropped to zero in the latest survey round.

Households (housing loans): Overall, credit standards applied to loans for house purchases have eased slightly in the period under review. Indeed, one bank reported an easing of lending standards in the second quarter of 2010, while net percentages stood at zero in the other survey rounds.

Net demand for housing loans was positive on average, in particular in the last quarter of 2010 when four banks reported a rise in demand. These developments are largely owing to favourable housing market prospects.

Households (consumer credit and other lending): Overall, credit standards applied to consumer credit (and other lending) have tightened slightly in the period under review, while net demand has fallen somewhat.

THE EVOLUTION OF CREDIT TO THE PRIVATE SECTOR

This box reviews the latest credit developments in Luxembourg. While previous publications only analysed credit developments to households and firms, this box looks at the evolution of credit to the whole private sector¹ before and notably since the onset of the crisis.

The box draws on the following sources: balance sheet data (BSI reporting) collected from the MFI sector, interest rate statistics (MIR data) which also cover new lending volumes, and the Bank Lending Survey (BLS) which provides some information on demand and supply developments.

The private sector is made up of households, non-financial corporations (NFCs), insurance corporations and pension funds (ICPFs) and other financial intermediaries (OFIs). Loans to households are also split according to the purpose of the loan (lending for house purchase, consumer credit and other lending). Slightly more than half of all loans granted by Luxembourgish MFIs to euro area private sector counterparties actually go to non-residents.

Although lending by domestic MFIs is more volatile than lending by euro area MFIs, the underlying trend developments are similar. The sharp drop in the annual growth rates of the two series in the fourth quarter

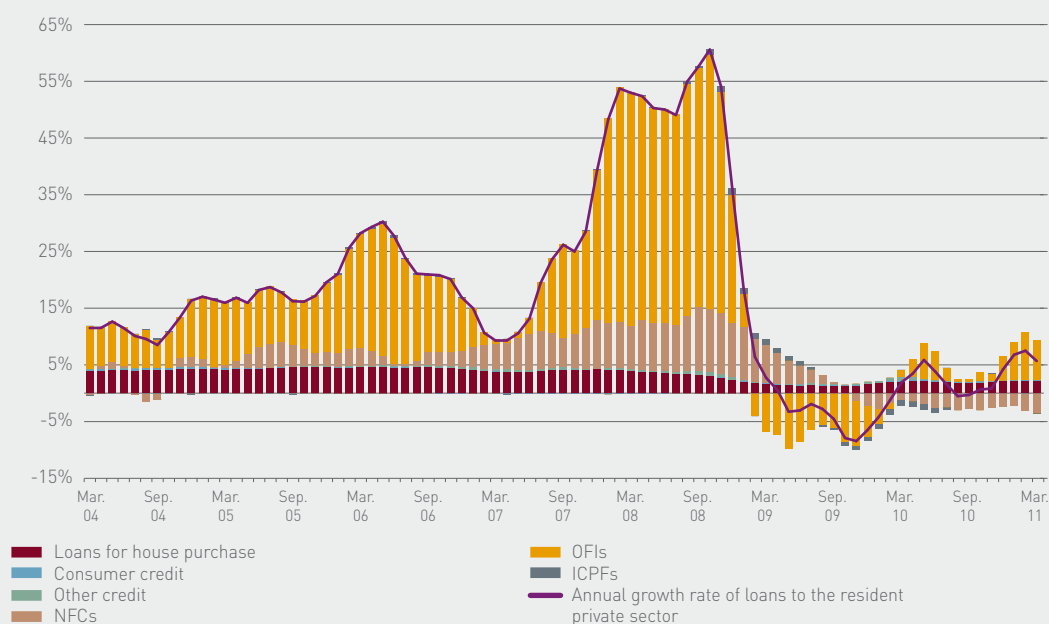
of 2008 in particular is worth mentioning, as is the subsequent rebound in the course of 2010. Regarding the evolution of loans granted by domestic MFIs more specifically, the sharp fall in the annual growth rate towards the end of 2008 was at first attributable to a strong decline in the contribution of lending to resident counterparties. The recovery discernable since 2010 is also largely owing to loans granted to resident counterparties. However, if the current underlying trends persist, credit to the private sector will continue to expand as the rebound in domestic lending is compounded by the pickup in lending to non-resident counterparties. The remainder of this box will focus on lending to resident counterparties only, given their stronger link to domestic economic developments.

At the end of the first quarter of 2011, roughly half of the outstanding loan amounts granted by resident MFIs were given to OFIs, which are largely made up of investment funds. About one third of the outstanding amounts were granted to households, in particular for house purchases, while the remaining 20% were granted to NFCs. The share of loans to ICPFs is insignificant. The sectoral composition of the outstanding loan amounts has important implications for credit developments and for the economy at large. For instance, mortgage loans are rather stable and more strongly connected to disposable income and housing market prospects, while loans to OFIs are much more volatile because of their role in liquidity management.

Chart 1 clearly shows that credit dynamics are strongly linked to the OFI sector. Thus, the sharp drop in lending to the resident private sector in the

1 "Private sector" shall in this box refer to "private sector excluding monetary and financial institutions (MFIs)".

Chart 1: Loans to the resident private sector - sectoral decomposition (annual growth rate in percentages per annum, contributions to growth in percentage points; three-month moving averages)



Source: BCL

fourth quarter of 2008 is first and foremost due to a fall in the contribution of OFI-lending; the recent rebound is also first and foremost owing to a pickup in OFI lending. In the course of several months, the year-on-year growth rate of credit to the resident private sector turned negative, after exceeding 60% in September 2008.

The contribution of corporate lending has also fallen continuously since the intensification of the financial crisis, turning negative roughly one year later. Although the evolution of loans for house purchase was at first fairly stable, credit dynamics slowed down with the onset of the financial turmoil in 2007. However, it is important to emphasise that mortgage developments already began to moderate before the financial crisis.

In spite of the significant share that OFIs have in total lending, a detailed analysis of this sector lies outside the scope of this box. However, the quasi-instantaneous sharp drop in OFI-lending following the collapse of Lehman Brothers is most probably linked to the fact that these loans are used in the framework of liquidity management practices of investment funds.

Chart 2 plots the evolution of loans for house purchase to resident households, in terms of month-on-month flows² available through the BSI reporting.

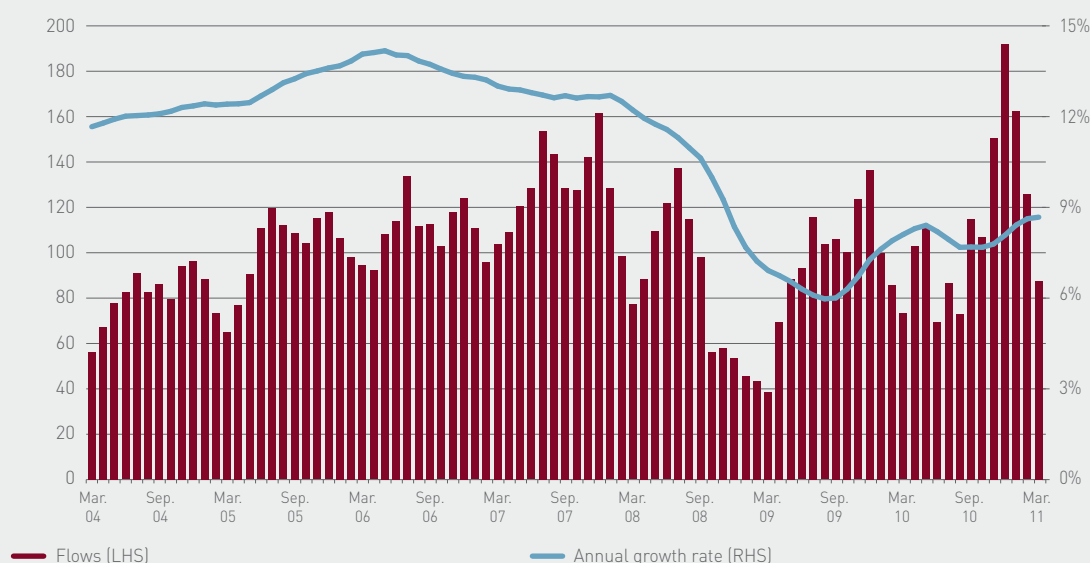
After gaining momentum in the course of 2009, loans for house purchase to Luxembourgish residents

continued to progress throughout 2010, as well as in 2011. Their progression was particularly buoyant in the fourth quarter of 2010. Month-on-month flows also rose strongly in the final quarter of 2010, before levelling off somewhat in the first three months of 2011. MIR data, moreover, confirmed that new business volumes for house purchase have risen in 2009 and remained vigorous in the following year, before falling somewhat in early-2011. However, it is worth mentioning that there are methodological differences between MIR and BSI data. According to the BLS, lending standards applied to loans for house purchase have not changed significantly since the onset of the financial turmoil, while net demand has been rising almost continuously since it rebounded in 2009.

As for corporate lending, the annual growth rate of loans to NFCs continued to deteriorate since the financial turmoil intensified in 2008, in spite of several rebounds which turned out to be ephemeral. Month-on-month flows have also rebounded somewhat, although they generally remain close to zero or negative. MIR data on new business volumes suggest that small loans up to one million euro have expanded vigorously since May 2010, sometimes even more so than in the past, while larger loans above one million euro remain subdued compared to 2008 and 2009. Although corporate credit standards tightened during the financial crisis, banks indicated that they have left credit standards unchanged since 2010. However, it is worth underscoring that lending standards have lead indicator properties. Net demand, which fell during the financial crisis, rebounded briefly in the fourth quarter of 2010, but remained unchanged again in the first quarter of 2011.

² Flows are differences in outstanding loan amounts, adjusted for a number of statistical effects.

Chart 2: Loans for house purchase to Luxembourg residents
(in million euro and percentages per annum; three-month moving averages)



Source: BCL

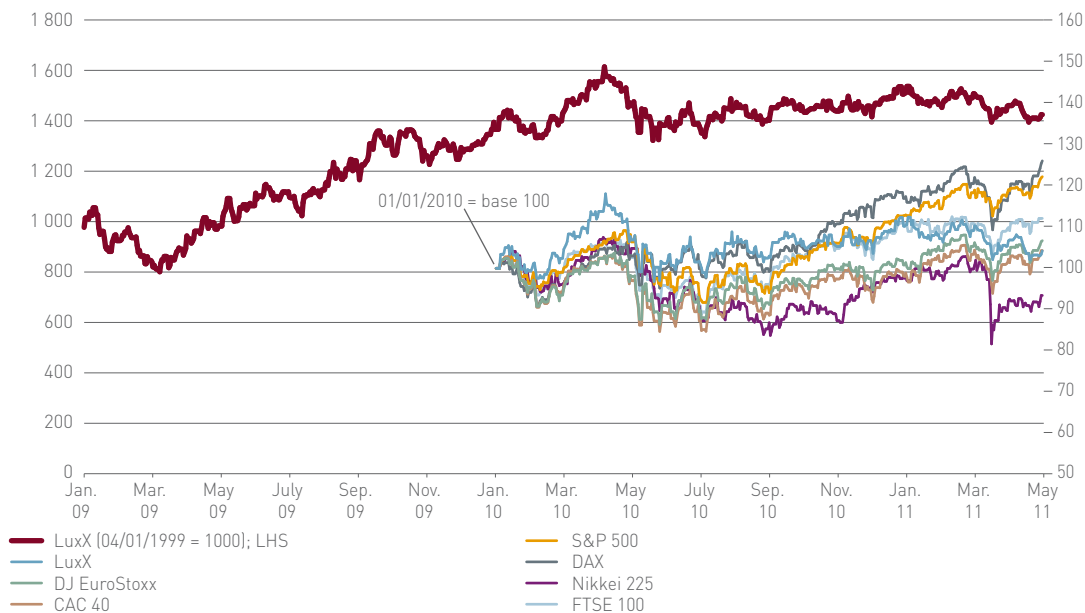
To conclude, the sharp drop in lending to the resident private sector is largely owing to a fall in OFI-lending. Moreover, the recent rebound in lending is also by and large due to a pickup in OFI-lending. As

for lending to households, the available information points to a sustained acceleration in mortgage credit dynamics. At the same time, corporate lending continues to deteriorate.

The Luxembourg Stock Exchange

Between end-2009 and end-2010, the LuxX index increased by 12%, going from 1 372 to 1 542. The LuxX subsequently fell to 1 424 at the end of May 2011. All in all, the index traded in a narrow range for most of the period under review. It is worth noting that, with effect from March 2011, the company Aperam was included in the composition of the basket of shares that is used to calculate the LuxX index.

Chart 1.13: The LuxX index and other major international indices
(Index: 01/01/2010 = 100 unless otherwise indicated; daily data)



Source: Bloomberg

ArcelorMittal shares, which make up 20% of the index, fell by 19% in 2010. Reinet Investments and SES, which each make up 20% of the index, rose by 8% and 18% respectively.

At the end of 2010, there were a total of 44 916 listings at the Luxembourg Stock Exchange, compared to 45 660 in 2009. The sectoral split of listings has remained roughly stable since 2009 and bonds continue to make up the highest share in total listings.

Total turnover by volume fell from 272 million euro in 2009 to 219 million euro in 2010, largely owing to a significant drop in share turnover.

1.2.4.5 Undertakings for collective investment

1.2.4.5.1 The evolution of the number of funds

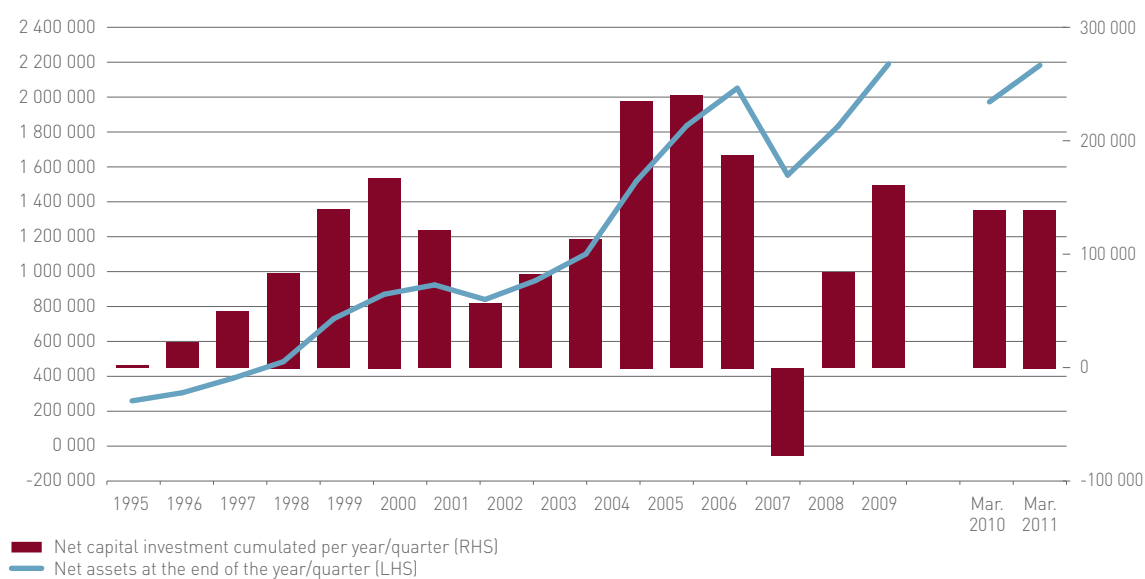
At the end of 2010, the official list included 3 667 UCIs, compared to 3 463 at the end of 2009. This represents an increase by 204 units in 2010. The rise of the number of UCIs has been stronger in 2010 than in the previous year. With the creation of 57 units in the first quarter, this upward trend continues in the beginning of 2011.

1.2.4.5.2 Net asset value

In 2010, the UCIs' net global property increased considerably. Between December 31st, 2009 and December 31st, 2010, the net asset value rose by 358 billion euro to reach 2 199 billion euro, representing an increase of about 19%. The upward trend in the net asset value had been noticeable from March 2009 on.

During the year 2010, the favourable performance of financial markets contributed to the growth of the net asset value by 196.4 billion euro, whereas a net capital investment increase of 161.6 billion euro was recorded. Because of adverse market developments in January and March, the UCI's global property decreased slightly in the beginning of 2011. At the end of March, it reached 2 191 billion euro, although the net capital investment was positive (32.3 billion euro) over the same time span.

Chart 1.14: Development of the net assets and of the net capital investment (in million euro)



Source: CSSF

Table 1.11: Global situation of undertakings for collective investment
(in million euro, outstanding amounts at the end of period, except where otherwise stated)

	Number of UCIs	Number of subfunds	Net asset value	Net capital investment ¹⁾²⁾	Variation of financial markets ²⁾³⁾	Annual changes in EUR million	Annual percentage change	Monthly change in EUR million	Monthly percentage change
2000	1 785	6 995	874 600	168 200	-28 118	140 082	19.1		
2001	1 908	7 519	928 447	121 700	-67 900	53 847	6.2		
2002	1 941	7 806	844 508	57 314	-141 206	-83 939	-9.0		
2003	1 870	7 509	953 302	82 609	26 185	108 794	12.9		
2004	1 968	7 876	1 106 222	113 731	39 189	152 920	16.0		
2005	2 060	8 497	1 525 208	236 277	182 709	418 986	37.9		
2006	2 238	9 473	1 844 850	241 344	78 298	319 642	21.0		
2007	2 868	11 115	2 059 395	188 488	26 057	214 545	11.6		
2008	3 372	12 325	1 559 653	-77 191	-422 549	-499 742	-24.3		
2009									
Jan.	3 398	12 278	1 571 534	3 458	8 423	-379 607	-19.5	11 881	0.8
Feb.	3 402	12 255	1 530 291	-4 375	-36 868	-432 554	-22.0	-41 243	-2.6
Mar.	3 396	12 200	1 526 563	-226	-3 502	-368 882	-19.5	-3 728	-0.2
Apr.	3 415	12 177	1 592 932	7 005	59 364	-371 144	-18.9	66 369	4.3
May	3 425	12 172	1 619 269	8 080	18 257	-377 690	-18.9	26 337	1.7
June	3 435	12 172	1 631 256	4 272	7 715	-270 836	-14.2	11 987	0.7
July	3 438	12 164	1 706 030	22 448	52 326	-190 327	-10.0	74 774	4.6
Aug.	3 449	12 198	1 739 417	16 128	17 259	-178 576	-9.3	33 387	2.0
Sep.	3 457	12 207	1 773 834	10 467	23 950	-22 862	-1.3	34 417	2.0
Oct.	3 454	12 247	1 777 528	13 645	-9 951	130 500	7.9	3 694	0.2
Nov.	3 473	12 251	1 788 910	2 111	9 271	184 673	11.5	11 382	0.6
Dec.	3 463	12 232	1 840 993	1 356	50 727	281 340	18.0	52 083	2.9
2010									
Jan.	3 480	12 316	1 860 688	21 474	-1 779	289 154	18.4	19 695	1.1
Feb.	3 498	12 425	1 897 934	12 688	24 558	367 643	24.0	37 246	2.0
Mar.	3 516	12 513	1 980 538	19 848	62 756	453 975	29.7	82 604	4.4
Apr.	3 521	12 552	2 012 887	13 803	18 546	419 955	26.4	32 349	1.6
May	3 542	12 612	1 992 413	-14 858	-5 616	373 144	23.0	-20 474	-1.0
June	3 550	12 628	2 010 637	18 784	-560	379 381	23.3	18 224	0.9
July	3 582	12 685	2 019 223	8 907	-321	313 193	18.4	8 586	0.4
Aug.	3 614	12 718	2 068 990	31 383	18 384	329 573	18.9	49 767	2.5
Sep.	3 633	12 755	2 083 740	9 589	5 161	309 906	17.5	14 750	0.7
Oct.	3 645	12 814	2 107 575	15 457	8 378	330 047	18.6	23 835	1.1
Nov.	3 656	12 877	2 160 872	16 263	37 034	371 962	20.8	53 297	2.5
Dec.	3 667	12 937	2 198 994	8 230	29 892	358 001	19.4	38 122	1.8
2011									
Jan.	3 684	12 979	2 184 027	14 212	-29 179	323 339	17.4	-14 967	-0.7
Feb.	3 705	13 030	2 208 198	15 623	8 548	310 264	16.3	24 171	1.1
Mar.	3 724	13 057	2 190 896	2 515	-19 817	210 358	10.6	-17 302	-0.8

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" reflects the change in net assets which is due to the fluctuation of financial markets.

Source: CSSF

1.2.4.6 Money market funds

The number of money market funds

By the end of December 2010, 462 units were recorded on the official list, compared to 479 units at the end of 2009, representing a decrease by 17 units. In the beginning of 2011, the number of money market funds continued to fall, reaching 440 units by the end of March.

The balance sheet of money market funds

In the course of 2010, the balance sheet of monetary funds decreased by 10.9%, from 319.4 billion euro on December 31st, 2009 to 284.5 billion on December 31st, 2010. Since April 2009, due to the favourable performance of financial markets and low money market interest rates, the investors have shown preference to invest in non-monetary funds. This downward trend on money market funds continued in the first part of 2010, with their balance sheet reaching 281.5 billion euro by the 31st of March, 2011.

Box 1.3:

THE ANALYSIS OF THE LUXEMBOURG FINANCIAL ACCOUNTS FOR THE HOUSEHOLD SECTOR¹

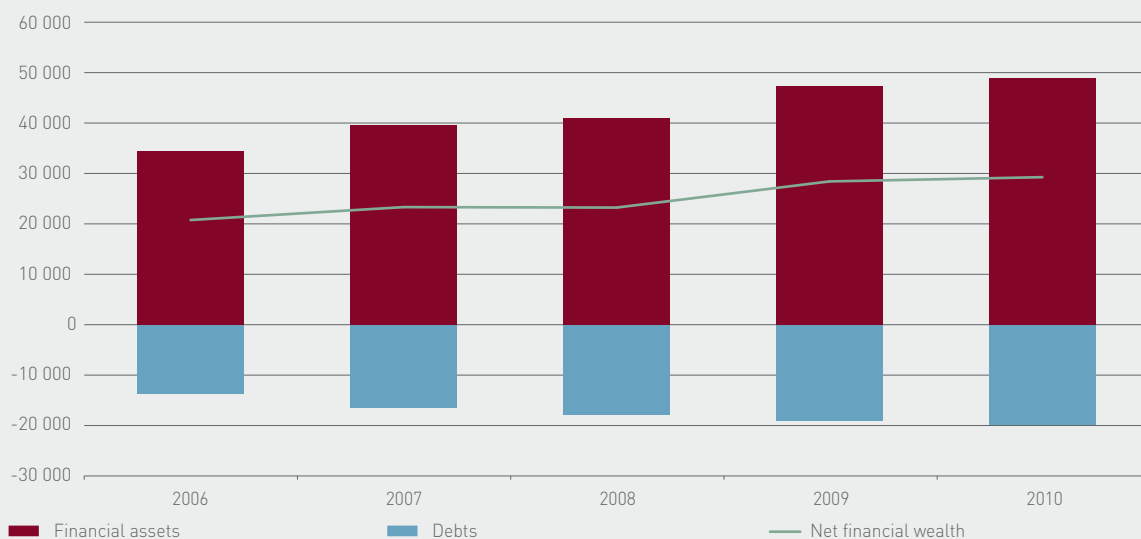
The publication of the Luxembourg financial accounts by STATEC provides interesting perspectives from an analytical point of view. The aim of this box is to exploit this set of data for the household sector over the period from 2006Q1 to 2010Q4.

Financial wealth and portfolio composition of Luxembourg households

The total gross financial wealth of Luxembourg households amounted to about 51.1 billion euro at the end of 2010, after a progression of more than 50% over the period under review. This increase came not only from a favourable revaluation of financial assets (+7.7 billion euro), but also from the dynamism of the net acquisition of financial assets by Luxembourg households (+9.9 billion euro). At the same time, household debt increased by 59% to reach 20.9 billion euro, thus bringing total net financial wealth to 30.2 billion euro at the end of the period.

¹ Analysis performed with the data available on 6 May 2011.

Chart 1: Net financial wealth of Luxembourg households (million euro)



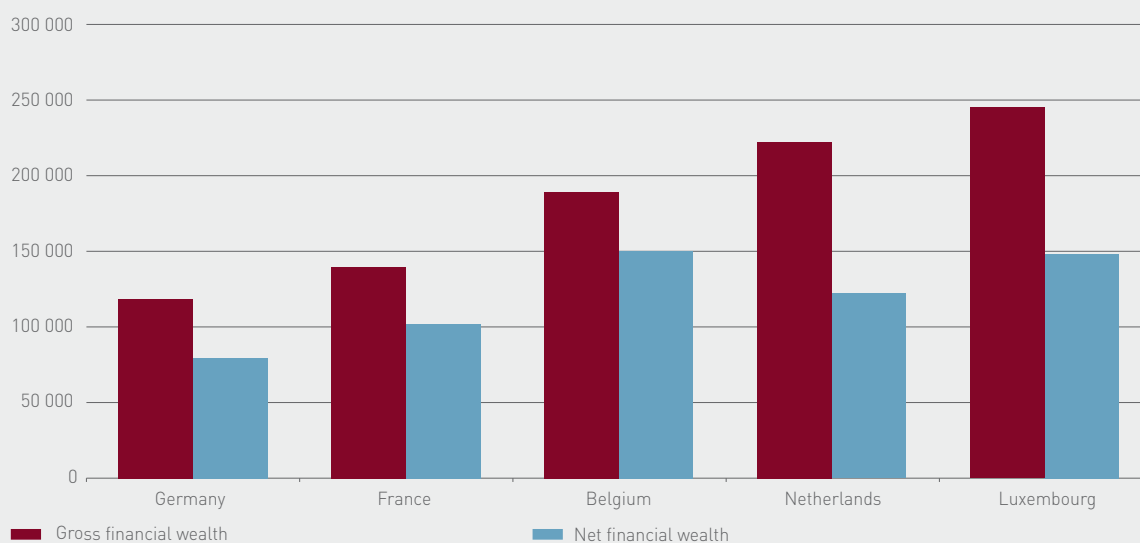
Source: Statec

At the end of 2009, the average gross financial wealth of Luxembourg households was about 246 000 euro, against 223 000 euro on average for Dutch households, 190 000 euro for Belgian households, 140 000 euro for French households and 119 000 euro for German households.² In comparison

to other euro area countries, the financial assets of Luxembourg households are thus relatively high, all the more so as the amount of these assets is underestimated due to the absence of data on unquoted equities. Nevertheless, the incorporation of the level of indebtedness attenuates this figure since the net financial household wealth stood in 2009 Q4 at 149 000, 123 000, 151 000, 103 000 and 80 000 euro in Luxembourg, the Netherlands, Belgium, France and Germany respectively.

² These figures are influenced by the number of persons per households. For example, the average size of a German household is smaller than the European average.

Chart 2: Average financial wealth by households in euro area countries (in euro, 2009)



Sources: Eurostat and Statec

From the point of view of the portfolio composition, Luxembourg households display an elevated share of deposits in comparison to the other euro area countries. Over the period under review, the share of deposits amounted to about 50% of financial wealth, thus illustrating the low risk profile of

Luxembourg households. In contrast, the weight of technical insurance provisions appears to be relatively low, in particular with respect to the Netherlands where the capitalisation retirement system is largely developed.

Table 1: The composition of the financial assets portfolio of households in euro area countries * (2009)

	Belgium	Germany	France	Netherlands	Luxembourg
Money and deposits	37.7%	40.1%	33.4%	25.2%	50.6%
Securities other than shares	10.8%	8.2%	1.9%	3.0%	15.9%
Quoted shares	4.8%	3.4%	3.8%	5.1%	4.4%
UCI's shares	15.9%	12.5%	8.9%	2.8%	14.2%
Technical insurance provisions	29.5%	35.1%	44.4%	62.8%	14.4%
Other assets	1.3%	0.8%	7.6%	1.0%	0.5%

* To make the comparison relevant, "unquoted shares" and "other equity" have been dropped from total assets in all countries except for Luxembourg.

Source: Eurostat and Statec

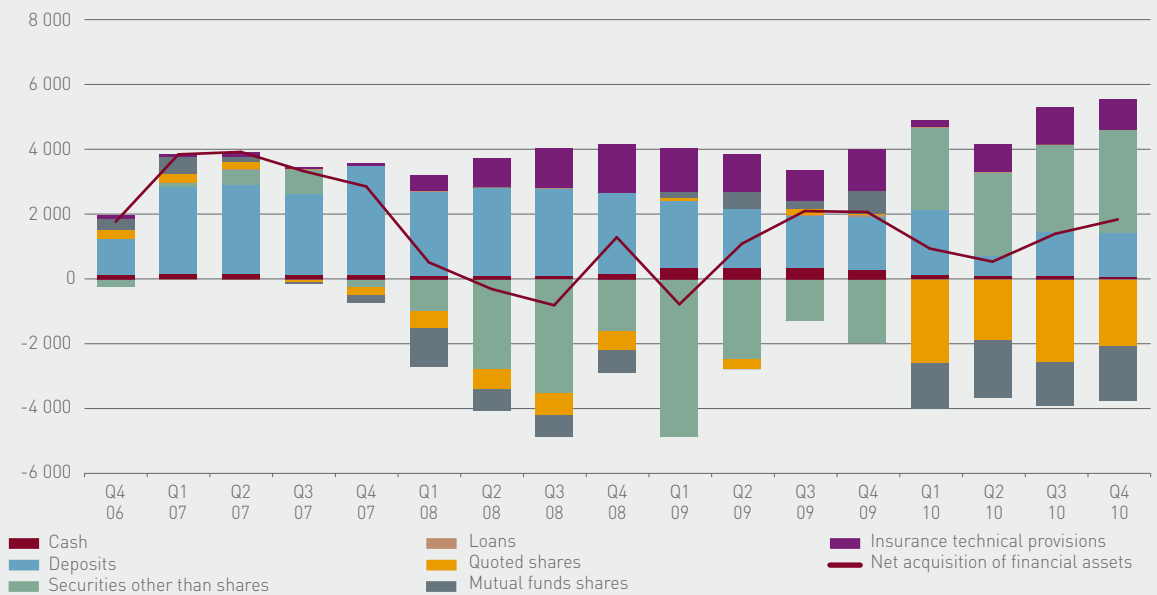
In order to analyse the investment behaviour of Luxembourgish households in the course of the crisis, the following graph displays the detailed evolution of financial transactions since the end

of 2006. The financial crisis, which started in the summer of 2007, translated into a restructuring of Luxembourg households' portfolio. The high volatility of stock markets and the uncertainties related

to economic activity and employment provided an incentive for households to adopt a liquidity prefer-

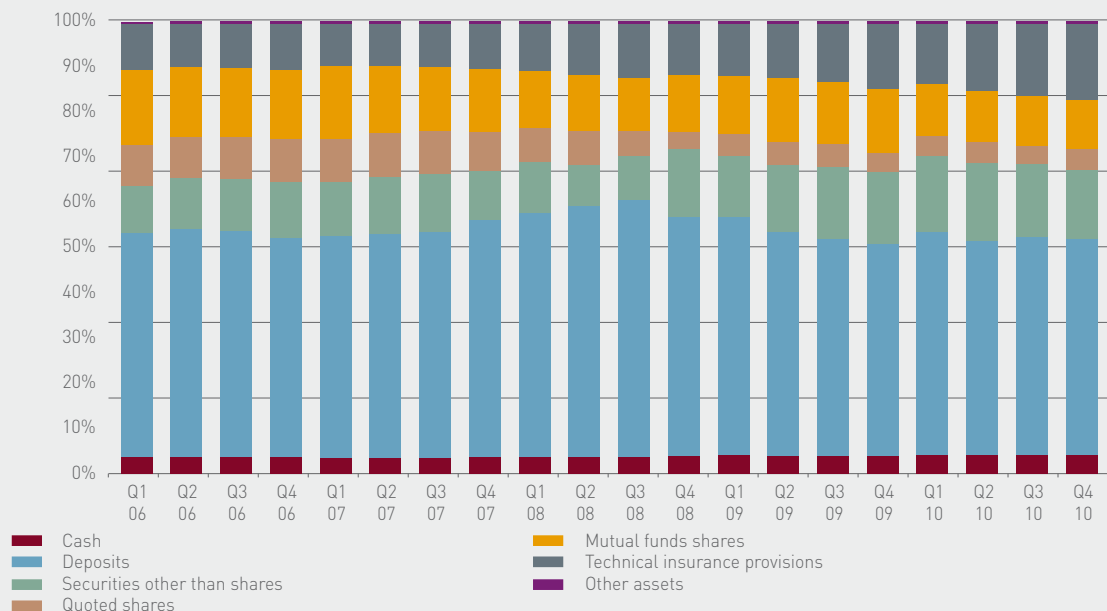
ence behaviour, as reflected in the increase of the relative share of deposits in their portfolio.

Chart 3: Cumulated transactions over four quarters (million euro)



Source: Statac

Chart 4: Evolution of the composition of the financial assets portfolio of Luxembourg households



Source: Statac

At the same time, Luxembourg households turned away from quoted shares and mutual fund shares in the course of 2008. As a consequence, between 2006 Q4 and 2010 Q4, the proportion of equity and mutual funds shares in the portfolio dropped from 9.5% to 4.6% and from 15.4% to 10.8% respectively, despite an overall revaluation of about 3.9 billion euro over this period. In contrast, the portfolio behaviour of Luxembourg

households was biased towards the acquisition of securities other than shares and technical insurance provisions, in particular around the end of the period. The proportion of securities other than shares, which moreover benefited from a revaluation of 4.3 billion euro between 2006 Q4 to 2010 Q4, increased from 12.3% to more than 15% of the total. Technical insurance provisions reached about 17% of total financial assets at the end of

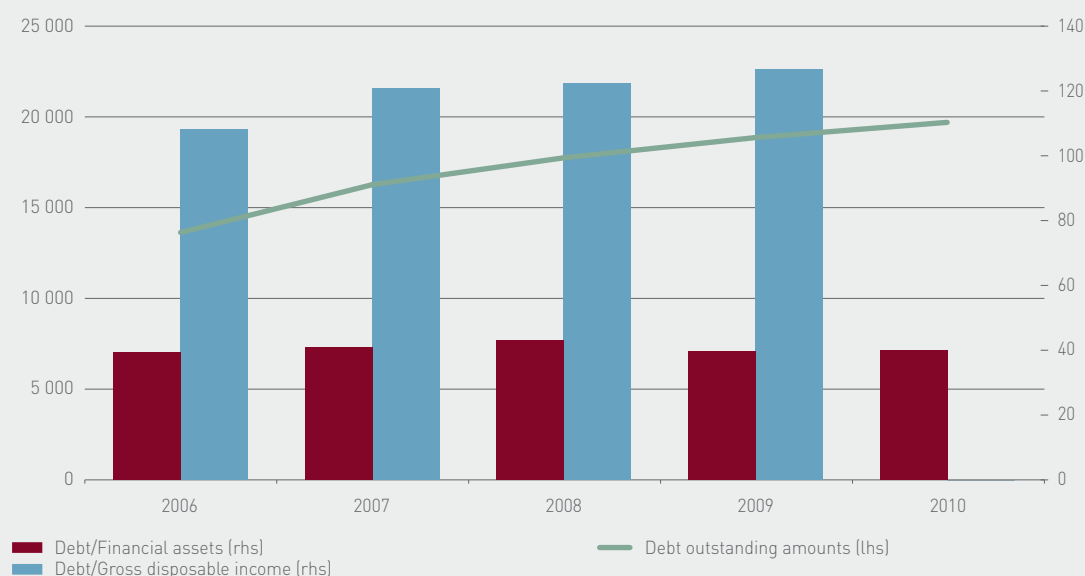
the period, thus mirroring the growing interest of Luxembourg households in life insurance contracts.

The indebtedness of Luxembourgish households

As for liabilities, the debt of Luxembourgish households displayed a clear upward trend driven mostly by the low level of interest rates and housing market prospects. Consequently, the debt ratio, which

was still at 108% in 2006, increased substantially in recent years to reach about 127% of their gross disposable income in 2009. In comparison, this ratio stood at 77% in France, 84% in Belgium, 91% in Germany and 257% in the Netherlands respectively, yielding an average value of 95% for the euro area at large. The significant debt ratio of Luxembourgish households should however be seen against the background of the high level of their financial assets.

Chart 5: Debt ratio of Luxembourg households (million euro)



Source: Statec

Mortgage loans, which actually represent about 85% of the total household debt, have mainly been contracted at variable rates. The amount of interest paid by households for debt servicing is thus highly sensitive to monetary policy decisions. Indeed, the share of the latter in disposable income, which was still at 5.86% in 2008, strongly decreased with the implementation of a low interest rate regime, reaching 2.48% in 2009. In the light of expectations

of further interest rate hikes in the euro area, it cannot be excluded that some low-income households may face difficulties to meet their obligations in the near future. With respect to the favourable evolution of the labour market and the level of households' financial wealth, the impact of additional interest rate increases should however remain relatively low from a financial stability point of view.

1.2.4.7 Trade and other sectors

In 2009, turnover in the wholesale trade decreased strongly. Turnover in the retail trade was rather stable. However, retail trade data needs to be interpreted with care as they are affected by e-commerce activities.

The statistics for 2010 show a more favourable outlook. Turnover increased by 11.8% in the retail trade and by 23.4% in the wholesale trade. Evolution of the turnover in the transport sector was favourable in 2010 too, whereas it was disappointing in the hotels and restaurants sector. Finally, turnover grew by 4.1% in 2010 in the sectors of cars, motor vehicle repair and sale.

Car registrations recorded a strong decline in 2009, before recovering in the first half of the year 2010. Since then, they fell again in the second half of the year 2010. The halt of the CAR-e initiatives designed to encourage purchasing of a less polluting car may explain this development. Latest statistics indicate that car registrations stagnated in the first quarter of 2011.

Table 1.12: Turnover and car registrations* (in annual percentage changes)

	2009	2010	2009-Q3	2009-Q4	2010-Q1	2010-Q2	2010-Q3	2010-Q4
Car registrations	-9.3	4.8	-11.8	-0.7	11.0	13.0	-1.2	-7.8
Trade and repair of motor vehicles	-10.5	4.1	-14.5	-6.6	-2.9	11.7	7.0	0.6
Wholesale trade (excluding motor vehicles)	-21.1	23.4	-29.7	-3.8	14.7	35.1	27.2	17.4
Retail trade	-0.2	11.8	-1.4	9.8	11.7	12.8	12.3	10.7
Retail trade (adjusted by e-trade and fuel sales)	-0.8	3.1	-2.3	3.9	3.4	3.6	4.6	1.0
Hotels and restaurants	-2.6	2.9	-2.0	-2.6	3.2	2.6	3.2	2.8
Transport – by air	-23.1	22.8	-23.9	-18.0	13.6	38.2	21.7	18.1
Water transport	-16.1	8.9	3.3	-22.5	22.7	37.6	-15.8	2.8
Land transport	-7.3	3.8	-11.6	0.4	-2.7	9.8	6.5	1.9
Ancillary services to transport	-19.8	20.6	-24.9	-12.6	20.7	29.2	19.5	13.7

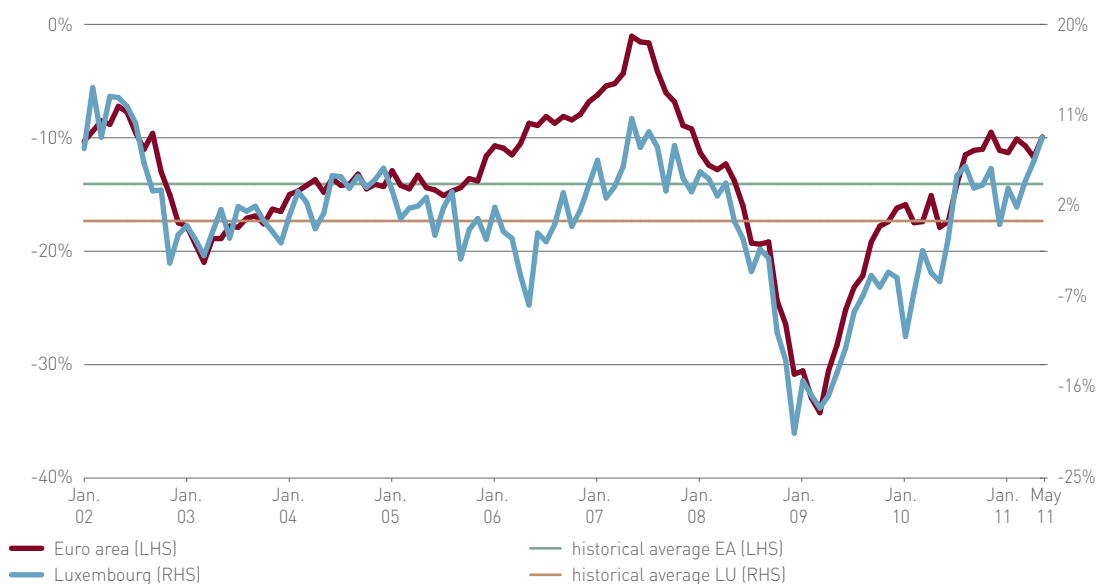
* Value.

Source: STATEC

Provisional data indicate that turnover increased by 21.5% in the wholesale trade and by 17.4% in the retail trade. Note that turnover in the retail trade adjusted by e-trade and fuel sales increased by only 4.6% in February, which is weak given the –relatively high– level of inflation during the same period.

1.2.5 Consumer survey

Chart 1.15: Consumer confidence indicators (seasonally adjusted data)



Sources: BCL and European Commission

Consumer confidence⁶ has reached its historical minimum in December 2008 and it has been improving since then. Its movements have appeared more volatile than those of the euro area since the beginning of 2010. The euro area consumer confidence stands at a level close to its historical average since the end of 2010, but below the level it reached during mid-2007. Latest data show that the Luxembourg consumer confidence

⁶ 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.

evolves towards levels close to those observed before the beginning of the financial turmoil. More generally, the relatively high level of the consumer confidence should be considered as a favourable signal for private consumption dynamics in 2011.

The latest Luxembourg consumer survey run in Luxembourg in May 2011 indicates that the consumer confidence indicator continues to increase. Individual components of the indicator follow different paths. Consumers' expectations regarding their financial situation and the outlook for the general economic situation in Luxembourg rose in May. Consumers' expectations concerning unemployment in Luxembourg strongly increased. Finally, consumers' expectations of their savings slightly decreased.

1.2.6 Economic growth

According to the first release of national accounts data for 2010, GDP increased by 3.5% (after -3.6% in 2009). Domestic demand and net exports were the main contributors to economic growth (accounting respectively for 2.6 pp and 1.5 pp). The sectoral decomposition of value added growth indicates that all economic sectors expanded in 2010 on an annual basis.

Table 1.13: Annual national accounts: first estimate of 2010 real GDP growth

	April 2011 national accounts Yearly rate of change				Contributions to GDP growth (in percentage points)			
	2007	2008	2009	2010	2007	2008	2009	2010
Private consumption	3.3	4.7	0.2	2.0	1.1	1.5	0.1	0.7
Public consumption	2.8	2.7	4.6	2.9	0.4	0.4	0.7	0.5
Gross fixed capital formation	17.9	1.4	-19.2	2.6	3.4	0.3	-3.9	0.4
Changes in inventories	-48.0	-27.2	23.8	-125.6	-0.5	-0.1	0.1	-0.6
Acquisitions less disposals of valuables	-1 102.7	-1.9	278.2	-69.8	-0.4	0.0	-0.9	1.0
Domestic demand (excluding stocks)	5.9	3.1	-5.9	3.0	4.6	2.2	-4.0	2.6
Imports	9.3	8.5	-10.2	6.7	-12.9	-12.3	14.9	-9.0
Exports	9.1	6.6	-8.2	6.3	15.5	11.6	-14.5	10.6
Net exports	8.3	-2.0	1.0	4.6	2.6	-0.6	0.3	1.5
Gross domestic product	6.6	1.4	-3.6	3.5	6.6	1.4	-3.6	3.5
GDP deflator	3.6	4.2	-0.3	5.5				
Employees	4.7	4.9	1.0	1.6				
Total employment	4.5	4.7	0.9	1.6				
Compensation per employee	3.7	2.1	1.8	1.6				
Labour productivity	2.1	-3.2	-4.5	1.9				
Unit labour costs	1.6	5.4	6.7	-0.3				

Source : Statec, BCL calculations (totals may not add due to rounding)

The latest release of annual national accounts highlights wage moderation for the third year in a row with unit labour costs slightly decreasing (-0.3%) in 2010 despite the accelerating labour productivity (from -4.5% in 2009 to 1.9% in 2010). These figures should be interpreted with caution as national accounts are subject to future revisions. Furthermore, the deceleration of the growth rate of compensation per employee, as indicated by national accounts data, is not in line with the IGSS data which suggest an acceleration of the growth rate of compensation per employee (from 2.0% in 2009 to 2.5% in 2010)⁷.

According to the first release of national accounts data for the first quarter of 2011, real GDP accelerated to an estimated growth rate of 4.6% on a year-on-year basis and to 1.7% compared to the previous quarter. Available data suggest that all demand components contributed positively to annual output growth, except for gross capital formation. From a sectoral perspective, all economic sectors expanded on a quarter-on-quarter basis, except for construction (and agriculture) where value added growth turned out negative.

⁷ The IGSS database is the main source of national accounts data on labour costs. However, as a result of various adjustments carried out in national accounting, figures stemming from the IGSS database are not perfectly comparable to the ones in national accounts. In consequence, one should bear in mind these differences when comparing the two sources and interpret with caution the results obtained.

Box 1.4:

SLOWER POTENTIAL GROWTH IN LUXEMBOURG IS CONFIRMED (PG)

Since the real GDP contraction in 2009, Luxembourg's potential growth has fallen by nearly half to reach a range between 2% and 3%. According to the national accounts data published in April, observed growth in 2010 reached 3.5%. Since this is above estimated potential growth, GDP recovered towards its potential level, although it was not reached. For 2011-2013, estimations based on the recent projection exercise suggest that potential growth will remain weak compared to the past.

The output gap (difference between observed and potential GDP, in % of potential) became negative in 2009 according to all estimation methods in this box¹. Most of these expect the gap to remain

negative until the end of the projection horizon. The gap should close gradually, but only the production function approach anticipates a gap near zero in 2012 (observed GDP near its potential level) and a positive gap in 2013². Two other methods expect the gap to be near zero in 2013: the Hodrick-Prescott filter and the Kuttner model, which takes into account the projected reduction in inflation over the years to come.

The linear trend, only method to assume a constant potential growth rate, continues to produce implausible estimates of the output gap, which becomes increasingly negative. This observation confirms the limited reliability of this method following a shock as important as the recent financial crisis.

1 For details, see BCL working paper no. 4.

2 The production function approach is implemented with the Hodrick-Prescott filter, which suffers from a well-known end-point bias.

Table 1: Output gap and potential growth estimates

	Real GDP (mio EUR)	Linear Trend	Hodrick- Prescott	Harvey- Jaeger	Kuttner	Apel-Jansson	Production Function
Output Gap Estimates							
2006	27.55	3.6%	1.9%	2.0%	1.9%	0.0%	1.7%
2007	29.38	5.5%	5.2%	5.0%	5.2%	2.4%	3.6%
2008	29.80	2.4%	3.5%	3.3%	3.5%	0.5%	0.6%
2009	28.72	-5.9%	-3.1%	-3.1%	-3.1%	-5.8%	-4.5%
2010	29.73	-7.0%	-2.4%	-2.6%	-2.4%	-5.1%	-2.7%
2011	30.93	-8.0%	-1.5%	-2.0%	-1.5%	-3.9%	-1.0%
2012	31.86	-9.6%	-1.2%	-2.1%	-1.2%	-2.8%	0.1%
2013	33.01	-10.5%	-0.3%	-1.6%	-0.3%	-1.1%	1.7%
Revisions to output gap relative to estimates in 2010							
	Revisions						
2006	-0.6%	-0.2%	-0.9%	-0.7%	1.9%	-0.3%	-0.6%
2007	-0.4%	0.0%	-0.9%	-0.9%	4.5%	-0.7%	-0.7%
2008	1.0%	1.4%	0.3%	0.5%	3.3%	0.3%	0.5%
2009	0.7%	1.2%	-0.2%	0.3%	-0.9%	-0.4%	0.1%
2010	1.3%	1.7%	0.0%	0.7%	1.8%	-0.6%	-0.3%
Potential growth estimates							
	Real GDP growth						
2006	5.0%	4.7%	3.6%	3.8%	3.6%	4.7%	4.1%
2007	6.6%	4.7%	3.3%	3.4%	3.1%	4.1%	4.7%
2008	1.4%	4.7%	3.1%	3.1%	3.1%	3.3%	4.4%
2009	-3.6%	4.7%	2.9%	2.7%	2.9%	2.8%	1.5%
2010	3.5%	4.7%	2.8%	3.0%	2.8%	2.8%	1.6%
2011	4.0%	4.7%	2.8%	3.1%	2.8%	2.4%	1.9%
2012	3.0%	4.7%	2.7%	3.1%	2.7%	1.9%	1.8%
2013	3.6%	4.7%	2.7%	3.1%	2.7%	1.8%	2.1%
Average potential growth							
	Average real growth						
1985-2010	4.7%	4.7%	4.6%	4.6%	4.6%	4.7%	4.6%
2001-2010	3.1%	4.7%	3.7%	3.7%	3.7%	4.2%	3.7%

Sources: BCL calculations, STATEC data

Excluding the linear trend method, potential growth in 2010 ranged from 1.8% to 3.0%. This range is largely unchanged over the projection horizon and is consistent with potential growth forecasts for Luxembourg published by other institutions.

Table 2: Forecasted potential growth in Luxembourg

	2010	2011	2012	2013
OECD (Economic Outlook 89, 25 May 2011)	3.2%	2.8%	2.9%	
European Commission forecasts (May 2011)	2.2%	2.2%	2.6%	
Statec (Note de Conjoncture 1-11, May 2011)	2.9%	2.7%	2.6%	2.5%
Stability and growth programme (April 2011)	2.9%	2.7%	2.6%	2.6%

Sources: European Commission, Ministère des Finances, OECD, Statec.

Compared to the other methods, the production function approach finds a more brutal fall in potential growth during 2009. It also expects a slower recovery through 2013. Lower potential growth is more easily surpassed by observed growth, which explains why this method is also the most optimistic regarding the future output gap.

The main advantage of the production function approach is that it provides a decomposition of

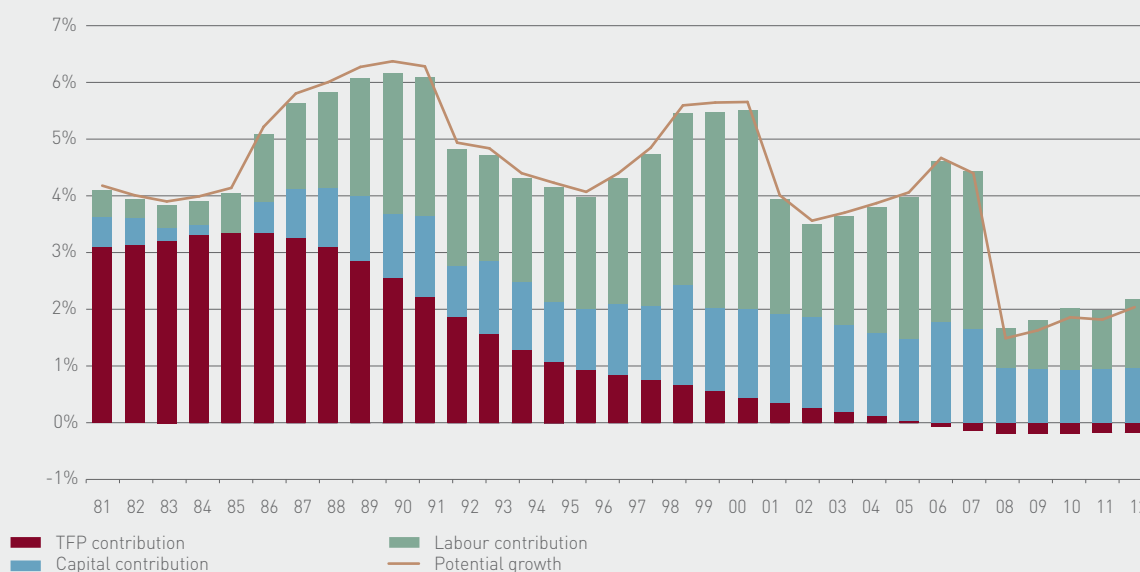
potential growth into the contributions of capital, labour and Total Factor Productivity (TFP). The latter is calculated as Solow residual through a growth accounting exercise³. As indicated in the last BCL annual report, Luxembourg's potential growth is largely dependent on labour, given the limited contribution of capital and the continuous fall in the TFP contribution since the 1980's (when it was dominant).

According to the most recent data, the TFP contribution⁴ is marginally negative since 2006 and should remain near the level estimated for 2010 (-0.2%). The labour contribution underwent several cycles in the past, with peaks during the recessions of 1991, 2001 and 2008. In 2009, labour's contribution fell from 2.8% to 0.7% and in 2010 had only recovered to 0.9%. For the years to come, the labour contribution should be slightly above 1%. Finally, the capital contribution fell from 1.7% in 2008 to below 1% in 2009 and 2010. It should recover very slowly given the deep cuts in investment during 2009 and the persistent effects of the crisis on the capital stock.

³ This exercise differs from that in the AMECO database of the European Commission, where TFP is contaminated by the contribution of cross-border workers (ignored by the harmonised method applied to all countries). The capital stock data is also different, but also obtained by the perpetual inventory method applied to a long series for real investment.

⁴ L'Observatoire de la compétitivité (Perspectives de politique économique n°14) does not distinguish between trend and cycle in TFP, but confirms the sharp drop in 2008.

Chart 1: Potential growth accounting



Source: data from Statec, World bank, calculations by BCL

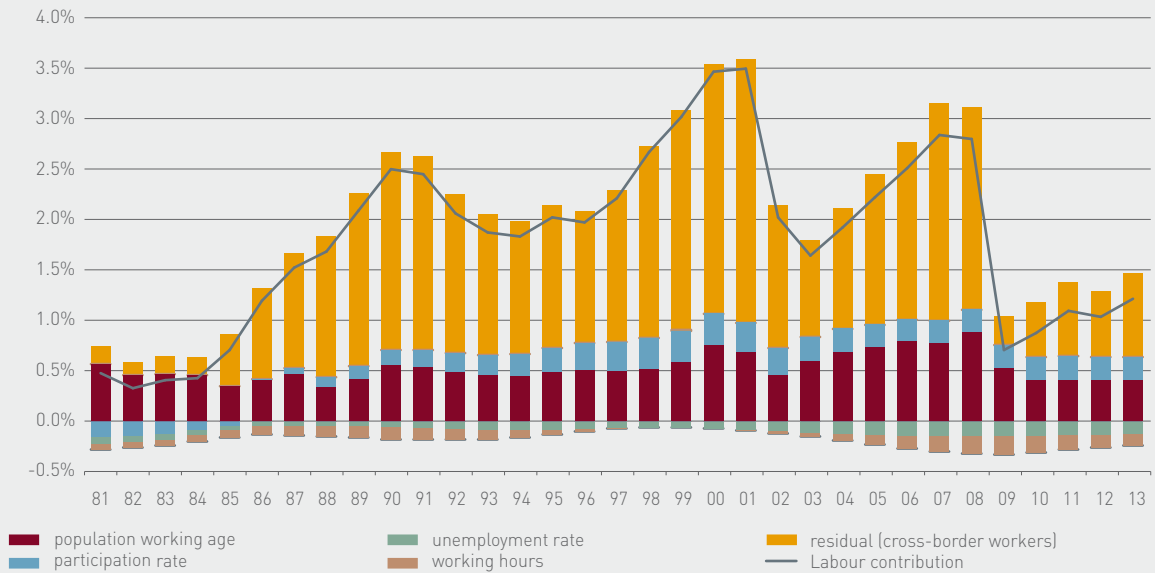
The labour contribution can itself be decomposed in terms of the impact of changes in the population of working age, participation rates and unemployment

rates (limited to the resident population), as well as a residual component representing the contribution of non-resident population through cross-border

employment. Since the end of the 1980s, cross-border workers have provided the bulk of the labour contribution to potential growth in Luxembourg. Following the bursting of the Internet bubble, this contribution fell significantly, from 2.6% in 2001 to less than 1.0% in 2003. Five years then passed

before this contribution returned to 2.0%. More recently, the contribution of cross-border workers fell from around 2.0% in 2008 to 0.2% in 2009 and remained below 0.5% in 2010. According to the projections, this contribution will still be below 1.0% in 2013.

Chart 2: Decomposition of the labour contribution



Source: data from Statec, EU-KLEMS, calculations by BCL

1.2.7 Macroeconomic projections

Since the previous macroeconomic projection exercise, the cyclical upturn was somewhat stronger than previously expected, although the annual national accounts data might a priori point to a different assessment. The first estimate for real GDP growth in 2010 is 3.5%, thus 0.3pp below our December 2010 projection. The expansion of nominal GDP, however, testifies to the vigour of the expansion and, at a rate of above 9.0%, it was well above our expectations. The quarterly national accounts have also been revised for the years 2009 and 2010. According to the revised data, quarter-on-quarter growth in the course of 2009 was less dynamic than previously assumed, but it regained momentum again as of the second quarter of 2010. Since then, real GDP growth surpassed past trends, pushing the levels of economic activity close to the pre-recession peak. The carry-over on annual average real GDP growth in 2011 is now estimated at 2.2%.

Recent developments

The favourable business cycle dynamics observed towards the end of 2010 extended into the beginning of 2011. Initially, the expansion was at a sustained pace whereas in the second quarter it probably lost some of its vigour.

In the first quarter of 2011, the dynamism moderated in the financial services sector, in spite of rising stock markets. The quarter-on-quarter growth of the net asset value in the mutual fund industry slowed down after seven consecutive quarters of sustained expansion. The banks' fee-based income, adjusted for seasonal factors, also increased only moderately. Set against that, however, are the business surveys in the construction sector which, in light of the very favourable weather conditions, point to accelerating growth dynamics. Industrial production also accelerated in the beginning of the year, though its dynamics still falls short of what could be expected on the basis of various survey indicators. This performance looks all the more lacklustre as

the growth in the euro area was exceptionally dynamic with a real GDP expansion of 0.8%. Such news should normally bode well for Luxembourg's export-oriented sectors, in particular since this expansion was to a large extent driven by our main trading partners, i.e. our neighbouring countries.

As regards the second quarter of 2011, not much information is available at the current juncture. Growth is set to moderate in the neighbouring countries. The financial market developments would at best suggest moderate growth of the net asset value in the mutual fund industry and banks' fee-based income. On the other hand, the survey indicators in construction are close to record highs. The monthly and the quarterly surveys in the manufacturing sectors would also point to sustained activity and healthy order books.

The recession in Luxembourg has probably ended to the extent that the level of real GDP has probably already moved beyond the pre-crisis peak. This assessment is corroborated by several activity indicators such as the exports of goods, the net asset value in the mutual fund industry and banks' fee-based income, in spite of their more moderate expansion at the beginning of the year. Only industrial production seems to be lagging behind and has so far failed to pick up all its lost output. Employment growth is positive and short-time work, emblematic of the recession, is vanishing gradually.

This favourable news, however, should not conceal that the economy did not grow at all from the first quarter of 2008 to the fourth quarter of 2010, thus almost three full years. The lack of growth, associated with the deliberately expansionary fiscal policy, has produced several distortions. Despite the end of the recession, the unemployment rate remains at a fairly high level, about 8% for the broad unemployment rate. In spite of the government's fiscal retrenchment for the years 2011 and 2012, the fiscal deficit will not vanish in 2013 and gross debt would surpass 20% of GDP. The persistence of these distortions should be avoided. Their correction in the coming years will also put the economy on a sounder basis and lay the foundations for sustainable growth thereafter. It will also help rebuild safety margins that can be deployed in the next economic slowdown.

The end of the recession does not imply the end of the financial crisis, and the ongoing reverberations on the bond markets fully testify to that. A disorderly exit of the crisis in some euro area countries could affect the activities and the results in the financial services sector and jeopardise the growth prospects. These risks cannot be ignored; all the more as any ex ante evaluation of the possible consequences of such a shock is highly uncertain.

Technical assumptions and international environment

Technical assumptions about interest rates, exchange rates, commodity prices and financial markets are presented in the table below.

The global economic recovery has been stronger than expected in 2010, and the recovery in the global economy is continuing and becoming increasingly self-sustained.

While the recovery in advanced economies becomes more engrained, the fallout from the financial crisis is expected to continue to weigh on the strength of the recovery, thwarting the prospects for a speedy recovery in the labour market. This contrasts markedly with the situation in fast-growing emerging economies, which are operating at or close to – and, in some cases, above – full capacity and where overheating pressures persist.

World growth is expected to reach 4.0% in 2011 according to the European Commission and 4.4% according to the IMF. For 2012, both institutions do not anticipate any (notable) acceleration of world growth. International trade is therefore expected to decelerate in 2011 and almost stagnate in 2012.

Following a relatively subdued expansion in the second half of 2010, real GDP growth in the euro area picked up particularly strongly in the first quarter of 2011, with a quarter-on-quarter rate of 0.8%. As this temporary upward effect vanishes, real GDP growth is likely to moderate in the second quarter. Looking further ahead, real GDP is expected to recover only slowly and to reach its pre-crisis level only in the course of 2012. In annual terms, real GDP is expected to increase by between 1.5% and 2.3% in 2011 and between 0.6% and 2.8% in 2012.

With regard to real GDP growth, the Eurosystem projection range has been notably revised upwards for 2011 compared with the previous one (as of December 2010); whereas it has been unchanged for 2012.

The world demand for Luxembourg declined in 2008 and 2009 before rebounding strongly in 2010. Thereafter, it should slow down over the next quarter towards a more normal growth path.

Table 1.14: Projections of international institutions and technical hypotheses (loy variation rates)¹

	2010	2011	2012	2013
World trade (EC)	14.0 (+0.2)	7.8 (+0.4)	7.9 (+0.6)	-
World GDP (IMF)	5.0 (+0.2)	4.4 (+0.2)	4.5	-
World GDP (EC)	4.9 (+0.4)	4.0 (+0.1)	4.1 (+0.1)	-
Real GDP euro area (IMF)	1.7 (+0.0)	1.6 (+0.1)	1.8	-
Real GDP euro area (EC)	1.8 (+0.1)	1.8 (+0.3)	1.9 (+0.1)	-
Real GDP euro area (Eurosystem)	1.7 (0.0)	1.5-2.3 (+0.5)	0.6-2.8 (0.0)	-
World demand for Luxembourg	9.6	6.9 (+1.0)	6.5 (+0.9)	6.3
Oil in USD/barrel ²	80	111 (+22)	108 (+17)	104
Exchange rate USD/EUR ³	1.33	1.42 (+0.03)	1.43 (+0.04)	1.43
Short-term interest rate	0.8	1.6 (+0.2)	2.3 (+0.6)	2.8
Long-term interest rate	3.2 (-0.2)	3.5 (-0.3)	3.8 (-0.4)	4.1
Eurostoxx ⁴	266	284 (+15)	280 (+17)	276

1) Between brackets, revisions with regard to the June 2010 projections, in percentage points.

2) Revisions in USD/barrel.

3) Revisions in USD/EUR.

4) Revisions in index points.

Sources: ECB, EC, IMF

Real GDP and demand components

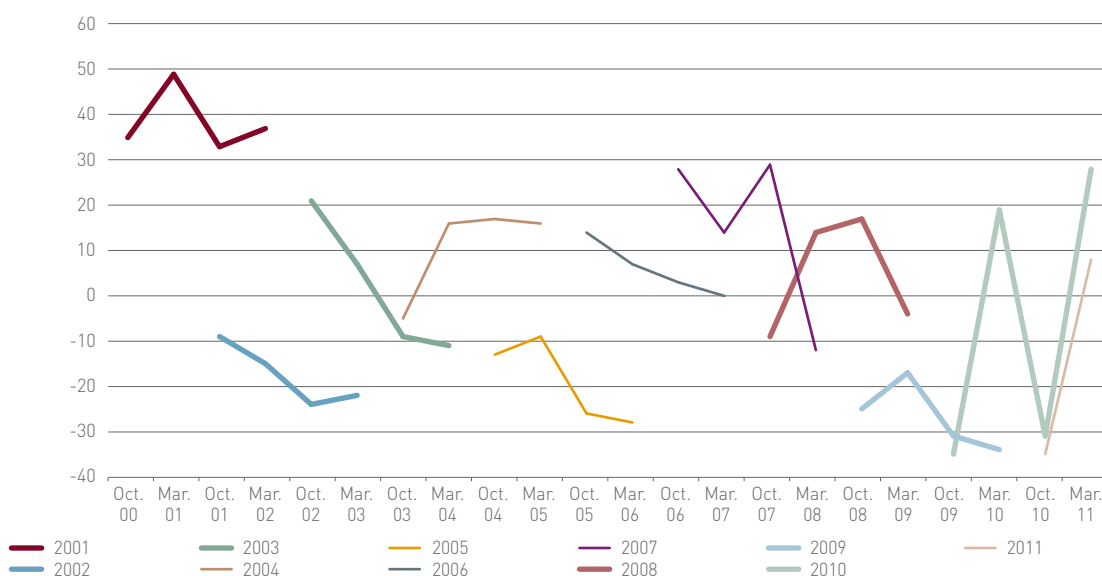
The more favourable growth momentum towards the end of 2010 and its extension into 2011 yielded a more favourable scenario than envisaged in the December 2010 projection exercise. Real GDP growth in 2011 is now expected at around 4.0%, thus 1.2pp higher than previously expected. Thereafter, growth would be around 3.0% in 2012 and around 3.6% in 2013. Following a period of above trend growth in 2010, the impetus would slow as of the second quarter of 2011 with a gradual renewed acceleration setting in thereafter. The slow-down in the 2012 annual average figures is therefore also largely technical as it arises mostly from the loss of growth momentum in the year 2011. Real GDP growth in 2013, however, would still be below the past trend growth. This projection is mostly based on the assumption that the pending adjustments in the financial services sector are likely to weigh on the medium-term growth prospects.

After the sharp pick-up observed since mid-2009, economic growth is increasingly becoming more balanced. There are no major imbalances in the Luxembourg economy such as excessive indebtedness of the private or public sectors that could prevent the export-led upturn to spill over into the domestic demand components. To some extent 2010 featured already robust and balanced growth as all of the GDP's demand components contributed to its expansion. Total investment, however, expanded only against the backdrop of public investment. Private investment was still retrenching.

In 2011, growth is likely to be pulled again by exports whereas domestic demand would only see a moderate expansion. Indeed, the government's fiscal consolidation measures come in several shapes and they hold back several demand components. Higher direct taxes slow down households' disposable income and restrain private consumption growth. Public investment expenditures even are set to reverse according to the government's spending plans. But this ensuing growth shortfall would most likely be offset by stronger private investment. According to the bi-annual investment surveys in the manufacturing sector, companies have already increased their investment expenditures towards mid-2010 and they would even step up their efforts in 2011 (see chart). Such a scenario is also the most likely after a prolonged adjustment period. The corporate sector's profit margins have been restored by the joint pick-up in foreign demand and the stagnation in real wages. Bar major balance sheet problems, these developments would suggest ample liquidity available to

finance new investments. While companies have already accelerated their recruitment, the next step would normally be increased expenditures on new production facilities.

Chart 1.16: Bi-annual investment surveys in Luxembourg's manufacturing sector (in annual percentage changes)



Source: European Commission

Table 1.15: Macroeconomic projections and revisions compared to December 2010 (in annual percentage changes, resp. in percentage points)

	2010	2011	2012	2013	2010	2011	2012
Real GDP	3.5	3.7 - 4.3	2.5 - 3.5	2.9 - 4.3	-0.3	1.2	-0.2
HICP	2.8	3.7	2.5	2.3	-	1.2	0.4
HICP energy	11.7	12.7	-0.1	-1.7	0.3	9.4	-0.9
HICP ex energy	1.7	2.5	2.8	2.8	-	0.1	0.6
NICP	2.3	3.4	2.4	2.2	-	1.1	0.6
NICP ex energy	1.5	2.5	2.6	2.6	-	0.4	0.7
Contribution of indexation to nominal wage increase	1.7	1.9	4.0	2.3	-	-	1.9
Compensation per employee	1.6	2.6	5.2	3.8	-1.1	-0.1	2.2
Employees	1.5	2.3	2.0	2.0	0.1	1.3	1.0
Unemployment rate ¹⁾	6.2	6.0	5.9	5.8	0.1	-0.4	-0.5

1) National accounts version.

Source: Source: STATEC, BCL

Labour market and wage costs

Following the recovery in economic activity, labour market perspectives have steadily improved in the last few months. Employment growth picked up again and reached 2.2% in April 2011. Since mid-2010, non-resident employment is growing at a higher pace than national employment. Employment growth is fairly broad-based and downsizing is only ongoing in the manufacturing and the banking sectors, although at a lower pace than previously. The growing job vacancy rate (from 0.4% in 2009 to 0.6% in 2010 and 1.1% in early 2011) is a sign of regained employers' confidence. In addition, the recourse to short-time work sharply decreased. In June 2011, only 1 400 employees were potentially affected by short-time work. As a result of these considerations, employment growth is expected to accelerate in 2011 and slightly decelerate thereafter.

Narrow unemployment is projected to decrease only gradually and at a slow pace. Elderly people and people with a lower education level are particularly hit by unemployment. As a result of labour mismatch, it might be harder for these people to (re-)enter the labour market. Long-term unemployment has continued to deteriorate and represents 40% of total unemployment. On the other hand, the large unemployment rate could decrease over the projection horizon. In fact, unemployed people enrolled in subsidised employment support measures could primarily benefit from employment growth.

The adjustment in employment also had an impact on wage developments. Real wages are expected to evolve positively as the economy is recovering. At the current juncture, wage demands remain relatively moderate. The high unemployment rate and the uncertainty surrounding economic recovery are some explanatory factors. For 2012 and beyond, information is scarce. The absence of a final decision on a further modulation of wage indexation for 2012 leaves a major uncertainty for the wage negotiations and might also hold back companies from concluding wage deals. At the same time, improving labour market conditions might enhance employees' bargaining power and their wage demands, as witnessed by the recent wage agreement in the banking sector. It stipulates unchanged wage levels in 2011 and an increase in real wages of 2.0% per annum in 2012 and 2013.

In 2011, the evolution of nominal wages would be mainly due to the impact of automatic indexation to past inflation. The social partners agreed to postpone any payout in 2011 to October 2011 at the earliest. While this decision has a downward impact of 1.0pp on wage growth in 2011, it mechanically increases the growth rate of nominal wages by 1.5pp in 2012. According to our inflation projections, the next automatic wage hikes are due in March 2012 and April 2013. The contribution of automatic wage indexation is projected to accelerate to 4.0% in 2012 and 2.3% in 2013. Nominal wages should thus increase by 2.5% in 2011, 5.2% in 2012 and 3.8% in 2013.

Our projections include the increase of social security contributions and the adjustment of the minimum wage in early 2011 as well as the assumption that the real minimum wage will be adjusted in 2013. In addition, whereas no decision has yet been taken by the government, we have assumed a stagnation of real public wages in 2011.

Consumer prices

Inflation would accelerate sharply in 2011, to around 3.4% for the NICP and 3.7% for the HICP. This sharp rise would also be broad-based as it owes to both stronger energy inflation and ex energy inflation. Thereafter, inflation would moderate, close to 2.3% for the NICP and 2.4% for the HICP. This pullback, however, is mostly driven by the technical assumption of slightly lower oil prices. Energy prices would stagnate in 2012 and fall in 2013. But ex energy inflation would still be set to accelerate in 2012 and it would also persist at fairly high levels in 2013, at around 2.6% for the NICP ex energy.

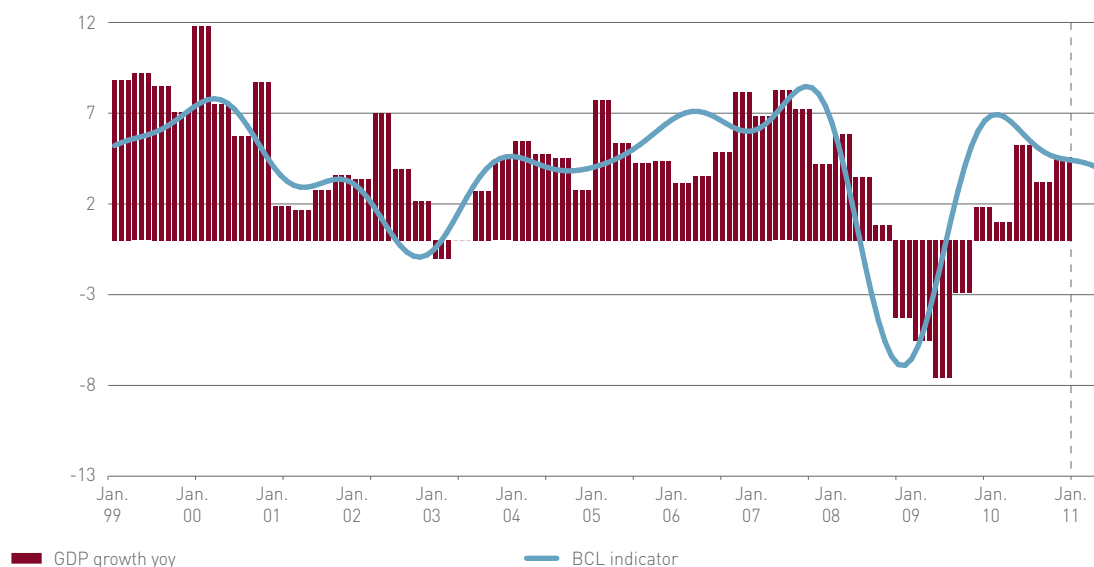
Compared to the previous exercise, these projections have been sharply revised upwards, by about 1.1pp in 2011 and 0.6pp in 2012 for the NICP. In 2011, the adjustment comes largely against the backdrop of the less favourable oil price assumptions and thus also much higher energy inflation. In 2012, however, the revisions can almost exclusively be ascribed to stronger ex energy inflation.

A number of factors are driving inflation, but they differ with the projection horizon. Several factors have already emerged in 2010 and they continue having impact on inflation in 2011 such as the rise in the oil price, the dynamics of food commodity prices, imported inflation as well as administered price hikes. Once these supply shocks are absorbed, inflation could normally decelerate more swiftly. The demand pressures in Luxembourg and in the neighbouring countries would probably be insufficient to maintain inflation at such high rates. But, around mid-2012, the second round effects stemming from the higher oil price would give a new impetus to the inflation dynamics. The projected higher consumer price level in 2011 implies that the two forthcoming automatic wage payouts follow each other very closely, i.e. in October 2010 and in March 2011. They drive nominal wage growth up - to around 5.2% in 2012 - which in turn nourishes inflation. The impacts of the automatic wage indexation scheme would therefore perpetuate the inflation dynamics at a high level and prevent it from falling below 2%. In that context, headline inflation is unlikely to converge to the rate in the neighbouring countries largely because of domestic factors, and higher service prices in particular.

Risk analysis

According to the BCL business cycle indicator, economic growth should stay dynamic at the beginning of this year. According to our calculations based on the BCL indicator, Luxembourg's yoy GDP growth is estimated to be between +4.7% and +6.5% in the first quarter of 2011 (after +4.6% in fourth quarter of 2010). In other words, GDP growth rate qoq should stand around +1.3% in the first quarter of 2011 (after +1.7% in the fourth quarter of 2010). The indicator suggests that economic growth should lose some momentum in the second quarter of 2011, by standing between +2.8% and +6.5% yoy. This is in line with a GDP growth qoq around +0.5% in the second quarter of 2011, so that the carry-over for the year 2011 reaches +3.8%. This last result suggests that GDP growth in 2011 could be somewhat higher than the June 2011 macroeconomic projections for the year 2011.

Chart 1.17: BCL indicator and GDP growth yoy



Source: STATEC, BCL calculations

The projections are based on the assumption of an unchanged government policy. This principle implies the reintroduction of the automatic wage indexation scheme as of November 2011. A possible extension of the modification - as could possibly be inferred from the agreement between government and the trade unions - is therefore not part of the projections. It is obvious that if the government were to postpone the forthcoming automatic wage payout - currently foreseen for March 2012 - then our projections for nominal wages and headline inflation would be biased to the upside.

In the same spirit, the projections for Luxembourg and major economies incorporate only those government measures that have been announced to date. By the end of the projection horizon however, substantial fiscal deficits will persist in the developed world. In 2012, the fiscal deficit in the USA would amount to around 9%, whereas it would amount to about 3.5% in the European Union. Nearly all EU countries would be in deficit and several countries would still fall short of their commitments announced in their updates to the stability programmes. In Luxembourg, the government has pledged to prepare a renewed round of fiscal consolidation in the course of 2012 and to implement it over the years 2013-2014. These additional government measures, in Luxembourg, within the EU and outside the EU, are precisely not part of the macroeconomic projections. Once decided upon, they will be integrated into the baseline scenario, and they will invariably weigh on growth prospects. In small open economies like Luxembourg the fiscal multipliers are usually small, and fiscal consolidation in Luxembourg will therefore not weigh substantially on the country's growth outlook. Downward risks, however, stem mostly from the synchronised fiscal consolidation in the remainder of the developed world. The downward impacts on growth from fiscal adjustment in the different countries would combine and compound each other and affect Luxembourg's growth outlook mostly via the trade channel.

The Luxembourg financial services sector seems to have escaped the crisis better than initially feared. The sector will, however, have to face up to tighter regulation and increased supervision. Some of these new requirements will only be implemented as of 2019 and they could possibly weigh more on the medium-term growth prospects than is currently incorporated in the baseline scenario.

1.2.8 External Trade

Luxembourg's external trade has gradually recovered since the beginning of 2010, after being adversely hit by the world economic slowdown in 2008 and in 2009. When compared to 2009, exports and imports of goods rose respectively by 14.7% and 16% in 2010. However, trade in goods is below the levels reached before the global economic crisis. The trade deficit has widened by 18.6% reaching up to 5 billion euro in 2010. Increasing import prices due to the rise in oil prices and an exceptional purchase of an equipment good (satellite) contributed to the widening of Luxembourg's trade deficit. Development in price indexes shows that in 2010 as a whole, import prices grew faster (+5%) than export prices (+2%), leading to a deterioration of 3% in the terms of trade. However, regarding developments in the trade volumes, exports grew faster than imports of goods.

Table 1.16: External Trade of Luxembourg (Value in million euro and change as % if compared with the same period a year earlier)

Period	Exports		Imports		Balance	
	Value	Change	Value	Change	Value	Change
2005	10 319.4	5.5%	14 187.1	3.7%	-3 867.7	-0.6%
2006	11 306.9	9.6%	15 644.1	10.3%	-4 337.2	12.1%
2007	11 848.6	4.8%	16 311.0	4.3%	-4 462.3	2.9%
2008	11 890.4	0.4%	17 290.3	6.0%	-5 399.9	21.0%
2009	9 162.5	-22.9%	13 370.7	-22.7%	-4 208.2	-22.1%
1st quarter	2 245.2	-26.7%	3 307.5	-19.5%	-1 062.3	1.6%
2nd quarter	2 167.6	-32.8%	3 215.2	-29.2%	-1 047.6	-20.5%
3rd quarter	2 393.1	-21.3%	3 220.2	-29.3%	- 827.1	-45.3%
4th quarter	2 356.7	-8.0%	3 627.8	-11.2%	-1 271.1	-16.6%
2010	10 511.8	14.7%	15 504.4	16.0%	-4 992.6	18.6%
1st quarter	2 460.4	9.6%	3 562.7	7.7%	-1 102.3	3.8%
2nd quarter	2 740.0	26.4%	4 180.4	30.0%	-1 440.4	37.5%
3rd quarter	2 633.2	10.0%	3 700.2	14.9%	-1 067.0	29.0%
4th quarter	2 678.2	13.6%	4 061.1	11.9%	-1 382.9	8.8%

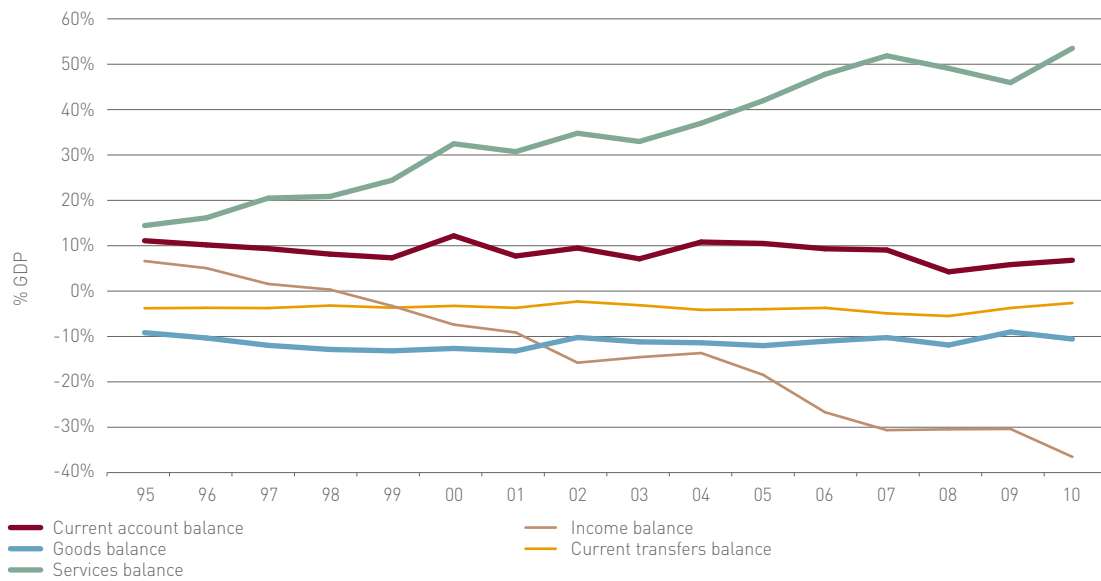
Source: Statec

1.2.9 Balance of payments

In 2010, Luxembourg's current account surplus increased by 25% reaching 3.2 billion euro (or 8% of GDP), compared with a surplus of 2.6 billion euro in 2009 (or 7% of GDP). This development resulted from a large improvement in the services balance, particularly in the net exports of financial services. Travel, insurance activities, air transport (freight) and advertising were among other services that positively contributed to the overall improvement of the services surplus. The latter added up to 22.7 billion euro in 2010 (or 55% of GDP). However, the goods and the income balances deteriorated substantially in 2010, offsetting partially the rise in the services surplus. The deficit in goods rose by 30% standing up at 4 billion euro in 2010 (or 10% of GDP). This large deterioration resulted partially from a drop in the Luxembourg's terms of trade and from a drop in the surplus of the non-monetary gold. In 2010, the deficit of the income balance widened by 32% to 15 billion euro (or 36% of GDP). This worsening was primarily the result of a significant rise in interest and dividends paid to non-residents.

In the financial account, Luxembourg's net outflows amounted to 2.8 billion euro in 2010, up from 2.4 billion euro in 2009 as large outflows in the other investments (loans and deposits) exceeded inflows in the direct investments and in the portfolio investments.

Chart 1.18: Developments in the Luxembourg's current account and its components



Sources: BCL, Statec

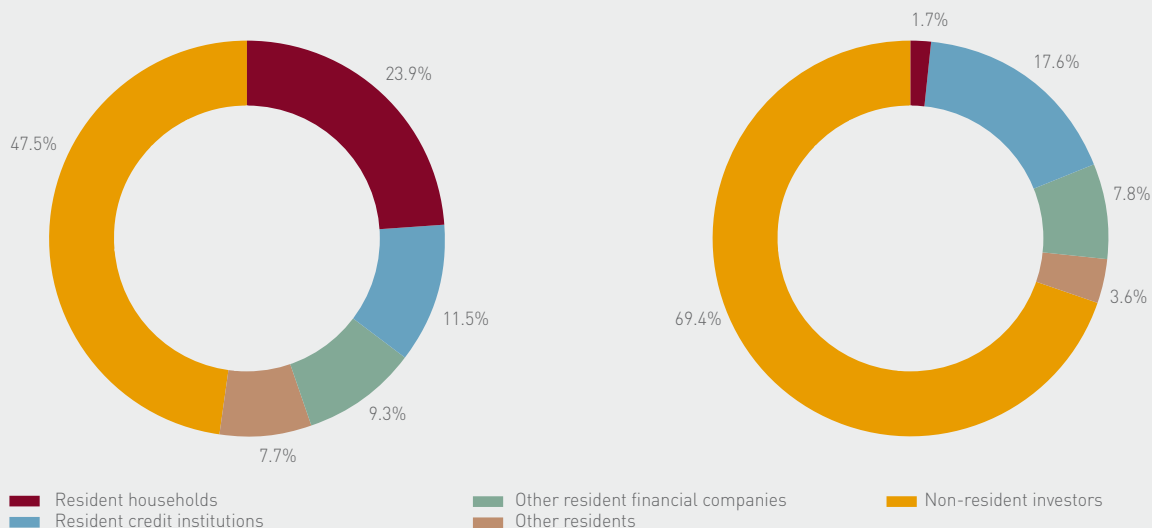
Box 1.5:

DEBT SECURITIES ISSUED BY THE LUXEMBOURG STATE: SECTORAL AND GEOGRAPHICAL BREAK-DOWNS OF HOLDERS

At the end of 2009, the Luxembourg government issued two lines of debt securities for a total nominal amount of 4 billion euro. The purpose of this box is to present the structure of the owners and the part of securities held by non-resident investors.

Through its system of security-by-security data collection, the BCL has statistical information allowing estimating the quota-share of total nominal issuances held by non-resident investors. However, these sources do not allow distinguishing the country of residence of the investor or its business sector. On the other hand, for resident holders, this system of collection offers the possibility to determine the amounts held by the different economic sectors.

Chart 1: Geographical and sectoral breakdowns of the holders of securities issued by the Luxembourg State (IGF) (as of end 2010)



Source: BCL

At the end of 2010, 48% of the total issuances in nominal value of the first general public debt issuance in December 2008 were held by non-resident counterparties, 24% by Luxembourg households and 21% by resident financial companies.

Concerning the second issuance in May 2010 aimed primarily at the institutional investors, 69% of the holders were non-residents and 25% was attributed

to financial companies established in Luxembourg. The quota-share held by resident households was marginal.

It is also interesting to note that the main holders of the securities from the second issuance were from France (18%), Germany (15%) and Belgium (10%). However, these proportions may have changed between the date of issuance and the end of 2010.

1.2.10 Public finances

1.2.10.1 Fiscal developments in 2010

The general government deficit-to-GDP ratio increased from 0.9% in 2009 to 1.7% in 2010. The expenditure-to-GDP ratio declined by around 1 percentage point, largely on account of strong growth in nominal GDP (denominator effect). This was, however, more than offset by an even stronger decline in the revenue-to-GDP ratio. The latter is largely explained by the fact that GDP growth far outpaced the growth of wages and private consumption (which are, respectively, the most important bases for direct and indirect taxes). Furthermore, corporate income taxes were flat, having rebounded very strongly in 2009. The debt-to-GDP ratio continued its upward trajectory, increasing from 14.6% to 18.4%. This was largely on account of a sizeable deficit-debt adjustment because of borrowing that, in the end, was unnecessary because tax revenues exceeded expectations.

The 2010 budget deficit was below the 3.9% target set in the January 2010 stability programme update. This was because macroeconomic developments were much better than expected, yielding higher tax revenues.

1.2.10.2 Budgetary projections for the period from 2011 to 2013

The general government deficit-to-GDP ratio is projected to decline to around 1% in 2011, before rising back to 2% in 2013. The impact of the economic cycle on the change in the budget balance is judged to be slightly negative in 2011, but then slightly positive in 2012-2013. Thus, both the projected deficit reduction in 2011 and the subsequent deterioration are viewed as structural in nature. The general government debt-to-GDP ratio is projected to continue its upward trajectory, reaching almost 23% in 2013.

The revenue-to-GDP ratio is projected to remain broadly unchanged in 2011 and 2012, and then decline by about ½ of a percentage point in 2013. Tax measures introduced in January 2011, including a new personal income tax rate of 39%, an increase in the solidarity tax for households and corporations and a special crisis tax on household revenues, as well as higher social contributions related to the healthcare reform, should add around ½% of GDP to revenues in 2011. But this will be offset by the impact of a still unfavourable (i.e. tax poor) composition of output growth. Moreover, the projection assumes a modest decline in corporate income tax receipts from the present high level.

The expenditure-to-GDP ratio is projected to decline by around 1 percentage point in 2011 and stabilise thereafter. The decline in 2011 is due to more subdued spending growth, and in particular lower government investment as the impact of stimulus measures adopted at the height of the crisis unwinds. In 2012, however, the combined effect of pension indexation to real wages and increases in agreed public sector wages give rise to a projection in which the growth rate of spending is broadly in line with GDP and slightly exceeds that of trend GDP.

For 2011 and 2012, the ESCB projection points to the deficit-to-GDP ratio being broadly in line with the plans of the government as presented in the April 2011 update of the stability programme. However, a gap of about ½% of GDP opens up in 2013. This would seem to be mainly related to differences in the macroeconomic sce-

nario and more prudent revenue assumptions in the ESCB projection. Risks to the ESCB fiscal projection are viewed as being balanced.

1.2.10.3 Policy issues

While low by international standards, the deficits projected represent historically high levels for Luxembourg. Moreover, they would occur in spite of large social security system surpluses that are unsustainable over the longer term. In view of this, the April 2011 stability programme update is somewhat lacking in ambition as far as (progress towards) the government's medium-term objective is concerned. Firstly, the MTO of a structural surplus of ½% of GDP is below the ¾% of GDP recommended by the European Commission. Moreover, this objective is only to be achieved in 2015. This lack of ambition is unfortunate given that, according to the European Commission's Ageing Report (2009), Luxembourg would experience the largest increase in age-related spending in the EU over the coming decades. Furthermore, the European Council agreement of December 2007 on a regulation related to the taxation of electronic commerce will imply revenue losses for Luxembourg of 0.7-1.2% of GDP as of 2015. Against this background, the measures, already announced in May 2010 and implemented in the course of 2011 should be complemented by further measures as soon as possible. Expenditure-based consolidation should be given priority, and this could be supported by adoption of a medium-term budgetary framework with binding expenditure ceilings. Structural measures should also include a reform of the pension system.

Overall, the deficit-to-GDP ratio is projected to remain below the 3% of GDP reference value over the projection horizon. However, an adequate safety margin may be viewed as lacking given Luxembourg's position as a very small, open economy. The medium-term objective of a small budget surplus is not achieved. The debt-to-GDP ratio, although increasing, remains well below the 60% reference value.

Table 1.17: Fiscal developments in Luxembourg, 2009-2013

	2009	2010	2011	2012	2013	2010	2011	2012	2013
	(as a percentage of GDP)					(percentage change in nominal level)			
Total revenue	41.3	39.5	39.2	39.1	38.5	4.6	5.9	5.3	4.4
Legislation changes	0.0	-0.1	0.4	0.0	-0.2				
Total expenditure	42.2	41.2	40.3	40.4	40.4	6.8	4.2	6.0	5.8
Interest payments	0.4	0.4	0.6	0.6	0.7	22.1	49.7	18.6	13.6
						(change in percentage points of GDP)			
Budget balance	-0.9	-1.7	-1.0	-1.3	-1.8	-0.8	0.7	-0.3	-0.5
Cyclical component	-0.1	-0.3	-0.5	-0.3	-0.2	-0.2	-0.2	0.2	0.1
Temporary measures	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Structural balance	-0.8	-1.4	-0.5	-1.0	-1.6	-0.6	0.9	-0.5	-0.6
Cyclically adjusted primary balance	-0.4	-1.0	0.0	-0.4	-0.9	-0.6	1.1	-0.4	-0.5
Consolidated gross debt	14.6	18.4	18.6	21.0	22.6	3.9	0.2	2.4	1.6
<u>Latest stability programme</u>									
Budget balance		-1.7	-1.0	-1.5	-1.2		0.7	-0.5	0.3
Consolidated gross debt		18.4	17.5	19.8	21.4		-0.9	2.3	1.6

1) As a percentage of trend GDP.

Sources: IGF, IGSS, Statec, CNS, BCL calculations.

Box 1.6:

LABOUR MARKET IMPERFECTIONS AND PENSION REFORMS

Population ageing in most European countries will increase the dependency ratio, which raises many questions about the sustainability of our pay-as-you-go pension system. A general equilibrium model is a suitable tool to study these questions. Moreover, a realistic model of any European economy must include labour market imperfections and institutions.

Ageing, cross-border commuters and reforms in Luxembourg

In Luxembourg, population ageing will concern the residents but also the cross-border commuters. It is crucial in this respect to look at the sustainability of the pension system. To quantify the public finance effects of ageing, we use LOLA, a general equilibrium model with labour market frictions (see Pierrard and Sneessens, 2009, for more details). Our results are close to those obtained by the European Commission (see Table 1, rows "ageing EC" and "ageing LOLA"). All simulations highlight an impressive surge in pension expenditures.

Table 1: Increase in public deficit due to the population ageing in Luxembourg, excluding the interest rate burden (expected evolution under alternative scenarios, in percentage of GDP)

	2020	2050	2060
ageing EC	+1%	+16%	+18%
ageing LOLA	+1%	+14%	+15%
lower pensions	-1%	+9%	+10%
lower contributions	-1%	+10%	+11%
joint reforms	-2%	+6%	+6%

We therefore advocate a pension reform. Since the net replacement ratio in Luxembourg is largely above the ratio in the neighbouring countries (see OCDE.Stat), we believe that a decrease in this ratio could curb the increase in public expenditure and stimulate the activity rate without generating a generalised impoverishment of the population. The LOLA model shows that an immediate decrease by 10 percentage points in the net replacement ratio, which would move from 100% to 90%, would reduce in the end the adverse impact of population ageing on public expenditure from 15% to 10% of GDP (see Table 1, row "lower pensions").

Moreover, the OECD (see for instance Duval, 2003) recommends a decrease in the taxation rate for

the older workers in order to stimulate their activity rate. The LOLA model shows that an immediate reduction by 10-percentage points in the taxation rate for workers between 55 and 65 years (moving from 12%, including an 8% contribution for pensions, to 2%) is initially not very costly from a public finance perspective because only few people between 55 and 65 years have a job. On the other hand, the policy prompts people to defer their – early – retirement age. In the long run, the public deficit would increase by 11% of GDP "only" (see Table 1, row "lower contribution").¹

Savings and interest rates

LOLA is a small open economy (SOE) model, meaning that the interest rate is exogenous. However, de la Croix, Pierrard and Sneessens (2011) show that in a closed economy, labour market frictions generate a link between the interest rate and the unemployment rate. Indeed, a lower interest rate stimulates labour demand and hence the bargained wages. These higher wages in turn stimulate the work participation rates. In LOLA, the two policy reforms suggested above increase savings but do not change the interest rate (SOE assumption). The assumption that higher savings have at least some – downwards – effects on the interest rate would reinforce the positive effects of the reforms. Moreover, given the strong correlation between interest rates in Europe, Luxembourg could also benefit from pension reforms in the neighbouring countries.

Recent government proposals

Recently, the Luxembourgish government presented proposals to reform the pension system. Broadly speaking, the government suggests introducing more flexibility around the retirement age. Although the legal retirement age would remain fixed at 65 years, the reform would force the workers to choose between: (1) drawing their pension as soon as possible but with a reduction in the pension level, or (2) working longer to compensate the above-mentioned reduction in the pension level.

We believe that this proposal goes in the right direction. Public expenses would decrease as a result and the reform should stimulate the activity rate of older workers as well as encourage saving. However, the suggested implementation is very

¹ Obviously, our policy suggestions are immediate, linear and politically unfeasible. A practical implementation should be reasonably progressive – and should at the same time guarantee that pension policies are fully sustainable over the long term.

gradual and substantial effects would not happen until 2060. We therefore suggest going deeper in the pension reform (earlier implementation – also with a view to intergenerational fairness – and additional measures such as a looser link to real wage developments).

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Box 1.7:

FISCAL SUSTAINABILITY IN LUXEMBOURG: AN UPDATE

This box contains an assessment of the long-term sustainability of Luxembourg's public finances over the 2011-2040 period. This exercise is based on simulations, which are not projections *stricto sensu* as they merely attempt to highlight future developments based on the "unchanged policy assumption".

The salient conclusion of this exercise is that fiscal sustainability problems are deeply entrenched in Luxembourg in spite of the implementation of consolidation measures in 2011. Additional consolidation and structural measures should be considered.

Medium-term simulations: the salient assumptions

The simulations carried out in this section mainly rely on two sources, namely the work of the Ageing Working Group of the Economic policy Committee (AWG) and the 2011-2013 BCL macroeconomic projections presented above in this report. By assumption, economic growth is to reach 2.2% a year after 2013 (whereas it would be in line with the BCL macroeconomic projections from 2011 to 2013). The 2.2% assumption seems reasonable in the aftermath of the economic and financial crisis and is in line with the current BCL estimates of potential growth. Employment and productivity would grow by 0.5% and 1.7% a year, respectively. The inflation rate would be equal to 2% all over the simulation horizon. Although the relatively classic demographic assumptions will not be spelled out in detail, it is appropriate to note the large number of immigrants assumed in the simulations, equal to 3 000 to 4 000 people per year.

All the simulations are carried out in structural terms. For the 2011-2013 period the BCL has carried out projections of structural general government revenue, expenditure and the structural balance. In other words, revenue and expenditure are "cleared" of the impact of economic cycles and temporary measures. On the expenditure side, it is assumed that average wages and public employment will increase at the same speed as in the private sector throughout the projection horizon. This means that in the steady state, public employment will increase by 0.5% per year, which seems moderate compared to the evolution observed in the last ten years. As far as social security is concerned, pension expenditures (both general - i.e. private sector - regime and the special regimes dedicated to, *inter alia*, civil servants), health insurance, unemployment allowances and dependency insurance are supposed to evolve in about the same manner as in the AWG basis scenario. This induces a strong increase of primary expenditure linked to these four sectors, by 13% of GDP, between 2011 and 2040. However, this impact is moderated by the treatment of family allowances applied in the simulations. This item, which carries a certain weight in Luxembourg, is not considered in the AWG study. To infer the long-term evolution of this item, national family allowances are presumed not to be indexed to prices all over the simulation horizon, in line with the decisions adopted in April 2006. Similarly, it is also presumed that the Luxembourgish authorities will not implement new measures regarding family allowances. The nominal amount of these benefits is consequently frozen throughout the projection period. Therefore, in the simulations presented in this section, the cost of these benefits will fall from 2.7% of GDP in 2011 to only 1.0% of GDP in 2040.

This decrease by 1.7% of GDP covers about one sixth of the additional cost expected from pensions.

On the revenue side, the general rule to which the simulations stick is that revenues grow proportionally to GDP. However, there are several exceptions to the proportionality principle. First, contrary to the AWG, the BCL takes into consideration the positive impact of the marked increase in pensions on two revenue categories, namely social contributions paid by pensioners (health and dependency insurance), and direct taxes. This effect, which mitigates somewhat the fiscal impact of population ageing, cannot be ignored. Indeed, it improves the primary public balance by about 1% of GDP over the simulation horizon. Second, interest receivable is estimated in line with general government assets and consequently does not remain stable compared to GDP. The rate of return on capital is supposed to attain 3.5% per year. The implicit interest rate on debt is also fixed at 3.5% in nominal terms over the simulation period.

In addition, the simulations take into account general government assets other than pension reserves amounting to 10% of GDP at the end of 2010. These assets incorporate the "Fortis" shares acquired by the State during the economic and financial crisis, which amounted to EUR 2 500 million. These general government assets are assumed to decline gradually over the simulation horizon, which dampens the resort to debt financing.

Finally, it is considered in the simulation that three major risks will materialise during the projection horizon. First, direct taxes on corporations would gradually converge to the euro area average, in line with the assumption of a less dynamic financial sector. Second, a gradual decline of "Tanktourismus" ("oil tourism") over the simulation horizon is considered. Third, VAT revenue will disappear from 2019 onwards (and will start to decline steeply in 2015), in line with the "VAT package" approved by the European council in December 2007.

Medium-term simulations: the results

Conditional upon the assumptions described above, public finances would develop as announced in the table below. The total revenue ratio would decrease over time, as electronic VAT, direct taxes on corporations and "Tanktourismus" would gradually decline. The revenue ratio would go down from 38%

of GDP in 2013 to 34% in 2040. In addition, interest receivable would wither away due to the progressive disappearance of pension reserves.

The expenditure ratio would increase in a significant way over the simulation horizon, due in particular to increasing social transfers. Interest payable would also go up, which reflects the inherent dangers of a poorly controlled indebtedness dynamic. General government deficits would significantly exceed the 3% of GDP level from 2016 onwards and gross consolidated debt would steeply increase as a result. It would exceed 20% of GDP in 2013 and would cross the 60% of GDP reference value in 2026. It would exceed 200% of GDP by the end of the projection horizon, of which close to 100% of GDP is related to the pension systems. These results are only marginally more favourable than the results commented in the BCL opinion on the 2011 draft budget, published in November 2010. Moreover, this slight improvement is the reflection of upward revisions in the GDP level and is therefore not of a structural nature.

These results are only partially attributable to the assumption of declining direct taxes and electronic VAT. Even when these two revenue items are kept constant, the debt ratio exceeds 60% of GDP from 2028 onwards and would amount to 175% of GDP in 2040, as indicated in the last row of the table below.

In these circumstances, the BCL must reiterate the two recommendations already made in its opinion on the draft 2011 State budget. First, the Luxembourg general government should reach as quickly as possible and in 2015 at the latest the Medium-Term Objective (MTO) of a surplus equal to at least 1% of GDP. Second, structural reforms should be implemented in parallel in the social sector. The first recommendation implies a fiscal consolidation amounting to at least 4% of GDP by 2015. As indicated in the table above, the structural deficit would indeed amount to 3% of GDP in 2015.

The "pension à la carte" mechanism presented by the government on 17 March 2011 would not radically improve fiscal sustainability because its implementation would be very gradual. It would indeed only concern new pensioners and would be confined to the part of their career falling after the reform's entry into force.

Table 1: General government fiscal situation with gradual decline of electronic VAT, “Tanktourismus” revenue and direct taxes on corporations (as percentages of trend GDP)

	2013	2014	2015	2020	2025	2030	2035	2040
Total revenue	38.4	38.4	37.6	36.9	36.0	35.2	34.8	34.3
Direct taxes	13.0	12.9	12.9	12.7	12.5	12.3	12.2	12.0
Indirect taxes	10.7	10.6	9.8	9.1	8.8	8.4	8.1	7.7
Social contributions	11.6	11.6	11.6	11.6	11.7	11.8	11.9	12.0
Interest income	0.6	0.7	0.7	0.8	0.4	0.0	0.0	0.0
Others	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Total expenditure	40.0	40.4	40.6	42.6	45.7	48.9	53.3	57.4
Social transfers	20.4	20.7	21.0	22.5	24.9	27.1	29.6	31.5
Public investments	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Compensation of employees	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
Other primary expenditure	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
Interest charges	0.7	0.8	0.8	1.2	1.8	2.9	4.8	7.0
Deficit (-) or surplus (+)	-1.6	-2.0	-3.0	-5.7	-9.6	-13.7	-18.5	-23.1
Public debt	22.3	22.7	24.8	39.1	57.6	96.3	154.9	224.0
of which pension debt	-25.7	-25.9	-25.8	-21.4	-7.2	17.7	53.2	97.0
<i>Debt with constant “tanktourismus” and corporate taxes</i>	22.3	22.5	24.4	35.3	47.2	76.1	121.9	175.3

Sources: Ageing Working Group, International Energy Agency, Eurostat, IGSS, Statec, BCL calculations.



02

THE BCL'S ACTIVITIES



2 THE BCL'S ACTIVITIES

2.1 MONETARY POLICY OPERATIONS

In the Grand-Duchy of Luxembourg, BCL is responsible for conducting the monetary policy as defined by the ECB, for the entire euro area.

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. MRO 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 with 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 overnight deposits with BCL at the end of the day.

Minimum reserves

The financial institutions of the euro area are subject to a system of mandatory minimum reserves to be held on accounts opened at their national central bank (NCB).

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

The amount of reserves to be held is determined according to the balance sheet of the financial institution.

Temporary currency auction facilities

Besides the regular monetary policy operations, the Eurosystem added temporary currency tender operations. Since the end of 2007, financial institutions of the euro area 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 facility), through which the ECB, via the NCBs, provides dollars to counterparties through tender operations against eligible collateral. These agreements have been renewed in December 2010 at least until August 2011.

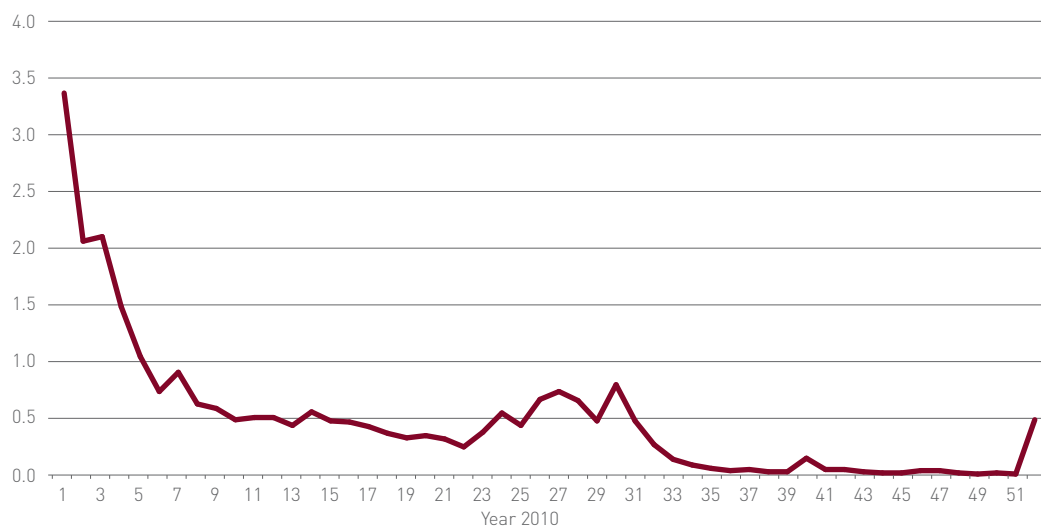
Similar operations set up with the Swiss National Bank in order to provide Swiss francs liquidities to financial institutions were suspended in January 2010.

2.1.1 Open market operations

2.1.1.1 Main refinancing operations (MRO) in 2010

Chart 2.1:

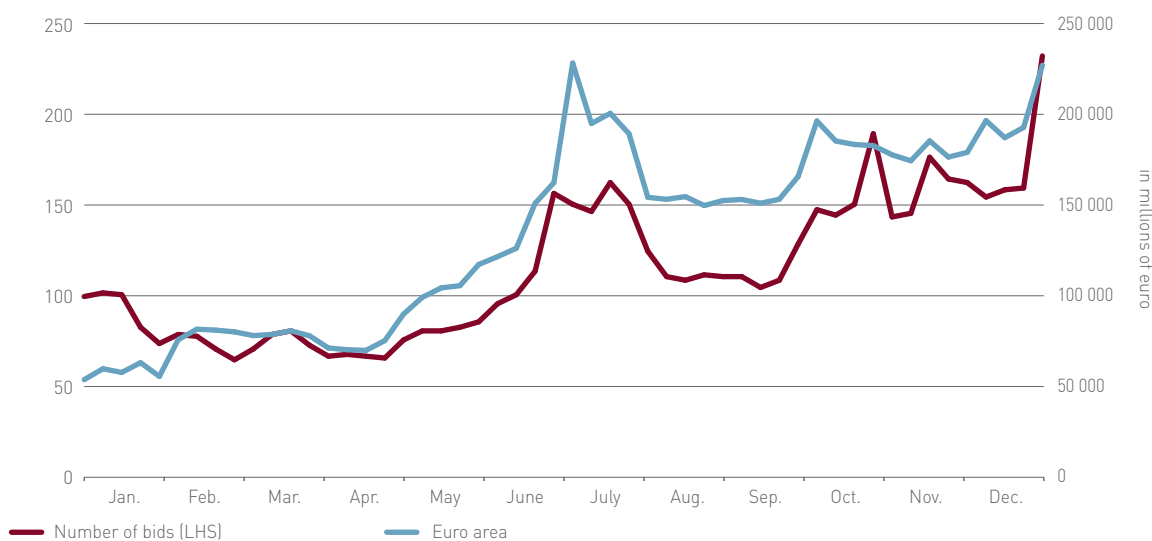
MRO 2010: % of allotted amounts LU / euro area



Since October 2008, the MRO have been conducted on a full allotment and fixed rate basis. This non-conventional measure was effective all through the year 2010. It is foreseen that this allotment method be maintained as long as necessary and at least until 12 July 2011, which corresponds to the end of the sixth maintenance period for the minimum reserves.

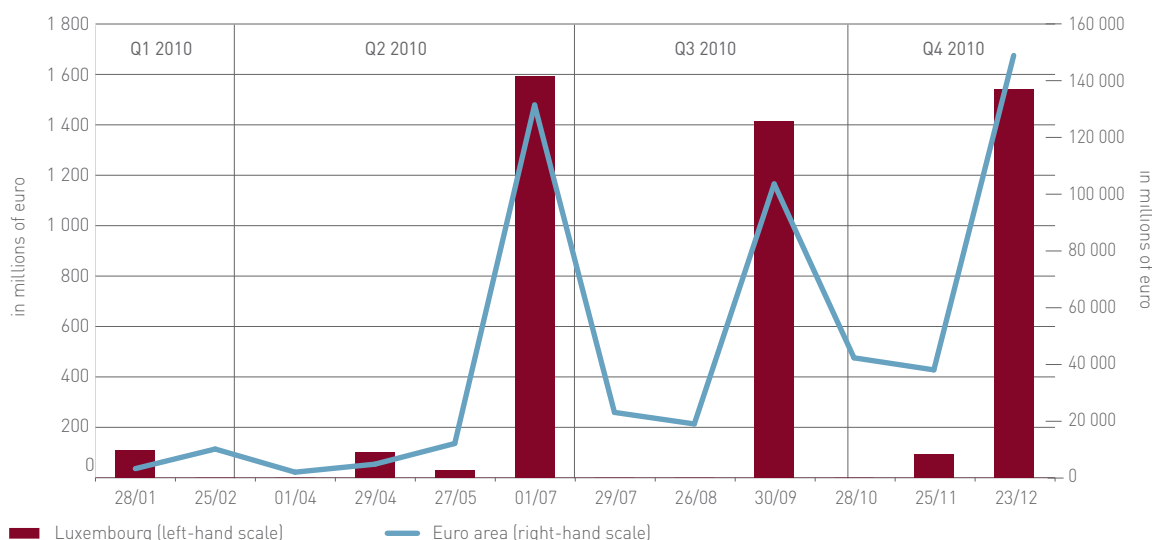
The percentage of participation of Luxembourg compared to the euro area remained at a level situated below 1% during the main part of 2010.

Chart 2.2:
MRO - Number of bids and volume allotted in the euro area



2.1.1.2 Longer-term refinancing operations (LTRO) in 2010

Chart 2.3:
LTRO 3 months - Allotments in LU and the euro area in 2010



On top of the regular 3-month operations (12 over the year), two additional 6-month operations were conducted in 2010. These operations were allotted at 100%, at an adjustable rate that is computed at the maturity of the operation. This rate is fixed as being the average of the minimum bid rates of the main refinancing operations during the life of the operation.

The Eurosystem announced that one maintenance period operations would be continued and allotted at 100% and at a fixed rate at least until the second quarter of 2011.

Luxembourgish counterparties did not participate in the supplementary 6-month operations, neither to one maintenance period operations.

2009 one-year operations coming to maturity did not have a significant impact in Luxembourg. Amounts that came to maturity were only partly renewed through the regular 3-month operations.

2.1.1.3 Fine tuning operations in 2010

Liquidity absorbing operations

Since 2008, this type of operations is open to all counterparties. In 2010, fine tuning operations were used exclusively on the last day of the maintenance period, in order to absorb excess liquidities.

Twelve operations of this type were conducted in 2010.

Both volumes and numbers of participating banks have decreased for Luxembourg and euro area over the year.

Chart 2.4:

Fine tuning operations on the last day of the maintenance period – amount absorbed – LU and euro area

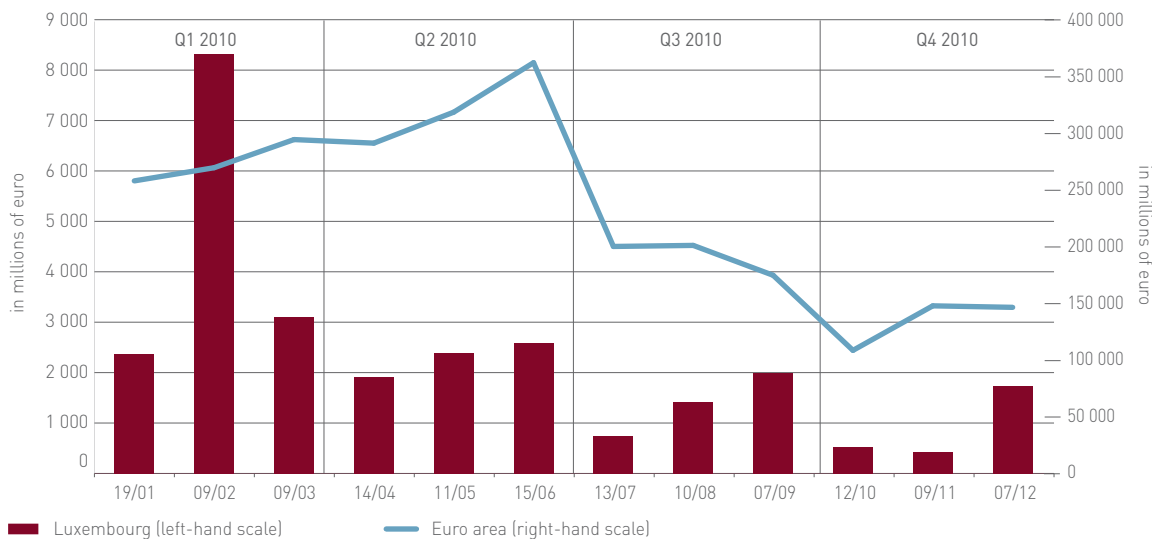
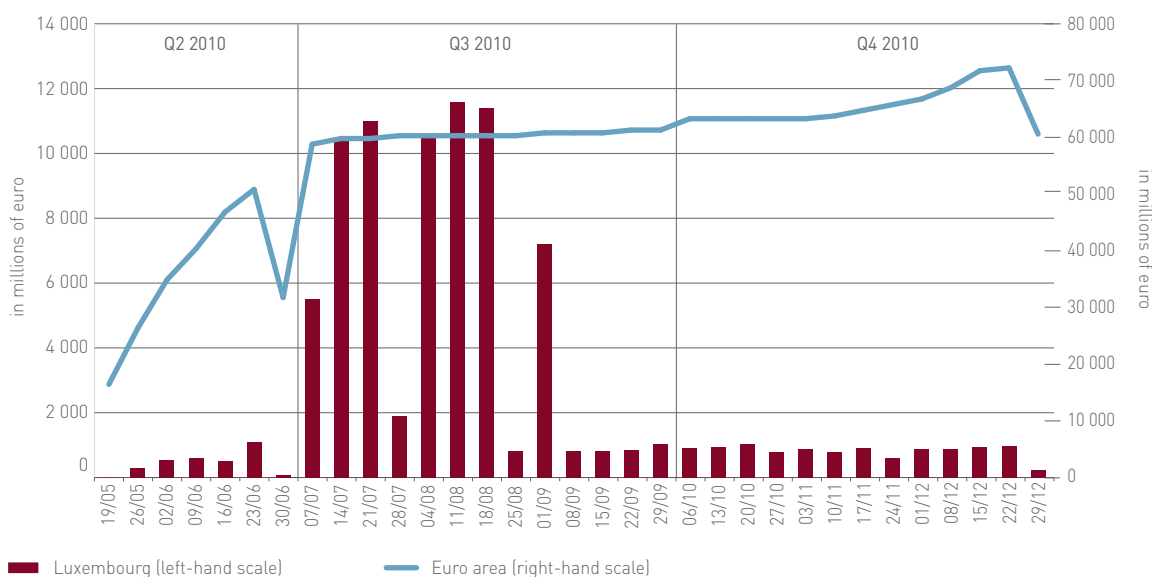


Chart 2.5:

Liquidity – providing operations – LU and euro area



From May 2010, one-week operations took place aiming at absorbing liquidity injected through the Securities Markets Programme (see point 2.1.5 below). In all, 33 operations of this type have been conducted in 2010, absorbing on average EUR 2.7 billion in Luxembourg (with a minimum of EUR 71 million and a maximum of EUR 11.6 billion) and EUR 57.2 billion in the euro area.

Liquidity providing operations

Exceptionally, at maturity of one-year and six-month operations, 6-day and 13-day operations were conducted to enable counterparties to receive liquidity until the next main refinancing operation. There have been 4 operations of this type in 2010 without any Luxembourgish participation for the 2 last operations.

2.1.2 Standing facilities

Luxembourgish counterparties may resort to daily standing facilities with the BCL, i.e. deposit or marginal lending facilities, at a rate fixed beforehand. Those rates are related to the reference rate of the ECB.

Marginal lending facility

In 2010 the marginal lending facility was only used on ad hoc basis by the Luxembourgish counterparties.

Deposit facility

After a stability phase during the first quarter, the use of the deposit facility in Luxembourg has regularly increased until the end of the one-year operation (beginning of July 2010) before declining slowly.

2.1.3 Minimum reserves

The euro area counterparties are required to build reserves at the NCB of their country of residence. Those obligations have to be kept on an average over a fixed period. The counterparties can make free use of their liquidities over the period, which helps stabilising the market.

In 2010, for Luxembourg, the amount of excess reserves were kept close to those registered in 2009.

2.1.4 Temporary currency auction facilities

USD operations

In May 2010, the Eurosystem, in cooperation with the Federal Reserve System, resumed to supply dollar liquidities against eligible collateral used for regular operations. These operations were conducted as reverse transactions with a maturity of 7 or 84 days (only one 84-day operation took place in 2010).

In 2010, euro area and Luxembourgish counterparties did not take great interest in those operations. All bids received have been satisfied at pre-announced fixed rates.

In December 2010, the Eurosystem announced the extension of these operations until August 2011.

CHF operations

CHF liquidity providing operations introduced in 2008, in cooperation with the Swiss National Bank, were discontinued in January 2010.

A press release published on 18 January 2010 announced the expiration of those operations given decreasing demand and the improvement in the functioning of this market segment.

2.1.5 Covered bond purchase programme and Securities markets programme

Covered bond purchase programme

The covered bond market is a key instrument for the credit institutions' funding. This market segment was particularly affected by the financial crisis.

In May 2009, the Eurosystem decided to step in the primary and secondary covered bond markets for an amount of EUR 60 billion.

This objective has been achieved in June 2010. The Eurosystem intends to keep the purchased covered bonds until maturity.

Securities markets programme

In May 2010, the Eurosystem decided to conduct an exceptional securities markets programme.

The objective of this programme is to address the malfunctioning of securities markets and restore an appropriate monetary policy transmission mechanism.

In order to sterilise the impact of the interventions, the Eurosystem conducts specific operations to re-absorb the liquidity injected through the Programme.

2.2 FOREIGN EXCHANGE RESERVES MANAGEMENT BY THE BCL

In accordance with the Statutes 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 NCBs since January 1999. As a result of 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 0.1747% since 1st January 2010. As of the 31st of December 2010, the total market value of the ECB's reserves (including accrued interest) managed by the BCL corresponded to €303.1 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, 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

The Risk Management 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 from the Front Office. This monitoring structure has been completed 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

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 section 2.3.2). As of the 31st of December 2010 the total market value (including accrued interest) amounted to 2 040.7 million euro.

In 2010, the share of this portfolio invested in fixed income securities with a maturity above three years was raised from 32% to 43%, whereas the percentage of bonds with a one to three-year maturity increased from 31% to 44%. Moreover, by the end of 2010, variable rate and fixed rate bonds with maturity under one year represented 13% 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

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 at maximising 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 2010, the total market value (including accrued interest) amounted to 4 372.5 million euro.

Table 2.1: Breakdown of reserves as of the 31st of December 2010

Maturity	Portfolio 1	Portfolio 2
0-1 year	13%	55%
1-3 years	44%	35%
3-10 years	43%	10%

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 the 31st of December 2010, the total market value (including accrued interest) of this portfolio in foreign currencies amounted to 200.6 million euro.

Pension Fund Portfolio

The management of this Fund is described further in section 4.4.3 of this report.

Third Party Portfolios

The BCL provides non-standardised discretionary management services to institutional clients (central banks and international organisations). Furthermore, the Bank acts as one of the Eurosystem service providers (ESP). 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 framework of harmonised services defined by the ECB.

2.4 BANKNOTES AND COINS

2.4.1 Production of banknotes and coins

In the Eurosystem the euro banknote production is allocated according to a decentralised pooling scenario adopted in 2002 according to which each NCB of the euro area is responsible for the supply of one part of the total requirements. The euro banknotes are produced in accordance with the requirements expressed by the participating NCBs and aggregated by the ECB. In 2010, the BCL was in charge of the production of 17.8 million €20 banknotes for the Eurosystem's needs (26.4 million in 2009). The BCL has supplied these banknotes via a tender. Besides the BCL received 38.2 million banknotes from other NCBs for its own purposes (74.2 million in 2009).

According to an agreement with the State of Luxembourg, the BCL is also responsible for the production of Luxembourg's euro coins and puts them into circulation. Following an invitation to tender, the BCL commissioned the production of 42.2 million coins of the 2010 series to cover the needs of economic actors and numismatists.

2.4.2 Circulation of banknotes and coins

2.4.2.1 Euro banknotes and coins

2.4.2.1.1 Banknotes

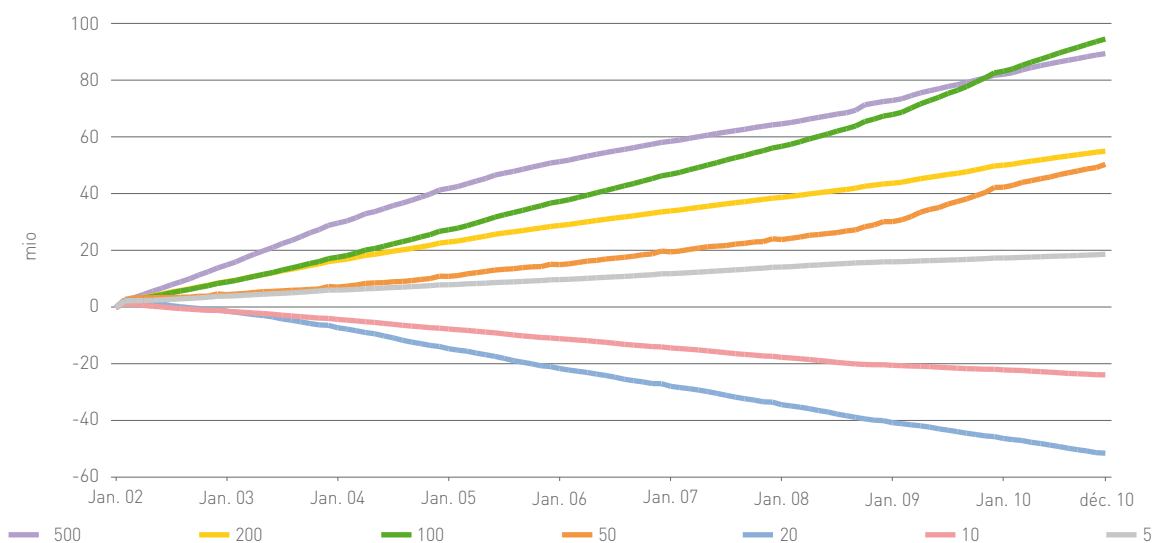
The total net volume of banknotes issued by the BCL in the course of 2010 amounts to 26.5 million banknotes compared to 37.1 million banknotes in 2009, representing a decline of 29%. This is partly due to the reversal of the strong increase in the demand for banknotes which occurred at the height of the financial crisis of 2008. Despite this evolution, the BCL contributed even so with some 5.0% to the total volume of banknotes put into circulation by the Eurosystem, compared with 2.6% in 2009.

Furthermore, the number of €10 and €20 banknotes lodged at the BCL exceeds the volume of banknotes issued. This can be explained by the fact that financial institutions lodged more of these banknotes at the BCL than they withdrew, demonstrating the contribution of tourists and cross-border workers¹, where these denominations are more widely used.

Looking at the high denominations (€100, €200 and €500), the demand in Luxembourg and in the euro area remained buoyant in 2010.

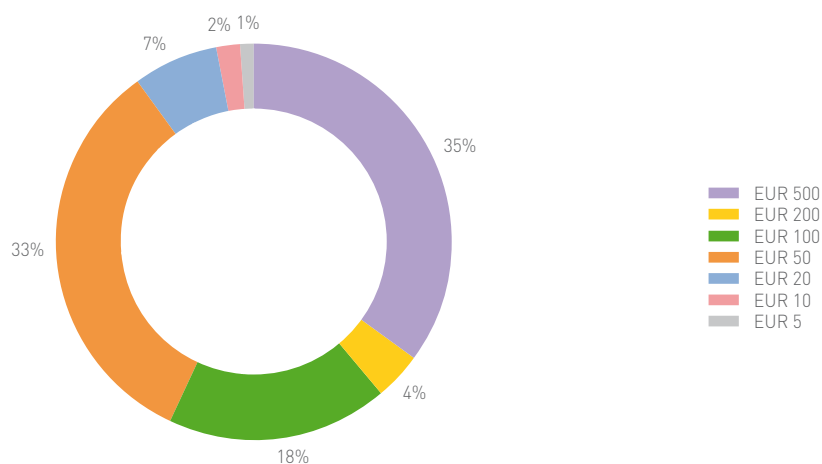
The chart below illustrates the different trends in the development of the circulation of the different denominations.

Chart 2.6:
Denominational breakdown of the number of euro banknotes put into circulation by the BCL



Source: BCL

Chart 2.7:
Value of euro banknotes put into circulation by the Eurosystem by denomination



Source: BCE

1 Cross-border workers represented around 40% of total employment in Luxembourg in 2010.

The net issuance of banknotes in Luxembourg grew at a moderate pace in 2010: It rose by €6.4 billion, i.e. +10.5% on a yearly basis, to reach 66.9 billion at end-December 2010. This increase was less pronounced than in 2009 (+15.1%) and 2008 (+13.9%). The latter year was characterised by a strong rise in the demand for banknotes in September and October.

Moreover in terms of net issuance, Luxembourg remained in fifth position in the Eurosystem, behind Germany (€366.7 billion), Italy (€145.4 billion), France (€81.1 billion) and Spain (€76.6 billion). In fact, the annual increase of net issuance in Luxembourg was also higher than that noticed in the euro area as a whole (+4.1%, after +5.7% in 2009), where net issuance reached €839.7 billion at end-December 2010 (€806.4 billion at end-December 2009).

2.4.2.1.2 Coins

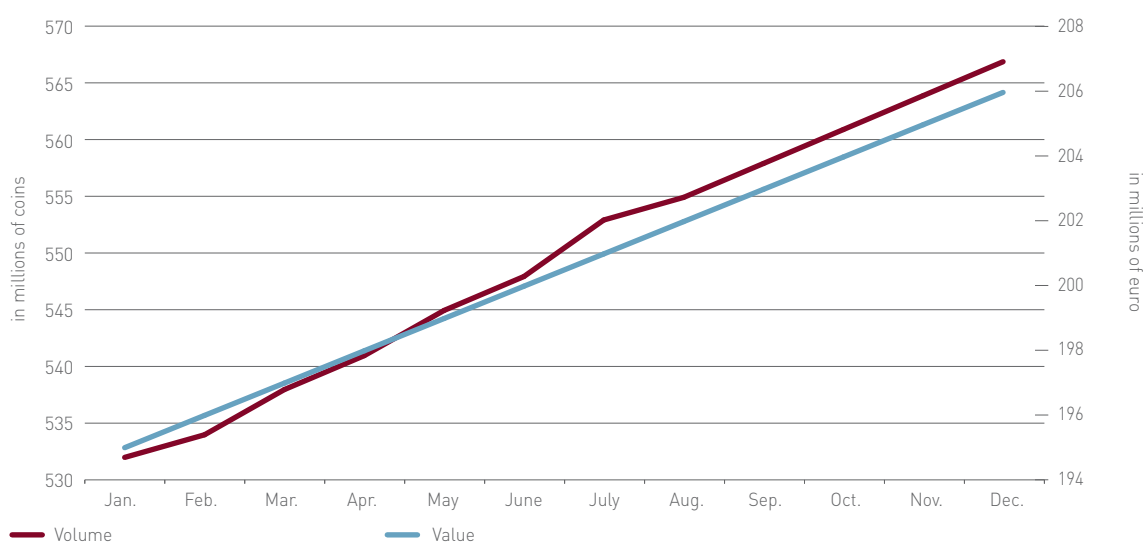
Luxembourg euro coins continued to be strongly demanded by the public. Although a slight deceleration can be noticed, the total value of coins put into circulation increased by 6.8% in 2010 compared to 9.6% in 2009. It rose from €192.7 million to €205.8 million.

The number of coins issued in the course of 2010 increased by 38.4 million coins, equalling a growth of 7.3%, and reaching a total of 566.9 million Luxembourg coins at the end of 2010.

The following chart shows the development both in terms of volume and value of Luxembourg euro coins in circulation throughout 2010. The demand for Luxembourg coins grew steadily in the course of the year.

Chart 2.8:

Volume and value of Luxembourg euro coins put in circulation in 2010



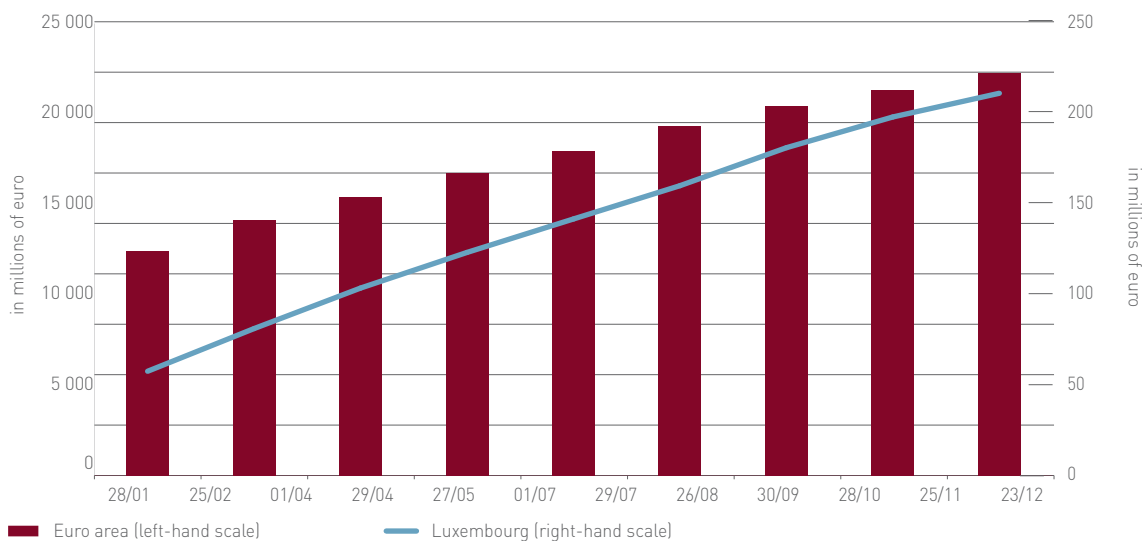
Source: BCL

Within the euro area, Luxembourg contributes to 0.9% of the total value issued by all the issuing authorities and to 0.6% of the total volume. The average value of the Luxembourg euro coins in circulation amounts to 36 cents, in comparison with an average of 24 cents in the euro area.

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.

Chart 2.9:

Comparison of the circulation volume of the different euro coin denominations in Luxembourg and the euro area

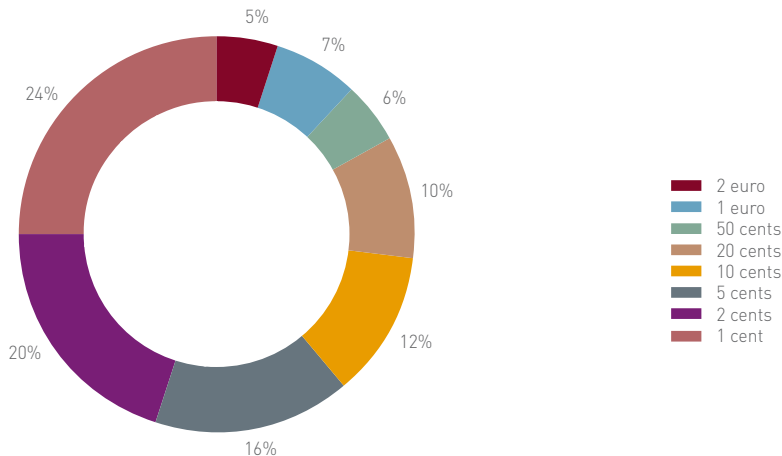


Sources: ECB and BCL

The total value of euro coins put into circulation by the Eurosystem increased from €21.3 billion in 2009 to €22.3 billion in 2010, whereas the total volume of coins reached €92.9 billion. The following chart shows the denominational breakdown of this volume at the euro area level:

Chart 2.10:

Breakdown by denomination of the volume of coins of the euro area in circulation



Source: ECB

2.4.2.2 Luxembourg franc banknotes and coins

In 2010, the total value of Luxembourg franc banknotes issued by the *Institut Monétaire Luxembourgeois* not yet exchanged fell from LUF 209.8 million to LUF 208.3 million, which equals a decline of 0.7% (nearly the same as last year). In this period, the volume of 5 000 LUF banknotes not yet returned underwent the most pronounced decline (1.3%), while that of 1 000 LUF and the 100 LUF banknotes fell both by 0.5%.

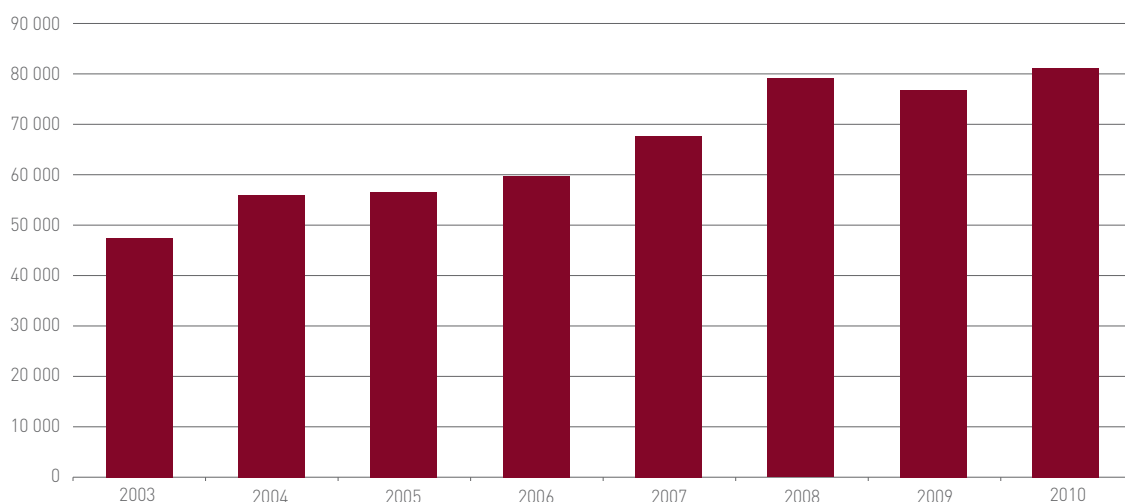
2.4.3 Handling of banknotes and coins

The number of euro banknotes returned by financial institutions to the BCL has increased by 5.8% from 77.1 million in 2008 to 81.6 million in 2009.

The chart below describes the evolution of the number of euro banknotes lodged by financial institutions to the BCL.

Chart 2.11:

Lodgments of euro banknotes by financial institutions at the BCL (thousands of banknotes)



Source: BCL

The number of euro banknotes processed by sorting machines increased by some 1.6% from 76.2 million in 2009 to 77.5 million in 2010. These sorting machines carry out authenticity tests as well as soiling tests. Nearly 15 million notes of all denominations had to be destroyed as they were unfit for circulation, which equals to a destruction rate of 19.3%. This percentage varied strongly between the denominations processed and ranged from 7% for the €500 banknote to 53% for the €5.

2.4.4 National and international cooperation

In the field of the fight against counterfeiting of euro banknotes and coins, the BCL continues to cooperate closely with the ECB and the competent national authorities. For the analysis of counterfeit and unfit euro banknotes and coins, the BCL has collaborated since 2002 under the terms of an agreement with the Banque de France and the Deutsche Bundesbank.

As in the past, the BCL continues the training of bank cashiers with the support of the *Institut de Formation Bancaire Luxembourg*.

The BCL participates in the preparation of a new euro banknote series. The design of this new series, based as well on the theme "Ages and styles in Europe" will be slightly adapted. New security features are being incorporated in order to ensure a maximum protection against counterfeiting and an easy identification of counterfeits by the public. The new euro banknote series' introduction is expected in the coming years and will be gradual. The release calendar, the issuance sequence and the exchange conditions of the new series will be announced in due time.

For a number of years now, the BCL participated in a pooling process with seven other central banks in order to produce its share of banknotes for the Eurosystem. This European call for tender, which aims at sharing resources and experience needed for monitoring the production of banknotes, paves the way for the future single Eurosystem tender procedure.

The BCL collaborates also with five other Eurosystem central banks on the management and maintenance of the Cash SSP software. This software allows the Cash Department not only the management of its banknotes and coins stocks, the monitoring of its sorting activity of fiduciary money but also the secure reception of deposits and withdrawals announcements by commercial banks.

2.4.5 Numismatic issues

The BCL continues to offer numismatic products through several distribution channels in order to meet the collectors' interest and inform them about Luxembourg's history and culture. The public has access to the BCL's numismatic premises, where more than 4 200 sales operations were carried out in 2010. The BCL has sent nearly 5 000 parcels to its numismatic clientele, which had made use of the mail order facility or the Internet shop of the BCL (<https://eshop.bcl.lu>).

In the course of 2010, the BCL issued the following numismatic products:

- A €2 commemorative coin, minted in 500 000 units was put in circulation in January 2010. This coin, depicting the effigy of the Grand-Duke Henri and his coat of arms, was issued in BU quality as a coin card limited to 7 500 units.
- The 2010 BU set, comprising Luxembourg's euro coins of the 2010 series (including the €2 commemorative coin) (7 500 units).
- The 2010 BENELUX set offering 8 coins of the 2010 series of each of the three-member countries (10 000 units).
- The 2010 Proof set features 9 coins (1 500 sets).
- A silver-niobium coin dedicated to the castle of Esch-sur-Sûre, issued in June 2010 in an edition of 3 000 pieces, constitutes the second element of the series dedicated to the Castles of Luxembourg.
- A silver-titanium coin dedicated to the 25th anniversary of the signature of the Treaty of Schengen, was issued in June 2010 in an edition of 3 000 pieces.
- A silver coin issued in September 2010 in an edition of 3 000 pieces was dedicated to the 700th anniversary of the wedding of John of Luxembourg with Elisabeth of Bohemia.
- A silver and nordic gold coin issued in October 2010 in an edition of 3 000 units, was dedicated to the "Arnica Montana", constituting the second element of the series devoted to the fauna and flora of Luxembourg.

2.5 DEVELOPMENTS IN THE FIELD OF STATISTICS

During 2010, the ongoing assessment of statistical data collection, compilation and dissemination has still been heavily influenced by the recent financial crisis. Therefore, particular attention has been dedicated to the preparation of statistical information needed in the area of financial stability analysis as well as in the framework of the European Systemic Risk Board (ERSB) that was established at the end of 2010.

In this area several regulations and guidelines of the European Central Bank that relate to monetary, banking and financial statistics have come into force; therefore, in order to draw a more complete picture of the financial sector, the ESCB has developed statistics on insurance corporations and pension funds.

Finally, the BCL publishes on its website a vast set of statistical series covering the financial sector. During 2010 several updates, prepared in 2009, were uploaded in order to broaden the statistical information put at the public's disposal.

2.5.1 Money and banking statistics

The past year has been marked by the introduction of new layouts of the main statistical reports that have to be submitted by monetary financial institutions, i.e. credit institutions and money market funds. The aim of this revision of the data collection system was to increase the quality as well as the coverage of statistical information concerning the balance sheet while increasing efficiency by integrating the security-by-security and the balance sheet data collection. The information provided by the statistical data collection in the monetary financial institutions sector is an essential component for the conduct of monetary policy in the euro area as well as for the mission of the BCL in the areas of financial stability and liquidity surveillance.

The BCL also participates in the production of Short Term European Paper statistics that are published daily by the ECB.

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).

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 informs the public of the major 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, jointly with the STATEC, continued to progress in the development of a new balance of payments collection system. BCL has in particular discussed the future reporting requirements with the reporting agents.

2.5.3 Economic and financial statistics

In January 2010, the BCL started to collect statistical data from securitisation vehicles. The objective of this data collection is to provide the users with quarterly statistical information on assets and liabilities of resident securitisation vehicles. In this context, it is important to mention that the BCL has the ECB in establishing the list of euro area securitisation vehicles that is updated on a regular basis.

In addition, the BCL has updated the statistical data collection for money market funds in order to ease the reporting burden. As a consequence of this update the layout of the statistical data collection for money market funds and non monetary investments funds is now strictly identical although the frequency is higher for money market funds.

Finally, according to the cooperation agreement signed with the National Statistical Institute (STATEC) relating to the development of financial accounts, the BCL participates in the compilation of the latter.

2.5.4 Other statistics

For some fifteen years, central banks of the ESCB have collected 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, that are largely harmonised, are published on an annual basis in the so-called "Blue Book".

2.6 PAYMENTS AND SECURITY SETTLEMENT SYSTEMS

2.6.1 TARGET2-LU

Since the 19th of November 2007, the real time gross settlement system TARGET2 has run on the new Single Shared Platform (SSP) operated in common by the central banks of the Eurosystem. 28 direct participants (25 in 2007), 44 indirect participants and two ancillary systems are registered with the Luxembourgish component TARGET2-LU.

Domestic payments

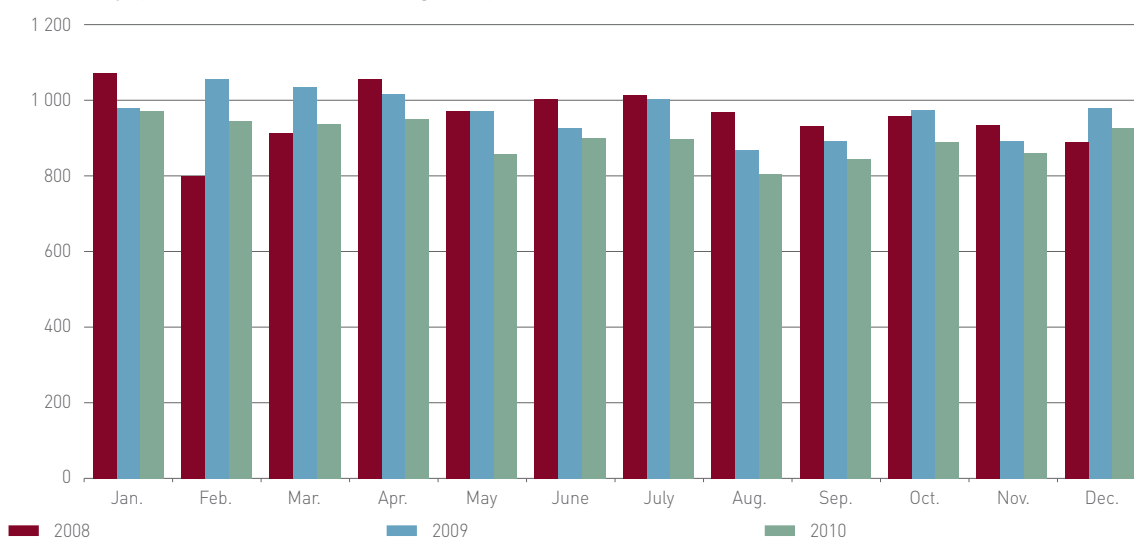
In 2010, participants of TARGET2-LU exchanged a monthly average of 19 379 payments (against 20 684 in 2009) for a value of 87.9 billion euro (against 267.8 billion euro in 2009). 12 588 or 65.0% of these payments were retail payments. Their value represented a monthly average of 5.6 billion euro or 6.4% of the domestic value exchanged.

The decrease of volumes triggered by the financial crisis of 2008 have continued in TARGET2-LU in 2010. In comparison to 2009, the reduction in 2010 was 6.3%. The decrease in values exchanged was attributable for over 80% of BCL's own transfers. It relied for a major part on a changed methodology that for the year 2010 eliminated start-of-day transfers of participants' balances from the statistics. A minor part was triggered by a decrease in the use of different monetary policy instruments.

The following chart illustrates the development of average daily volumes in domestic payments.

Chart 2.12:

Domestic payments: evolution of average daily volumes



Cross-border payments

In 2010, participants in TARGET2-LU sent a monthly average of 45 774 payments towards other countries of the EU (42 232 payments in 2009) for an average value of 570.6 billion euro (573.3 billion euro in 2009). The figures include 22 408 retail payments representing 48.9% of the total. Their relative part is decreasing by 5% following the strong increase of interbank payments from 19 419 transactions in 2009 to 23 363 transactions in 2010 (+20%). Customer payments amounted to a monthly average value of 16.8 billion euro representing 2.9% of the total cross-border value.

The volume of cross-border payments saw a global increase of 8.4% whereas the value exchanged decreased by 0.5% in comparison to 2009. The average value per transaction sent was 12.5 million euro (against 13.6 million euro in 2009). The average value of an interbank payment decreased from 28.7 million euro to 23.7 million euro.

With a monthly average of 36 431 payments, participants in TARGET2-LU received less payments than they sent.

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

Chart 2.13:

Cross-border payments sent: evolution of average daily volumes

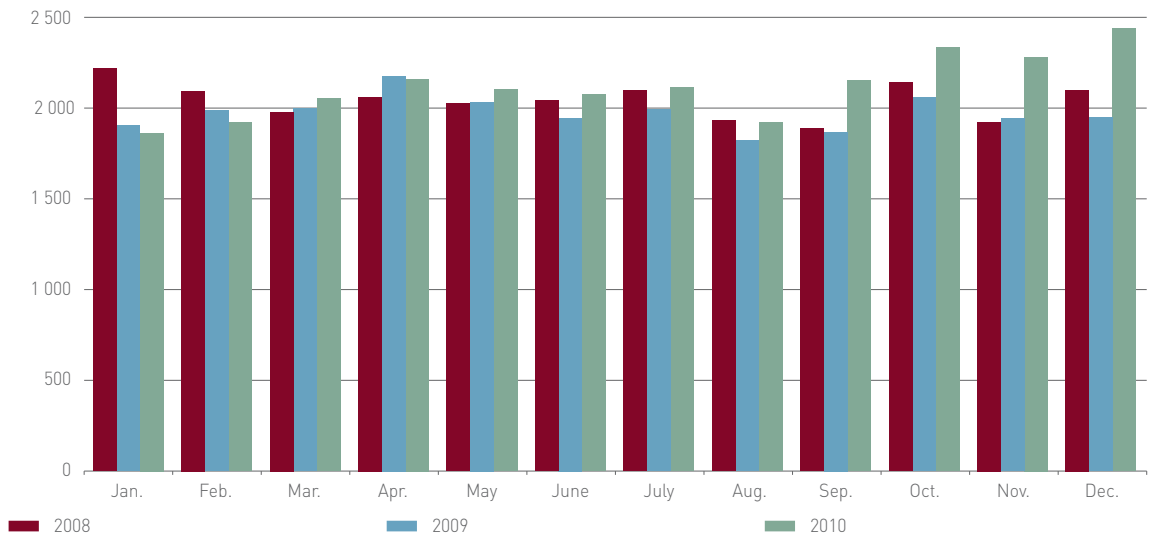
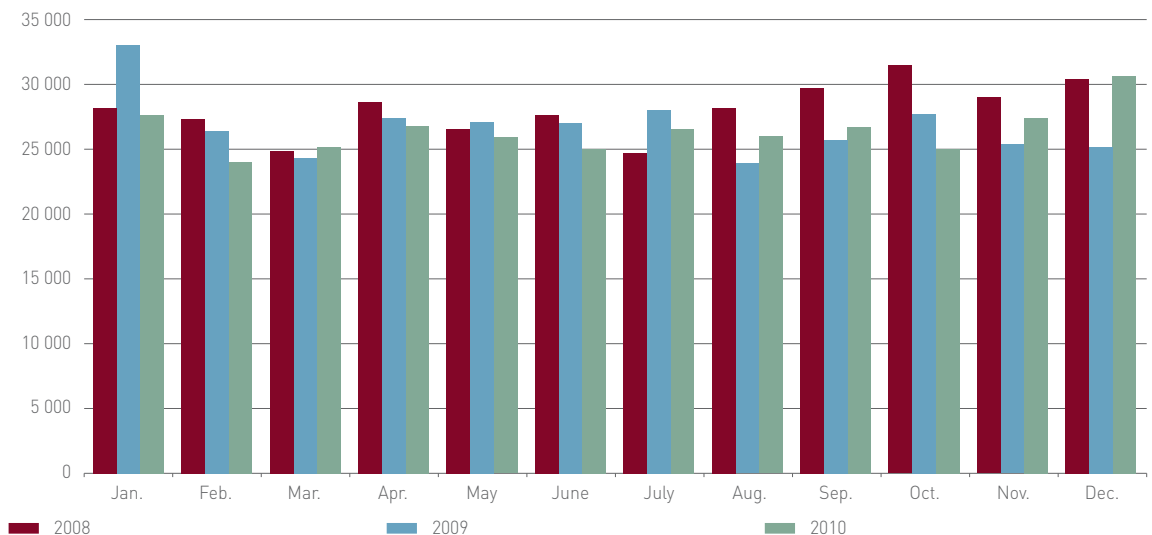


Chart 2.14:

Cross-border payments sent: evolution of average daily volumes (million euro)



Aggregated figures of domestic and cross-border payments

The total number of payments sent by participants in TARGET2-LU in 2010 amounted to 781 838 transactions (754 980 in 2009, increase of 3.5% in one year). 419 950 or 55.6% of all payments were retail payments.

The following table provides a global overview of average daily volumes of payments per year. The total volumes exchanged in 2010 have slightly increased in comparison to 2009, and the increase was exclusively attributable to cross-border transfers.

The average monthly value of all payments sent was 658.5 billion euro of which 22.4 billion euro (3.4%) for retail payments.

Table 2.2: Volumes of payments in daily averages

	Domestic		Cross-border sent		Total sent	Cross-border received	
	Volume	(% volume sent)	Volume	(% volume sent)	Volume	Volume	(% volume sent and received)
2008	963	(32%)	2 049	(68%)	3 012	1 687	35.9%
2009	970	(32.9%)	1 981	(67.1%)	2 951	1 616	35.4%
2010	893	(29.8%)	2 107	(70.2%)	3 000	1 704	36.22%
Variation 2009-2010	-7.9%		+6.4%		+1.7%	+5.4%	

TARGET2-LU compared to other systems participating in TARGET2

In 2010, all national systems participating in TARGET2 transferred a monthly average of 4.98 million domestic payments (5.07 million in 2009) for a value of 34.2 billion euro. The part of Luxembourg represented 0.4% of this volume and 0.6% of this value.

In addition, 2.40 million cross-border payments (2.15 million in 2009) for a value of 15 226 billion euro (11 593 billion euro in 2009) were carried out as a monthly average. Luxembourg contributed for 1.9% to the volume and for 43% to the value exchanged cross-border.

Availability and performance of TARGET2

As in 2009, the availability of the TARGET2 platform, and hence of TARGET2-LU, was 100% in 2010. In 2008, it was 99.96%.

The SSP received a daily average of 341 226 payment instructions. 99.74% were settled within 5 minutes (99.96% in 2009) and 0.08% within 15 minutes. For 0.18%, the settlement took more than 15 minutes.

2.6.2 Retail payments in Luxembourg

Next to notes and coins, the most used payment instruments in Luxembourg are payment cards, credit transfers and direct debits.

The volume of cheque transactions has continued to strongly decrease over the past years. Since July 1st, 2006² banks in Luxembourg only settle cheques on a bilateral basis.

Credit transfers:

The settlement of credit transfers can be processed in the banks internally, on a bilateral basis between the concerned banks or through a payment system (for instance Target2 or Step2³). The bulk of Luxembourg credit transfers and standing orders are however processed on the pan-European platform STEP2.

In 2010, Luxembourgish participants sent 75 149 transactions for a total value of €197 million on a daily average through the STEP2 system. Domestic⁴ transactions accounted for 66% in volume (close to 49 672 operations a day) and 60% in value (€119 million). The remaining volume is cross-border.

The payments sent by the Luxembourgish community in STEP2 strongly increased in 2010 with a relative growth of respectively 4% in volume and 20% in value as compared to 2009. The yearly growth of the domestic activity was almost nil in volume and 17% in value terms.

² Date when the Luxembourgish cheque settlement system was discontinued.

³ The Step2 system is managed by the Euro Banking Association (EBA)

⁴ A credit transfer or a direct debit is considered as domestic when both the payer and the payee have their payment account with a Luxembourgish institution.

Table 2.3: Annual variation of the activity in Step2:

Annual variation	2010/2009	2009/2008
Total volume	4%	10%
Total value	20%	25%
Domestic volume	0.1%	2%
Domestic value	17%	19%

Direct debits:

Until the European direct debit (Sepa Direct Debit) takes off, direct debits are domestic payments that are cleared either via the DOM-Electronique system or bilaterally by banks.

In 2010, the volume of direct debits amounted to 15.72 million for a value of €7 016 million.

Payment cards in Luxembourg:

Two different types of payment cards are to be distinguished, debit cards and credit cards. The national debit card system is called Bancomat. The majority of debit cards is co-branded with the international system Maestro. Credit cards issued in Luxembourg are mainly branded Visa and Mastercard. At the end of December 2010, the total volume of debit cards issued by banks in Luxembourg and managed by the Cetrel⁵ was near to 600 000 (576 000 in 2009). The number of credit cards issued by Luxembourg banks in 2010 was over 505 000 (484 000 in 2009).

In 2010, the number of transactions⁶ processed with debit cards issued in Luxembourg⁷ totalled 49.92 million (40.59 in 2009) for a value of €3.36 billion (3.19 in 2009). The number of transactions processed with credit cards amounted to 22.48 million transactions (21.89 in 2009) for an amount of €2.39 billion (2.27 in 2009).

Regarding transactions processed on the Luxembourgish territory with cards issued in Luxembourg or outside the country, the volume of transactions with debit cards amounted to 39.31 million (38.21 in 2009) for a value of €2.79 billion (2.72 in 2009) and to 21.28 million (21.39 in 2009) equivalent to €1.90 billion (1.87 in 2009) for transactions processed with credit cards.

MiniCash is the Luxembourgish e-money purse. It consists in a memory chip set up on a Bancomat debit card on which the cardholder can transfer an amount of money exchanged in e-money. In 2010, 1.71 million transactions were realised for a total amount of €3.90 million (compared to 2.10 million transactions for a value of €5.49 million in 2009). MiniCash will be discontinued on 31 October 2011.

The implementation of the SEPA project for non-cash payments:

The SEPA (Single European Payments Area) 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 as 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)⁸. The Eurosystem and the European Commission are the catalysts of this project.

SEPA aims at providing common payment instruments, which are ruled by a harmonised legal framework.

⁵ Centre de Transferts Electroniques; <http://www.cetrel.lu>

⁶ Payment transactions and cash withdrawals at ATMs. Data from the main cards processor,

⁷ Transactions in Luxembourg and abroad.

⁸ For more information regarding the EPC: www.europeanpaymentscouncil.eu

The single set of payment instruments will enable payments in euro to be realised as easily and under the same conditions as domestic payments, independently of the country of destination within the SEPA area which encompasses 32 countries:

- the *SEPA Credit Transfer (SCT)* was launched on 28 January 2008.
- the *SEPA Direct Debit (SDD)* was launched on 1 November 2009.
- the *SEPA Cards framework*: SEPA for payment cards foresees that a cardholder 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 processing 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 (ABBBL) through a committee regrouping the representatives of the main credit institutions active in retail banking as well as representatives of the national supervisory authorities.

The Luxembourgish banks have already widely adopted the European credit transfer for retail operations. The adoption of the European direct debit is effective since end 2010; however, its use by creditors remains quite low.

The law of the 10 November 2009, that transposes in particular the directive 2007/64/EC of 13 November 2007 regarding payment services in the internal market, brings significant changes in the field of payments in Luxembourg. A more detailed description is provided in the legal part of this annual report, more precisely in paragraph 3.3.1.2.

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". 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 April 2010, the Governing Council confirmed that the following instruments will no longer be eligible as from 1 January 2011:

- Marketable debt instruments denominated in US dollar, pound sterling and Japanese yen, and issued in the euro area.
- Debt instruments issued by credit institutions and traded on certain non-regulated markets accepted by the Eurosystem.
- Subordinated debt instruments when they are protected by an acceptable guarantee.

The Governing Council also decided to keep the minimum credit threshold for marketable and non-marketable assets in the Eurosystem collateral framework at investment-grade level (i.e. BBB-/Baa3) beyond the end of 2010, except in the case of asset-backed securities (ABS). In addition, the Governing Council decided to apply, as of 1 January 2011, a schedule of graduated valuation haircuts to the assets rated in the BBB+ to BBB- range (or equivalent). More detailed information on this haircut schedule is published on the website of the ECB.

On 3 May 2010, the Governing Council suspended, until further notice, the application, in the case of marketable debt instruments issued or guaranteed by the Greek government, of the minimum credit rating threshold in the collateral eligibility requirements for the purposes of the Eurosystem's credit operations. This suspension results, also from a risk management point of view, from the positive evaluation by the Governing Council of the economic and financial adjustment programme, which had been negotiated with the European Commission and the IMF, in liaison with the ECB, and approved by the Greek government, and the strong commitment of the Greek government to fully implement that programme.

In December 2010, the Governing Council decided to add fixed-term deposits to the list of assets eligible as collateral for Eurosystem credit operations.

On 31 March 2011, the Governing Council suspended, until further notice, the application, in the case of marketable debt instruments issued or guaranteed by the Irish government, of the minimum credit rating threshold in the collateral eligibility requirements for the purposes of the Eurosystem's credit operations. This suspension results, also from a risk management point of view, from the positive evaluation by the Governing Council of the economic and financial adjustment programme, which had been negotiated with the European Commission and the IMF, in liaison with the ECB, and approved by the Irish government, and the strong commitment of the Irish government to fully implement that programme.

Concerning asset-backed securities (ABS), the Governing Council had decided in November 2009 to require at least two ratings from an accepted external credit assessment institution for all ABS issued as of 1 March 2010. The eligibility of these assets will be determined according to the "second-best" rule meaning that not only the best but also the second best available rating must comply with the minimum threshold applicable to ABS. As of 1 March 2011, the second-best rule and the requirement to have at least two ratings will be applied to all ABS.

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 The Eurosystem as a user of securities settlement systems

Selection of central securities depositories at the domestic level

For the mobilisation of securities by its counterparties, the Eurosystem has selected securities settlement systems operated by central securities depositories. A securities settlement system of a national CSD is eligible if it obtains, after verification of its compliance with the evaluation criteria established by the Eurosystem (the User Standards), the formal approval of the Governing Council. In this context, the Eurosystem assesses securities settlement systems and links between securities settlement systems. In Luxembourg, the systems operated by Clearstream Banking S.A. (CBL) and by VP Lux S.à r.l. are eligible for the mobilisation of securities by the Eurosystem's counterparties.

Cross-border use of collateral

Besides using eligible domestic securities settled via the national depository, counterparties can receive credit from their 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 bilateral accounts by using a third intermediary system.

Links have to be approved by the Governing Council before being used for the collateralisation of central bank credit operations. In 2010, Luxembourg counterparties had the possibility to use the direct links between CBL

⁹ Correspondent Central Banking Model, see section 2.6.4.

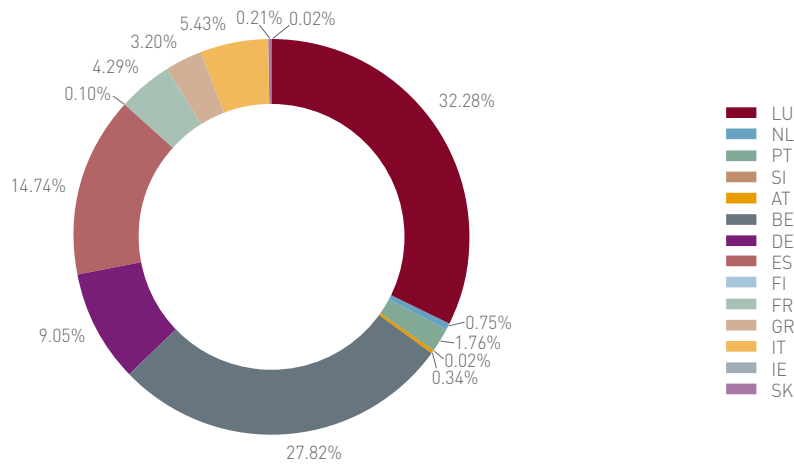
and Clearstream Banking A.G. Frankfurt, Euroclear Bank, the SSS operated by National Bank of Belgium, Monte Titoli (Italy), OeKB (Austria), Euroclear Netherlands, Euroclear France, and KDD (Slovenia).

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 CSD 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.

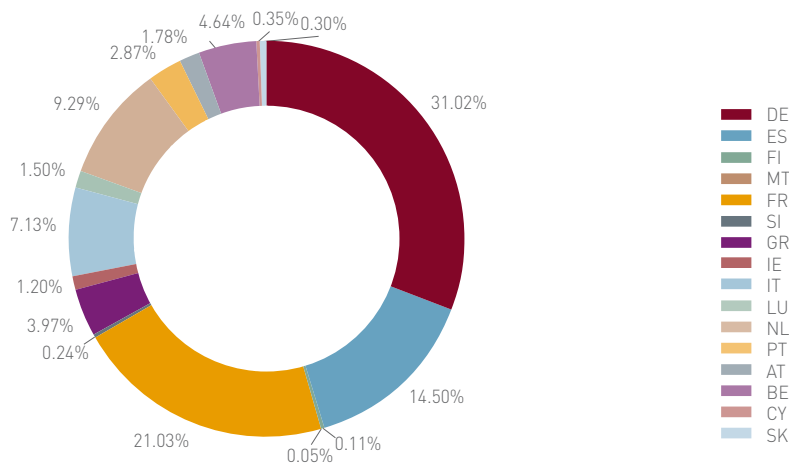
The CCBM remains the main channel for the cross-border mobilisation of collateral used in the Eurosystem's credit operations.

Chart 2.15:
Correspondent central bank in 2010



In terms of value, the most active correspondent central banks in 2010 were those of Luxembourg (32.28%), Belgium (27.82%), Spain (14.74%), and Germany (9.05%). The most active home central banks were those of Germany (31.02%), France (21.03%), Spain (14.50%), and the Netherlands (9.29%).

Chart 2.16:
Home central banks in 2010



Box 2.1:

THE TARGET2-SECURITIES PROJECT

In light of a very fragmented market with a multitude of securities settlement systems calling for the set-up of a pan-European infrastructure, the Eurosystem has pursued its endeavour to develop the Target2-Securities system (T2S). The T2S project consists more specifically in the setting up of a centralised platform providing harmonised delivery versus payment settlement services, in central bank money, across all participating central securities depositories. This project is a part of a more general endeavour, at European level, aiming at integrating financial markets, standardising existing processes and reducing substantially costs and risks.

Following the "Specification" phase, the Target2-Securities has entered its "development" phase in 2010. Beyond the announcement of its launch date, foreseen in September 2014, a number of developments have materialised this year, the most important of these being the following:

- The Users Specifications, which had been finalised and submitted for consultation in 2009 were officially frozen in February 2010 as a stable base upon which to start the development of the first version of the platform;
- Intense negotiations have started between the Programme Board, a body created by the Governing Council, and those Central Securities Depositories having signed the T2S Memorandum of Understanding, in order to define the legal framework which will organ-

ise their relationships upon the launch of T2S. The discussions on this important contractual framework were nearly finalised at the end of the year, in order to allow for the signature of the Framework Agreement in the course of 2011;

- The Target2-Securities project was presented for the first time at SIBOS (Swift International Banking Operations Seminar) in October 2010 in Amsterdam;
- During SIBOS, the Target2-Securities pricing was presented with the reference price of a standard delivery versus payment instruction being set at 15 cents. This price will be valid for intra-CSD as for cross-border transactions;
- The T2S Project team was very active, and collaborating with key market players, in specifying the way T2S functionalities will be implemented and how this will trigger a number of changes to local market practices in those countries which will adopt the platform. All these exchanges took place through a number of working sessions.

2011 will be a crucial year for Target2-Securities with the signature of the Framework Agreement between the Eurosystem and the Central Securities Depositories as well as the communication by those CSDs of their plans on how they will adapt and integrate their activities with T2S and the impact this will have on their business models as well as those of their customers.

Box 2.2:

THE CCBM2 SYSTEM PROJECT

In July 2008 the Governing Council decided to develop and to implement the single platform CCBM2 (Collateral Central Bank Management). This platform will offer central banks the necessary functionalities for the management of securities and credit claims received from counterparties, both for domestic and for cross-border collateral. The development and the operation of CCBM2 on behalf of the Eurosystem was assigned to the National Bank of Belgium and to De Nederlandsche Bank. It is envisaged that the operations of the platform will start before or at the same time as T2S.

CCBM2 will closely interact with the two other infrastructures operated by the Eurosystem in the area of liquidity, TARGET2 and T2S. The three systems will provide complementary services. For instance, on the basis of securities settled in T2S, CCBM2 will instruct TARGET2 to update a counterparty's credit line in TARGET2. Given the complementarities and the enhanced efficiency, the CCBM2 platform constitutes an additional initiative of the Eurosystem that reinforces market integration.

CCBM2 will process instructions in a Straight-Through Processing manner. This will permit the Eurosystem's counterparties to mobilise their col-

lateral in a quick and safe way in order to generate in real time corresponding credit in TARGET2. For counterparties, CCBM2 will hence facilitate the realisation of benefits from TARGET2 and T2S. Moreover, CCBM2 will entail a standardisation of communication and of collateral mobilisation procedures. Finally, CCBM2 will permit banks operating in multiple countries of the euro area to optimise their use of collateral, and thereby to enhance their liquidity management.

CCBM2 will be a modular system, consisting of a message router, and of modules for the management of securities and of non-marketable assets. Only the participation in the message router is mandatory for the national central banks (NCBs). This will ensure a standardised interaction between the Eurosystem and counterparties, and will permit NCBs to choose the modules of CCBM2 according to their own needs. In 2010, the NCBs of the Eurosystem confirmed their participation in the different modules of CCBM2. The big majority of Eurosystem NCBs will participate in all modules of CCBM2.

In 2010, the Eurosystem has also finalised the elaboration of the Business Requirements Document, which defines the functionalities as well as the

non-functional requirements of the CCBM2 platform. The functionalities describe the tasks to be performed by CCBM2, while the non-functional requirements define the service level of the platform. On the basis of the Business Requirements Document, the Eurosystem has subsequently started to work out the detailed functionalities, which enable the development of the CCBM2 software. Moreover, the Eurosystem has started to draft an Interface Guide, which will indicate the communication channels as well as the messages used by central securities depositories and the counterparties in order to communicate with CCBM2. CCBM2 will permit the use of SWIFT and of the Internet as communication network.

Although CCBM2 pursues the objective of a technically consolidated management of collateral, the NCBs stay responsible for the relations with their counterparties. In line with the availability of technical documentation, the BCL will reinforce its preparatory work with its counterparties and with central securities depositories in 2011. This work will comprise on the one side continued information on the planning of the project, and on the other side the preparations in view of counterparty certification, testing, migration, and the operational phase of CCBM2.

2.6.5 The creation of LuxCSD

In relation to the development of Target2Securities (T2S), a Central Securities Depository (CSD) providing settlement services in central bank money had to be created in Luxembourg. LuxCSD, the new central securities depository in Luxembourg, aims at providing a local access to the T2S infrastructure when this one will be launched, in 2014.

The LuxCSD S.A. Company was incorporated in July 2010, jointly by the BCL and Clearstream International in an equal partnership. Going forward, Clearstream will be the operator of LuxCSD in providing the following services:

- Securities settlement in central bank money;
- Securities settlement free of payment;
- Securities issuance with central bank money settlement or free of payment;
- Securities safe keeping;
- Order routing for investment funds;
- Direct settlement against counterparties in Clearstream Banking;
- In due time, a national access to Target2Securities.

LuxCSD will support the issuance and the holding of debt securities, equities or investment funds shares, domiciled in or outside Luxembourg. A specific focus will be granted to providing specific services related to investment funds in light of Luxembourg leadership in that area.

LuxCSD will be live in the second half of 2011 and will be assessed according to the procedures of the Eurosystem. The BCL will open an account in LuxCSD to collect collateral needed to support monetary policy operations.

LuxCSD has a Board of Directors composed of one member issued from the BCL and two members issued from Clearstream Banking. The Board of Directors is supported by a General Manager in charge of daily operations and a User Commission.

2.7 FINANCIAL STABILITY AND PRUDENTIAL SUPERVISION

2.7.1 Macro-prudential supervision

2.7.1.1 Macro-prudential supervision in Luxembourg

Given the high degree of interconnectedness between the different financial actors, the identification and analysis of potential systemic risks necessitates the adoption of a holistic approach to the financial system. In fact, any component of the financial system may generate vulnerabilities which can have important repercussions on the financial sector and on the real economy. Accordingly, macro-prudential analysis must be based on a large range of appropriate data not only at the aggregated level but also at the individual level with specific emphasis placed on systemically important financial institutions.

In order to assess the robustness of the financial system as a whole and the importance of the systemic risks which could affect the equilibrium of the financial system in Luxembourg, the BCL bases its macro-prudential approach on multiple methodologies and indicators. Nevertheless, considering the importance of the banking sector in Luxembourg and its interconnectedness with other segments of the financial system, from a macro-prudential perspective the BCL assigns particular importance to the analysis of the sector. Currently, the BCL gives priority to the time dimension of macro-prudential supervision, which is directly linked to procyclicality issues.

Tools used for the time analysis, include notably the modeling of the links between the financial and the real economies, the construction of a model dedicated to the analysis of liquidity in the banking sector in the event of shocks, the development of a vulnerability index of the financial system providing projections up to two years and the estimation of the default probability of banks and their counterparties. These analyses tend to show that the Luxembourg banking sector is sufficiently robust to absorb severe financial shocks. It has to be highlighted that some indicators developed by the BCL follow a prospective approach.

Indeed, in order to be able to anticipate the emergence of weaknesses in the banking sector, the BCL assigns significant importance to the evolution of its synthetic indicator of financial vulnerability as well as to the results of its macro-prudential stress-tests. The vulnerability index is composed of a large range of variables based on banks' balance sheet and profit and loss account data (checking and interbank deposits, profitability, variability of common equity and provisions), on macro-financial data (yields of stock markets) and variables which reflect the competitive structure of the banking sector (variation in the number of banks).

Considering the available data and macro-economic forecasts of the Eurosystem, projections of this indicator up to a horizon of two years are performed in order to assess the medium-term evolution of the vulnerability of the banking sector in Luxembourg. As an illustration, projections obtained for 2011-2012 show that the level of this indicator remains very close to the average historical risk level. In other words, it is in line with financial stability requirements. As regards stress-tests, the BCL conducted two stress-tests on the Luxembourgish banking sector in 2010 (see box 2.3 and 2.4). The first one has been run within the context of the framework of the assessment of the Luxembourg financial system conducted by the IMF; whereas the second one was specifically tailored towards the analysis of credit risk. The results of these analyses were published in the BCL's Financial Stability Review at the end of April 2011.

Several *ad hoc* analyses have been conducted in order to assess the repercussions of the emergence of new risks. In this context, two studies have been recently conducted in order to quantify the impact of the new Basel III regulation on the Luxembourgish credit institutions. In addition, a common project has been conducted by the BCL and the Luxembourg school for finance during the first quarter of 2011, backed by the

financial support of the national research fund. This study is dedicated to the analysis of issues related to the stability of the financial system in Luxembourg. Indeed, these research efforts have provided encouraging preliminary results regarding the estimation of probabilities of defaults for Luxembourgish banks based on the Merton model.

In this context, the BCL gives particular attention to the impact of the implementation of the new Basel III regulation on liquidity and deleveraging. It seems necessary that these rules should take into account the business models of banks. It is of great importance that the cumulative impact of these regulations on the banking sector is analysed through a segregated approach.

Concerning the cross-sectional dimension, the analysis is constrained by the limited data that are available for the evaluation of common exposures. Despite this constraint, the use of the "security-by-security" database permits the BCL to analyze, on an ongoing basis, the important sovereign exposures to credit institutions and investment funds. In order to increase our understanding not only of the interconnectedness of Luxembourg banks, but also of their exposures to common counterparties, the BCL, as the macro-prudential supervisory authority, actively participates in a research network organised by the ESCB. This network has the specific objective of analyzing contagion channels using Target II data.

In performing its duties with respect to macro-prudential supervision, the BCL contributes actively to the different committees and working groups of the ESCB. These include the Financial Stability Committee (FSC), which was set up in 2011 as a replacement for the former BSC. Finally, it has to be highlighted that the BCL's involvement in macro-prudential supervision increased following the establishment of the European Systemic Risk Board (ESRB) and its related bodies, such as in particular the Advisory Technical Committee and its two sub-structures related to macro-prudential tools and macro-prudential analysis, respectively.

Box 2.3:

THE IMF FSAP MISSION

The IMF mission was present in Luxembourg throughout November 2010 in order to conduct a Financial Sector Assessment Program (FSAP). The evaluation carried out under this framework, to which the BCL has participated, assessed the robustness of the Luxembourg financial sector. In this respect, the discussions were focused primarily on the analysis of the robustness of banks, insurance companies and investment funds as well as on the structure of the Luxembourgish financial sector. Moreover, the quality of the legal framework and of financial infrastructures, such as payments and securities settlements systems, as well as the capacity for the competent authority to handle a systemic crisis, were also analysed. At the institutional level, the BCL was involved in the assessment of central counterparties in Luxembourg and also in the conduct of the macro and the liquidity stress-tests.

Moreover, three self-assessment exercises were conducted by the competent authorities in order to assess the quality of the financial system over-

sight and its compliance with international standards. These were related to the assessment of the fundamental principles of the Basel Committee, the assessment of the migration level of principles of financial regulation to the International Organisations of Securities Commissions (OICV or IOSCO) and the assessment of the fundamental principles regarding the payments and security settlements (CPSS/IOSCO).

In addition, the BCL has participated in a stress-test within the context of the FSAP in order to analyse the capacity of the Luxembourgish banking sector, as a whole, to resist the emergence of macro-economic shocks. The IMF approach for simulation of the scenarios was based on a "top down" approach. This consisted of a sensitivity analysis to measure the effects of shocks on a sample of banks in terms of the impact on their Tier 1 solvability ratios. This exercise demonstrated that profits are the first means of absorbing losses following an economic shock. However, it appears that during a period of stress, profits generated may not always be at a level that is sufficient to cover losses. In this case, recourse to common equity may be required.

Box 2.4:

EU-WIDE STRESS TESTING EXERCISE

In 2010, a stress test was conducted at the European level, under the aegis of the EU Finance Ministers (ECOFIN Council) and coordinated by the Committee of European Banking Supervisors (CEBS) with the close cooperation of the European Central Bank (ECB). As of January 2011, CEBS has been replaced by the European Banking Authority (EBA). The objective of this exercise was to assess the resilience of the European banking system in the event of severe and strong economic shocks over the 2010 and 2011 horizon.

This exercise was based on a sample of 91 European banks and banking groups, including large banks with cross border activities, but also some local banks with significant activities within EU Member States. Regarding Luxembourg, two banks were

included in the sample given their predominant role in the Luxembourg financial sector. The ECB has been actively involved in the development of the macro-economic scenarios for 2010 and 2011, not only with respect to the baseline scenario but also with respect to the adverse one. In the context of the most severe scenario, banks that were unable to maintain a *Tier 1* equity ratio superior to 6%, at the end of 2011, were deemed to have failed the test.

Based on its own internal stress-test models, the BCL reached a similar conclusion for the solvability ratios as published by the two Luxembourgish banks. Under the most severe adverse scenario, these ratios remained above 6%, thereby demonstrating the robustness of the Luxembourg banks. This exercise has been repeated during the first quarter of 2011 and has been based on even more severe macro-economic scenarios. The 2011 exercise will be further reinforced by a peer review process.

2.7.1.2 The establishment of the European System of Financial Supervisors (ESFS)

Further to the recommendations for reinforcing the European system of financial supervision that were issued by the High level group chaired by Jacques de Larosiere, the European Commission issued, at the end of 2009, five legislative proposals aimed at establishing a new European financial supervisory architecture. In this respect, 2010 has been characterised by the examination and the adoption of those legislative texts by the European Parliament and the Council, in order to put in place a new European System of Financial Supervisors (ESFS). This system relies on the two complementary pillars of supervision, namely the micro- and macro-dimensions. The ESFS is composed of an integrated network of European and national supervisory authorities while the day-to-day supervisory responsibilities remain at national level. More precisely, the ESFS is composed of:

- i) the **European Systemic Risk Board (ESRB)**, a new independent body, is responsible for the oversight of risks at the European level. According to the legislation, the ESRB, which formally came into existence on 16 December 2010, shall assess the systemic risks in order to mitigate the exposure of the system to the risk of failure of systemic institutions and to enhance the financial system's resilience to shocks. The ESRB is in charge of issuing warnings and recommendations where such systemic risks are deemed to be significant. In this respect, the ESRB covers all financial sectors and contributes to mitigating any potential negative impact on the real economy. All ESRB bodies namely- the General Board, the Steering Committee, the Secretariat, the Advisory Scientific Committee, and the Advisory Technical Committee- are now operational. The ECB is in charge of the Secretariat of the ESRB.
- ii) three **European Supervisory Authorities (ESA's)**, established on 1 January 2011, are responsible for the micro prudential oversight of the European financial system, namely, the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA), and the European Securities and Markets Authority (ESMA). The ESA's shall contribute to the set-up of common regulations and technical standards in terms of supervision, and to the harmonised implementation of legal EU binding decisions, to stimulate and foster delegations of tasks and responsibilities between competent authorities, to cooperate closely with the ESRB, to analyse the evolution of the markets in their respective competence fields and to foster the protection of depositors and investors.

- iii) the **Joint committee** of the European supervisory authorities will ensure the consistency of activities between the three ESA's, in cooperation with the ESRB. Through this Joint Committee, those authorities shall closely coordinate their activities and elaborate common positions regarding, for instance, financial conglomerates.
- iv) The **competent or supervisory authorities** in the Members States.

The establishment of a body dedicated to macro-prudential supervision constitutes a step forward in strengthening European financial supervision, thus contributing to safeguarding financial stability. This new architecture, which was instituted at the beginning of 2011, contributes to addressing the weaknesses related to the fragmentation of the responsibilities associated with financial supervision and the analysis of systemic risks, as demonstrated by the recent crisis. The establishment of the ESRB should allow for a better identification and assessment of macro-prudential risks as well as the issuance of specific warnings and recommendations to be implemented by the relevant authorities and operators. The cooperation between the micro- and macro dimensions is essential, firstly in order to ensure the smooth functioning of the new architecture, especially regarding the access and exchange of all necessary data, and secondly, regarding the follow-up of warnings and recommendations issued by the ESRB. This is important given that it lacks both a legal mandate and a set of legally binding powers. Finally, at least annually and more frequently in the event of widespread distress, the ESRB will be invited to an annual hearing in the European Parliament and the Council.

This new architecture calls for new responsibilities for central banks which play an important role in European macro-prudential supervision. Indeed, the President of the BCL is a voting member of the General Board, the only decision-making body of the ESRB. The ordinary plenary meetings of the General Board are scheduled to take place at least four times a year. The inaugural meeting was held on 20 January 2011. In addition, the national supervisory authorities are also members of the General Board and can contribute through their specific knowledge and experience. In this respect, the BCL, as the authority in charge of markets' and operators' liquidity surveillance, is also represented at the General Board level but as a non-voting member that follows a rotation mechanism with the other national supervisory authorities. As such, the BCL is also represented at the European Banking Authority. Finally, the BCL makes its expertise available in terms of macro-prudential, financial, monetary and statistical analyses, by participating in the studies and technical work conducted by the various ESRB bodies. In this context, the BCL participates in the work done by the Advisory Technical Committee and its two sub-structures.

2.7.2 Micro-prudential supervision

2.7.2.1 Liquidity supervision

Following an amendment to its organic law dated 24 October 2008, the Banque centrale du Luxembourg was entrusted with the task to supervise the liquidity situation of market operators. As opposed to macro-prudential supervision, which aims at analysing the systemic risk and possible contagion effects within the financial system, liquidity supervision intends here to assess the liquidity situation of individual operators as well as their liquidity risk management framework. The 2008 market turbulences being largely due to shortcomings in the liquidity risk management framework of financial market operators, the management of liquidity and its related risk has become one of the major topics on the agenda of supervisory authorities throughout the last two years, and this both at national and international level. This momentum has been reflected in Luxembourg by entrusting the Banque centrale with the liquidity supervision of market operators. Liquidity regulations are in fact particularly important for a central bank for two reasons: On the one hand, central banks act as liquidity providers to the financial system in normal as well as in stressed times. On the other hand, central banks can detect and help prevent potential series of bank failures and thereby limit systemic risk.

While the year 2009 has been mostly dedicated to the definition and the set-up of an appropriate framework pertaining to the performance of this new mission, in particular with the publication of a regulation (BCL regulation 2009/N°4 dated 29 April 2009) defining the rules and responsibilities of market operators in the field of liquidity risk management, the year 2010 was marked by the implementation and actual application of this new supervisory framework on a national level as well as by the follow-up of international workstreams in relation with the definition and the development of the new liquidity standards in the context of Basel III.

The supervisory framework of the BCL relies essentially on two pillars: On the one hand the ongoing off-site monitoring of market operators and on the other hand on-site inspections with market operators.

The ongoing off-site monitoring is based on the regular analysis of both qualitative and quantitative information at the level of individual market operators as well as at an aggregated level. In order to streamline and enhance the efficiency of its monitoring of the liquidity situation of market operators, the Banque centrale has put in place a Daily Liquidity Reporting (DLR). This reporting, which is required from a selected sample of credit institutions, has been introduced in May 2010 and allows assessing the liquidity situation of credit institutions. Furthermore, the Banque centrale has initiated the analysis of the liquidity risk of investment funds, with a specific focus on monetary funds, and insurance companies.

In the context of the development of the new Basel III liquidity standards, the Banque centrale has carried out a first impact study among 29 credit institutions in May 2010. This study was repeated in early 2011. The studies showed that a majority of local banks do not yet comply with the new liquidity standards. It has to be noted that these standards will become legally binding from 2015 respectively 2018 onwards.

On-site inspections of market operators allow the Banque centrale du Luxembourg to assess the existing framework and procedures established by individual market operators with regards to their liquidity risk management framework (compliance with best practice). Mainly targeted are those credit institutions that are the most exposed to liquidity risks due to the nature of their businesses. Also targeted are those institutions which are particularly linked through their participation in monetary policy operations. During the course of 2010, the Banque centrale du Luxembourg conducted seven on-site inspections and twelve short-term visits in coordination with the *Commission de surveillance du secteur financier*. The visits showed that credit institutions are reinforcing their liquidity risk management frameworks in order to comply with existing rules and standards, but they also showed that there are still weaknesses, in particular when it comes to conducting stress tests.

As a supervisor in charge of liquidity supervision, the Banque centrale currently participates in six colleges of supervisors, which allows for a better evaluation of the activities and risk profiles of important local subsidiaries of cross-border banking groups.

Furthermore, as supervisor of liquidity the Banque centrale is a member of the "European Systemic Risk Board (ESRB)" and participates in the "Board of Supervisors" of the "European Banking Authority" (EBA), formerly CEBS. Moreover, it participates in specific working groups on liquidity at the level of the Basel Committee on Banking Supervision (BCBS), which issued in December 2010 the final version of its liquidity standards planned to be implemented progressively over the following years.

2.7.2.2 Oversight

The payment and settlement infrastructures constitute indispensable elements for the development of market economies. Indeed, these infrastructures permit the settlement of payment flows related to products, services and financial assets. Their smooth functioning is therefore essential for the implementation of monetary policy, the safeguarding of financial stability and of the public confidence in the currency.

The BCL, as a member of the Eurosystem, has as mission to promote the smooth functioning of payment and settlement infrastructures. This mission focuses, in particular, on overseeing the security and the efficiency of payment and securities settlement systems, as well as the security of payment instruments.

The BCL adopted on 8 November 2010 a regulation which specifies the scope of its oversight mission, the general framework and the means by which it performs this activity. This regulation is published in the Mémorial and on BCL's website. According to this regulation, the BCL's oversight includes the system or the instrument, itself comprising the operators or the issuers, the participants, the services (in particular of operational and technical nature) provided by technical agents or third party entities. The oversight applies also to the operating rules and contracts related to the systems or instruments.

Moreover, the operators of systems and the issuers of payment instruments shall put in place a risk management framework adapted to the size and complexity of their activity. This framework shall be based on an

organisation, procedures and internal rules enabling an efficient management, monitoring and control of the security and/or efficiency of the system or instrument, of the associated risks as well as of the applicable legal and operational environments.

The oversight performed by the BCL is based on regular reportings from relevant actors comprising quantitative and qualitative information, completed by regular contacts and specific on site inspections. The actors are required to conduct regular self assessments of the degree of compliance of their infrastructure against applicable recommendations, standards or principles. The BCL applies the recommendations, standards and principles defined by the Eurosystem for the different types of systems and payment instruments and which have been adopted by the Governing Council of the ECB.

BCL's oversight consists of two fields of activity. On the one hand, the oversight activities concern the systems which it designates and operates in Luxembourg and the payment instruments made available to the public in Luxembourg. On the other hand, the BCL contributes to the oversight activities which are performed in a coordinated way at the Eurosystem level and are partly focused on infrastructures without clear domestic anchorage.

Overall, the operations and the services provided by the overseen payment and settlement infrastructures showed a stable and resilient functioning in 2010.

Securities settlement systems

In 2010, the BCL pursued its oversight activities related to the systems operated by Clearstream Banking SA and by VP Lux. The BCL proceeded to the analysis of regular and *ad hoc* information received in relation with the system's activities, incidents, monitoring and management of certain risks, governance, rules and internal procedures, as well as financial data related to the systems.

The system operated by Clearstream was assessed against the 19 recommendations jointly issued by the ESCB and the Committee of European Securities Regulators (CESR), which became ESMA in 2011. The system shows a high degree of compliance regarding most of the ESCB-CESR recommendations. Nevertheless, some specific action points have been addressed to the operator and a follow-up of the implementation of these actions will be conducted in 2011. A similar assessment of the system operated by VP Lux against the same ESCB-CESR recommendations was launched end of 2010 and will be finalised during 2011.

The BCL has also cooperated and exchanged information with foreign competent authorities for the oversight of certain entities or technical agents which are supplying IT and/or operational services to operators of the settlement systems in Luxembourg.

Concerning the future securities settlement system operated by LuxCSD SA, the BCL has started its analysis of the preliminary documentation sent by the operator. This analysis will be finalised in 2011.

Finally, the BCL contributed to the coordinated oversight activities related to Target2 Securities (T2S), the securities settlement single platform which is currently being developed at Eurosystem level. Given the international nature of the settlement services which will be proposed by T2S to infrastructures based in and outside the euro area, a cooperative oversight framework will be put in place regrouping the prudential supervisors and the central banks which are competent in this field. A preliminary assessment of the design of the T2S platform was launched in 2010 by the concerned authorities.

Payment systems

In the field of payment systems, the BCL contributed to the joint oversight of the Target2 payment system, the single platform put in place by the Eurosystem. In this context, an assessment of the system against "Business continuity oversight expectations" was finalised in 2010. Globally, this assessment concluded on a well defined framework for business continuity, as well as a high degree of resilience. Certain recommendations were nevertheless issued by the Eurosystem on specific points.

Concerning the Target2 payment system, the BCL is also in charge of overseeing some decentralised aspects located in Luxembourg. These aspects include among others the contractual relationship and the support function towards the Luxembourg participants, as well as the IT infrastructure for the connection of the BCL to the Target2 system. In this regard, the BCL defined specific principles.

Finally, the BCL took an interest in the activities of the payment systems operated by EBA Clearing and more specifically, the systems Euro 1 and Step 2. The oversight of these systems is performed by the ECB and is subject to an information exchange and discussions within the Eurosystem.

Payment instruments

The payment instruments which fall under the scope of BCL's oversight comprise among others the credit transfer, the direct debit, the payment cards and the e-money schemes which are offered to the public in Luxembourg.

In 2010, the BCL extended the reporting scheme related to certain payment instruments, in particular the payment cards and the e-money schemes. This information, concerning among others, activity, fraud and incidents, is collected on a regular basis and subject to BCL's follow-up.

Furthermore, in 2010 the BCL contributed to the coordinated assessment exercise of all payment card schemes operating in the euro area, and more particularly to the peer review of assessments of certain card schemes conducted by other central banks. This review confirmed that the different central banks have implemented the oversight standards for payment cards in a consistent manner. The conclusions of this assessment by the Eurosystem will be finalised and published in 2011.

Finally, specific oversight frameworks were defined in 2010 at the Eurosystem level for the SEPA credit transfer and direct debit schemes. In 2011, the BCL will participate in a coordinated assessment exercise of these instruments, based on these frameworks.

2.8 LEGISLATIVE ACTIVITY

2.8.1 European legislation

2.8.1.1 Treaty change

The provisions of the Treaty of Lisbon which entered into force on 1st December 2009 established the Eurosystem¹⁰ and set up the new European legal framework as well as the legal basis of new pieces of legislation adopted since then.

In connection with the management of the Greek and Irish crises, the European Council of 28-29 October 2010 adopted the final report of the task force set up in March 2010 and chaired by Mr Van Rompuy, President of the European Council. The Heads of State or Government of the European Union have agreed on the need to adopt a permanent mechanism so as to manage the crisis and preserve the financial stability of the euro area.

On 16 December 2010, the European Council agreed that the Treaty should be amended in order for a permanent mechanism to be established by the Member States of the euro area to safeguard the financial stability of the euro area as a whole (the European Stability Mechanism). This mechanism will replace the European Financial Stability Facility (EFSF) and the European Financial Stabilisation Mechanism (EFSM), which will remain in force until June 2013. It approved the following paragraph to be added to Article 136 of the Treaty on the Functioning of the European Union (TFEU):

“The Member States whose currency is the euro may establish a stability mechanism to be activated if indispensable to safeguard the stability of the euro area as a whole. The granting of any required financial assistance under the mechanism will be made subject to strict conditionality.”

¹⁰ Article 282 of the TFEU.

In order to conduct this amendment, the European Council decided to launch the simplified revision procedure provided for in Article 48(6) of the Treaty on the European Union with a view of having national approval procedures completed by the end of 2012 and entry into force on 1st January 2013.

2.8.1.2 Economic governance

On 29 September 2010, the European Commission adopted a legislative package containing a reinforcement of the economic governance in the European Union.

The existing legislation has proven to have shortcomings. A broader and enhanced surveillance of fiscal policies is foreseen and macroeconomic policies and structural reforms are sought. New enforcement mechanisms are foreseen for non-compliant Member States. The recently agreed "European semester" will integrate all revised and new surveillance processes into a comprehensive and effective economic policy framework¹¹.

The legislative package is made up of six pieces of legislation: four proposals deal with fiscal issues, including a wide-ranging reform of the Stability and Growth Pact, while two new regulations aim at detecting and addressing effectively emerging macroeconomic imbalances within the European Union and the euro area.

This package of new measures is intended to be adopted by June 2011.

2.8.1.3 Financial supervision

At the end of 2010, the European Union lawmaker adopted a new financial stability scheme in the Union which entered into force on 1st January 2011 and which is based on macroprudential supervision. This scheme hinges on a European System of Financial Supervision (ESFS) that comprises in particular the new European Systemic Risk Board (ESRB), based in Frankfurt, and three new European Supervisory Authorities: the European Banking Authority (EBA), in London, the European Insurance and Occupational Pensions Authority, in Frankfurt, and the European Securities and Markets Authority (ESMA), in Paris.

Regulations establishing the European System of Financial Supervision provide that the Governor of the BCL participates in meetings of the General Board of the ESRB with a voting right.

2.8.2 National legislation

At the end of 2010, the BCL presented a pre-draft-bill (*avant-projet de loi*) to the Government with the aim of adapting and recasting the law of 23 December 1998 concerning the monetary status and the BCL (the Organic Law).

The pre-draft-bill was presented to the Government before being subject to the consultation of the ECB. It may be recalled that, in accordance with Article 127(4) of the TFEU¹², any amendment of the Organic Law must be submitted to the ECB before their adoption.

This pre-draft-bill includes provisions clarifying the missions of the BCL, its organisation, as well as its independence that are made necessary to adapt it to the change of the legal framework.

2.8.2.1 Provisions dealing with the missions of the BCL

Without prejudice to the missions deriving from its participation in the ESCB, it is important to clarify the missions of the BCL, in particular taking into account the new European framework of financial supervision.

The BCL's main task remains the participation in the execution of the tasks of the Eurosystem and of the ESCB. Then, in accordance with EU law, the pre-draft-bill provides that the BCL plays a role in financial stability with the prevention of systemic risk and macroprudential supervision, as well as with the supervision of

¹¹ Pres release IP/10/99 of 29 September 2010.

¹² Article 127 of the TFEU replaces ex-Article 105 of the Treaty establishing the European Community since the entry into force of the Treaty of Lisbon.

market participants. The new provisions foresee to ensure an efficient coordination between the supervision authorities that are involved, in compliance with European obligations. It is essential to coordinate the activities of the supervision authorities in Luxembourg to the benefit of participants so as to limit the administrative burden and to give foreign supervision authorities one well-identified contact point. It is important to clarify that within the relationship with foreign authorities, European authorities or international bodies, the BCL is performing responsibilities that are assigned by domestic law. These developments are small in comparison with the legal regimes that are applied in other Member States and on which Luxembourg could build further reforms on.

Since the beginning, the Council of the BCL has discussed about the economic and financial evolution of Luxembourg, based on the works of the BCL. This activity is growing and the requirement emerges to clarify its legal basis.

Moreover, the statistical tasks of the BCL are rapidly developing and require new legal provisions. Thus, it seemed necessary to review the outdated framework set forth by Grand-Ducal decree of 10 November 1944, as modified, that deals with the foreign exchange control. It is also an opportunity to include in the organic law some provisions that are spread in different pieces of legislation as well as clarifying the statistical tasks of the BCL with respect to the balance of payments, financial accounts and public finance fields.

The pre-draft-bill also foresees confirming the research activity of the BCL in the monetary and financial fields, as it is carried out by the whole Eurosystem.

Further, it is important that the BCL could benefit from the payment of fees by entities under its supervision to perform its tasks as an authority, such as other supervision authorities and in compliance with the principles of financial independence and of monetary financing prohibition set in the Treaty on the Functioning of the European Union (TFEU) according to which the national lawmaker cannot oblige the BCL to perform new tasks without the related financial compensation.

Finally, in view of the new tasks of the BCL, particularly in the field of supervision, it is appropriate to adapt its civil liability regime like it is applied to other authorities in Luxembourg.

2.8.2.2 Provisions dealing with the BCL's organisation and its independence

Many provisions of the pre-draft-bill are intended to clarify the independence regime of the BCL and thus address comments raised by ECB opinions.

The BCL, as a member of the Eurosystem and of the ESCB, is a "sui generis" public institution established under national law in compliance with the Treaties that impose to set it free from any governmental supervision over the conduct of its basic tasks. It must act independently. The recent opinion of the ECB of 17 June 2010 (CON/2010/48) holds that the principle of central bank independence requires "that no third party [i.e. including a Government or a national lawmaker] should be able to exercise direct or indirect influence, over the performance of the NCB's tasks, or over its ability, both operationally in terms of manpower, and financially in terms of appropriate financial resources, to fulfil its mandate [...] and to properly cover its administrative and operational expenses"¹³.

This BCL's independence is counterbalanced by a judicial control of its legal acts (which is reinforced by the pre-draft-bill) and a direct relationship with the Parliament (which is also reinforced) in order to ensure that the BCL, through the intervention of its Governor, reports on its activities and on its situation, particularly from an assets and an organisational perspective. Thus, it is proposed that the Governor of the BCL could be invited by the Parliament to present the reports and stances of the BCL and have an exchange of views.

The pre-draft-bill aims at precisising the rules of governance and identifies the provisions applicable to the Council of the BCL, the Executive Board and the Governor respectively.

¹³ Opinion of the ECB of 17 June 2010 on a draft law relating to the restructuring of the Central Bank and Financial Services Authority of Ireland (CON/2010/48), section 3.1.14, p. 9.

With respect to the Council of the BCL, it is foreseen to slightly modify the scope of its powers so as to take into account current practice. As the Executive Board is being confirmed in the superior executive role of the BCL, it seemed worth defining that members of the Council will not take on a personal civil liability.

The pre-draft-bill makes clear that the Executive Board adopts the regulations as well as other legal acts of the BCL.

In addition, considering the evolution of the activities of the BCL, the need to adapt the current composition of the Executive Board has been addressed by providing for the possibility to appoint from three to five directors (instead of two as of today) besides the Governor.

As regards the Governor, one may note that the BCL is the only NCB of the Eurosystem whose organic law does not define its status. It is proposed to remedy to this gap. In particular, the Governor exercises himself the missions allocated to him at European level.

It is also important for the BCL to dispose of an appropriate financial basis, in line with the material increase of its commitments and of risks exposed to conduct its activities. To achieve that, a capital set at least at one billion euro appears to be necessary. Some reserves were already incorporated to the capital in 2009, in accordance with the law of 24 October 2008, setting the original amount of the capital of 25 million euro at 175 million euro today. However, the equity of the BCL is still largely insufficient when considering the amount of its operations and its risks. The pre-draft-bill contains a proposal of setting the capital at one billion euro subscribed by the State and payable progressively.

The gradual increase of the equity would allow the BCL to face its different tasks, among which the task of lender of last resort; it would allow the BCL to pay-in the doubling of the capital of the ECB, decided on 13 December 2010¹⁴, of which the BCL is a shareholder and, in the end, would allow the State to receive a dividend.

The pre-draft-bill also defines the regime of the legal acts of the BCL, based on the ECB's and other NCBs' in particular after the modification of the Constitution pursuant to the law of 19 November 2004 that introduced the new Article 108bis on the regulatory powers of public institutions and the modification introduced by the law of 24 October 2008, granting the power to adopt regulations to the BCL. It is essential for the BCL to have an appropriate legal basis to enforce its regulations and decisions. Thus, it would be authorised to take the necessary steps, of administrative nature, whether with financial obligations or not, in compliance with the principles applicable to legal proceedings under administrative law, so as to oblige market participants who do not comply with them. There is an opportunity to make clear the rules of adoption, implementation and control of legal acts of the BCL.

Finally, with respect to the social matters of the BCL, even if there is a requirement of adopting a specific regime for the staff of the BCL, in accordance with the principle of independence, it is nevertheless not an appropriate moment, from a political point of view, to amend a regime inherited from specific circumstances related to the establishment of the BCL by way of an act of the Parliament. Therefore, the change of the regime is postponed. There are only editorial modifications which have been submitted to the Government in order to update some legal references.

2.8.3 BCL Regulations

In 2010, the BCL issued a regulation reinforcing the implementation of one of its core tasks – the promotion of the smooth operation of payment systems and securities settlement systems – in accordance with articles 2 (5) and 27-3 of the organic law dated 23 December 1998, as amended.

Regulation BCL 2010/No.6 dated 8 September 2010 aims at clarifying the BCL's task in the area of oversight of payment systems, securities payment systems and payment instruments in Luxembourg, in accordance with the law of 23 December 1998, as amended and the law of 10 November 2009.

14 Decision of the ECB of 13 December 2010 (ECB/2010/26) on the increase of the European Central Bank's capital [OJ L 11, 15.01.2011, p. 53]

Regulation BCL 2010/No.6 defines the scope of the oversight, provides for a general framework for the exercise of the oversight of systems and payment instruments and defines the general duties of the system operators, payment instrument issuers and governance authorities. Regulation 2010/No.6 abrogates and replaces the provisions included in circulars BCL 2001/163 and 2001/168.

2.8.4 BCL's opinions

The BCL issued three opinions in 2010 relating to different draft laws.

2.8.4.1 Opinion relating to draft law n°6164 implementing the Directives EC/2009/110 and EC/2009/44

The draft law n°6164, deposited with the Chamber of Deputies on 30 July 2010, implements into Luxembourgish law the Directives CE/2009/110 and CE/2009/44 and amends several laws in force, notably the law of 05 August 2005 on financial collateral arrangements.

The observations and amendments proposed by the BCL in its opinion of 10 November 2010 have mainly as purpose to associate the BCL with the authorisation procedure of the electronic money institutions and the withdrawal of their authorisation. The BCL reiterates its competences in the field of supervision of liquidity, payment systems and payment instruments issued by electronic money institutions notably and confirms that the BCL should act as sole correspondent towards the ECB and the central banks of the ESCB. The BCL reformulates some comments raised by the ECB on the occasion of the elaboration of the Directive on electronic money institutions.

The BCL's opinion follows the ECB's opinion of 5 November 2010^{15,16}. To the extent that the ECB has already been consulted on the relevant directives, the latter limits its observations to the amendments to be introduced into the law of 05 August 2005 on financial collateral arrangements. The new paragraph (5) of Article 2 of the law of 05 August 2005 introduces simplified rules for the creation of collateral arrangements over credit claims. Besides, this paragraph (5) introduces the principle according to which the debtor of a claim subjected to a financial collateral arrangement may waive, in writing or by any other lawful means, its right of set-off. In its opinion, the ECB recommends that the Luxembourg legislator addresses the interaction between the proposed new regime and the regime governing currently the creation of pledges over credit claims in favour of the BCL based on the understanding that the two regimes will co-exist. Furthermore, the ECB recommends clarifying the rights of the Eurosystem as collateral taker in comparison with the rights conferred to depositors by the new law.

2.8.4.2 Opinion relating to draft law n°6165 implementing the Directives EC/2009/111, EC/2009/49 and EC/2009/14

The draft law n°6165, deposited with the Chamber of Deputies on the 30 July 2010, implements into Luxembourgish law the Directives EC/2009/111, EC/2009/14 and EC/2009/49 and amends several laws in force, notably the law of 05 April 1993 on the financial sector as amended.

The draft law has effects on the BCL's competence in the field of supervision of the general liquidity situation following the law of 24 October 2008 improving the legislative framework of the Luxembourg financial centre. In view of the above, the BCL issued an opinion on its own initiative, dated 09 November 2010, to the attention of the Chamber of Deputies.

In its opinion, the BCL stresses the need to update the draft law based on the present and forthcoming amendments at European level, notably since the entry into force of the Lisbon Treaty. The draft law is indeed outdated in some respects, notably as regards its terminology.

Most of the proposed amendments highlight the BCL's wish, on the one hand, to act as the sole intermediary between the CSSF and the other central banks of the ESCB when it comes to exchanges of information and,

¹⁵ Opinion of the European Central Bank of 5 November 2010 on amendments to the legislation on financial collateral arrangements as regards credit claims (CON/2010/78)

¹⁶ The ECB and BCL were both consulted for an opinion by the Ministry of Finance.

on the other hand, to be invited, as competent authority in the field of liquidity, by the CSSF to participate in the colleges of supervisory authorities in matters relating to liquidity supervision and to set up a cooperation.

Finally, the BCL invites the Chamber of Deputies to insert a new provision into the draft law stating that the “stress tests” are conducted and carried out by the BCL to the extent that these tests cover, in total or in part, the liquidity of operators or the financial sector.

2.8.4.3 Opinion relating to the draft law concerning the budget of the State for the year 2010

The BCL has issued, as each year, an opinion relating to the draft law concerning the budget of the State. The BCL's opinion is commented in another Section of the Annual Report.

2.8.5 Legal rate of interest

The rate was fixed at 3.50 per cent for the year 2010 by a grand-ducal regulation of 5 February 2010 (published in the Mémorial A no. 24 of 23 February 2010, page 480). For 2011, this rate remains unchanged following the grand-ducal regulation of 1 February 2011 (published in the Mémorial A no. 22 of 9 February 2011, page 174). It is observed that this rate does not correspond to a specific rate of reference of the money markets.

Box 2.5:

BCL COMMITTEES AND EXTERNAL COMMITTEES

The Economic Committee

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.

The Consumer Price Index Commission

The BCL has an 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.

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 met several times in 2010 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. In this framework the committee discussed the IFRS consolidation versus the CRD (capital requirements directive), the link between the FINREP taxonomy and the IFRS taxonomy and the definition of “retail banking”.

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

XBRL Luxembourg asbl

XBRL (eXtensible Business Reporting Language) is a financial reporting standard based on XML, which main objective 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.

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. The Statistics Committee is regularly consulted in the framework of the definition of the reporting for the different entities of the financial sector.

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 2010, 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.

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.

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. During 2010, in the absence of new projects, the Commission was not consulted.

The Fiduciary Money Committee

During 2010, the main retail commercial banks gathered together within the BCL's Fiduciary Money Committee in order to discuss, inter alia, the constitution of one or several deposit facilities for coins within banks or fund security firms.

The Lawyers' committee (Comité des Juristes)

The Lawyers' Committee provided assistance to BCL on its examination of the draft Securities Law Directive, on its opinions relating to the draft laws no. 6164 and 6165 described in the report as well as on a preliminary draft law amending the organic law.

The Market operations commission

The Market operations commission focused its discussions on the impact of the financial market crisis on the monetary policy operational framework.

The High-Level committee for the financial centre

In 2010, the Government set up the High Level committee for the financial centre which aims at developing and strengthening the Luxembourg financial centre in close cooperation with the private sector. The BCL's Governor is a member of the High committee and members of the BCL's staff participate in different working groups.

2.9 COMMUNICATION

2.9.1 Publications

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. In 2010 the BCL also published three bulletins and one financial stability review.

In its working papers the BCL publishes the results of research conducted by its staff. Each working paper contains a non-technical summary. In 2010, six working papers were published.

2.9.2 Training at the BCL

The BCL furthered its cooperation with the University of Luxembourg, where a staff member gave lectures on institutional aspects of the Eurosystem. Other staff members gave economics lectures at the Catholic University of Louvain.

The BCL also organised ad hoc presentations for various groups of students from the following universities: Catholic University of Louvain, Maastricht School of Management ASCI (administrative staff college of India), and Maastricht University.

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 March and July 2010, in the context of study visits, the BCL held lectures for delegations from the People's Bank of China and 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 of the organisation and the missions of the BCL and the Eurosystem. Other topics can also be tackled according to teachers' requests and students' questions.

2.9.3 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, 154 346 people visited the website in 2010 (136 464 in 2009), with 17 186 809 hits. The numismatic programme witnessed more than 27 348 downloads (20 600 in 2009).

The numismatic products electronic shop (eshop.bcl.lu), directly accessible through the BCL website, has attracted more than 83 200 visitors in 2010 (53 500 in 2009).

2.9.4 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's publications mainly deal with economics and law. Publications stem from international organisations (World Bank, IMF, OECD, BIS, European Commission), but also from national central banks.

The library is open to the public upon request, either by fax (+352 4774 4910) or by e-mail (bibliotheque@bcl.lu).

The library is open on Monday, Wednesday and Friday from 9am to 12pm and from 3pm to 5pm.

2.9.5 Press relations

The Governor of the BCL gave 12 interviews to the international and national press. Seven 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, the Financial Stability Review and the numismatic programme. Two journalists from national press participated in seminars organised by the ECB in Frankfurt. In total, 93 press releases were published.

2.9.6 The BCL's Research Programme

The BCL's research programme is organised around five main domains:

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

Research results are regularly disseminated through BCL publications (as working papers or through the BCL bulletin or Financial Stability Review). Results are also published in peer-reviewed scientific journals (Economic Journal, Journal of Financial Stability, Managerial and Decision Economics).

In addition, BCL researchers also presented their work in seminars or workshops organised by the University of Luxembourg, STATEC, the Ministry of the Economy, the Eurosystem, the National Bank of Poland, EFFAS-European Bond Commission, Dynare, EcoMod, PricewaterhouseCoopers, CEPR and others.

Since June 2010, the BCL has been a member of MaRs (the ESCB Macro-prudential research network). In particular, BCL researchers are active in workstreams on (i) macro-financial models linking financial stability and economic performance; (ii) early-warning systems and systemic risk indicators.

In October 2010, the BCL organised an international conference in Luxembourg on Household Finance and Consumption, in collaboration with the ECB and with the financial support of the "Fonds National de la Recherche" (FNR). The FNR also contributed to financing the multi-year Perfilux project analysing the performance of the financial sector in Luxembourg. This project involved a collaboration between researchers at the BCL and the Luxembourg School of Finance (University of Luxembourg) and STATEC.

2.9.7 Conferences and events

The following conferences and events took place in 2010

- Presentation of the financial stability review in 2010. The presentation to the press, attended by guests from Luxembourg's financial sector, academics and European central bankers, was followed by a seminar entitled "Some factors underlying the current crisis and stress-testing" in which the authors of specific studies presented their research work to agents from the financial sector and international experts.
- From April 20 to May 28, hosting of the travelling ECB exhibition on the euro. This exhibition, aiming at increasing the public's knowledge of the single currency and the euro's security features, attracted more than 1300 visitors. The exhibition's inauguration by the BCL's Governor and Mrs Gertrude Tumpell-Gugerel, member of the ECB's Executive Board, coincided with the finals of the "Euro Rallye" competition organised for children from the Great region by the BCL and the ECB.
- On the occasion of the 40th anniversary of the "Werner report", organisation of a conference by the association *The Bridge Forum Dialogue* and the Pierre Werner Institute, on October 8 at the European Investment bank. After an introduction by the BCL's Governor, Jean-Claude Juncker, Prime minister and Eurogroup's President and Philippe Maystadt, Vice-President of the association *The bridge Forum*

Dialogue and President of the European Investment bank, shared their views on the topic. This conference attracted a large audience, amounting to around 700 people.

- Hosting of a joint ECB-BCL conference on household finance and consumption behaviour, on October 25 and 26 at Neumünster Abbey. This conference aimed at presenting best practices in empirical and theoretical research as regards households' behaviour in financial assets accumulation, debt and consumption in the course of a lifecycle. The conference's speakers included representatives from the BCL, the ECB, the Federal Reserve System and academics.
- BCL participated in the "*Foire de l'étudiant*" (student's fair) on November 11 and 12. Employment and career opportunities as well as training and traineeship opportunities were presented. The Deutsche Bundesbank was present on the BCL's stall and provided information on training opportunities at the *Fachhochschule der Deutschen Bundesbank* to learn about central banking affairs.
- Organisation of a conference entitled "*Towards a safer global financial system*" on November 11. After an introduction by the BCL's Governor, Mr. José Viñals, former Governor of the Banco de España, Counsellor and Director Monetary and Capital market department at the IMF, presented his views on the topic.

2.10 EXTERNAL ACTIVITIES

2.10.1 Relations with the Parliament

2.10.1.1 Financial Stability Fund: Project presentation

During the financial crisis of 2008, substantial amounts of public funds were used by governments in order to support the financial sector and to protect depositors. At the September 2009 G-20 Summit in Pittsburgh a clear political message, adopted in turn by the European Union, was formulated, according to which taxpayer money should in the future not be used anymore to cover the losses of the banking sector.

In this context, the BCL submitted in September 2010 a proposal for the establishment of a Financial Stability Fund in Luxembourg, financed by contributions from credit institutions, to the Luxembourg Parliament and Government. This Financial Stability Fund would include both a Deposit Guarantee Scheme as well as a Resolution Fund for failing banks in order to restore confidence in the financial sector, to guarantee the safety of deposits, to contribute to avoiding contagion effects and to minimise, or even eliminate, the need to revert to public funds in order to save banks.

The first objective of such a Financial Stability Fund, namely ensuring the reimbursement of depositors, could be achieved through instituting a resolution fund, whose objective is to ensure the orderly resolution of a bank, avoiding thus that, in the event of an emergency, assets would be sold at fire-sale prices and contagion effects towards other credit institutions would materialise. In other words, the intention is to minimise the impact of a bank failure through maximising the value of the remaining assets and through facilitating, as far as possible, the return towards a "normal" use of the bank's assets and liabilities, while simultaneously ensuring its deposits stay guaranteed.

In this context, it has however to be ensured that the resolution fund for banking failures part of the Financial Stability Fund does neither provide an insurance against bank failure, nor that it would be used to bail out a failing bank. The assets of the resolution fund can only be used for actual resolutions (i.e. to resolve the bank in an orderly fashion), while respecting rules on state aid measures.

In order to ensure the financing of such a Financial Stability Fund, credit institutions would have to contribute to both parts of the Fund proportionally to the size of their balance sheet as well as to their risk profile. The Financial Stability Fund would be built-up progressively by these contributions.

The BCL thus put forward two options to finance the Financial Stability Fund in Luxembourg. The Financial Stability Fund would manage the assets of the two underlying funds independently within their respective specific investment constraints which could, if necessary, be defined by the legislator. The management of the assets should generate revenues in order to cover the Fund's running costs and could, if necessary, be used to contribute complementary funding to the Fund itself.

In order to determine the target size of the Fund and its calculation methodology, several factors have to be considered:

- The resolution costs of the past crisis and the size of similar funds proposed in other jurisdictions;
- The weight of the Luxembourg financial sector;
- The expected resolution costs for a predetermined number of banks, while accounting for the relative concentrations of systemic activities in those banks, and
- The ease of application of the calculation methodology, its transparency as well as the ease with which it can be communicated.

On an operational level, the Fund should be able to draw either on dedicated human resources, or resources made available by means of outsourcing. Furthermore, the Fund should intervene in the management of a failing bank through replacing the current governance organs and by reverting to experienced persons.

Meanwhile, the European Commission has submitted a document for public consultation to create a European network of resolution funds for failing banks. The Eurosystem has participated in this consultation. The European Commission is expected to introduce a legislative proposal on this subject soon.

2.10.1.2 Presentation of the BCL's opinion on the state budget motion

On 12 November, 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.

2.10.2 Activities at the European level

2.10.2.1 Activities at the level of the ECB

During 2010, the Governor of the BCL participated in 20 meetings of the Governing Council and in the four 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 2010, more than 500 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 127 paragraph 4 of the Lisbon Treaty.

The General Council meetings, that gather the ECB President, the ECB Vice-President, and the ESCB Governors together, are also held in Frankfurt, four times a year.

When making decisions, the members of the Governing Council do not act as national representatives but in their personal capacity, which is reflected by the principle "one member, one vote".

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 17 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 ESCB's work at this level through the participation in the meetings of committees, working groups and task forces of members of its staff.

2.10.2.2 Relations with the European Parliament

On January 15, 2010, at the invitation of the BCL's President, Luxembourg's members of the European Parliament participated in a work visit at the BCL. Issues discussed included the economic situation of the euro area, institutional questions such as the economic and monetary governance and relations between the European Parliament and the Eurosystem.

2.10.2.3 Enlargement of the euro area

On January 1, 2011, exactly two years after Slovakia, Estonia introduced the euro, bringing the number of member states having adopted the single currency to 17.

2.10.2.4 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 2010, the EFC continued to analyse the evolution of financial stability in the EU and the risks weighing on this stability. It followed reforms envisaged in the aftermath of the financial 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 2010, by the economic impact of the financial crisis, especially on public finance, as well as by the proposal for reforming European financial supervision and economic governance. In the context of signs of a gradual economic recovery, these discussions also dealt with the designing of appropriate exit strategies, notably vis-à-vis extraordinary fiscal measures adopted by public authorities in order to face the crisis.

2.10.2.5 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 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.

2.10.3 Multilateral activities

2.10.3.1 BCL's multilateral activities

Activities at the level of the international monetary fund and other international 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 the 31st of December 2010, Luxembourg's quota, recorded in full on the BCL's balance sheet, amounted to SDR 243.23 million, that is, 98.67% of its SDR allocation vs. 98.6% end 2009. At this same date, 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 23.68% of Luxembourg's quota.

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 2010, the BCL granted credits amounting to SDR 16.2 million.

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. A 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). As every year, the BCL's Governor attended the BIS' Annual General Meeting.

BCL's adherence to the International Islamic liquidity corporation

On October 8, IFSB members, including the BCL, represented by its governor, signed a Memorandum of participation aiming at the establishment of an International Islamic Liquidity corporation (IILM). The BCL's President then participated in the IILM's constitutive ceremony on October 25th in Kuala Lumpur (Malaysia). On December 13th, the BCL's Governor participated in the IILM's second meeting in Jeddah (Saudi Arabia).

Participation in high level seminars or conferences

- 5th High-level Seminar of Central Banks in the East Asia-Pacific Region and the euro area co-organised by the Reserve Bank of Australia and the ECB, on February 10, during which the BCL's Governor made a speech entitled "Review of the Framework for Liquidity Provision".
- 7th Islamic financial services board (IFSB) Summit on May 4 and 5 in Bahrain, dealing with the global financial architecture and challenges for Islamic finance. The BCL's Governor chaired a session on balanced growth for Islamic finance. Representatives from the Luxembourg financial centre, including Mr. Claude Zimmer, member of the BCL's Council, presented at a showcase Luxembourg's assets for Islamic finance.
- "Symposium on Islamic Finance and Takaful at the Crossroads of Change" organised on May 7 by the FWU Group, a group of financial services present in Munich, Luxembourg, Kuala Lumpur and Dubai. The BCL's Governor made a speech entitled "Islamic Finance and Takaful: The European Perspectives".
- High level Eurosystem seminar jointly organised by the ECB and the central banks and monetary authorities of the Gulf cooperation Council on June 30th in Rome.
- High level conference organised in Tallinn on September 20th to prepare the introduction of the euro in Estonia, and in which the governors of the central banks of the euro area participated.
- Conference *The EMU Werner plan lecture*, organised in London on October 14 by the Official Monetary and Financial Institutions Forum (OMFIF) and the Lafferty Group to commemorate the fortieth anniversary of the publication of the Werner report. The BCL's Governor made a speech entitled "Lessons from the EMU Rescue – Which Way now for Europe?".
- 54th Congress of the International lawyers' association in Istanbul on October 29, when the BCL's Governor made a speech on the topic "European Lessons to be drawn from the Crisis to improve Global Financial Stability".
- High Level Meeting for the Middle East & North Africa Region on the Emerging Framework to Strengthen Banking Regulation and Financial Stability" on November 8 in Abu Dhabi, where the BCL's Governor made the keynote speech entitled "Shaping a New Regulatory Framework: International Banking at the Crossroads".

2.10.3.2 Multilateral activities with the Government

The Prime Minister, the Finance Minister and the BCL's Governor attended the IMF and World Bank spring and annual meetings in Washington from April 24 to 26 and from October 7 and 10.

2.10.4 Bilateral relations

2.10.4.1 BCL's bilateral relations

Signature of Memorandums of Understandings with central banks

On May 19th, the BCL's Governor and the Central Bank of Iceland's Governor signed an agreement on assets which underlying assets are labeled in Icelandic crowns in the context of the liquidation of an Icelandic bank in Luxembourg.

In the framework of the visit of a Luxembourg delegation in Shanghai on September 28th, the BCL's Governor signed a Memorandum of Understanding with Mr. Yi Gang, Vice Governor of the People's Bank of China. This Memorandum of Understanding establishes the bases of cooperation between both central banks, notably in the fields of training and information exchanges.

Working visits in central banks

- Visit of the BCL's Governor in Moscow for the 150th anniversary of the Bank of Russia on June 18th.
- Third annual meeting between the BCL and the Bank of Slovenia in Schengen on July 23rd. This annual meeting allows both central banks to take stock of their mutual activities and to enhance their cooperation in certain areas.
- Mutual visits of the BCL's Governor and of the Governor of the Czech Central bank, Miroslav Singer, on September 1st and 17th in Prague and Luxembourg, on the occasion of the joint issuance of a numismatic coin commemorating the wedding of John of Luxembourg, also called "John the blind", with Elizabeth of Bohemia.
- Participation of the BCL's Governor in the conference organised for the 35th anniversary of the Bank of Cape Verde on September 24th in Praia. The BCL's Governor made a speech entitled "How the Luxembourg Experience can help reduce Lending Rates in Cape Verde".

2.10.4.2 Bilateral relations in cooperation with the Government

On September 28th, a Luxembourg delegation, chaired by the BCL's Governor and by Mr. Ernst-Wilhelm Contzen, President of the Association for Banks and Bankers in Luxembourg (ABBL) and Mr. Fernand Grulms, Chief Executive Officer of Luxembourg for Finance (LFF), and composed of bankers and representatives of the financial centre, went to Shanghai for a mission aiming at reinforcing mutual links between the financial centres of Luxembourg and Shanghai. On this occasion, a conference on the Luxembourg financial centre, under the patronage of the BCL, was organised for representatives of the Chinese financial sector. The BCL's Governor made a speech entitled: "*The Euro: a Credible Currency?*"



03

THE BCL
AS AN
ORGANISATION

3

THE BCL AS AN ORGANISATION

3.1 CORPORATE GOVERNANCE

3.1.1 The Council

Article 6 of the Founding Law of 23 December 1998 defines the powers of the Council of the Bank. In 2010, the Council consisted of the following members:

Governor: Yves Mersch

Members: Pierre Beck

Pit Hentgen

Serge Kolb

Yves Nosbusch (as from 15 September 2010)

Patrice Pieretti (until 11 June 2010)

Jacques F. Poos

Romain Schintgen

Michel Wurth

Claude Zimmer

During 2010, the Council held five meetings. Within the framework of monitoring the financial situation of the Bank, the Council approved the financial accounts as per 31 December 2009, the budgetary trends and subsequently, the budget for the 2011 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.



From l. to r.: Mr. Claude Zimmer, Mr. Yves Nosbusch, Mr. Pierre Beck, Mr. Pit Hentgen, Mr. Yves Mersch (President), Mr. Jacques F. Poos, Mr. Serge Kolb, Mr. Michel Wurth, Mr. Romain Schintgen.

The Audit Committee

Since 2001, the Audit Committee, composed of members of the Council, has assisted 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 9 December 2010, the Council nominated the non-executive members of the Audit Committee for 2011: Messrs Jacques F. Poos, Romain Schintgen and Claude Zimmer. Mr Yves Mersch is an ex-officio member in his function as President of the Council. In 2010, the Audit Committee was chaired by one of its non-executive members, Mr Jacques F. Poos, and held four meetings.

3.1.2 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:

Director-General: Yves Mersch

Directors: Serge Kolb and Pierre Beck

The members of the Board of Directors receive a salary according to wage scale in the public sector as well as different allowances. They receive, in accordance with the legal provisions of the law of June 22, 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 liable 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.



Mr. Serge Kolb, Mr. Yves Mersch, Mr. Pierre Beck

The following base salary was paid in 2010 to the board members:

	Base salary
Yves Mersch (Director General)	162 576 €
Serge Kolb (Director)	151 149 €
Pierre Beck (Director)	151 149 €
Total	464 874 €

Besides, in relation to their function within the bank, board members are entitled to the payment of a representation allowance (for a total amount of 72 291 € in 2010) and to a BCL's Council allowance (for a total amount of 33 891 € in 2010).

3.1.3 Organisation chart

The BCL's organisation chart (as from 1 January 2011)



3.1.4 Internal control and risk management

The BCL's internal control system is based on generally accepted principles in the financial sector and the ESCB taking into consideration the BCL's specific needs as a central bank.

The Executive Board has defined the general framework and principles of the internal control system. 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 an adequate segregation of duties.

These units are the Financial risk management section, the Risk Prevention section as well as the Controlling function within the Internal Finance and Strategy department.

The Financial risk management section is in particular in charge of the analysis of financial risks, of the surveillance of the implementation of decisions made by the 'Comité de Gestion' and by the Executive Board, of the control of the established limits and of the production of regular reports in this area. In order to consider the increasing importance of risk management in the field of the management of collateral, a section 'Collateral management' was constituted as of 1 January 2011.

The Risk Prevention section is in charge of the surveillance of operational risks, of the management of risks related to information systems and of the non-compliance risks.

Whereas the senior managers 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 managers have the following responsibilities:

- Establish a common methodology for risk analysis;
- Provide assistance in the identification and evaluation of risks;
- Ensure a periodical reporting.

The Risk Prevention section is also in charge of coordinating the Business Continuity Plan and the related testing.

The purpose of the Compliance function is to ensure that the BCL's activities are conforming to laws, rules and professional ethical standards, thus preventing the Bank's risk of non-compliance. The Compliance function covers in particular the following domains:

- anti-money laundering (AML) and financing of terrorist activities,
- professional code of ethics,
- prevention of insider trading and market abuse,
- conflict of interests,
- professional secrecy and confidentiality,
- privacy and protection of personal data,
- regulation of public markets.

The purpose of the Controlling function is to enhance the effectiveness and responsabilisation within the Bank, allowing the Executive Board to focus in its daily management on strategic decision-making. In this context, the Controlling function assists the executive Board by providing quantitative analyses and dashboards required for appropriate decision-making.

Moreover, these dashboards enable the management and Executive Board to monitor the Bank's operational performance. These dashboards comprise both financial and operational indicators (in qualitative and quantitative terms) that are linked to the defined strategic axes and objectives.

Considering that the BCL has continued to develop, it has become necessary to enhance planification on a medium and longer term. In 2010, the BCL has established an organisational structure to facilitate its strategic planning. In this context, the BCL also strengthened its horizontal coordination in order to start new projects in a short timeframe.

The Internal Audit unit ensures a second layer of control with the independent and objective assessment of the internal control system and its functioning. This unit analyses and evaluates, on the basis of predefined objectives and a specified methodology, the adequacy and effectiveness of the existing internal control system. Internal Audit is independent of the BCL's other administrative units and reports directly to the President of the Council.

When performing its tasks, the work of the Internal Audit unit is based on internationally accepted professional standards, applied at the level of the ESCB.

The internal annual 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.

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

Finally, the Audit Committee is informed on the organisation of internal controls and of the risk management as well as their functioning.

3.1.5 External control

The Bank's financial accounts are audited by an external auditor nominated by the Government. Moreover, the external auditor is mandated by the Bank's Council to perform additional verifications and specific controls.

At the European level, the external auditor of the ECB is approved by the Council of Ministers upon recommendation of the Governing Council of the ECB. In this context, the external auditor is also entrusted with the performance of a certain number of specific engagements at Eurosystem level.

The statutes of the ESCB and of the ECB provide that National Central Banks act in accordance with ECB guidelines and instructions. The respect of these provisions is monitored at European level by the Governing Council of the ECB which may request any complementary information.

3.1.6 Code of Conduct

The Code of Conduct defining the internal and external rules of conduct applicable to all staff members was reviewed in 2009. The Code is valid without prejudice to the rules defined by the public services legislation, the social legislation as well as existing contractual commitments and prescribes ethical standards of non-discrimination, solidarity, efficiency, and independence, to which BCL's staff has to adhere strictly.

Moreover, the European Central Bank introduced a rigorous individual adherence to a specific Code of Conduct by its Governing Council members, requiring particular strict professional adherence to ethical standards. The members of the Governing Council shall prove honesty, independence, impartiality, and discretion. The members shall not consider their personal interests and shall avoid any situation that may lead to a conflict of interests. These obligations extend one year after the termination of their function. The conditions to participate in conferences, receptions or cultural events are also specified in the Code of Conduct. The Governors are invited to be particularly careful regarding individual invitations. The same rules apply to their spouses or partners who are equally obliged to respect the generally accepted rules concerning international relations.

3.2 THE BCL STAFF

3.2.1 Quantitative evolution

During 2010, the BCL staff increased by 8.5% to reach a total of 268 staff members on December 31, 2010, equivalent to 248.75 full time positions. Staff members are of 17 different nationalities, thus contributing to the diversity of the human capital and to its cultural enrichment.

On December 31, 2010, 30 staff members worked part-time:

- Part-time work (50%): 8 staff members
- Part-time work (75%): 9 staff members
- Leave for part-time work: 13 staff members

Chart 3.1: Staff members by nationality

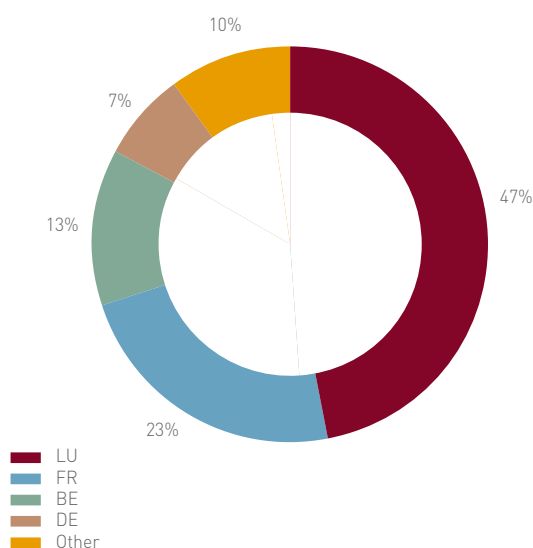
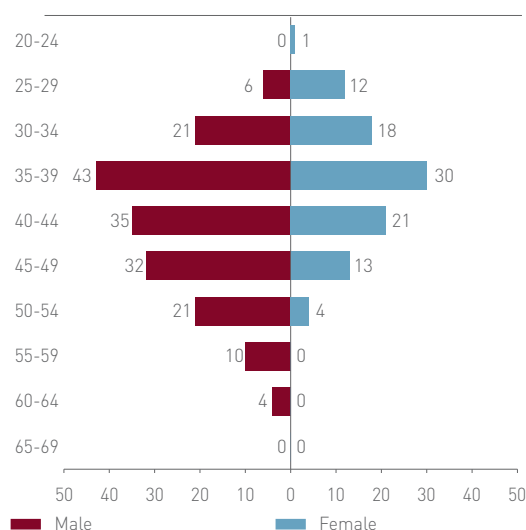


Chart 3.2: Distribution of staff members per age group



Five staff members were on full-time parental leave and four staff members were on part-time parental leave.

Finally, five staff members were on unpaid leave on this date and two staff members were on special leave.

The average number of staff members working at the BCL in 2010 was of 256, compared to 245 in 2009.

The overall approved headcount ceiling for the year 2010 was 259 full-time equivalent positions.

During 2010, 12 staff members left the bank. On the other hand, 38 new staff members joined the bank during 2010. There were 346 applications to job advertisements at the bank. Furthermore, the BCL received 378 spontaneous job applications and 238 applications for internships or student jobs.

The BCL offered internships for a period from six weeks to two months to 14 students attending university studies related to the bank's activities and, furthermore, a subsidised internship to 7 students.

Chart 3.3: Evolution of the average age of staff members

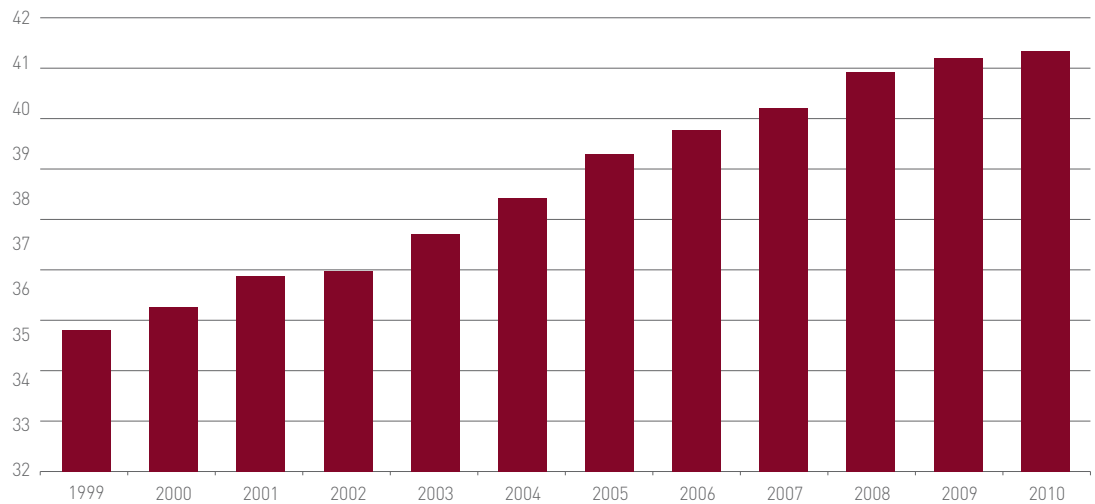
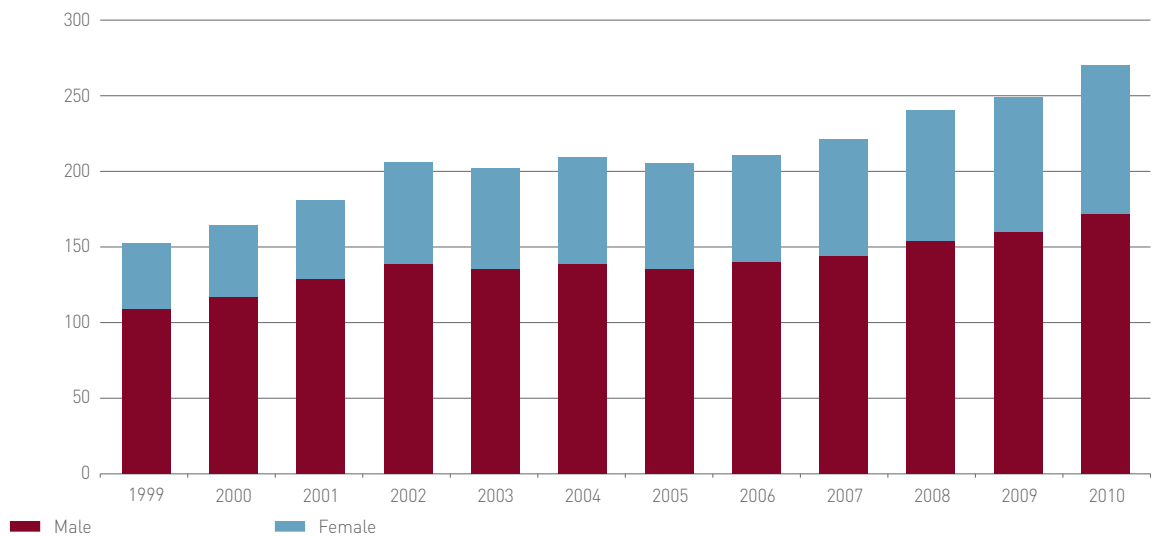


Chart 3.4: Evolution in staff members



3.2.2 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: 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, is governed by a set of internal rules and two committees, one executive and one consultative.

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 is in contact with 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.

3.3 LOGISTICS

To avoid in the medium term a lack of office space, the BCL decided not to renew the existing rental agreements of its building called Monterey as from 2013.

One floor of the Monterey building was already fitted out during 2010 to be able to move a part of the staff from the main building in order to create more office space in several departments.

The strategy of energy savings was among others pursued through:

- The implementation of the "free-cooling" system at the Royal site;
- The implementation of presence detectors in various premises and corridors;
- The improvement of the insulation of the windows of the the oldest building;
- The implementation of pumps with frequency converter.

The replacement of the old office chairs by more ergonomic models was enclosed in 2010.

Concerning waste management, further efforts will be done to reduce paper consumption

3.4 INTERNAL FINANCE AND STRATEGY

3.4.1 Accounting and reporting

BCL continued to update its accounting system and its procedures in order to meet its internal quality standards and those of the Eurosystem. In 2010, BCL continued to take part in the working group relating to the operations on Eurosystem's financial matter 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 controlling systems in place proved to be effective during the year.

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

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 2011, harmonised techniques relative to project costs will continue to be developed in the Eurosystem (in particular on cost allocation for common IT projects and systems in operation).

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

The management information system meets the need to follow the Bank's activities. It is based on a set of indicators, which are calculated daily, weekly, monthly, quarterly and annually. These tables include all activities of the Bank. The Bank strictly controls the development of the interest margin and compares the profitability of its investments to benchmarks.

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.

In 2010, research to select a new software of follow-up portfolio of securities continued.

3.4.2 Budget

Budget preparation, in accordance with the Organic Law of the BCL, is part of the multi-year planning process of the Bank whose primary purpose is to ensure a long-term financial stability. The annual budget determines the upper limit of operating expenditure and investment the Bank may incur during a given exercise. Furthermore, BCL's budget is based on the corporate values of the Bank, notably:

- Professionalism;
- Quality in all its services;
- Stability provided by its long-term vision of all its activities;
- Objectivity resulting from the establishment of precise rules that are equally applied;
- Integrity, guaranteed by the transparency of its internal operation and by respect for professional ethics.

The 2010 budget of the BCL was established under the terms of the budgetary procedure CI99011 and guidelines set by the Bank's Council dated July 9, 2009. The 2010 budget was approved by the Council of the BCL on February 5, 2010.

The 2010 budget takes account of the following elements:

- For years, the number of tasks assigned to the BCL at both national and European level has seen a constant rise. The continuous assignment of new tasks implies a necessary reinforcement of the Bank's staff in both operational and support units. This trend holds for 2010.
- Taking into account the financial crisis and low key interest rates and considering that the BCL still lacks appropriate own assets, decision-making bodies of the BCL have intensified the existing economy measures. These efforts have helped to reduce the operating budget (excluding staff costs) of 0.1% compared to 2009; despite a simultaneous increase in employment.
- The BCL continues to implement internal and European projects, obviously having a direct impact on the overall budget size.

The Internal Finance and Strategy Department supervises the execution of the budget and prepares quarterly reports for the Executive Board of the Bank. At the end of each fiscal year, a detailed analysis of initial budget vs. actual expenditure is prepared. This analysis is submitted to the Executive Board and the Council of the Bank for information and approval. Finally, conclusions drawn from this exercise are taken into account for preparing future budgets.

3.4.3 Strategic planning and management control

Management control aims at enhancing efficiency and accountability within the Bank, allowing the Executive Board to limit its regular involvement in operational tasks and to concentrate on management and decision-making on a strategic level. To this end, management control also assists the Executive Board of the Bank by providing quantitative analysis and dashboards, thus facilitating and supporting an efficient decision-making process.

In addition, these dashboards allow senior and higher management to monitor operational performance of the Bank. Moreover, these reports contain both financial and operational indicators (qualitative and quantitative) resulting from related strategic orientations and identified objectives of the Bank.

As the BCL continues to grow, a strengthened medium and long-term planning has become a core requirement. Consequently, the BCL has established in 2010 an organisational structure to facilitate and assist the "strategic planning" function of the Bank. In this context, the BCL has also reinforced its internal coordination activities to be prepared for a series of new projects that will be initiated in a near future.

3.5 THE EUROSISTEM PROCUREMENT COORDINATION OFFICE (EPCO)

In December 2007, the Governing Council of the ECB designated the BCL to host a new coordination function, the "Eurosystem Procurement Coordination Office", from 1 January 2008 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 NCBs of the Eurosystem.

The procurement experts of the participating central banks met six times during the course of 2010 and, in particular, the activity of exchange of best practices served to build up the reference set of information regarding public procurement procedures for all the participating central banks. The activity will continue in 2011 with a view to making a complete reference set available in 2012.

In 2010, the second joint procurement programme of the central banks was launched and significant progress was made in a number of areas. Studies in areas identified in the 2009 programme gave rise to several specific proposals for joint procurement. In December 2010, the Governing Council of the ECB approved the EPCO Procurement Plan 2011 which widened the scope of EPCO activities for 2011 to include a total of thirteen specific joint procurement proposals, as well as four areas for study.

In May 2010, the Governing Council of the ECB also approved EPCO's Annual Activity Report for 2009. This report included the execution of the 2009 budget and the distribution of EPCO's operational costs between the participating central banks.

In December 2010, the Governing Council of the ECB approved the "Mid-term Review of EPCO's activities", which provided an analysis of the work of EPCO during the first half of the mandate and also provided recommendations and proposals for their implementation during the second half of the mandate. As a result, EPCO was given a more ambitious role in the context of joint procurement procedures and may now, together with the Banque centrale du Luxembourg, assume the role of "Lead Central Bank" in these procedures. In addition, a new, more proportionate and objective cost-sharing mechanism was adopted for the financing of EPCO. Finally, the procurement plans will in future be managed on a multi-annual basis, ensuring more effective operation of the joint procurement procedures.

In December 2010, the Governing Council of the ECB approved 1.68 €Mio as the Budget for 2011 for EPCO.

3.6 FINANCIAL STATEMENTS

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

	2009	2010	Change in% 2010/2009
Total assets	77 049 043 144	79 719 605 521	3%
Banks' current accounts	13 488 516 285	9 641 729 532	-29%
Claims on credit institutions	15 156 000 000	2 768 600 000	-82%
Own funds ⁽¹⁾ , revaluation accounts, administrative provisions and specific banking risks	752 914 346	784 541 974	4%
Net result of banking activities ⁽²⁾	233 429 734	128 340 403	-45%
Total net revenues	53 742 397	48 612 237	-10%
Administrative expenses	42 223 811	42 723 146	1%
Net profit	6 804 200	1 719 034	-75%
Cash Flow ⁽³⁾	191 721 401	170 892 549	-11%
Staff	247	268	9%
BCL's part in the capital of the ECB	0.1747%	0.1747%	
BCL's part in the Eurosystem's monetary policy operations	2.021%	0.506%	

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

(2) Net adjusted 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

Preamble

Only the French version of the present financial statements has been reviewed by the Independent Auditor. Consequently, the financial statements only refer to the French version of the financial statements; other versions result from a conscientious translation made under the responsibility of the Board of Directors. In case of differences between the French version and the translation, the French version is binding.

3.6.2 Report of the Réviseur d'Entreprises agréé

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

We have audited the accompanying financial statements ("les comptes financiers") of Banque centrale du Luxembourg, which comprise the balance sheet as of December 31, 2010 and the profit and loss account for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's responsibility for the financial statements

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, and for such internal control as the Directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Responsibility of the Réviseur d'Entreprises agréé

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 for Luxembourg by the Commission de Surveillance du Secteur Financier. 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 judgement of the Réviseur d'Entreprises agréé, 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 agréé 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, 2010, 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.

Luxembourg, March 1, 2011

KPMG Audit S.à r.l.
Cabinet de révision agréé

K. Riehl S. Chambourdon

3.6.3 Balance sheet as of 31 December 2010

ASSETS	Note	2010 EUR	2009 EUR
Gold and gold receivables	3	76 277 814	55 490 933
Claims on non-euro area residents denominated in foreign currency	4	559 565 189	505 915 151
– Receivables from the IMF		358 082 581	321 492 295
– Balances with banks, security investments, external loans and other external assets		201 482 608	184 422 856
Claims on euro area residents denominated in foreign currency	5	95 157 125	71 067 245
Claims on non-euro area residents denominated in euro	6	1 559 679 672	1 601 110 558
– Balances with banks, security investments and loans		1 559 679 672	1 601 110 558
Lending to euro area credit institutions related to monetary policy operations denominated in euro	7	2 768 600 000	15 156 000 000
– Main refinancing operations	7.1	1 125 600 000	1 953 000 000
– Long-term refinancing operations	7.2	1 643 000 000	13 203 000 000
Other claims on euro area credit institutions denominated in euro	8	1 014 440 661	1 010 269 125
Securities of euro area residents denominated in euro	9	4 004 164 315	3 910 225 687
– Securities held for monetary policy purposes	9.1	430 742 233	45 317 335
– Other securities	9.2	3 573 422 082	3 864 908 352
Intra-Eurosystem claims	10	67 999 926 986	52 572 646 254
– Participating interest in ECB	10.1	18 696 620	15 784 953
– Claims related to the transfer of foreign reserves	10.2	100 638 597	100 638 597
– Other claims within the Eurosystem	10.3	67 880 591 769	52 456 222 704
Items in course of settlement		728	1 476
Other assets	11	1 641 793 031	2 166 316 715
– Tangible and intangible fixed assets	11.1	55 197 792	58 284 450
– Other financial assets	11.2	111 143 624	103 583 005
– Accruals and prepaid expenses	11.3	151 721 511	195 684 787
– Sundry	11.4	1 323 730 104	1 808 764 473
Total assets		79 719 605 521	77 049 043 144

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

LIABILITIES	Note	2010 EUR	2009 EUR
Banknotes in circulation	12	1 935 513 110	1 858 777 355
Liabilities to euro area credit institutions related to monetary policy operations denominated in euro	13	9 641 729 531	13 488 516 285
– Current accounts (covering the minimum reserve system)	13.1	6 435 590 706	7 986 042 119
– Deposit facility	13.2	2 986 138 825	5 502 474 166
– Fixed-term deposit	13.3	220 000 000	0
Liabilities to other euro area residents denominated in euro	14	347 975 936	343 930 484
– General government	14.1	347 825 258	343 928 072
– Other liabilities		150 678	2 412
Liabilities to non-euro area residents denominated in euro	15	1 230 361 599	1 173 715 978
Liabilities to euro area residents denominated in foreign currency	16	22 307 244	0
– Financial institutions		22 307 244	0
Liabilities to non-euro area residents denominated in foreign currency	17	74 676 245	74 107 887
Counterpart of special drawing rights allocated by the IMF	18	285 391 510	268 473 209
Intra-Eurosystem liabilities	19	64 974 757 810	58 701 341 155
– Net liabilities related to the allocation of euro banknotes within the Eurosystem	19.1	64 974 757 810	58 701 341 155
Items in course of settlement	20	285	471
Other liabilities	21	209 863 308	190 324 104
– Accruals and income collected in advance		175 407 214	155 909 204
– Sundry		34 456 094	34 414 900
Provisions	22	515 628 167	448 753 796
Revaluation accounts	23	297 706 144	319 126 822
Capital and reserves	24	181 975 598	175 171 398
– Capital	24.1	175 000 000	175 000 000
– Reserves	24.2	6 975 598	171 398
Profit for the year		1 719 034	6 804 200
Total liabilities		79 719 605 521	77 049 043 144

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

3.6.4 Off-balance sheet as of 31 December 2010

	Note	2010 EUR	2009 EUR
Custody deposits	25	210 222 286 690	222 784 229 418
Foreign currency reserve assets managed on behalf of the ECB	26	304 680 837	273 110 588
Forward transactions	27	121 668 500	127 133 000
Numismatic collection		207 417	205 829
		210 648 843 444	223 184 678 835

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

3.6.5 Profit and loss account for the year 2010

	Note	2010 EUR	2009 EUR
Interest income	28	912 078 799	1 164 838 071
Interest expense	28	(730 475 431)	(915 296 255)
Net interest income	28	181 603 368	249 541 816
Realised gains/ (losses) arising from financial operations	29	72 633 294	54 405 713
Write-downs on financial assets and positions	30	(112 132 569)	(20 885 405)
Transfer to/from provisions for risks	31	(67 668 179)	(199 519 974)
Net result of financial operations, write-downs and risk provisions		(107 167 454)	(165 999 666)
Fees and commissions income	32	16 984 552	19 555 931
Fees and commissions expense	32	(15 950 957)	(17 765 097)
Net result from fees and commissions	32	1 033 595	1 790 834
Income from participating interest	33	3 669 719	2 233 833
Net result of pooling of monetary income	34	(39 098 266)	(41 674 274)
Other income	35	8 571 273	7 849 854
Total net income		48 612 235	53 742 397
Staff costs	36	(28 075 491)	(25 846 425)
Other administrative expenses	37	(8 762 363)	(8 873 967)
Depreciation of tangible and intangible fixed assets	11.1, 38	(4 170 055)	(4 714 386)
Banknote production services	39	(811 372)	(1 133 127)
Other expenses	40	(5 073 920)	(6 370 292)
Profit for the year		1 719 034	6 804 200

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

3.6.6 Notes to the financial statements as of 31 December 2010

Note 1 - General

The Banque centrale du Luxembourg ("BCL" or "Banque centrale") 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 participations 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;
- continuity of methods and comparability;
- relative significance;
- going concern concept;
- recording of charges and income in the accounting period they relate to.

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

Securities held for monetary policy purposes are valued at amortised cost and write-downs are done in case of permanent impairment.

The other 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 applied to held-to-maturity securities in case of impairment.

The revaluation of securities takes 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 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 pro rata 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 ECB and the participating 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, and the ECB's (net) income arising from securities purchased for monetary policy purposes under the Securities Markets Programme (SMP) shall be fully retained in 2010.

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 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 of 1 January 1999, after the entry into force of the Founding Law of 23 December 1998, as modified, the pension claims of the BCL's staff members are fully supported by the BCL. The pension fund which aim is to cover the risks related to ageing, invalidity and survival, was set up in 2000.

The actuarial method determines the pension fund's liability related to ageing, invalidity 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 and decrease by pension payments to retirees. At the year end, the provision is adjusted by the actuarial value. 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 to 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

In accordance with the prudence principle, 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 of 31 December 2010, BCL held 272.61 ounces of fine gold amounting to 0.29 million euro (409.67 ounces of fine gold amounting to 0.3 million euro as of 31 December 2009) and a top-rated gold bond issued by the International Bank for Reconstruction and Development purchased in 2002 and valued at 76 million euro (55 million euro as at 31 December 2009).

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 2010.

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

	2010 EUR	2009 EUR
Receivables from the IMF	358 082 581	321 492 295
Balances with banks, security investments, external loans and other external assets	201 482 608	184 422 856
	559 565 189	505 915 151

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).

This item is broken down into two sub-items:

- Receivables from the International Monetary Fund (IMF) are made up of reserve tranche position and SDR holdings. SDR are reserve assets created 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.
- 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 198.5 million euro as at 31 December 2010 (176.9 million euro as at 31 December 2009), mainly contains government bonds and top-rated bonds issued by international and supranational institutions denominated in US dollar. Securities are valued at market prices. As at 31 December 2010, their value at market prices included a positive net revaluation adjustment amounting to 1.7 million euro (positive net revaluation adjustment amounting to 2.9 million euro as at 31 December 2009).

Balances with banks amounted to 3 million euro as at 31 December 2010 (7.5 million euro as at 31 December 2009).

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

This item contains balances in currency held by the BCL on accounts with euro area counterparties amounting to 95.2 million euro as of 31 December 2010 (71.1 million euro as of 31 December 2009).

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

	2010 EUR	2009 EUR
Balances with banks	17 616 744	8 920 212
Securities	1 390 062 928	1 482 633 679
– marketable securities	1 287 801 478	1 382 466 794
– held-to-maturity securities	102 261 450	100 166 885
Deposits	152 000 000	109 556 667
	1 559 679 672	1 601 110 558

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:

- 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 of 31 December 2010, their value at market prices included a negative net revaluation adjustment amounting to 75.5 million euro (negative net revaluation adjustment amounting to 92.6 million euro as of 31 December 2009).
- The Held-to-maturity portfolio was created in 2007. These securities are intended 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 since 2007. 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 of 31 December 2010, these securities amount to 102.3 million euro (100.2 million euro as of 31 December 2009). One security was impaired in 2009 and 2010. The adjusted write-down amounts to 42 million euro as of 31 December 2010.

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:

	2010 EUR	2009 EUR
Main refinancing operations	1 125 600 000	1 953 000 000
Longer-term refinancing operations	1 643 000 000	13 203 000 000
Fine-tuning reverse operations	-	-
Structural reverse operations	-	-
Marginal lending facility	-	-
Credits related to margin calls	-	-
	2 768 600 000	15 156 000 000

The total Eurosystem holding of monetary policy assets amounts to 546 747 million euro of which BCL holds 2 768 million euro. In accordance with Article 32.4 of the Statute, any risks from monetary policy operations, if they were to materialise, should eventually be shared in full by the Eurosystem NCBs, in proportion to the prevailing ECB capital key shares.

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 tenders with three-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.

7.5 Marginal lending facility

This sub-item records a standing facility enabling counterparties to obtain overnight 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.

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

	2010 EUR	2009 EUR
Securities held for monetary policy purposes	430 742 233	45 317 335
Other securities	3 573 422 082	3 864 908 352
- marketable securities	3 415 768 744	3 706 676 021
- held-to-maturity securities	157 653 338	158 232 331
	4 004 164 315	3 910 225 687

9.1 Securities held for monetary policy purposes

This item contains securities acquired by BCL within the scope of the purchase programme for covered bonds and the securities markets programme. These securities are classified as held-to-maturity.

These securities are valued at amortised cost and are subject to impairment tests.

The securities acquired by BCL within the scope of the purchase programme for covered bonds amounted to 138.3 million euro as at 31 December 2010. This programme was completed at the end of June 2010.

The total Eurosystem holding of SMP securities amounts to 74 billion euro, of which BCL holds 292.4 million euro. In accordance with Article 32.4 of the Statutes, any risks from holdings of SMP securities, if they were to materialise, should eventually be shared in full by the Eurosystem, in proportion to the prevailing ECB capital key shares.

As of 31 December 2010, these securities held for monetary policy purposes amount to 430.7 million euro (45.3 million euro as of 31 December 2009).

9.2 Other securities

The securities portfolio recorded under this heading includes:

- The marketable securities portfolio in euro issued by residents of the euro area amount to 3 415.8 million euro as of 31 December 2010 (3 706.7 million euro as of 31 December 2009). 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 of 31 December 2010, their value at market prices included a negative net revaluation adjustment amounting to 179.9 million euro (net revaluation adjustment amounting to 26.7 million euro as of 31 December 2009).
- The Held-to-maturity portfolio was created in 2007. These securities are intended 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 since 2007. Securities already in portfolios as of 31 December 2006 were transferred at accounting value as of 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 of 31 December 2010, these securities amount to 157.7 million euro (158.2 million euro as of 31 December 2009). The value of the securities will be adjusted if their impairment is assumed to be permanent.

Note 10 – Intra-Eurosystem claims

10.1 Participating interest in ECB

Pursuant to Article 28 of the ESCB Statutes, 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 Statutes and which are subject to adjustment every five years.

The ECB increased its subscribed capital by 5 billion euro from 5 760 652 402.58 euro to 10 760 652 402.58 euro with effect from 29 December 2010. The NCBs of the euro area countries shall pay up their increased capital in three equal annual instalments. The first instalment was paid on 29 December 2010, and the remaining two instalments will be paid at the end of 2011 and 2012, respectively.

As a result, the subscribed and paid-up capital of NCBs is as follows:

	Subscribed capital until 28 December 2010	Paid-up capital until 28 December 2010	Subscribed capital from 29 December 2010	Paid-up capital from 29 December 2010
Banque Nationale de Belgique	139 730 384.68	139 730 384.68	261 010 384.68	180 157 051.35
Deutsche Bundesbank	1 090 912 027.43	1 090 912 027.43	2 037 777 027.43	1 406 533 694.10
Central Bank and Financial Services Authority of Ireland	63 983 566.24	63 983 566.24	119 518 566.24	82 495 232.91
Bank of Greece	113 191 059.06	113 191 059.06	211 436 059.06	145 939 392.39
Banco de España	478 364 575.51	478 364 575.51	893 564 575.51	616 764 575.51
Banque de France	819 233 899.48	819 233 899.48	1 530 293 899.48	1 056 253 899.48
Banca d'Italia	719 885 688.14	719 885 688.14	1 344 715 688.14	928 162 354.81
Central Bank of Cyprus	7 886 333.14	7 886 333.14	14 731 333.14	10 167 999.81
Banque centrale du Luxembourg	10 063 859.75	10 063 859.75	18 798 859.75	12 975 526.42
Central Bank of Malta	3 640 732.32	3 640 732.32	6 800 732.32	4 694 065.65
De Nederlandsche Bank	229 746 339.12	229 746 339.12	429 156 339.12	296 216 339.12
Oesterreichische Nationalbank	111 854 587.70	111 854 587.70	208 939 587.70	144 216 254.37
Banco de Portugal	100 834 459.65	100 834 459.65	188 354 459.65	130 007 792.98
Banka Slovenije	18 941 025.10	18 941 025.10	35 381 025.10	24 421 025.10
Národná banka Slovenska	39 944 363.76	39 944 363.76	74 614 363.76	51 501 030.43
Suomen Pankki – Banque de Finlande	72 232 820.48	72 232 820.48	134 927 820.48	93 131 153.81
Subtotal for euro area NCBs	4 020 445 721.55	4 020 445 721.55	7 510 020 721.55	5 183 637 388.22
Българска народна банка (Bulgarian National Bank)	50 037 026.77	3 502 591.87	93 467 026.77	3 505 013.50
Česká národní banka	83 368 161.57	5 835 771.31	155 728 161.57	5 839 806.06
Danmarks Nationalbank	85 459 278.39	5 982 149.49	159 634 278.39	5 986 285.44
Eesti Pank	10 311 567.80	721 809.75	19 261 567.80	722 308.79
Latvijas Banka	16 342 970.87	1 144 007.96	30 527 970.87	1 144 798.91
Lietuvos bankas	24 517 336.63	1 716 213.56	45 797 336.63	1 717 400.12
Magyar Nemzeti Bank	79 819 599.69	5 587 371.98	149 099 599.69	5 591 234.99
Narodowy Bank Polski	282 006 977.72	19 740 488.44	526 776 977.72	19 754 136.66
Banca Națională a României	141 971 278.46	9 937 989.49	265 196 278.46	9 944 860.44
Sveriges Riksbank	130 087 052.56	9 106 093.68	242 997 052.56	9 112 389.47
Bank of England	836 285 430.59	58 539 980.14	1 562 145 430.59	58 580 453.65
Subtotal for non-euro area NCBs	1 740 206 681.03	121 814 467.67	3 250 631 681.03	121 898 688.04
Total	5 760 652 402.58	4 142 260 189.22	10 760 652 402.58	5 305 536 076.26

On 29 December 2010, BCL paid first annual instalment of 2 911 666.67 euro.

As of 31 December 2010, the BCL's paid-up capital amount to 12 975 526.42 euro (10 063 859.75 euro as at 31 December 2009).

The share that the BCL held in the accumulated net profits of the ECB reflects the repayment of 5.7 million euro of ECB reserves (5.7 million euro as at 31 December 2009).

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 of 31 December 2010, the claim of the BCL amounts to 100 638 597 euro (100 638 597 euro as of 31 December 2009).

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 67.9 billion euro as of 31 December 2010 (52.5 billion euro as of 31 December 2009).

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

Tangible and intangible fixed assets developed as follows:

	Buildings EUR	Furniture and equipment EUR	Software EUR	Other EUR	Total EUR
Cost as of 1 January 2010	92 410 462	13 374 198	6 052 367	122 959	111 959 986
Disposals/Refund	-	-	(187 500)	-	(187 500)
Acquisitions	541 828	481 388	31 858	215 823	1 270 897
Cost as of 31 December 2010	92 952 290	13 855 586	5 896 725	338 782	113 043 383
Accumulated depreciation as of 1 January 2010	36 974 960	11 230 423	5 470 153	-	53 675 536
Disposals	-	-	-	-	-
Depreciation	3 260 600	712 137	197 318	-	4 170 055
Accumulated depreciation as of 31 December 2010	40 235 560	11 942 560	5 667 471	-	57 845 591
Net book value as of 31 December 2010	52 716 730	1 913 026	229 254	338 782	55 197 792

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:

	2010 EUR	2009 EUR
Other participating interests	3 045 952	45 952
Pension fund	108 097 672	103 537 053
	111 143 624	103 583 005

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

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 of 31 December 2010.

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 Commission receivables, prepaid expenses (including salaries paid for January 2011) and other income receivable.

11.4 Sundry

	2010 EUR	2009 EUR
Others	1 323 730 104	1 808 764 473
	1 323 730 104	1 808 764 473

This item includes mainly the remaining outstanding claims against counterparties which defaulted in 2008 on refinancing operations undertaken by the Eurosystem.

This item consists also 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 (15.4 million euro as of 31 December 2010).

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 1 935.5 million euro (1 858.8 million euro as of 31 December 2009).

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

	2010 EUR	2009 EUR
Current accounts (covering the minimum reserves)	6 435 590 706	7 986 042 119
Deposit facility	2 986 138 825	5 502 474 166
Fixed-term deposits	220 000 000	–
Fine-tuning reverse operations	–	–
Deposits related to margin calls	–	–
	9 641 729 531	13 488 516 285

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

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 when the interest rate is set.

13.2 Deposit facility

This sub-item records the standing facility allowing credit institutions to make overnight 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.

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:

	2010 EUR	2009 EUR
Current accounts	631 043	10 509
Account related to euro coins issued by the Treasury	207 194 215	193 917 563
Fixed-term deposit	140 000 000	150 000 000
	347 825 258	343 928 072

The item current accounts records an amount of 631 043 euro owed to the Luxembourg Treasury.

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 euro area residents denominated in foreign currency

This item includes current accounts in foreign currency held by euro area resident credit institutions.

Note 17 – 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 18 – Counterpart of special drawing rights allocated by the IMF

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 246.6 million, or 285.4 million euro as of 31 December 2010 (SDR 246.6 million, or 268.5 million euro as of 31 December 2009).

Note 19 – Intra-Eurosystem liabilities

19.1 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 20 – Items in course of settlement

This item contains cash desk’s differences as of 31 December.

Note 21 – 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 of 31 December 2010 amount to 5.2 million euro (5.2 million euro as of 31 December 2009).

Note 22 - Provisions

Provisions developed as follows:

	2010 EUR	2009 EUR
Provisions for banking risks	405 906 211	342 314 711
Provisions for pensions	109 671 956	106 389 085
Other provisions	50 000	50 000
	515 628 167	448 753 796

22.1 Provisions for banking risks

Provisions for banking risks include the following items:

Provisions for specific banking risks	2010 EUR	2009 EUR
Provision covering credit and market risk	226 883 533	178 598 096
Buffer against counterparty risks in Eurosystem	4 987 379	9 064 058
Provision covering operational risk	20 480 000	16 040 000
Provision covering liquidity risk	15 433 443	15 287 989
Provision for doubtful debts	97 827 633	83 030 345
	365 611 988	302 020 488
Provisions for general banking risks	2010 EUR	2009 EUR
Provision for liabilities resulting from monetary agreements	32 341 954	32 341 954
Other provision for general banking risks	7 952 269	7 952 269
	40 294 223	40 294 223
	405 906 211	342 314 711

22.1.1 Provision covering credit and market risk

The provision of 226.9 million euro (178.6 million euro as at 31 December 2009) corresponds to:

- 3.35% of the BCL's own securities portfolio existing as of 31 December 2010 (2.5% as of 31 December 2009) and participations other than the participating interest in the ECB;
- 3.35% (2.1% as of 31 December 2009) of the amount lent by the Eurosystem (main and long-term refinancing operations) as at year-end for monetary policy purposes multiplied by the BCL's capital key in Eurosystem including securities held in the framework of the Securities Markets Programme.

The BCL's aim is to target a rate of 4% on all items in the medium term.

22.1.2 Buffer against counterparty risks in Eurosystem

In accordance with Article 32.4 of the ESCB Statutes, a buffer was established against counterparty risks in monetary policy operations. This buffer was funded among all national central banks of participating Member States in proportion to their subscribed capital key shares in the ECB prevailing at the time of default. In accordance with the general accounting principle of prudence, the Governing Council of BCE reduced the buffer from 4 011 000 000 euro as of 31 December 2009 to 2 207 000 000 euro as of 31 December 2010. This decrease was due to revaluation of collateral and to principal payments received from the debtors.

For the BCL, the buffer decreased from 9 064 058 euro as of 31 December 2009 to 4 987 379 euro as of 31 December 2010.

22.1.3 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 2010, the average has been based on previous years in accordance with the rules.

22.1.4 Provision for doubtful debts

The provision for doubtful debts covers non paid interests from counterparty amounting to 97.8 million euro as of 31 December 2010 (non paid interests from counterparty amounting to 83.0 million euro of 31 December 2009).

22.1.5 Provision for liabilities resulting from monetary agreements

The provision for liabilities resulting from monetary treaties created in order to face any future monetary liabilities did not change in 2010.

22.1.6 Other provision for general banking risks

This provision, intended to cover non-specific risk of losses resulting from central bank's activities, did not change in 2010.

22.2 Provisions for pensions

Provisions for pensions include the following items:

	2010 EUR	2009 EUR
Provision for pensions	108 130 338	104 847 467
Provision for increase of PBO	1 541 618	1 541 618
	109 671 956	106 389 085

22.2.1 Provision for pensions

The pension 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 108.1 million euro as of 31 December 2010 (104.8 million euro as of 31 December 2009).

The variance 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.

22.2.2 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 change in 2010.

Note 23 – 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 24 - Capital and reserves

24.1 Capital

The State of Luxembourg is the sole shareholder of the BCL's capital for an amount of 175 million euro (no change compared to 2009).

24.2 Reserves

The reserves amount to 7 million euro (0.2 million euro as of 31 December 2009). This amount was increased by 6.8 million euro in 2010 following the allocation of profit for 2009 according to the decision of the BCL's Council in application of its Founding Law (Article 31).

	Capital EUR	Reserves EUR
As of 1 January 2010	175 000 000	171 398
Profit allocation for 2009 (art 31)		6 804 200
As of 31 December 2010	175 000 000	6 975 598

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 of 31 December 2010, the market value of these securities amounts to 210.2 billion euro (222.8 billion euro as of 31 December 2009).

Note 26 - Foreign currency reserve assets administrated 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 of 31 December 2010, the total liabilities related to these forward contracts amount to 121.7 million euro (127.1 million euro as of 31 December 2009). 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 of 31 December 2010, no change compared to 2009.

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 2010	Amounts in euro EUR 2010	Total EUR 2010
IMF	978 950	-	978 950
Monetary policy	-	98 408 869	98 408 869
Intra-Eurosystem claims	-	654 827 812	654 827 812
Securities	2 974 410	146 313 241	149 287 651
Gold	363 558	-	363 558
Other	905 197	7 306 762	8 211 959
Total	5 222 115	906 856 684	912 078 799

Composition of interest expense	Amounts in foreign currency EUR 2010	Amounts in euro EUR 2010	Total EUR 2010
IMF	(833 497)	-	(833 497)
Current accounts (including minimum reserves) and deposits related to monetary policy operations	-	(102 906 741)	(102 906 741)
Liabilities related to the reallocation of euro banknotes in the Eurosystem	-	(625 029 889)	(625 029 889)
Other intra-Eurosystem liabilities	-	(30 423)	(30 423)
Interests on term deposits	-	(357 847)	(357 847)
Other liabilities	(556 126)	(567 840)	(1 123 966)
Interest on swap operation	(193 068)	-	(193 068)
Total	(1 582 691)	(728 892 740)	(730 475 431)

Composition of interest income	Amounts in foreign currency EUR 2009	Amounts in euro EUR 2009	Total EUR 2009
IMF	436 044	-	436 044
Monetary policy	-	388 512 529	388 512 529
Intra-Eurosystem claims	-	514 864 267	514 864 267
Securities	4 638 904	189 376 978	194 015 882
Gold	341 504	-	341 504
Other	47 128 321	19 539 524	66 667 845
Total	52 544 773	1 112 293 298	1 164 838 071

Composition of interest expense	Amounts in foreign currency EUR 2009	Amounts in euro EUR 2009	Total EUR 2009
IMF	(289 516)	-	(289 516)
Current accounts (including minimum reserves) and deposits related to monetary policy operations	-	(171 296 339)	(171 296 339)
Liabilities related to the reallocation of euro banknotes in the Eurosystem	-	(695 147 107)	(695 147 107)
Other intra-Eurosystem liabilities	-	(125 371)	(125 371)
Interests on term deposits	-	(1 061 875)	(1 061 875)
Other liabilities	(694 085)	(587 115)	(1 281 200)
Interest on swap operation	(46 094 847)	-	(46 094 847)
Total	(47 078 448)	(868 217 807)	(915 296 255)

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 losses realised on these transactions. In 2010, they amounted to 77.3 million euro (62.5 million euro as of 31 December 2009) and to 4.7 million euro (8.1 million euro as of 31 December 2009) respectively, making a net gain of 72.6 million euro (a net gain of 54.4 million euro as of 31 December 2009).

Note 30 – Write-downs on financial assets and positions

This item includes revaluation losses on securities for 110.6 million euro and on futures for 1.5 million euro (revaluation losses on securities for 20.9 million euro in 2009).

Note 31 – Transfer to/from provisions for 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	
	2010	2009	2010	2009
Securities	15 784 915	18 334 059	(15 871 717)	(17 696 294)
Others	1 199 637	1 221 872	(79 240)	(68 803)
Total	16 984 552	19 555 931	(15 950 957)	(17 765 097)

Note 33 – Income from participating interest

In 2010, the ECB's income on euro banknotes in circulation and on SMP securities amounting to 654 million euro and 438 million euro respectively, was fully retained by the ECB. This income was transferred to the ECB's provision for risks.

This item includes the BCL's part for 2009 amounting to 3.7 million euro and paid in March 2010.

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;
- securities held for monetary policy purposes
- 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, and securities held for monetary policy purposes under decision of the Governing Council of 2 July 2009 on the implementation of covered bonds purchase programme are considered to generate income at the latest available marginal rate for the Eurosystem's main refinancing operations.

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 marginal rate on main refinancing operations.

The monetary income pooled by the Eurosystem is allocated among NCBs according to the subscribed capital key (0.25032% for the BCL in 2010).

This item includes the net monetary income allocated to BCL for 2010 representing an expense amounting to 43 174 945 euro (expense of 45 572 429 euro as at 31 December 2009).

As of 31 December 2010, this item also includes the amount of 4 076 679 euro due to the decrease of the buffer against counterparty risks in Eurosystem, as described in note 22.1.2. (decrease of this buffer amounting to 3 898 155 euro as of 31 December 2009).

Note 35 – Other income

"Other income" includes revenue for services rendered to third parties, transfers from administrative provisions, income from "Monterey building" renting, income from numismatic activities and the recovered functioning costs of EPCO (Eurosystem procurement Co-ordination Office).

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

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 537 165 euro for the year 2010 (518 410 euro for the year 2009).

As of 31 December 2010, the BCL employed 268 persons (247 as of 31 December 2009). The average number of persons working for the BCL from 1 January to 31 December 2010 was 256 (242 for the year 2009).

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 78 439 euro in 2010 (79 037 euro in 2009).

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

In 2010, this item shows mainly costs related to numismatic activities and to consultancy (the same in 2009).

Note 41– Post-balance-sheet events

On 1 January 2011, following the entry of Estonia in the Eurosystem, the BCL's Eurosystem participation key changed from 0.25032% to 0.24968%.

BCN's participations are as follows (rounded):

	Eurosystem key until 31 December 2010	Eurosystem key from 1 January 2011
Belgium	3.47549	3.4666
Germany	27.13411	27.06469
Greece	2.81539	2.80818
Spain	11.8983	11.86786
France	20.37669	20.32457
Ireland	1.59145	1.58738
Italy	17.90562	17.85981
Luxembourg	0.25032	0.24968
Netherlands	5.71445	5.69983
Austria	2.78214	2.77503
Portugal	2.50804	2.50163
Finland	1.79664	1.79204
Cyprus	0.19616	0.19565
Malta	0.09056	0.09032
Slovenia	0.47112	0.46991
Slovak Republic	0.99353	0.99099
Estonia	-	0.25582
Total	100.00000	100.00000





04

ANNEXES

4 ANNEXES

4.1 LIST OF BCL REGULATIONS PUBLISHED IN 2010

2010/N°6 of 8 September 2010

Regulation of the “Banque centrale du Luxembourg” 2010/n°6 of 8 September 2010 concerning the oversight of payment systems, securities settlement systems and payment instruments in Luxembourg.

Domain: Oversight

For a complete list of regulations published by the Banque centrale du Luxembourg, please visit the BCL’s website (www.bcl.lu).

4.2 LIST OF BCL CIRCULARS PUBLISHED IN 2010

For a complete list of circulars published by the Banque centrale du Luxembourg, please visit the BCL’s website (www.bcl.lu).

4.3 LIST OF BCL PUBLICATIONS PUBLISHED IN 2010

4.3.1 BCL bulletins

- Bulletin BCL 2010/1, March 2010
- Revue de stabilité financière, April 2010
- Bulletin BCL, September 2010
- Bulletin BCL, December 2010

For a complete list of bulletins published by the BCL, please visit the BCL’s website (www.bcl.lu).

4.3.2 BCL annual report

- Rapport Annuel 2009, June 2010
- Annual Report 2009, August 2010

For a complete list of Annual Reports published by the BCL, please visit the BCL's website (www.bcl.lu).

4.3.3 BCL working papers

- Working paper N°49, December 2010
Monetary Policy Transmission and Macroeconomic Dynamics in Luxembourg: Results from a VAR analysis, by Romuald Mohrs
- Working Paper N°48, August 2010
Downward Wage Rigidity and Automatic Wage Indexation: Evidence from monthly micro Wage Data, by Patrick Lünemann and Ladislav Wintř
- Working paper N°47, August 2010
Stress Testing: The Impact of Shocks on the Capital Needs of the Luxembourg Banking Sector, by Abdelaziz Rouabah
- Working Paper N°46, July 2010
The Misconception of the Option Value of Deposit Insurance and the Efficacy of Non-Risk-Based Capital Requirements in the Literature on Bank Capital Regulation, by Paolo Fegatelli
- Working Paper N°45, June 2010
Market and Funding Liquidity Stress Testing of the Luxembourg Banking Sector, by Francisco Nadal de Simone and Franco Stragiotti
- Working Paper N°44, March 2010
The Role of collateral Requirements in the Crisis: One Tool for two Objectives?, by Paolo Fegatelli

For a complete list of working papers published by the BCL, please visit the BCL's website (www.bcl.lu).

4.3.4 BCL Brochures

- Luxembourg numismatic products 2011

For a complete list of brochures published by the BCL, please visit the BCL's website (www.bcl.lu).

4.3.5 Information material about the security features of Euro banknotes and coins

For a complete list of information material about the security features of euro banknotes and coins published by the BCL, please visit the BCL's website (www.bcl.lu).

4.3.6 Publications and external presentations of BCL Staff

4.3.6.1 BCL publications

- D. de la Croix, O. Pierrard and H. Sneessens "Ageing and Pensions in General Equilibrium : Labour Market Imperfections Matter" IZA WP 5276, Ires WP 2010-37, CREA DP 2010-09
- G. de Walque, O. Pierrard and A. Rouabah (2010), "Financial (in)stability, supervision and liquidity injections: a dynamic general approach", *The Economic Journal*. 120 (549): 1234-1261
- P. Fegatelli (2010), "The Misconception of the Option Value of Deposit Insurance and the Efficacy of Non-Risk-Based Capital Requirements in the Literature on Bank Capital Regulation", *Journal of Financial Stability*, 6(2):79-84
- P. Lünemann and T. Mathä. (2010). "Consumer Price behaviour in Luxembourg: evidence from micro CPI data" *Managerial and Decision Economics*, 31 (2-3):177-192
- P. Lünemann and T. Mathä (2010)., "Rigidities and inflation persistence of services and regulated prices" *Managerial and Decisions Economics*. 31(2-3): 193-208

- T. Mathä and O. Pierrard (2011), "Search in the Product Market and the Real Business Cycle" forthcoming in Journal of Economic Dynamics and Control
- P. Lünemann and L. Wintr, "Price stickiness in the US and Europe revisited: Evidence from Internet prices" Oxford Bulletin of Economics and Statistics, forthcoming

4.3.6.2 External presentations

- EFFAS-European Bond Commission, Frankfurt, February 2010
- STATEC seminar on leading indicators for Luxembourg, February 2010
- Workshop "Basic Income", University of Luxembourg, April 2010
- University of Luxembourg, Research seminar, May 2010
- Working Group on General Economic Statistics, Madrid, May 2010
- Eurosystem Seminar on Macro-Financial Risks & Vulnerabilities, Frankfurt, June 2010
- DYNARE annual conference, June 2010
- National Bank of Poland Workshop on Public Finances, Krakow, June 2010
- EcoMod International Conference on Policy Modelling, Bilgi University, July 2010
- PricewaterhouseCoopers round table "Gestion des risques", September 2010
- CEPR conference, Budapest, September 2010
- CEPR conference, Izmir, October 2010
- University of Luxembourg, Lunchseminar, October 2010
- BCL/ECB joint Conference on Household Finance and Consumption, Luxembourg, October 2010
- Working Group on Econometric Modelling, Frankfurt, November 2010
- Credit developments in Luxembourg before and during the crisis, Frankfurt, December 2010
- Colloque LU2020 sur l'économie de la connaissance, Luxembourg, December 2010
- Economist Club Luxembourg, April 2010

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4.4 EUROPEAN CENTRAL BANK (ECB) PUBLICATIONS

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

Order: ECB
 Postfach 160319
 D-60066 Frankfurt am Main
 www.ecb.int

4.5 MONETARY, ECONOMIC AND FINANCIAL STATISTICS

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 - 1.2 Luxembourg minimum reserve statistics
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4.6 LIST OF ABBREVIATIONS

ABBL	Association des Banques et Banquiers, Luxembourg
BCL	Banque centrale du Luxembourg
BIS	Bank for International Settlements
CCBM	Correspondent central banking model
CETREL	Centre de transferts électroniques Luxembourg
CPI	Consumer Price Index
CSSF	Commission de surveillance du secteur financier
ECB	European Central Bank
EIB	European Investment Bank
EMI	European Monetary Institute (1994-1998)
EMS	European Monetary System
EMU	Economic and Monetary Union
ESCB	European System of Central Banks
EU	European Union
EUR	euro
EUROSTAT	Statistical office of the European communities
GDP	Gross domestic product
HICP	Harmonised Index of Consumer Prices
IADB	Inter American Development Bank
IMF	International Monetary Fund
IML	Institut Monétaire Luxembourgeois (1983-1998)
IOSCO	International Organisation of Securities Commissions
LIPS-Gross	Luxembourg Interbank Payment System – Gross Settlement System

LIPS-Net	Luxembourg Interbank Payment System – Net Settlement System
MFI	Monetary Financial Institution
MRO	Main refinancing operation
NCB	National central bank
OECD	Organisation for Economic Cooperation and Development
RTGS system	Real-Time Gross Settlement system
SDR	Special Drawing Rights
SWIFT	Society for Worldwide Interbank Financial Telecommunication s.c.
TARGET system	Trans-European Automated Real-time Gross settlement Express Transfer system
UCI	Undertaking for Collective Investments
UCITS	Undertaking for Collective Investments in Transferable Securities

4.7 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 immobilised) or dematerialised form (i.e. so that they exist only as electronic records).

Collateral: assets pledged or otherwise transferred (e.g. by credit institutions to central banks) as a guarantee for the repayment of loans, as well as assets sold (e.g. by credit institutions to central banks) under repurchase agreements.

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.

Correspondent central banking model (CCBM): a mechanism established by the European System of Central Banks with the aim of enabling counterparties to use eligible collateral 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).

Counterparty: the opposite party in a financial transaction (e.g. any party transacting with a 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 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 behaviour, 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.

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 Treaty, 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.

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,

Estonia, Ireland, Greece, Spain, France, Italy, Cyprus, Luxembourg, Malta, the Netherlands, Austria, Portugal, Slovenia, Slovakia and Finland.

Eurogroup: an informal gathering of the ministers of economy and finance of the EU Member States whose currency is the euro.

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 282(3)). 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 Bank 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 harmonised 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).

European System of Central Banks (ESCB): composed of the European Central Bank (ECB) and the NCBs of all 27 EU Member States, i.e. it includes, in addition to the members of the Eurosystem, the NCBs of those Member States whose currency is not the euro. The ESCB is governed by the Governing Council and the Executive Board of the ECB, and, as a third decision-making body of the ECB, by the General Council.

European System of Financial Supervision (ESFS): the group of institutions in charge of ensuring the supervision of the EU's financial system. It comprises the European Systemic Risk Board, the three European Supervisory Authorities, the Joint Committee of the European Supervisory Authorities, and the national supervisory authorities of the EU Member States.

European Systemic Risk Board (ESRB): an independent EU body responsible for the macro-prudential oversight of the financial system within the EU. It contributes to the prevention or mitigation of systemic risks to financial stability that arise from developments within the financial system, taking into account macroeconomic developments, so as to avoid periods of widespread financial distress.

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 creditworthy 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, since the entry into force of the Treaty of Lisbon, by the European Council, acting by a qualified majority, on a recommendation from the EU Council.

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.

Harmonised index of the consumer prices (HICP): a measure of the development of consumer prices that is compiled by Eurostat and harmonised 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. During the financial market turmoil that started in August 2007, supplementary operations with maturities ranging from one maintenance period to one year were conducted, the frequency of which varied.

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.

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).

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.

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).

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 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 decentralised technical structure with a single shared platform offering a harmonised service with a uniform pricing scheme.

TARGET2-Securities (T2S): the Eurosystem's single technical platform enabling central securities depositories and NCBs to provide core, borderless and neutral securities settlement services in central bank money in Europe.

Treaty of Lisbon (Lisbon Treaty): amends the EU's two core treaties: the Treaty on European Union and the Treaty establishing the European Community. The latter has been renamed the Treaty on the functioning of the European Union. The Treaty of Lisbon was signed in Lisbon on 13 December 2007 and entered into force on 1 December 2009.

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