





# 02

## THE BCL'S OPERATIONS

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### 2.1 MONETARY POLICY OPERATIONS

In Luxembourg, the BCL is responsible for conducting the monetary policy as defined by the ECB, for the entire Euro zone. On 8 July 2009, the EIB became an eligible monetary policy counterparty of the Eurosystem.

Monetary policy uses different instruments, spread into three categories: the open market operations, the standing facilities and the minimum reserves. Besides, there were non-conventional measures adopted between 2007 and 2009.

These operations are:

#### 2.1.1 Open-market operations

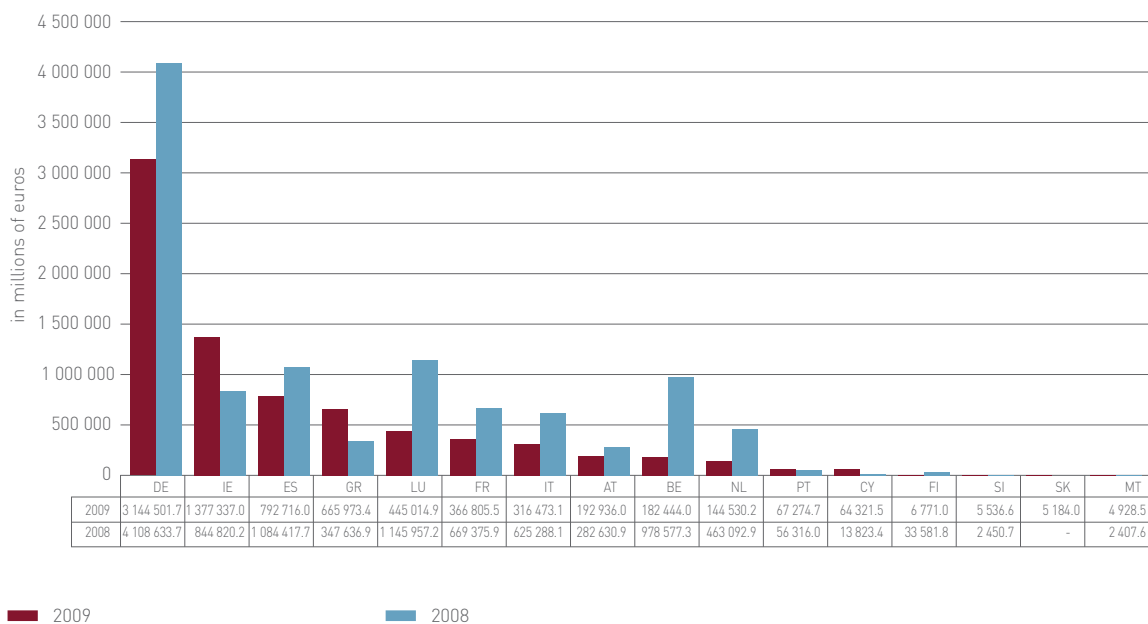
##### 2.1.1.1 Main refinancing operations (MRO) in 2009

Since October 2008, the MRO have been conducted on a full allotment and fixed rate basis. The fixed rate was the reference rate decided by the Board of Governors. This non-conventional measure was effective all through 2009. It is foreseen that this allotment method will be maintained for as long as necessary and at least until 12 October 2010, which corresponds to the end of the ninth maintenance period for the minimum reserves.

Chart 2.1:  
MRO 2009 – Bids and allotments in the eurozone



Chart 2.2:  
MRO 2009 – Bids and allotments in the eurozone compared to 2008



In 2009, the participation of Luxembourgish counterparties to main refinancing operations gradually decreased. Compared with total Eurosystem counterparties' participation, Luxembourgish counterparties' participation ranked fifth or sixth, even punctually seventh, while in 2008 and the years before it had ranked second. For the volume allotted over the whole year, this participation ranks fifth.

Altogether, the Luxembourgish counterparties resorted less to the main refinancing operations in 2009 as they had sufficient liquidities.

### 2.1.1.2 Longer-term refinancing operations (LTRO) in 2009

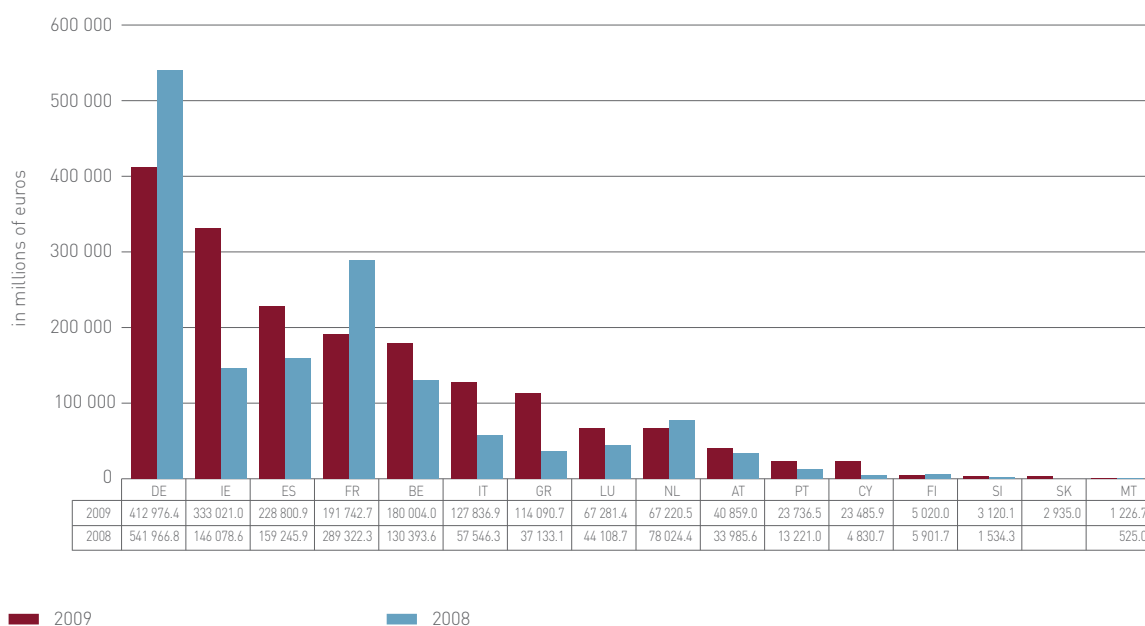
Along with the regular 3-month operations, the supplementary 3-month, 6-month and one-maintenance period operations that were set up in August 2007 and in September 2008 were renewed in 2009. In all those operations, all bids were satisfied at a fixed rate.

Besides, three one-year operations were added in June, September and December. The first two were fully allotted at a fixed rate while the latter was fully allotted at an adjustable rate. This will be calculated at the maturity of the operation and will be equal to the average of the minimum bid rates of the main refinancing operations that will have been conducted during the life of the operation.

Compared to 2008, the Luxembourgish counterparties increased the total volume of their participation in the longer-term refinancing operations in 2009. Nevertheless Luxembourg still ranks eighth.

Chart 2.3:

MRO 2009 – Total volume allotted in the eurozone compared to 2008



In 2009, the Eurosystem extensively resorted to longer-term operations to restore confidence on the money markets, with a total allotted amount of 1 823.3 billion euro (compared to 1 543 billion euro in 2008). Altogether 51 operations were conducted in 2009 (53 in 2008) among which 12 regular 3-month operations. The other 39 were supplementary operations, among which 12 one-maintenance period operations, 12 three-month operations, 12 sixth-month operations and 3 one-year operations, conducted in June, September and December.

As the year went by, liquidity conditions and confidence improved and those operations were less used. On the other hand, the first one-year operation (June 2009) gathered a considerable amount (442 billions of euros).

Within the scope of the phasing-out scenario, it is foreseen that the one-maintenance period operations will be fully allotted at a fixed rate until 12 October at least. The return to a variable rate procedure for the regular 3-month procedure was foreseen for 28 April 2010. However, due to the new financial turmoil that appeared in April 2010 this was suspended for the two operations to be allotted on 26 May and 30 June 2010. Besides, it was decided that an additional 6-month operation should take place on 12 May 2010, even though the last one was initially foreseen for the 31 March 2010. In December 2009, the last one-year operation was conducted. The supplementary 3-month operations were not renewed in 2010.

The following graphs show the amounts allotted per operation for the whole euro zone.

Chart 2.4:  
LTRO 3M – Allotments in the eurozone in 2009

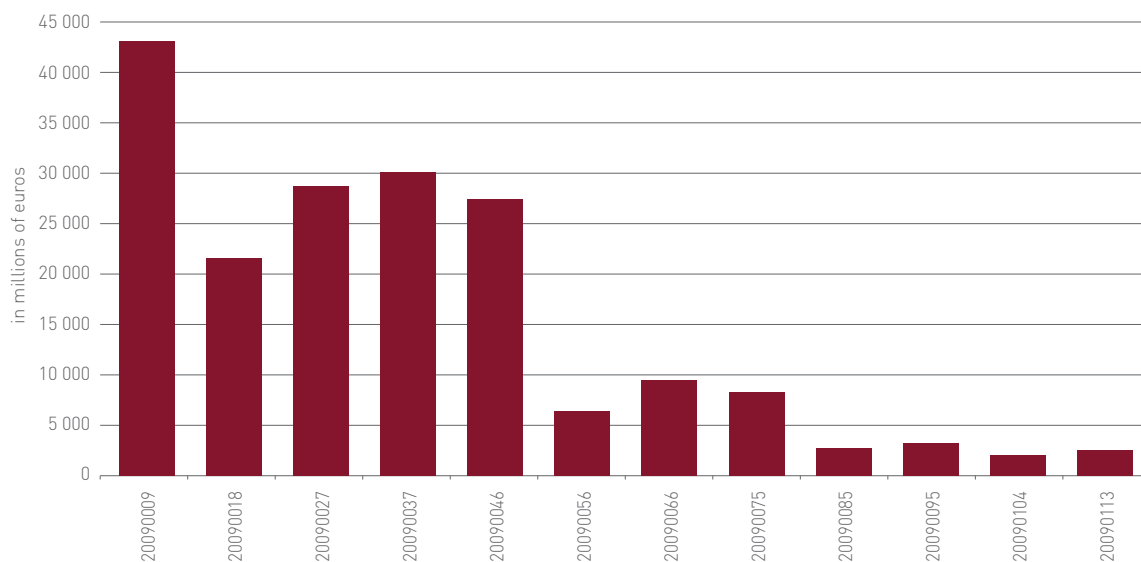


Chart 2.5:  
SLTRO 1 MP – Volume allotted in the eurozone in 2009

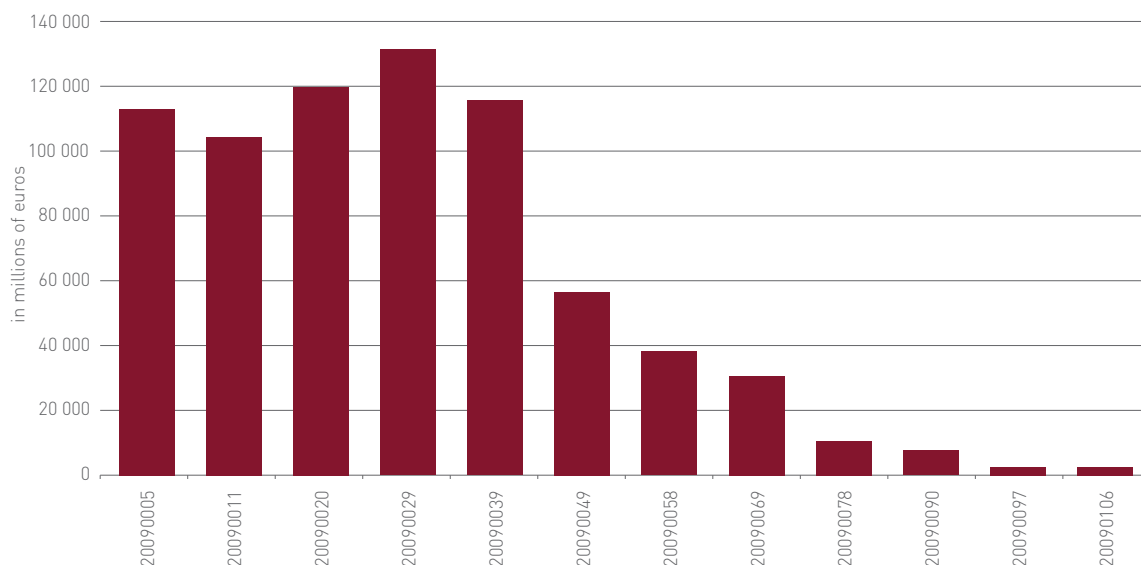


Chart 2.6:

SLTRO 3 M – Total volume allotted in the eurozone in 2009

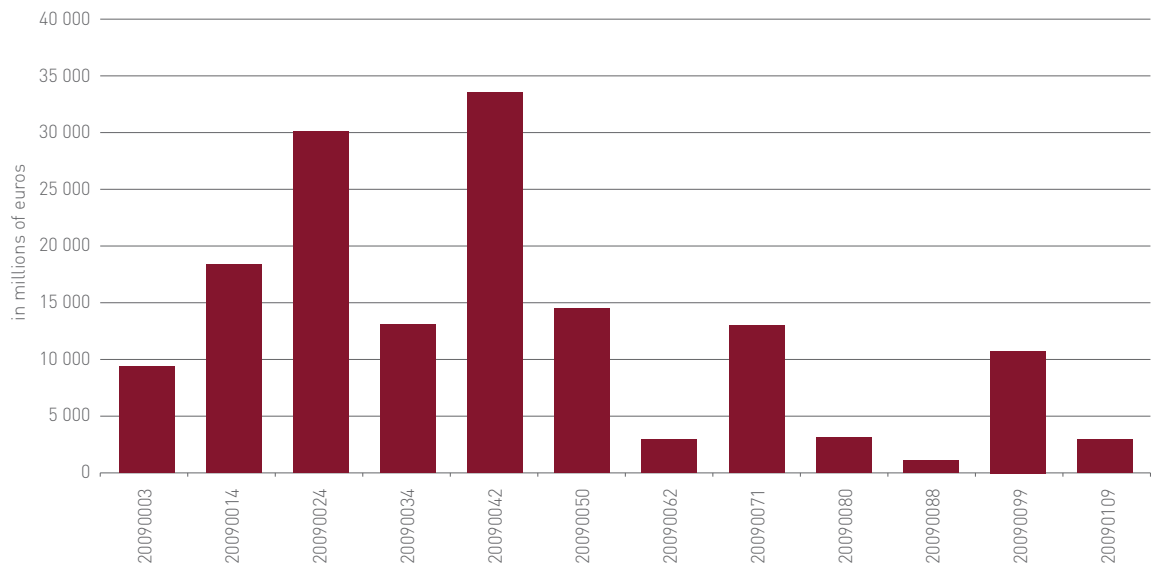


Chart 2.7:

SLTRO 6M – Total volume allotted in the eurozone in 2009

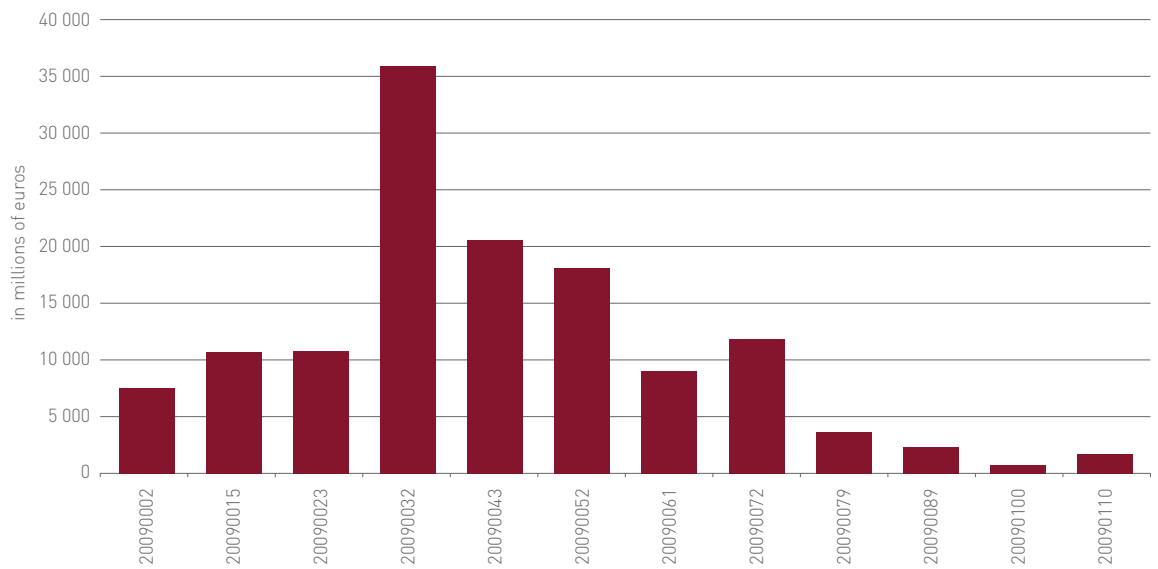
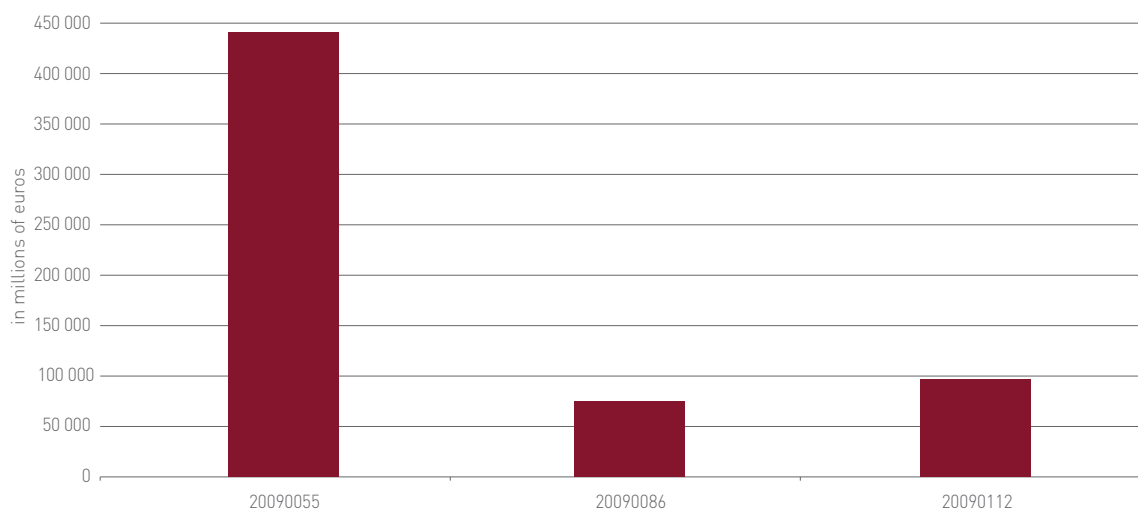


Chart 2.8:

SLTRO 12M – Total volume allotted in the eurozone in 2009



### 2.1.1.3 Fine tuning operations in 2009

Since 2008, this type of operations has been open to all counterparties. In 2009, fine tuning operations were used exclusively on the last day of the maintenance period, in order to absorb excess liquidities. No liquidity providing operation was conducted. Globally, fine tuning operations increased in volume over the year.

Chart 2.9:

Fine tuning operations – Total amount absorbed in 2009 in the eurozone

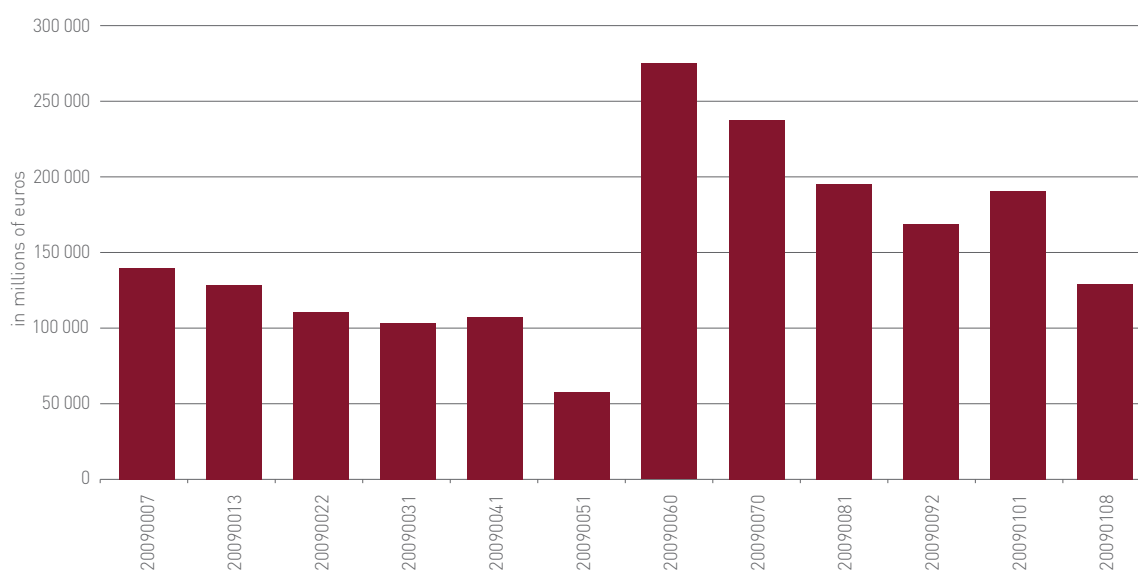
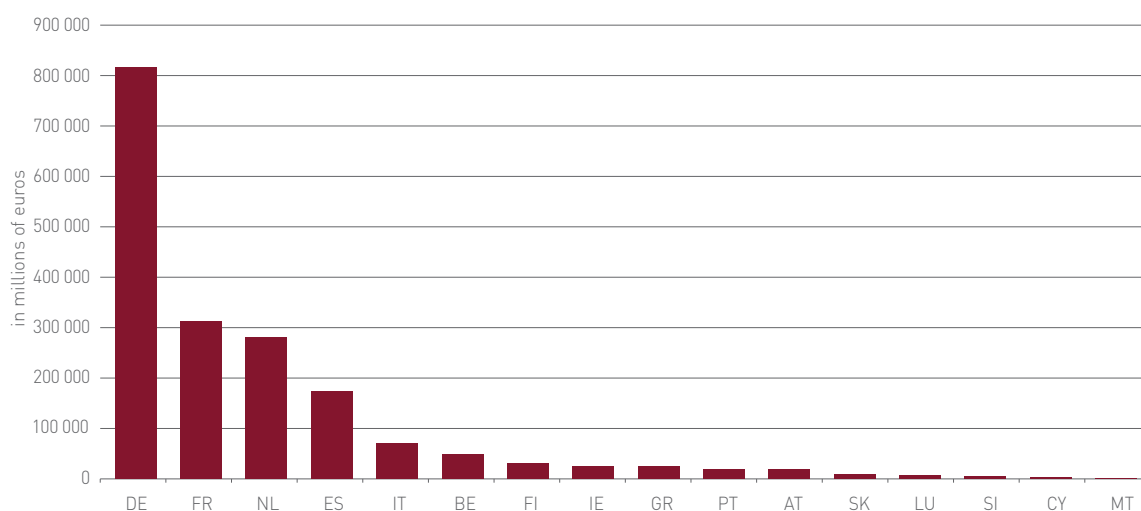




Chart 2.10:  
Fine tuning operations – Volume absorbed in 2009



### 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 European central bank. Rates applied to the standing facilities consist of a corridor for the reference rate and are therefore important for the implementation of monetary policy. On 15 January 2009, following a decision adopted on 18 December 2008 by the Governing Council, the corridor made of these two rates decreased from 200 to 100 basis points symmetrically around the reference rate for main refinancing operations. On 7 May 2009, the corridor was reduced to 150 basis points, when the reference rate was cut to 1%. This measure was taken in order to ensure that the rate of the deposit facility stays above 0%, therefore encouraging the activity on the day-to-day market for blank operations. The corridor remained symmetric around the fixed rate for main refinancing operations.

During the first semester of 2009, Luxembourgish counterparties resorted less to the deposit facility, notably thanks to the return of confidence on money markets. Nevertheless, thanks to the huge amount of liquidities gathered with the first one-year operation conducted in June, the deposit facility was favoured again in the second semester of 2009.

The marginal lending facility was less used by the Luxembourgish counterparties, only punctually.

### 2.1.3 Minimum reserves

Euro zone counterparties are required to build reserves at the national central bank 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 stabilizing the market.

In 2009, the amount of excess reserves markedly decreased compared to 2008 – this year was atypical – but remained higher on an average than before the crisis.

## 2.1.4 Temporary currency auction facilities

In late 2007, banks encountered difficulties to access the US dollar markets. The ECB thus established a swap agreement (US dollar term auction facility) with the Federal Reserve System. The ECB supplied liquidities in dollar against eligible collateral used for regular operations. These operations were conducted as reverse transactions where eligible assets are bought by the ECB under repurchase agreements, with a maturity of 7, 28, or 84 days. In 2009 all bids were satisfied at a fixed rate that was announced beforehand.

Similar operations were also conducted with the Swiss National Bank (EUR/CHF swap operations) in order to supply Swiss francs. The allotted amount that was initially set at €20 billion in 2008 was revised up to €25 billion in February 2009 and kept at this level for the rest of the year. However, since June 2009 the total amount asked has significantly decreased as counterparties met less difficulties to access this currency.

Currency operations were conducted all through 2009 but were suspended on 1st February 2010 as improvements in the functioning of financial markets were observed during the course of 2009. Following the reappearance of tensions on the currency markets it was decided to restore the access to temporary dollar facilities for the counterparties of the Eurosystem. Therefore, the ECB reactivated the swap line with the Federal Reserve. The USD operations are concluded for 7 or 84 days and are carried out at a fixed rate announced beforehand and allotted at 100%.

Chart 2.11:

USD tender operations – Total volume allotted in 2009 in the eurozone

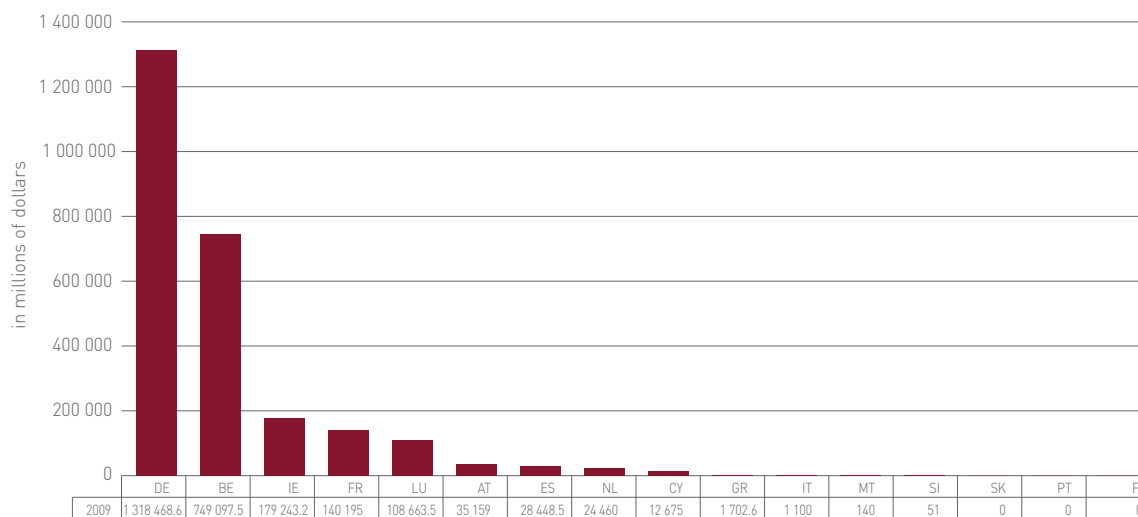
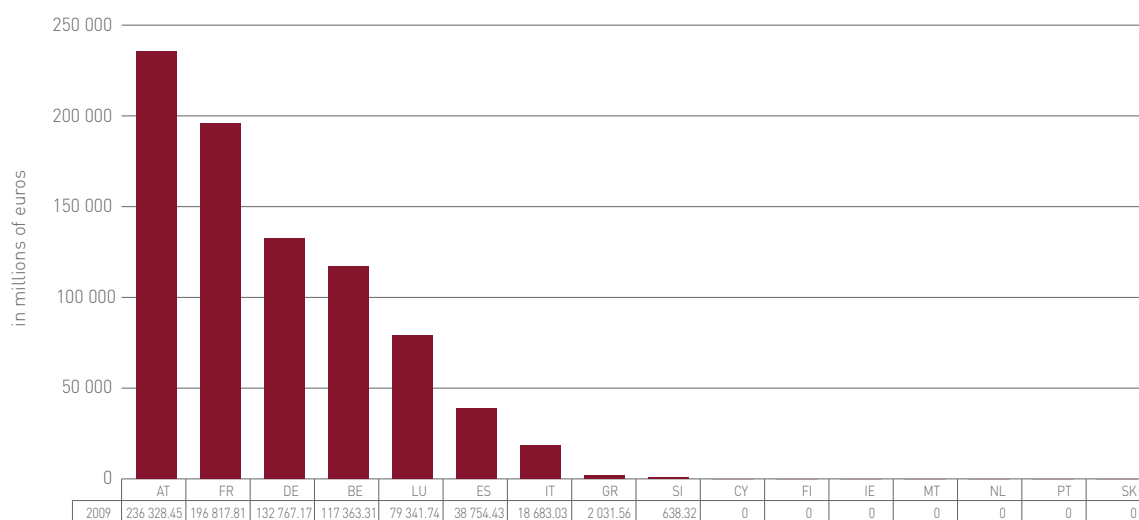


Chart 2.12:

CHF Swaps – Total amounts allotted in 2009 in the eurozone



### 2.1.5 The covered bond purchase programme

The Governing Council decided in May 2009 to establish a programme of outright purchases of covered bonds for monetary policy purposes. This programme, which constituted a building block of the ECB's enhanced credit support approach, was launched with the aim of contributing to the revival of the covered bond market. It was announced that the Eurosystem intended to purchase euro-denominated covered bonds in the amount of €60 billion between July 2009 and the end of June 2010. These bonds, issued in the euro area, had to comply with certain criteria, which were made public to all market participants.

By 31 December 2009 the Eurosystem had purchased covered bonds for a total nominal value of around €28 billion, 24% of which was accounted for by purchases in the primary market and 76% by purchases in the secondary market. Since the announcement of the programme, new issuance in the covered bond market has picked up and spreads between yields on covered bonds and swap rates have narrowed significantly, which is also partly due to a general improvement of financial markets. This has also been accompanied by a general narrowing of other spreads, such as those on senior unsecured bank bonds.

## 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 national central banks 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 2009. As of 31 December 2009, the total market value of the ECB's reserves (including accrued interest) managed by the BCL corresponded to €273.1 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 Manager unit monitors the positions of all the portfolios in order to assess risks and to verify compliance with the pre-defined limits. This monitoring is carried out daily, independently of the Front Office. The 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 31 December 2009 the total market value (including accrued interest) amounted to €1 734.3 million euros. In 2009 the share of this portfolio invested in fixed income securities with a maturity above three years was reduced from 34% to 32%, whereas the percentage of bonds with a one to three year maturity increased from 28% to 31%. Moreover, by the end of 2009, variable rate and fixed rate bonds with maturity under one year represented 37% 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, which 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 2009, the total market value (including accrued interest) amounted to €4 332.4 million euros.

Table 2.1: Breakdown of reserves as of 31 December 2009

Maturity	Portfolio 1	Portfolio 2
0 -1 year	37%	60%
1-3 years	31%	34%
3-10 years	32%	6%

#### *Domestic Reserves Portfolio*

This portfolio aims to maintain an intervention portfolio in addition to the pooled foreign exchange reserves transferred to the ECB. Thus, the main requirements for this portfolio are security and liquidity. As of 31 December 2009, the total market value (including accrued interest) of this portfolio in foreign currencies amounted to €181.8 million euros.

## *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**

The euro banknotes produced meet the banknote requirements as expressed by the participating NCBs, aggregated by the ECB. The production of each single denomination is assigned to one or several NCBs. In 2009, the BCL was in charge of the production of €26.44 million worth of €20 banknotes for the Eurosystem's needs. The BCL issued a tender procedure for the fabrication of these banknotes. The BCL received 74.2 million banknotes from other NCBs for its own purposes.

According to an agreement with the Luxembourg Government, the BCL is also responsible for the production of Luxembourg's euro coins and puts them into circulation. Following a tender procedure, the BCL commissioned the production of 26.8 million coins of the 2009 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**

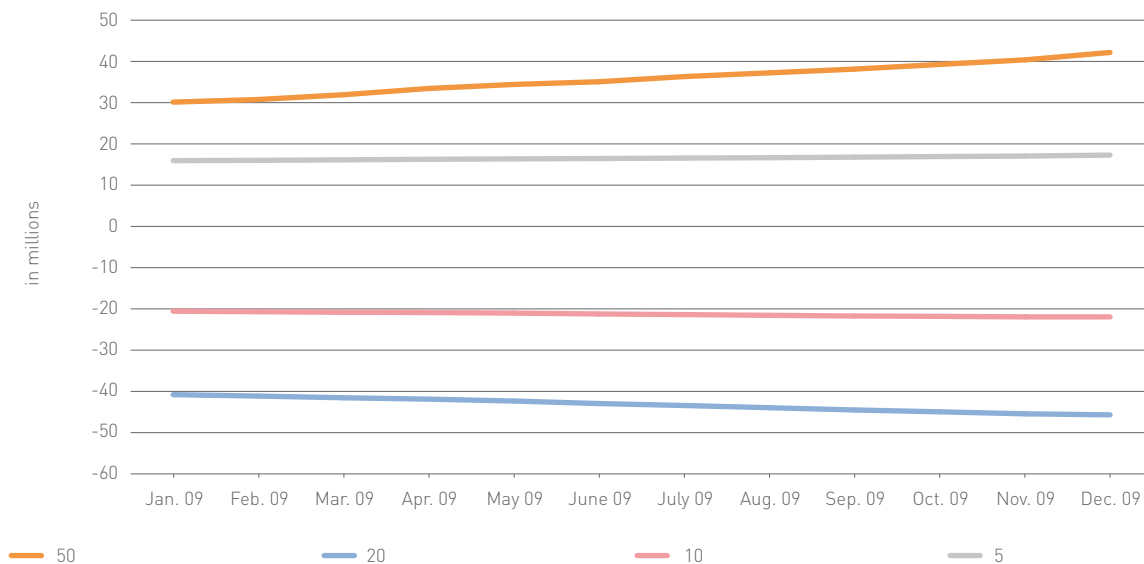
The total net volume of banknotes issued by the BCL in the course of 2009 amounts to 37 million notes compared to 23 million banknotes in 2008, which equals an increase of 21.7%. This increase is partly linked to the repercussion of the financial crisis of 2008. With regard to the euro area, the BCL contributed to some 2.6% of the total volume of banknotes put into circulation, compared with 1.3% in 2008.

On the contrary, the number of €10 and €20 banknotes lodged at the BCL exceeds the volume of banknotes issued. Financial institutions, which are BCL's clients, deposited more of these banknotes than they withdrew, demonstrating the contribution of tourists and cross-border workers, where these denominations are more widely used.

The chart below illustrates this development in the denominations mainly used for everyday transactions.

Chart 2.13:

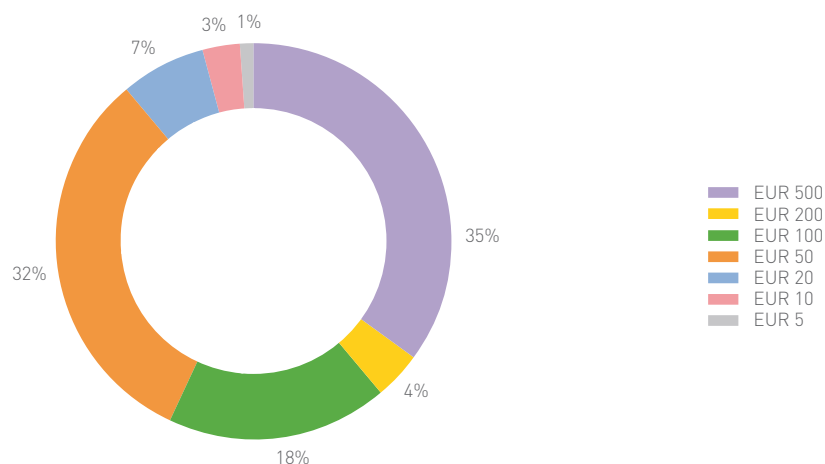
Breakdown of the number of low denomination euro banknotes put into circulation by the BCL



Just like in 2008, the year 2009 in Luxembourg as well as in the euro area was marked by a demand for high denomination banknotes. The total value of banknotes put into circulation by the Eurosystem increased by 5.7%, from €762.78 billion at the end of 2008 to €806.41 billion by the end of 2009 with the following denominational breakdown:

Chart 2.14:

Value Breakdown by denomination of Eurobanknotes put into circulation by the Eurosystem





### 2.4.2.1.2 Coins

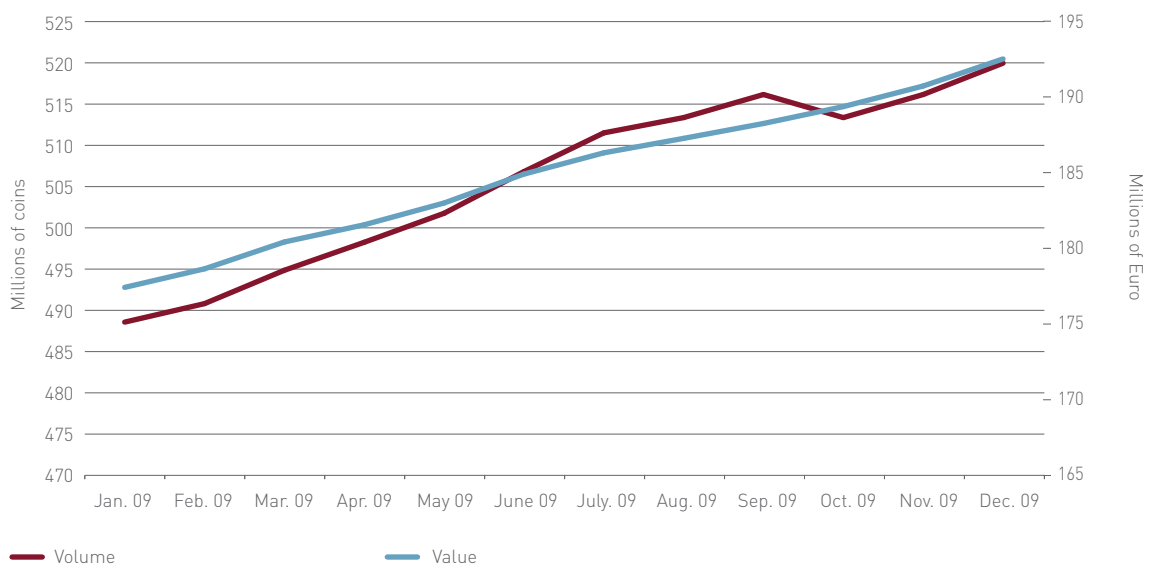
Luxembourg euro coins continued to be the object of strong public demand. The total value of coins put into circulation increased by 9.6% in 2009 compared to 9.2% in 2008. It rose from €175.7 million to €192.6.

The number of coins issued in the course of 2009 increased by 43.1 million, equaling a growth of 8.9%, and reached a total of 528.5 million at the end of 2009.

The following chart shows the development both in terms of volume and value of Luxembourg euro coins in circulation throughout 2009. The demand for Luxembourg coins grew steadily in the course of the year.

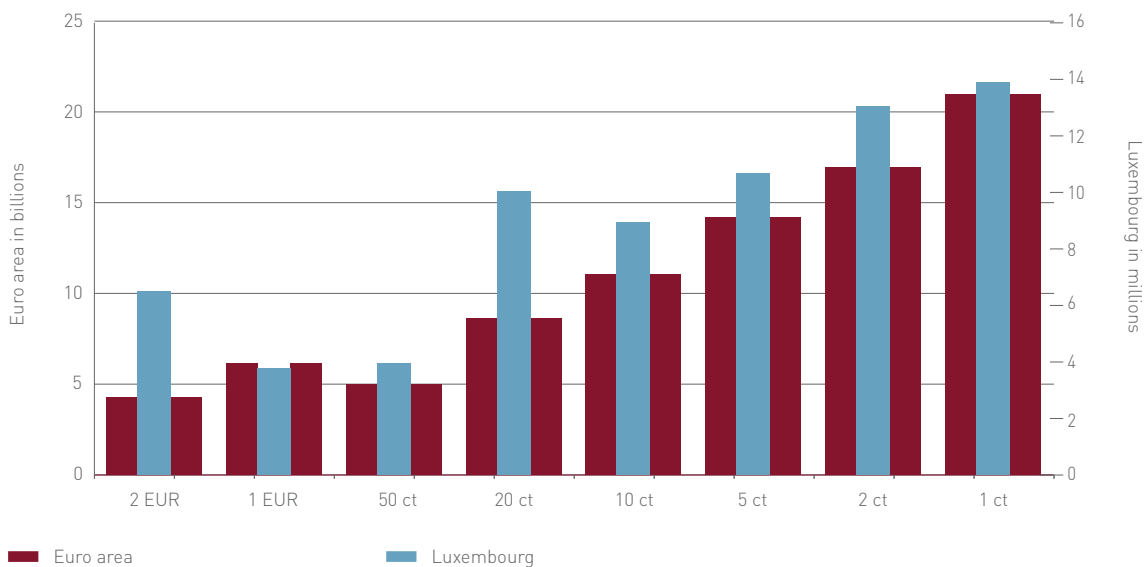
Chart 2.15:

Total volume and value of Luxembourg Euro coins in circulation



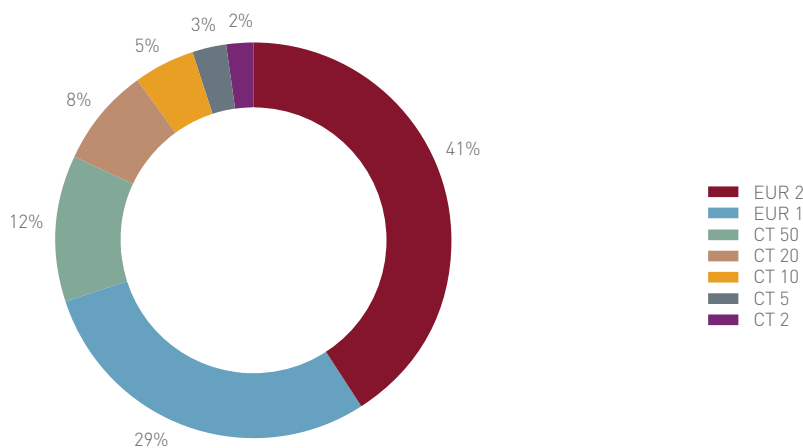
Within the euro area Luxembourg contributes to 0.8% of the total value issued by all the issuing authorities. The average value of the Luxembourg euro coins in circulation amounts to 36 cents, in comparison with an average of 24 cents in the euro area. The following chart compares the volume of the different coin denominations put into circulation by Luxembourg with the volume corresponding to the rest of the euro area.

Chart 2.16: Comparison of the circulation volume of the different euro coin denominations in Luxembourg to that of the euro area



The total value of euro coins put into circulation by the Eurosystem increased from €20.4 billion in 2008 to €21.3 billion in 2009, whereas the total volume of coins reached €87.46 billion. The following chart shows the denominational breakdown of this volume at the euro area level:

Chart 2.17: Breakdown by denomination of the volume of coins of the euro area in circulation



### 2.4.2.2 Luxembourg franc banknotes and coins

In 2009, the total value of Luxembourg franc banknotes issued by the *Institut Monétaire Luxembourgeois* not yet exchanged fell from 211.4 million to 209.8 million, which equals a decline of 0.8%. Coins denominated in franc are not redeemable since the end of December 2004. The volume of 5 000 LUF banknotes not yet returned underwent the most pronounced decline with 1.8%, while that of 1 000 LUF banknotes fell by 0.6% and the 100 LUF banknotes by only 0.1%, manifestly held by collectors.

### 2.4.3 Handling of banknotes and coins

The number of euro banknotes returned by financial institutions to the BCL has decreased by 1.6% in comparison to the previous year, from 79.4 million to 78.1 million.

The number of euro banknotes processed by sorting machines decreased by some 7.3% from 82.4 million in 2008 to 76.0 million in 2009. These sorting machines carry out authenticity tests as well as soiling tests. Nearly 16.9 million notes of all denominations had to be destroyed as they were unfit for circulation, which equals to a destruction rate of 22.6%. This percentage varied strongly between the denominations sorted and reached from 8% for the €500 banknote to 57% for the €5.

### 2.4.4 Fighting counterfeiting

In the field of fighting euro counterfeiting, the BCL continues to work closely with the ECB and the competent national authorities.

### 2.4.5 Numismatic issues

The BCL continues to offer numismatic products through several distribution channels in order to meet the collectors' great interest. The retail to the public is located in the numismatic premises, where more than 4 300 sales operations have been carried out in 2009. Furthermore, the BCL has sent nearly 3 000 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 2009 the BCL issued the following numismatic products:

- Two €2 commemorative coins, struck in a quantity of 10 000 units and put on sale in January 2009. The first one depicts the effigies of the Grand Duke Henri and the Grand Duchesse Charlotte, whereas the second one is dedicated to the 10th anniversary of Economic and Monetary Union.
- The "2009 BU set", comprising Luxembourg's euro coins of the 2009 series (including the two €2 commemorative coins), produced in a quantity of 10 000 units.
- The "2009 BENELUX set" offering 8 coins of the 2009 series of each of the three member countries.
- The "2009 Proof set" features 10 coins, including both €2 commemorative coins, issued in an edition of 2 000 sets.
- A silver-niobium coin dedicated to the Castel of Vianden, issued in June 2009 in an edition of 7 500 pieces, constituting the first element of a new series devoted to the Castles of Luxembourg.
- A silver and Nordic gold coin dedicated to the common kestrel, issued in October 2009 in an edition of 3 000 units, constituting the first element of a new series devoted to the fauna and flora of Luxembourg.
- A gold coin dedicated to the deer of Orval's refuge, in the series "Cultural History of Luxembourg", issued in October 2009 in an edition of 3 000 units.
- A set of eight Slovak euro coins in circulation quality (ranging from 1 cent to €2), issued in January 2009 and commemorating Slovakia's entry to the euro area on 1 January 2009.

## **2.5 DEVELOPMENTS IN THE AREA OF STATISTICS**

In October 2009 the EU Council adopted a new regulation concerning the statistical data collection of the ECB (Council Regulation (EC) No. 951/2009 amending Council Regulation (EC) No. 2533/98) which will allow the Eurosystem to collect the whole set of information that is necessary for the fulfilment of its missions including the missions relating to financial stability and for the whole financial sector including insurance corporations and pension funds.

Following the financial crisis that occurred in 2008 – 2009, the BCL, as a member of the Eurosystem, participated in the analysis of new information needs whose objective is to increase financial markets transparency and to enhance the statistical data coverage that is vital for the financial stability analysis. This work will lead to more timely financial sector data and improve the coverage of information on securities holdings and issues as well as on financial derivatives.

Finally, the BCL publishes on its website a vast set of statistical series concerning the Luxembourg economy in general and the financial sector in particular. The whole set of statistical series published by the BCL is adjusted on a permanent basis in order to accurately reflect economic developments in Luxembourg and to improve the data made available to the public as well as to the professionals of the financial sector.

### **2.5.1 Money and banking statistics**

During 2009 the BCL has modified its statistical data collection in order to satisfy the new information needs set out by the ECB in its regulations ECB/2008/32 and ECB/2009/7 while covering the new information needs in the area of financial stability. This work has been realised in close cooperation with representatives of the banking sector in order to take into consideration their opinion and preferences for the implementation of the requested changes. The first reporting of these statistical series is foreseen for June 2010 in order to provide reporting agents with enough time to undertake the necessary steps for implementing the new reporting schemes.

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 that aims at informing the public of the large evolutions touching the balance of payments.

The BCL participates in the annual Coordinated Portfolio Investment Survey of the IMF (the so-called CPIS). The results of this survey are available on the BCL website.

In the course of the year under review, the BCL and the STATEC have lowered the burden of direct collection of "balance of payments" data from credit institutions. This was particularly the case for transactions relative to debt securities and equity shares as well as for all transactions relative to mutual funds. This decrease of the administrative burden became possible through the fact that the data collection of the banking sector was enhanced during the course of 2009 via the implementation of the security-by-security data collection on mutual funds and credit institutions. Data collected through the new security-by-security reporting are at present used for the establishment of Luxemburg's balance of payments as well as the international investment position.

### **2.5.3 Economic and financial statistics**

During 2009 the BCL started the collection of statistical data from undertakings for collective investment that submitted the first reports in January 2009. The objective of this data collection is to provide users with a complete set of detailed data on assets and liabilities of undertakings for collective investment established in Luxembourg. In this context, it is also important to mention that the BCL participated in establishing the euro area list of undertakings for collective investment broken down by investment policy that is regularly published by the Eurosystem.

In addition, the BCL finalised the implementation work for the introduction of the collection of statistics on assets and liabilities of financial vehicle corporations engaged in securitisation that started at the end of 2009. It is also foreseen to publish a list of euro area securitisation vehicles during the first quarter of 2010.

### **2.5.4 Other statistics**

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

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

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

## **2.6 PAYMENTS AND SECURITY SETTLEMENT SYSTEMS**

### **2.6.1 TARGET2-LU**

On 19 November 2007, the real-time gross settlement system LIPS-Gross migrated its activity to the new system TARGET2-LU. Since then, the new platform has been jointly operated by the central banks of the Eurosystem. 28 direct participants (25 in 2007) and two ancillary systems are registered with the Luxembourgish component of TARGET2 (TARGET2-LU).

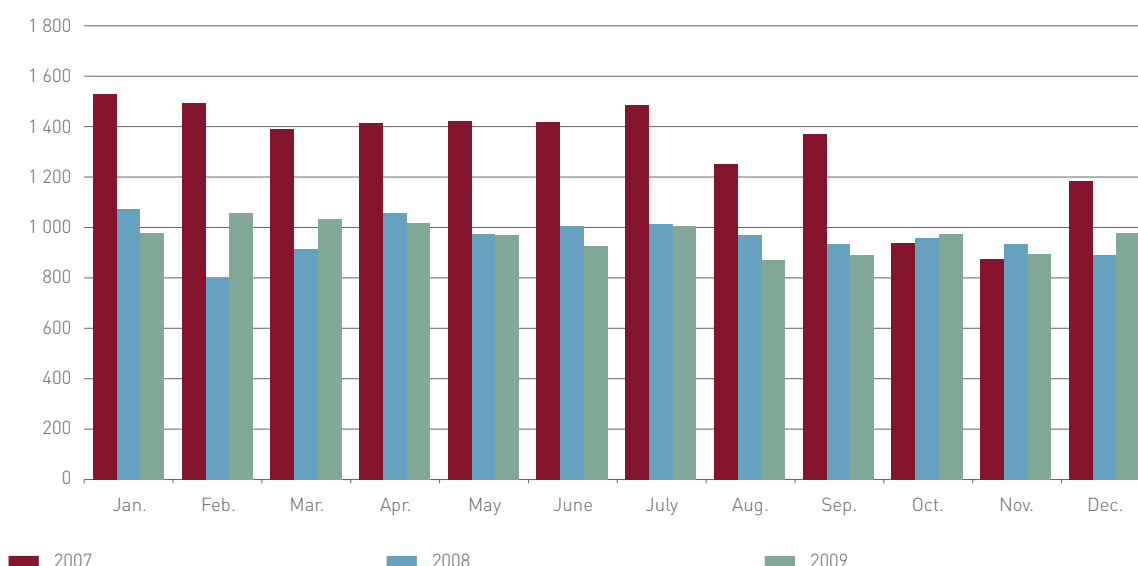
## Domestic payments

In 2009, participants in TARGET2-LU exchanged a monthly average of 20 684 payments (against 21 015 in 2008) for a value of 267.8 billion euros (against 274.0 billion euros in 2008). 12 972 or 62.7% of these payments were customer payments. Their value represented a monthly average of 7.0 billion euros or 2.6% of the domestic value exchanged.

In TARGET2-LU, decreases of volumes and values have largely been triggered by the financial crisis that contributed to a decrease of interbank transactions.

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

Chart 2.18:  
Domestic payments: evolution of average daily volumes



## Cross-border payments<sup>1</sup>

In 2009, participants in TARGET2-LU sent a monthly average of 42 232 payments towards other countries of the EU (43 772 payments in 2008) for an average value of 573.3 billion euros (600.8 billion euros in 2008). This volume included 22 821 customer payments representing 54.0% of the total. In value, customer payments amounted to a monthly average of 15.2 billion euros or 2.7% of the total value.

The volume of cross-border payments sent decreased by 3.6% and the value exchanged by 4.8% in comparison to 2008. The average value per transaction sent was 13.6 million euros (13.7 million in 2008). The financial crisis was again at the origin of these changes.

With a monthly average of 35 983 payments, participants in TARGET2-LU received less payments than they sent. However, the total value of payments received was higher than the value sent.

<sup>1</sup> Cross-border Payment: a payment exchanged between a participant in TARGET2-LU and a participant in another composing system of TARGET2

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

Chart 2.19:

Cross-border payments sent: evolution of average daily volumes

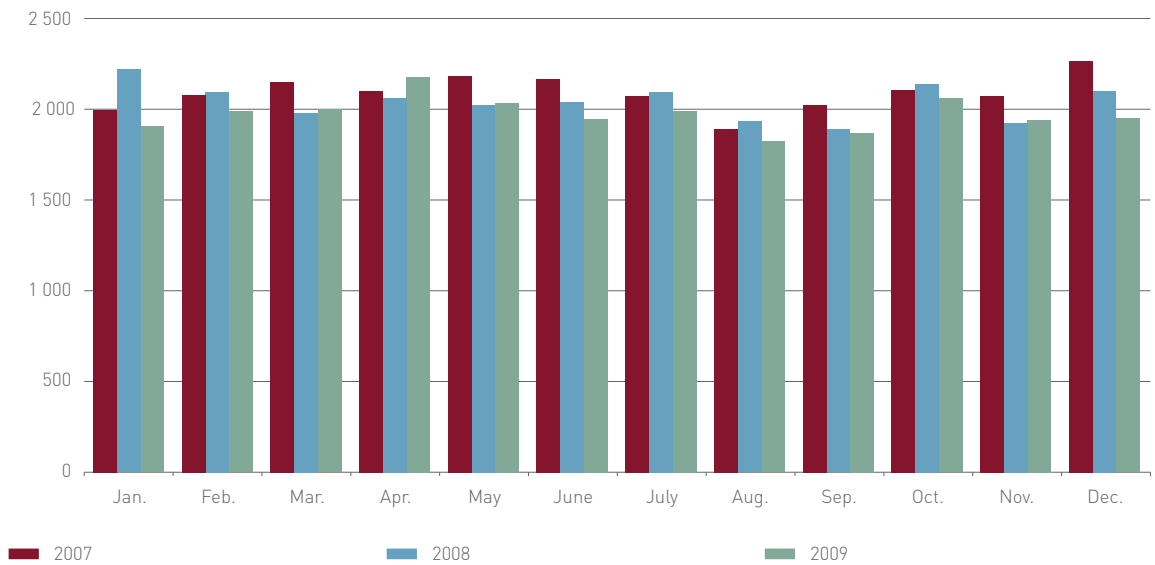
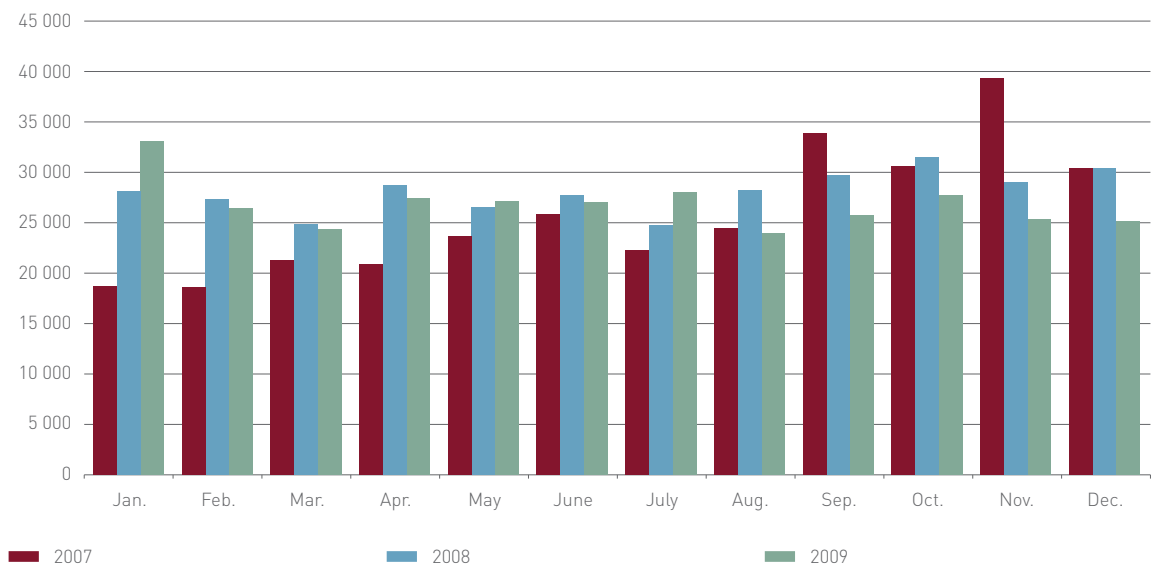


Chart 2.20:

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



**Aggregated figures of domestic and cross-border payments**

The total number of payments sent by participants in TARGET2-LU in 2009 amounted to 754 980 (777 445 in 2008, decrease of 3% within one year). 35 793 or 4.7% of all payments were customer payments.

The following table provides a global overview of average daily volumes of payments per year. In general, volumes exchanged in 2009 have decreased in comparison to 2008, above all in cross-border 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
2007	1 344	39.33%	2 073	60.67%	3 417	1 681	32.97%
2008	963	31.97%	2 049	68.03%	3 012	1 687	35.90%
2009	970	32.87%	1 981	67.13%	2 951	1 616	35.38%
<b>Change 2008-2009</b>	<b>+0.7%</b>		<b>-3.3%</b>		<b>-2.0%</b>	<b>-4.2%</b>	

The average monthly value of all payments sent was 841.2 billion euros of which 22.1 billion euros (2.6%) represented customer payments.

### **TARGET2-LU compared to other systems participating in TARGET2**

In 2009, all systems participating in TARGET2 transferred a monthly average of 5.07 million domestic payments (5.77 million in 2008). The part of Luxembourg represented 0.4% of this volume.

In addition, 2.15 million of cross-border payments (2.12 million in 2008) for a value of 11 593 billion euros (17 997 billion euros in 2008) were carried out as a monthly average. Luxembourg contributed for 2.0% in the volume and for 4.9% in the value exchanged cross-border.

### **Availability and performance of TARGET2**

The availability of TARGET2-LU was 100% in 2009, compared to 99,96% in 2008.

The SSP received a daily average of 341 552 payment instructions. 99.96% of them were settled within 5 minutes and the remaining 0.04% within 15 minutes.

### **2.6.2 Retail payments in Luxembourg**

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

#### **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 STEP2<sup>2</sup>). The bulk of Luxembourg credit transfers and standing orders are however processed on the pan-European platform STEP2.

<sup>2</sup> The STEP2 system is managed by the Euro Banking Association (EBA)



In 2009, Luxembourg participants sent 72 659 transactions for a value of €165 million on a daily average through the STEP2 system. Domestic<sup>3</sup> transactions accounted for 68% in volume (close to 49 346 operations a day) and 62% in value (€102 million). The remaining volume is cross-border.

The payments sent by the Luxembourgish community in STEP2 strongly increased in 2009 with a growth of respectively 10% in volume and 25% in value as compared to 2008. The yearly growth of the domestic activity was 2% in volume and 19% in value.

Table 2.3: Annual variation of the activity in STEP2:

Annual variation	2009/2008	2008/2007
Total volume	10%	16%
Total value	25%	50%
Domestic volume	2%	10%
Domestic value	19%	40%

#### **Direct debits:**

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

In 2009, the volume of direct debits amounted to 13.97 million for a value of €6 504 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 2009, the total number of debit cards issued by banks in Luxembourg and managed by the Cetrel<sup>4</sup> reached nearly 576 000 (573 000 in 2008). The number of credit cards issued by banks in Luxembourg at the same time was over 484 000 (441 000 in 2008).

In 2009 the number of transactions<sup>5</sup> processed with debit cards issued in Luxembourg<sup>6</sup> totalled 40.59 millions (37.6 in 2008) for a value of €3.19 billion (3.01 in 2008). The number of transactions processed with credit cards amounted to 21.89 million transactions (19.88 in 2008) for an amount of €2.27 billion (2.15 in 2008).

Regarding transactions processed on Luxembourg's territory with cards issued in Luxembourg or outside the country, the volume of transactions with debit cards amounted to 38.31 million (39.24 million in 2008) for a value of €2.72 billion (€2.74 billion in 2008) and to 21.39 million (21.87 million in 2008) equivalent to €1.87 billion (€1.95 billion in 2008) for transactions processed with credit cards.

<sup>3</sup> 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.

<sup>4</sup> Centre de Transferts Electroniques; <http://www.cetrel.lu>

<sup>5</sup> Payment transactions and cash withdrawals at ATMs. Data from the main cards processor.

<sup>6</sup> Transactions in Luxembourg and abroad.

MiniCash is the name of the e-money purse in Luxembourg. 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 2009, 2.10 million transactions were realised for a total amount of €5.49 million (compared to 2.18 million transactions for a value of €5.82 million in 2008).

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

The SEPA (Single Euro Payment 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)<sup>7</sup>. The Eurosystem and the European Commission are the catalysts of this project.

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

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 the 1st 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 coordinated by the Association des Banques et Banquiers Luxembourgeois (ABBL) through a committee regrouping the representatives of the main credit institutions active in retail banking as well as representatives of the national supervisory authorities.

The Luxembourgish banks have already widely adopted the European credit transfer for retail operations. The adoption of the European direct debit will take place in 2010.

The law of 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"<sup>8</sup>. 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.

<sup>7</sup> For more information regarding the EPC: [www.europeanpaymentscouncil.eu](http://www.europeanpaymentscouncil.eu)

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

This single list for Eurosystem credit operations comprises two different asset classes, marketable assets (securities) and non-marketable assets (in particular credit claims). In October 2008, the Governing Council decided to expand temporarily the list of eligible assets until end 2009. The following assets have been added to the list of eligible assets:

- Marketable debt securities denominated in USD, GBP, and JPY, provided that they are issued and settled in the euro area, that the issuer is established in the European Economic Area (EEA), and that the securities fulfil all other eligibility criteria.
- Debt instruments issued by credit institutions, which are traded on accepted non-regulated markets specified on the website of the ECB.
- Subordinated debt instruments when they are protected by an acceptable guarantee as specified in the General Documentation.
- Marketable and non-marketable assets with a credit assessment lower than A- and above or equivalent to BBB-, with the exception of asset-backed securities.

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

In May 2009 the Governing Council decided to prolong the temporary extension of the list of eligible assets until 31 December 2010.

Concerning asset backed securities (ABS), the Governing Council 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 mobilize collateral. Non-marketable assets are either mobilized via appropriate handling procedures developed by each NCB (domestic mobilisation) or via intermediation of a correspondent central bank (cross-border mobilisation). The mobilisation of marketable assets requires the involvement of one or of several securities settlement systems.

### 2.6.3.2 Eurosystem as a user of securities settlement systems

#### *Selection of central securities depositories at the domestic level*

In order to meet the requirement of "adequate collateral"<sup>9</sup>, the Eurosystem also assesses against specific safety criteria securities settlement systems operated by central securities depositories (CSDs) that are settling securities used in the framework of central bank credit operations. Thus, the system of a national CSD is eligible if it obtains, after a compliance check with the Eurosystem user standards, the formal approval of the Governing Council. In this context, the Eurosystem assessed all SSSs and the links between SSSs in 2009. The evaluation showed that in Luxembourg the systems operated by Clearstream Banking Luxembourg S.A. (CBL) and by VP Lux S.à r.l. are eligible for the mobilisation of securities by the Eurosystem's counterparties.

<sup>9</sup> Article 18 of the Statute of the ESCB and the ECB, article 22 of the founding law of the BCL.

### ***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 CCBM<sup>10</sup>; 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 system with which the two systems have bilateral accounts. Links have to be approved by the Governing Council before being used for the collateralisation of central bank credit operations. In 2009, Luxembourg counterparties had the possibility to use the direct links between CBL and Clearstream Banking Frankfurt A.G., Euroclear, the SSS operated by National Bank of Belgium, Monte Titoli (Italy), OeKB (Austria), Euroclear Netherlands, Euroclear France, and KDD (Slovenia).

### ***Securities settlement in central bank money: TARGET2-Securities***

In view of a fragmented post-trading market infrastructure comprising a multitude of securities settlement systems, and in view of the need to have a European securities settlement infrastructure, the Eurosystem continued in 2009 its work for the development of the system TARGET2-Securities (T2S). The go-live of T2S, which will deliver securities settlement services to CSDs, is scheduled for 2014. The project consists of the implementation of a single platform that deals with securities settlement operations of the different CSDs in a harmonised way, with simultaneous settlement of the securities leg and of the cash leg in central bank money. It is a part of the more general process of European financial integration leading to a harmonisation of procedures and to a substantial reduction of costs.

The year 2009 can be qualified as transition year, with on the one side the preparatory phase and on the other side the start of the specification phase of the project. The most remarkable events and steps in the project were:

- Establishment of the TARGET2-Securities Programme Board in spring 2009, a management body that develops proposals for the Governing Council and that effects tasks of a technical nature.
- Signature in July 2009 of a Memorandum of Understanding between the Eurosystem and central securities depositories, amongst which all CSDs of the euro area as well as nine CSDs of non-euro area European countries. The signature of the Memorandum of Understanding reconfirms the CSDs' support for the T2S project.
- Finalisation and publication of the General Functional Specifications of T2S. These specifications describe how the T2S software will fulfil the User Requirements.
- Start of the elaboration of the User Detailed Functional Specifications, which will provide relevant actors (CSDs, users, national central banks) with the necessary information for preparing interaction of their systems with T2S.

<sup>10</sup> Correspondent Central Banking Model, see section 2.6.4.

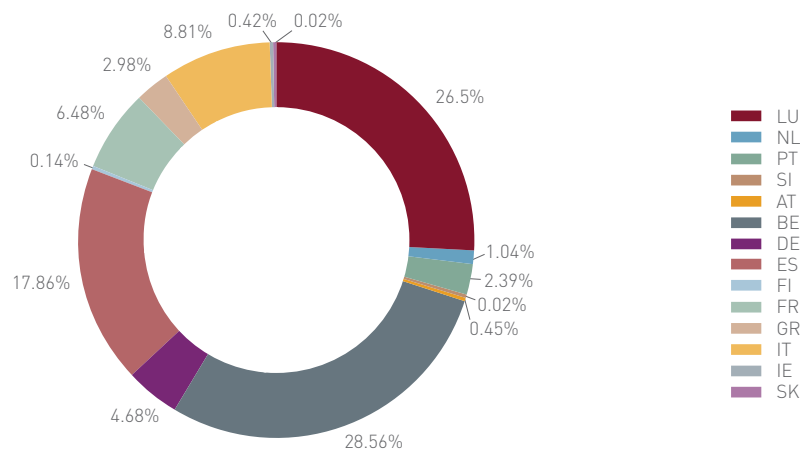
At the national level, the BCL has started to analyse issues relevant for the Luxembourg market's future access to T2S, along with CBL and Luxembourg banks. In 2010, a new CSD named LuxCSD was established. It will enable its participants to settle in central bank money compatible with the T2S platform.

#### 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 has been a success with the counterparties and it remains the main channel for the cross-border mobilisation of collateral used in the Eurosystem's credit operations.

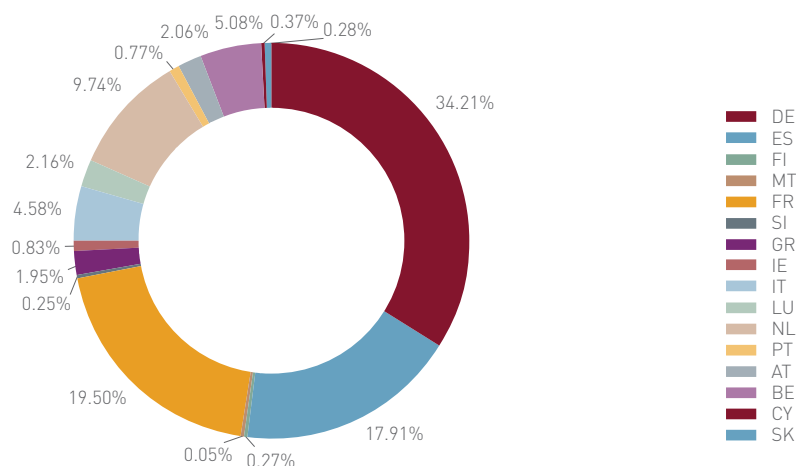
Chart 2.21:  
Correspondent central bank in 2009



In terms of value, the most active correspondent central banks in 2009 were those of Belgium (28.56%), Luxembourg (26.15%), Spain (17.86%), and Italy (8.81%). The most active home central banks were those of Germany (34.21%), France (19.5%), Spain (17.91%), and the Netherlands (9.74%).

Chart 2.22:

Home central banks in 2009



## 2.6.5 The Eurosystem's future management of collateral

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

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

In 2009, the Eurosystem continued its work to develop the technical specifications of the CCBM2 platform. These specifications will define the tasks to be accomplished by CCBM2, and its service level.

CCBM2 will closely interact with the 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 update a counterparty's credit line in TARGET2. Thus, for Eurosystem counterparties, CCBM2 also facilitates the realisation of benefits from TARGET2 and T2S. In this context, in 2009, the Eurosystem continued its work concerning the potential development of a single and harmonised technical access to the three infrastructures through a "Eurosystem Single Interface".

## 2.7 FINANCIAL STABILITY

### 2.7.1 Macro-prudential supervision

In 2009, the Banque centrale du Luxembourg underwent a reorganization of its supervisory and financial stability activities. This new set-up aims at improving the bank's approach to macro-prudential supervision as well as increasing the effectiveness of the risk analysis of the internally managed portfolio. In addition to the macro-prudential analysis, the assessment of systemic risk in the Luxembourg financial sector is henceforth distinct from micro-prudential liquidity supervision.

This separation follows from the modification of the organic law of the BCL, which entrusted the central bank with the responsibility for supervising the general liquidity situation on the markets as well as evaluating market operators for this purpose. Given the complementarities of the macro- and micro-prudential approaches, their functional separation has been accompanied by a strong cooperation mechanism. In particular, this process has been illustrated by a joint study focusing on the market and funding liquidity stress testing of the Luxembourg banking sector.

The financial structures and risk profiles that characterize actors in the financial market, including either banking institutions or insurance companies, might turn out to be weakening points in the context of unpredictable and abrupt developments. For this reason, the macro-prudential approach is focused on obtaining a better understanding not only of the underlying factors, but the systemic risk arising from the interconnectedness between financial actors. Work in this domain has recently been undertaken at the Central Bank of Luxembourg, allowing, on the one hand, for a diagnosis of the vulnerability of the banking sector during "normal" conditions, and, on the other hand, the stress-testing of the banking sector under simulated adverse, but plausible, scenarios.

It is of the utmost importance for the BCL to be able to anticipate the factors which could destabilize the credit institutions that represent such a dominant component of the Luxembourg financial sector. To this end, an aggregate financial vulnerability index has been monitored regularly for the last four years. As an indicator, this index offers a consistent methodological framework and includes a number of variables such as the return of shares of financial institutions, their profitability and leverage ratio, as well as variables describing the competitive structure of the banking sector, that reflect the level of vulnerability of the banking sector. The relationship between this indicator and the various macro-economic variables is significant. As a result, this indicator can be forecasted, conditioned on the macroeconomic projections for the euro area, up to a period of two years.

Since the second quarter of 2009, the rebound in value across most asset classes, primarily supported by a gradual economic recovery in most of the main industrialized countries, has been accompanied by an improvement in the profitability of Luxembourg banks. Despite historically low levels of commission income, the intermediation margin for transformation activities has increased, having benefitted from a steeper yield curve. Nevertheless, many uncertainties persist as the economic recovery has been largely supported by the extraordinary support measures taken by central banks and governments. These measures, however, remain temporary. From a macro-prudential perspective, stress-tests are used to assess the impact of "exceptional but plausible" macroeconomic shocks on the Luxembourg banking sector. In particular, stressed scenarios involving real GDP, interest rate, property prices are used to compare counterparty default risk for adverse and baseline scenarios. Counterparty default risk is proxied by the ratio of loan-loss provisions to total loans. This quantity is subsequently used to calculate Tier 1 capital requirements under the stressed scenarios.

Given its expertise and experience in the field of macro-prudential supervision, the BCL continues to contribute to the work of various committees of the European System of Central Banks as well as to their sub-committees. It is worth mentioning that the role of national central banks in the financial supervision process will be reinforced by the current reform of the European supervisory architecture, especially with the creation of the European Systemic Risk Board, ESRB (see box below).

Regarding the analysis of credit and counterparty risks for the internally managed portfolio, the objective of the BCL is to conduct a thorough examination of the various sources of risks in order to optimize investment opportunities and portfolio returns. The available analytical tools have been expanded during the year, following the internal development of a method based on bond market prices for the estimation of the risk-neutral probability of default.

**THE REFORM OF THE EUROPEAN FINANCIAL SUPERVISORY ARCHITECTURE**

Based on the recommendations issued by the High level group chaired by Jacques de Larosière in February 2009, the European Commission published on 23 September 2009, five legislative proposals aimed at establishing a new European financial supervisory architecture.

The proposed reform relies on the two complementary pillars of supervision, namely the micro- and macro-prudential dimensions. In particular they are used to establish:

- A European System of Financial Supervisors (ESFS), in charge of the micro-prudential supervision of the European financial system. The ESFS will consist of a network of national financial supervisors cooperating with three newly established European Supervisory Authorities (ESAs). These Authorities ensue from the transformation of the existing European supervisory committees in a European Banking Authority (EBA), a European Securities and Markets Authority (ESMA), and a European Insurance and Occupational Pensions Authority (EIOPA). The three ESAs shall contribute to i) improving the functioning of the internal market, especially through a high, effective and consistent level of regulation and supervision, ii) protecting depositors, investors, policyholders and other beneficiaries, iii) ensuring the integrity, efficiency and orderly functioning of financial markets, iv) safeguarding the stability of the financial system, and v) strengthening international supervisory coordination.
- A European Systemic Risk Board (ESRB), responsible for macro-prudential oversight of the European financial system. The ESRB shall i) determine and/or collect, as appropriate, and analyse all the information relevant for its mission; ii) identify and prioritise such risks; iii) issue

warnings where risks are deemed to be significant; iv) issue recommendations for remedial action where appropriate; v) monitor the follow-up to warnings and recommendations; vi) cooperate closely with the ESFS; and vii) coordinate with international institutions on matters related to macro-prudential oversight.

Consequently, the ESRB should play an important role in developing a European macro-prudential perspective to address the issue of a fragmented risk analysis at the national level. It should also reinforce the effectiveness of early warning mechanisms by taking advantage of cooperation in micro- and macro-prudential analyses. Finally, it will allow for the translation of risk assessments into concrete policy actions.

Given the wide scope and the sensitive nature of its tasks, the ESRB will not be granted a legal personality and will not have binding powers. Its legitimacy shall come from its reputation resulting from its high level composition, the independence of its judgements, the quality of its analyses and the specificity of its recommendations. Moreover, the proposed framework will only be able to properly function if the ESRB and the ESFS cooperate in an efficient and transparent manner. On the one hand, the ESRB will provide the necessary information related to systemic risk to the ESAs. On the other hand, the three ESAs will provide the required data to the ESRB on a regular basis and will ensure a timely follow-up of the alerts and recommendations issued by the ESRB. The ESRB will also have to closely cooperate with international entities in charge of macro-prudential supervision, such as the IMF and the FSB.

The composition of the ESRB reflects the competences and the experience of central banks in the field of financial stability since its main decision-making body, the General Board, shall be mainly composed of central



banks. Indeed, all the members of the General Council of the European Central Bank (ECB) shall be represented. Furthermore, the analytical work and logistical support to the ESRB will be provided by a Secretariat, which will be ensured by the European Central Bank.

Consequently, the new architecture will require an increased contribution from the Central Bank of Luxembourg to the activities of the ESRB. The BCL will donate its expertise in the fields of macroeconomic, financial and monetary analysis, through the participation of the Governor of the BCL to the General Board of the ESRB and through the contribution of its staff to analytical and technical work.

The legislative proposals from the European Commission, on which the ECB has been consulted, will have to be adopted by both the European Parliament and by the Council or only by the Council, according to the applicable legislative procedure. At its meeting on 20 October 2009, the ECOFIN Council reached a broad agreement on the texts establishing the ESRB and entrusting the ECB with specific tasks concerning the functioning of the ESRB. Afterwards, on 2 December 2009 the ECOFIN Council agreed on a general approach regarding the establishment of the three ESAs. The legislative proposals are currently being examined by the European Parliament as a package, with the view of implementing the new supervisory architecture at the beginning of 2011.

## **2.7.2 Micro-prudential Supervision**

### **2.7.2.1 Liquidity Supervision**

Following an amendment of its law dated 24 October 2008, the Banque centrale du Luxembourg has been 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 of the market operators is intended for assessing the liquidity situation of the individual operators as well as their liquidity risk management framework. The 2008 market turbulences being 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 both at national and international throughout the last two years. This momentum has been reflected in Luxembourg by entrusting the Banque centrale du Luxembourg with the liquidity supervision of market operators.

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 a first stage, and in order to define the scope and content of its mission, the Banque centrale du Luxembourg has published a regulation (BCL regulation 2009/N°4 dated 29 April 2009), which defines the rules and responsibilities of market operators in the field of liquidity risk management. While the general framework related to the supervision of liquidity is consistent with the principles and recommendations defined in international fora and in strict observance of the proportionality principle, the Banque centrale du Luxembourg particularly expects market operators, among them notably credit institutions, to develop adequate policies and procedures to enhance the management of liquidity, which enable them to adequately mitigate the liquidity risk at local level.

In parallel to the publication of the above mentioned regulation, the Banque centrale du Luxembourg developed its internal framework and methodology to efficiently perform its supervisory task in 2009. This framework relies on two pillars, on the one hand the ongoing off-site monitoring of market operators and on the other hand on-site inspections.

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 aggregate level. In order to streamline and enhance the efficiency of its daily monitoring of the liquidity situation of market operators, the Banque centrale du Luxembourg also implemented a Daily Liquidity Reporting (DLR). This DLR, which is required from a selected sample of credit institutions, has been introduced in the first half of 2010.

On-site inspections of market operators allow the Banque centrale du Luxembourg to assess the existing framework and procedures established by individual market operators and to assess their compliance with best practice. In 2009, the Banque centrale du Luxembourg has been targeting, for such on-site visits, mainly credit institutions which are most exposed to liquidity risk given their size and the nature of their business model. In line with its mission, the Banque centrale du Luxembourg will extend its supervision to other market operators, mainly the investment companies and insurance companies, where the Banque centrale du Luxembourg cooperates with the Commissariat aux Assurances.

In the framework of its supervision mission, the Banque centrale du Luxembourg cooperates with the Commission de surveillance du secteur financier (CSSF). In this context, on-site inspections of the market operators are generally conducted jointly with the CSSF. The cooperation also covers the monitoring of international regulatory developments and their transposition into national supervisory practices. In practice, the Banque centrale du Luxembourg and the Commission de surveillance du secteur financier have joint representation in working groups related to liquidity at the level of the Basel Committee on Banking Supervision (BCBS) and the Committee of European Banking Supervisors (CEBS). At the end of 2009, both those committees have published proposals for liquidity risk mitigation which are currently subject to public consultation and which should lead, by the end of 2010, to the definition of new liquidity standards.

Beyond the daily supervision and the regulatory monitoring, the micro-prudential function has conducted in 2009 studies and specific analytical researches. Those studies and analytical researches have been published as Working Papers or as articles in the yearly financial stability review. The first study provided an analytical review of the liquidity risk management practices within the Luxembourg banking sector and in particular with an analysis of domestic practices in the area of liquidity stress testing and contingency funding plans. The second study dealt with the liquidity monitoring system to assess the sensitivity of credit institutions to certain liquidity drivers and triggering events. This tool allows measuring the sensitivity of credit institutions both at individual as well as at a consolidated level.

#### **2.7.2.2 Oversight**

One mission of the Banque centrale du Luxembourg, as a member of the European system of central banks, is to promote the smooth functioning of payment and securities settlement systems. This role meets several objectives.

First, central banks aim at fostering the stability of the financial system. In this respect, central banks endeavour to limit the systemic nature of a potential failure of certain infrastructures or of a major participant. Under certain circumstances, such a failure could indeed threaten the stability of other financial institutions or of the markets in general. Hence, there is a need for central banks to ensure that infrastructures have set up appropriate mechanisms for risk identification, monitoring and mitigation.

Central banks also have a complementary objective to oversee the efficiency of systems. The efficiency of systems is, among others, bound to costs and performance aspects.

Finally, central banks are concerned with the security of commonly used payment instruments with a view to maintaining the public confidence in the currency.

In 2009, the Luxembourg legislator reinforced the legal framework of the Banque centrale du Luxembourg in relation to the oversight of infrastructures. Thus, following the adoption of the law of November 10, 2009, the Banque centrale du Luxembourg (BCL) is in charge of the surveillance of the security and the efficiency of payment and securities settlement systems as well as of the security of payment instruments. In accordance with this law, the BCL published the list of overseen systems in the Mémorial and on its website. Finally, the BCL is the competent authority to receive from other European competent authorities information on participants' default as well as to communicate such information to these authorities.

### ***Oversight of securities settlement systems***

In 2009, the BCL pursued its oversight of securities settlement systems operated by Clearstream Banking SA & and by VP Lux.

The oversight framework which applies to securities settlement systems is mainly based on recommendations, which have been jointly issued by the European System of Central Banks and the Committee of European Securities Regulators in May 2009. Following the adoption of these recommendations, the BCL has launched a full assessment exercise of the system operated by Clearstream. In a next step, the system operated by VP Lux will also be assessed against the same recommendations.

BCL's oversight of the securities settlement systems is also based on a continuous assessment of various information, among which:

- general information,
- activity and incident related data,
- financial data,
- information concerning the systems' risk exposures as well as internal risk mitigation tools,
- information related to important system changes,
- information concerning governance and internal rules and procedures.

In 2009, the BCL signed a Memorandum of Understanding with the Czech National Bank as well as with the Monetary Authority of Singapore relating to the oversight of the system operated by Clearstream, for which certain activities were relocated in Prague and in Singapore.

The BCL also continued its cooperation with the Banque Nationale de Belgique and the Belgium and Luxembourg supervisory authorities in relation to the link between both international central securities depositories Clearstream and Euroclear.

Finally, the BCL is overseeing the system operated by VP Lux, in accordance with the cooperation agreement signed in December 2008 with the Danmarks Nationalbank.

### ***Oversight of payments systems***

The oversight of the TARGET2 payment system is performed on a joint basis by the Eurosystem members (including the BCL) under the coordination of the European Central Bank. In this context, the Eurosystem finalised in May 2009 an assessment report of the TARGET2 system against the "Core principles for the oversight of payment systems".

At national level, the Banque centrale du Luxembourg acts as an overseer for the local features providing the connectivity of the BCL to the single shared platform.

### ***Oversight of payments instruments***

BCL's oversight of payment instruments is or will be based on the following standards of the Eurosystem:

- Oversight standards for card payment schemes (adopted in 2008);
- Harmonised oversight approach and oversight standards for payment instruments (published in February 2009);
- Two sets of oversight standards concerning credit transfer and direct debit schemes (in public consultation since August 2009);
- Future oversight standards for e-money schemes possibly foreseen for 2010.

The oversight tasks related to payment instruments include among others assessments of payment schemes against the above-mentioned standards. In this context, the BCL performed at national level an assessment of the card payment scheme operated by the "Groupement Bancomat". The evaluation of Bancomat lies within a coordinated assessment exercise of European card payment schemes by the Eurosystem.

A similar exercise is going to be performed by the Eurosystem for major credit transfer and direct debit schemes used in the Single European Payments Area as soon as specific oversight standards and assessment methodologies are finalized.

Finally, with respect to oversight activities related to e-money, the BCL defined a quantitative and qualitative reporting framework to be provided by PayPal (Europe) SARL Cie, S.C.A. and which is reviewed on a regular basis.