
*1+2 March 2008: Visit of Prof. Dr. Axel Weber, President of the Deutsche Bundesbank (1) and Prof. Dr. Ewald Nowotny, Governor of the Oesterreichische Nationalbank (2), at the BCL*

*3 December 2008: Visit of Mr. Michael Bonello, Governor of the Bank of Malta, at the BCL*

*4 June 2008: Visit of Mrs. Gertrude Tumpel-Gugerell, member of the Executive Board of the ECB, at the BCL*

*5 July 2008: Visit of M. Marko Kranjec, Governor of the Bank of Slovenia, at the BCL*

*6 April 2008: Visit of M. John Hurley, Governor of the Central Bank and Financial Services Authority of Ireland, at the BCL*

# 2. THE BCL'S OPERATIONS

## 2.1 Monetary policy operations

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

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

*Open Market Operations*

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

Open market operations are split into:

- Main refinancing operations (MRO), carried out by the Eurosystem on a regular basis. MROs are realised through weekly tenders, with a one-week maturity. Those operations play a leading role in steering interest rates (thanks to the minimum bid rate), in the management of banking liquidity and in signalling the trend of monetary policy.

- Longer term refinancing operations (LTRO), carried out by the Eurosystem on a regular basis. LTRO are normally conducted through monthly tenders. They mostly have a three month-maturity. Those operations aim at providing additional longer term funding to the financial sector. They do not aim at giving signals about the orientation of the monetary policy.

- Fine tuning operations, executed by the Eurosystem on an ad hoc basis in order to counter temporary imbalances.

*Standing Facilities*

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

There are two types of standing facilities:

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

- the deposit facility: the counterparties benefit from the possibility to make deposits with BCL at the end of the day.

*Minimum Reserves*

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

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

*Temporary currency tenders operations*

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

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



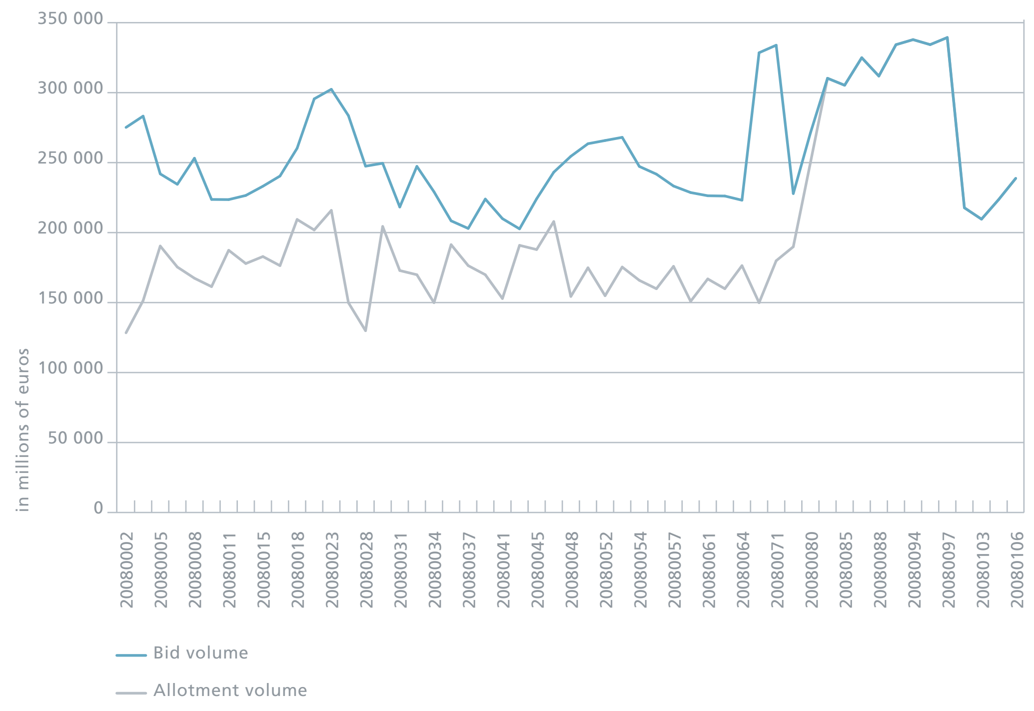
### 2.1.1 Open market operations

#### 2.1.1.1 Main refinancing operations (MRO) in 2008

During the first half of 2008, very few changes were noticed as far as MROs are concerned. But the situation deteriorated dramatically as of mid-September, after the bankruptcy of Lehman Brothers. As a reaction, the ECB took numerous measures in order to provide banks with a continuous access to liquidity in a context of disrupted markets. The ECB started its actions by allocating substantially higher amounts in its refinancing operations than projected in the normal benchmark allotment. At the beginning of October 2008 (tender 20080084), the ECB announced that the bid amounts in its MROs will be allocated in full and at a fixed interest rate. This measure will remain valid until end 2009 at least.

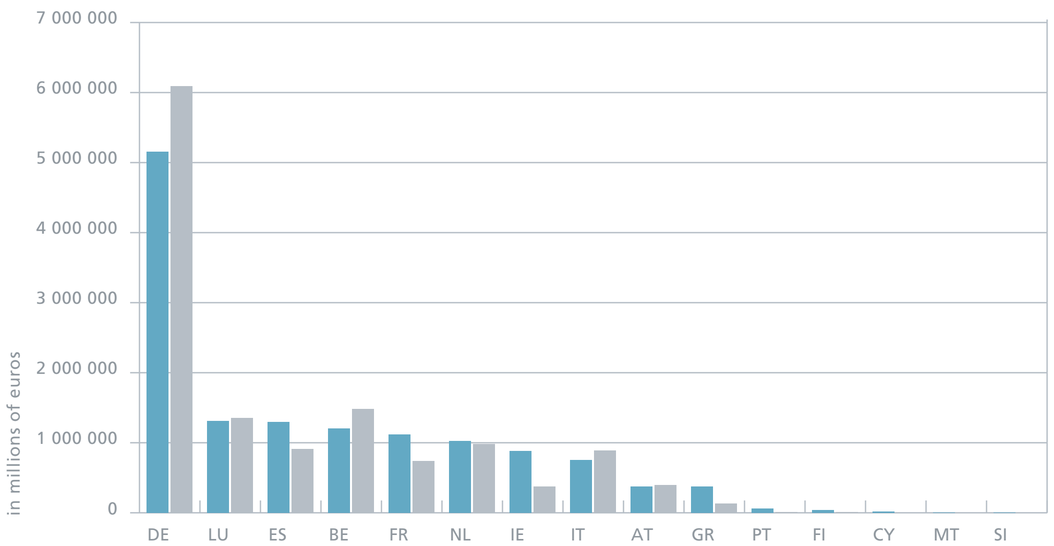
Luxemburgish counterparties continued to participate actively in the main refinancing operations, thereby placing Luxembourg on average at the second place in terms of allotment volume, ranking only behind Germany.

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



# 2. THE BCL'S OPERATIONS

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




| | DE | LU | ES | BE | FR | NL | IE | IT | AT | GR | PT | FI | CY | MT | SI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2008 | 5 158 037,5 | 1 314 268,4 | 1 294 466,4 | 1 202 503 | 1 115 468,5 | 1 025 084 | 884 792,8 | 756 827,4 | 375 026 | 373 616,8 | 60 964,8 | 37 470 | 14 394,4 | 3 039 | 2 862.8 |
| 2007 | 6 088 996,3 | 1 354 491,1 | 9 09 910,4 | 1 480 268,8 | 741 143,2 | 982 248,4 | 372 078,4 | 887 397,3 | 397 990,6 | 129 124,1 | 9 476,9 | 7 939,4 | | | 2 043.2 |

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

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

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

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

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

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



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

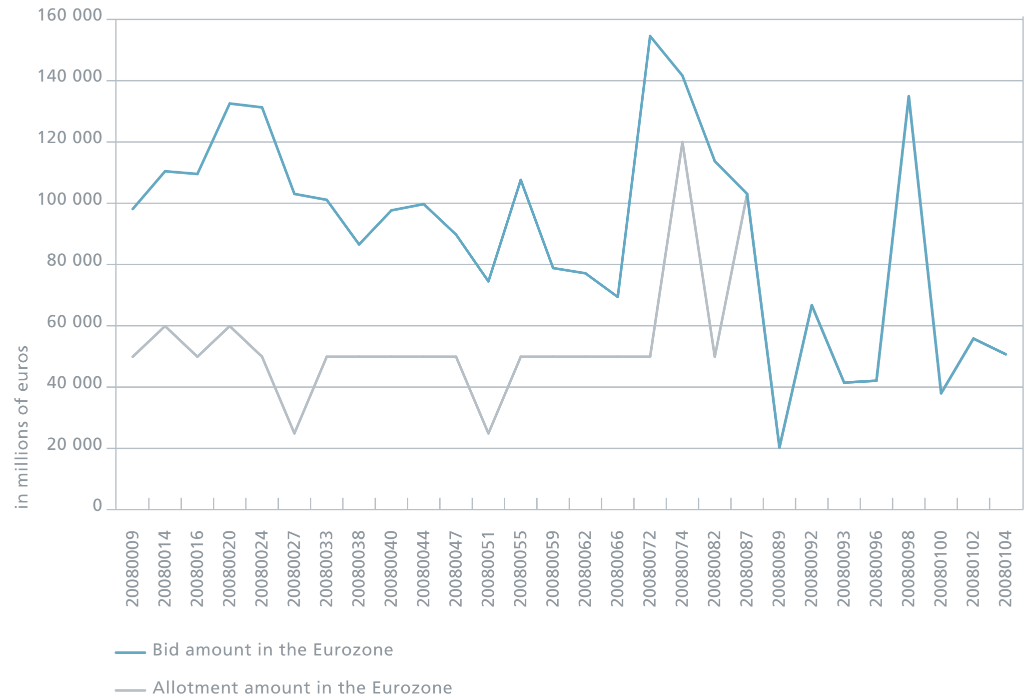
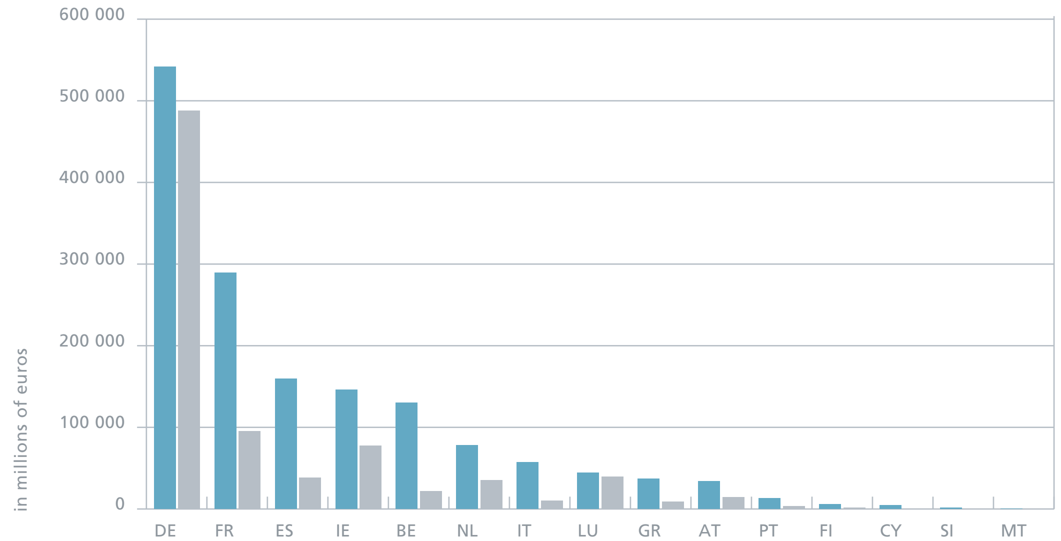



**FIGURE 4 :**
**LTRO 2008 TOTAL ALLOTMENT AMOUNT IN THE EURO ZONE COMPARED TO 2007**




| | DE | FR | ES | IE | BE | NL | IT | LU | GR | AT | PT | FI | CY | SI | MT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2008 | 541 966,8 | 289 322,3 | 159 245,8 | 146 078,5 | 130 393,6 | 780 24,4 | 575 46,2 | 441 08,7 | 371 33,1 | 339 85,5 | 132 20,9 | 5 901,6 | 4 830,6 | 1 534,3 | 525 |
| 2007 | 487 446 | 94 975,4 | 38 412,8 | 77 657,5 | 21 751,7 | 35 460,2 | 10 081,3 | 39 624,9 | 8 700,1 | 14 433,8 | 3 151,5 | 1 457,8 | 0 | 323 | |

# 2. THE BCL'S OPERATIONS

### 2.1.1.3. Fine tuning operations in 2008

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

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

### 2.1.2 Standing facilities

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

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

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

### 2.1.3 Minimum reserves

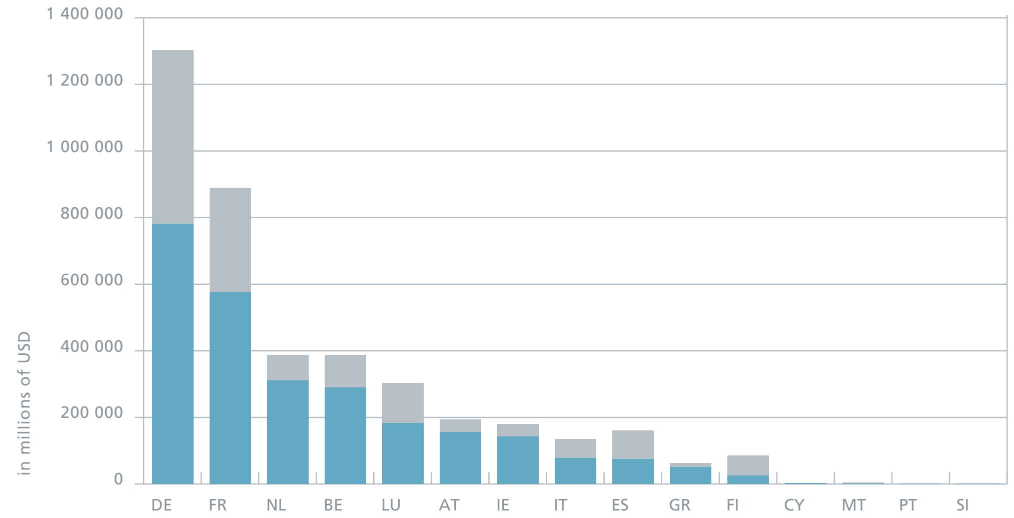
The counterparties of the Euro zone are required to deposit reserves at the national central bank of their country of residence. This requirement has to be met on average over a fixed period of time, a feature which allows counterparties to make free use of their liquidities over the period. This feature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

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

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



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




| | DE | FR | NL | BE | LU | AT | IE | IT | ES | GR | FI | CY | MT | PT | SI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bid amount | 521 700,4 | 315 572 | 77 266,4 | 97 406,4 | 120 601,1 | 36 618,4 | 36 921,2 | 55 803,1 | 84 567,5 | 12 646,4 | 58 742,8 | 451,9 | 2 521 | 0 | 128.7 |
| Allotment amount | 782 238,8 | 575 488,0 | 310 258,5 | 289 788,0 | 182 722,5 | 156 055,6 | 142 124,9 | 78 241,9 | 74 705,6 | 49 880,5 | 25 039,1 | 1 843,1 | 1 203,9 | 384 | 183.3 |

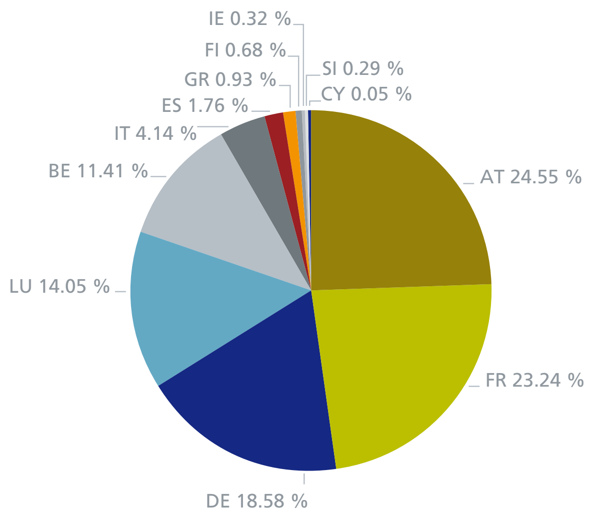
### 2.1.4. Temporary currency auction facilities

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

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

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

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



## 2.2 Foreign exchange reserves management by the BCL

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

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

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

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

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

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

## 2.3 Management of the BCL's assets

### 2.3.1 Institutional structure

Asset management is based on a five-level intervention structure, in addition to risk control:
- The Council (level 1),
- The Executive Board (level 2),
- The Asset and Liability Management Committee
- (ALCO) (level 3),
- The tactical committees (level 4),
- The portfolio managers (level 5).

- **Level 1:** The Council

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

- **Level 2:** The Executive Board

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

- **Level 3:** The Asset and Liability Management Committee ALCO

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





- **Level 4:** The tactical committees

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

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

- **Level 5:** The portfolio managers

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

### 2.3.2 Risk control

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

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

### 2.3.3 Conceptual framework

*The investment policy objectives*

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

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

***Investment decisions*** *are based on:*
- market risks (interest rates, exchange rates, equity prices, commodity prices);
- credit risks (minimum credit ratings criteria by international rating agencies);
- liquidity risks (concentration limits by sector, by issuer, by issue and by geochartical diversification).

***Performance measurement***

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

### 2.3.4 Structure of portfolios

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

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

*Investment Portfolio (Portfolio 1)*

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

# 2. THE BCL'S OPERATIONS

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

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

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

*Liquidity Portfolio (Portfolio 2)*

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

**BREAK-DOWN OF RESERVES AS OF 31 DECEMBER 2008**

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

*Domestic Reserves Portfolio*

This portfolio aims to maintain an intervention portfolio in addition to the pooled foreign exchange reserves transferred to the ECB. Thus, the main requirements for this portfolio are security and liquidity. As of 31 December 2008, the total market value (including accrued interest) of this portfolio in foreign currencies amounted to €183.8 million.

*Pension Fund Portfolio*

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

*Investments Portfolios*

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



## 2.4 Banknotes and coins

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

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

### 2.4.1 Circulation of banknotes and coins

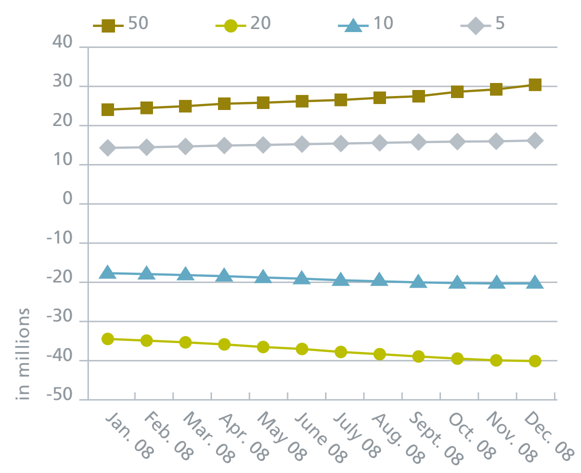
#### 2.4.1.1 Euro banknotes and coins

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

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

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

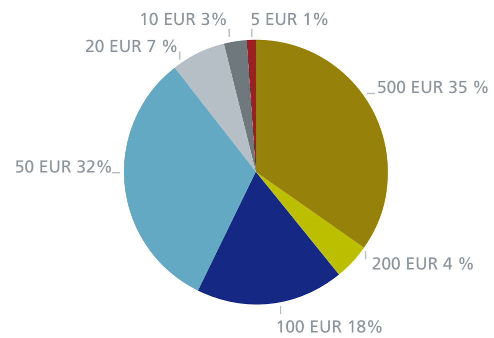
**FIGURE 7: CHANGE IN THE NUMBER OF EURO BANKNOTES USED FOR EVERYDAY TRANSACTIONS PUT INTO CIRCULATION BY THE BCL**




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

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

**FIGURE 8: VALUE BREAKDOWN BY DENOMINATION OF EUROBANKNOTES PUT INTO CIRCULATION BY THE EUROSYSTEM**



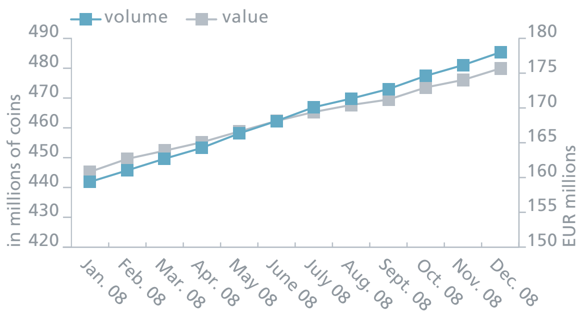
# 2. THE BCL'S OPERATIONS

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

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

**FIGURE 9 :**

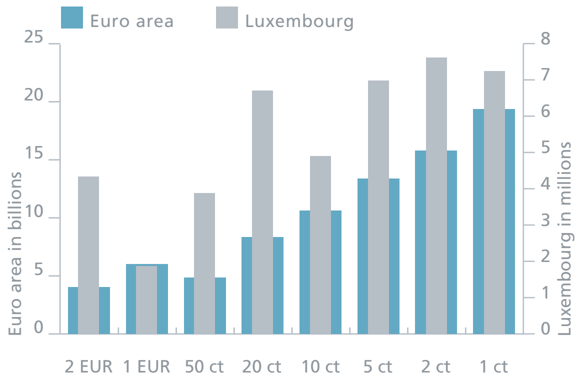
**TOTAL VOLUME AND VALUE OF LUXEMBOURG EURO COINS IN CIRCULATION**




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

**FIGURE 10 :**

**COMPARISON OF THE CIRCULATION VOLUME OF THE DIFFERENT EURO COIN DENOMINATIONS IN LUXEMBOURG TO THAT OF THE EURO AREA**

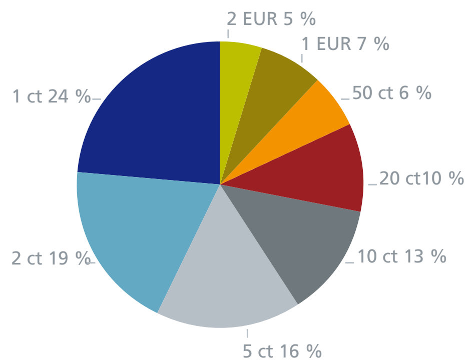



Concerning Luxembourg's coins, the 2-cent denomination remained the most common in 2008. One can notice that the circulation volume of the € 2 coin is higher in Luxembourg than in the euro area whereas the circulation volume of € 1 coin in the euro area is higher than in Luxembourg.

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

**FIGURE 11 :**

**BREAKDOWN BY DENOMINATION OF THE VOLUME OF COINS OF THE EURO AREA IN CIRCULATION**








### 2.4.1.2 Luxembourg franc banknotes and coins

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

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

### 2.4.2 Handling of banknotes and coins

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

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

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

### 2.4.3 Numismatic issues

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

In 2008, the BCL issued the following numismatic products:

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

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

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

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

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

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

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

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

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

## 2.5 Developments in the area of statistics

### 2.5.1 Money and banking statistics

During 2008 the Eurosystem finalised the revision of the regulations ECB/2001/13 and ECB/2001/18 concerning the consolidated balance sheet as well as interest rate statistics of monetary financial institutions in order to improve the availability of euro area statistics. In addition, the Eurosystem adopted a new regulation on the collection of statistics on assets and liabilities of financial vehicle corporations engaged in securitisation. These three regulations also address the statistical requirements generated by the financial crisis in particular as far as concerns the measurement of credit risk transfer. It should be noted that the update of the existing regulations for credit institutions as well as the new regulation for financial vehicle corporations engaged in securitisation involved a costs / merits assessment with the objective to ensure that the high priority data is collected at reasonable cost for both national central banks and reporting agents. The first reporting of this statistical data is foreseen for 2010 in order to provide reporting agents and national central banks with the necessary time to implement these new reporting schemes.

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

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

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

### 2.5.2 External statistics

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

The BCL participates in the annual Coordinated Portfolio Investment Survey of the IMF (the so-called CPIS). The results of this survey are available on the BCL website. In the course of the year under review, the BCL has increased, jointly with the STATEC, as from July 2008 onwards, the exemption threshold from 12 500 euro to 50 000 euro thus decreasing the reporting costs supported by banks.

### 2.5.3 Economic and financial statistics

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

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

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

### 2.5.4 Other statistics

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

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

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

1 Real Time Gross Settlement System (RTGS)

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

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

## 2.6 Payment and securities settlement systems

### 2.6.1 Real-time gross settlement systems

On 19 November 2007, the real-time gross settlement system, LIPS-Gross[1], migrated its activities to the new TARGET2-LU system. Luxembourg was part of the first group of countries to migrate[2] to the new Single Shared Platform of TARGET2 developed and et operated jointly by the national central banks of the Eurosystem. Two other migration groups followed on 18 February and 19 May 2008. The Luxembourgish component of TARGET2 counts at present 25 direct participants and one ancillary system.

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

#### 2.6.1.1 The activity of TARGET2-LU in 2008

*Domestic payments [3]*

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

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

## The concepts of legal tender and contractual freedom

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

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

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

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

The public law notion of legal tender refers to the idea that fiduciary money is a means of payment which must be commonly accepted so that the economy is able to function well. This idea is reinforced by the fact that in a certain number of countries, penal provisions sanction the refusal of banknotes and coins as means of payment. For instance, the Luxembourg penal code comprises an article 556-4 which stipulates that in the absence of any contrary agreement, the refusal of coins as means of payment is punished by a fine of €25 up to €250. The term of coins is here understood as comprising banknotes and coins.

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

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

In order to try to reconcile the notion of legal tender with the principle of contractual freedom, the European Commission takes into account the aspect of public service of banknotes and coins by considering the regulation of the relations "business to consumer" in the sense that a restriction to the use of cash could only be justified by objective reasons such as the cashiers' safety or mail order selling. Furthermore, one must not forget that half of the European population, in particular in the new Member States, does not have a bank account. It is thus essential that public authorities protect the concept of legal tender and the universal acceptance of banknotes and coins as means of payment.

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

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

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

If, on the one hand, the Eurosystem, in its quality of issuing authority for notes, and the Member States, in their quality of issuing authority for coins, have the duty not to promote the use of cash against other means of payment - like for instance credit and debit cards, central banks and national authorities have on the other hand to defend banknotes and coins as a means of payment accessible to everyone; if not, the public may blame them later. Indeed, even if commercial banks tend to promote other means of payment than cash, the European public continues to favour using cash in its daily transactions. According to the policy line defined by the Eurosystem, the public is free to choose the means of payment it wants to use depending on the circumstances and its personal considerations.

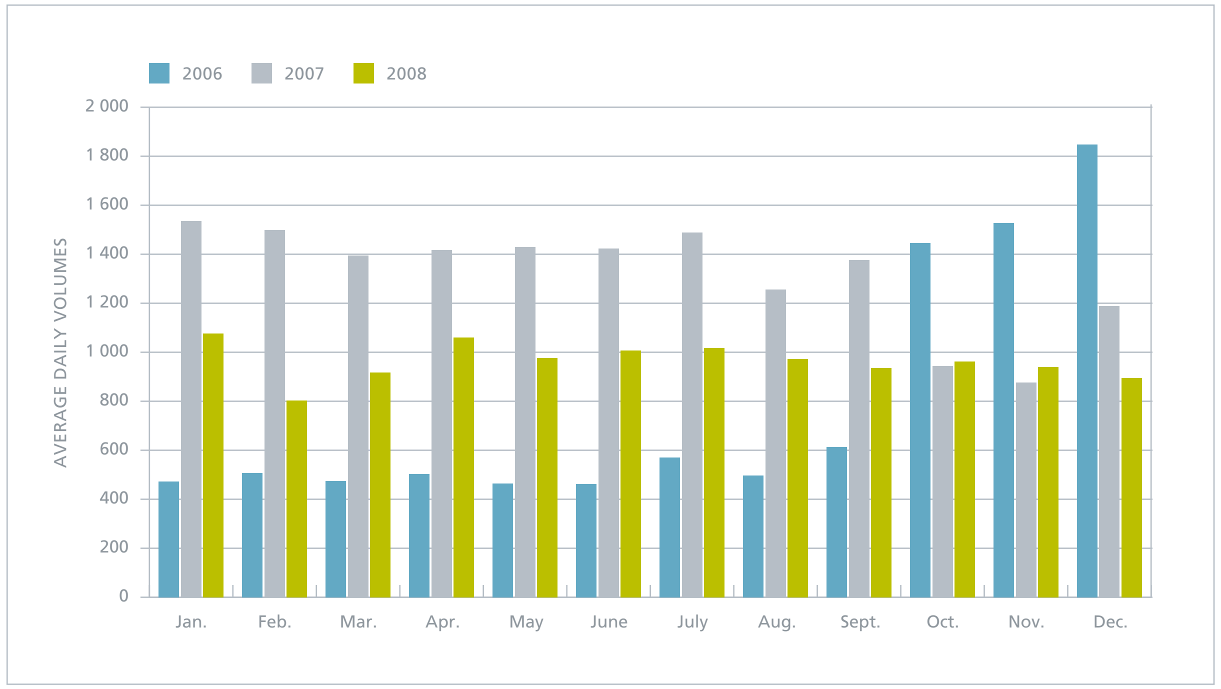
In the absence of provisions at European level, some countries have nevertheless legislated at national level. Thus, the Netherlands and Finland have introduced restrictions to the notion of legal tender by regulating the use of one and two cent coins. These provisions foresee rounding rules which confer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

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

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

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

**FIGURE 12 :**
**DOMESTIC PAYMENTS : EVOLUTION OF AVERAGE DAILY VOLUMES**




### *Cross-border Payments*[4]

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

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

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





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

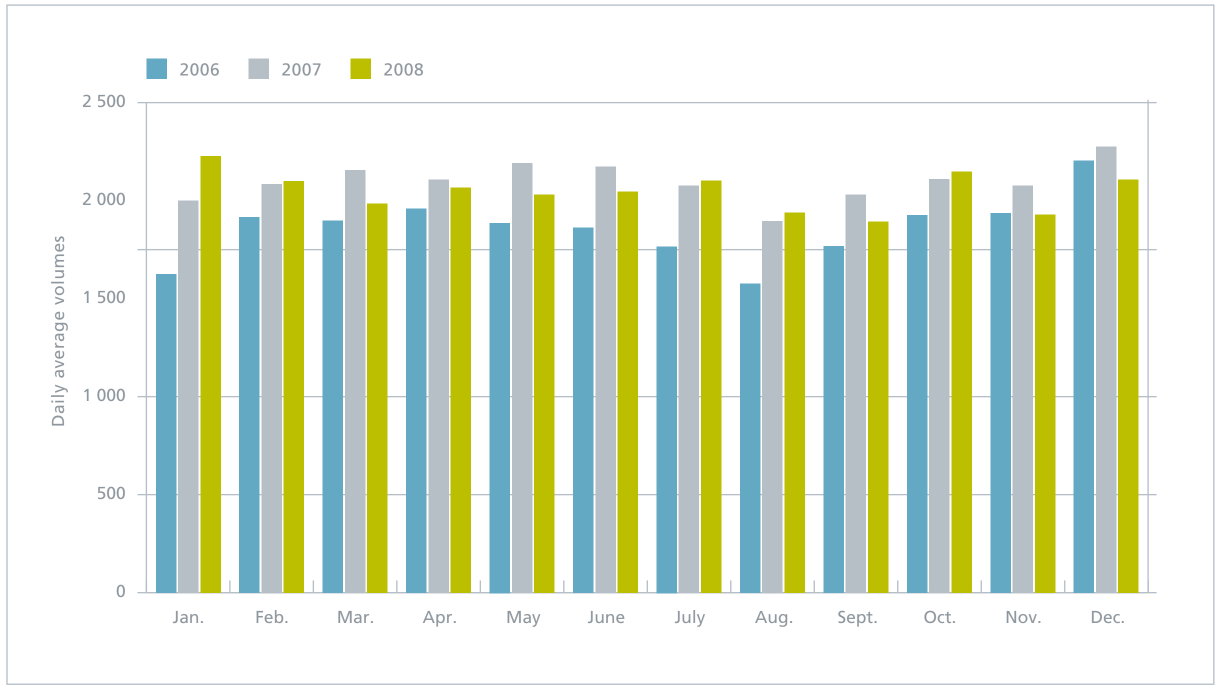
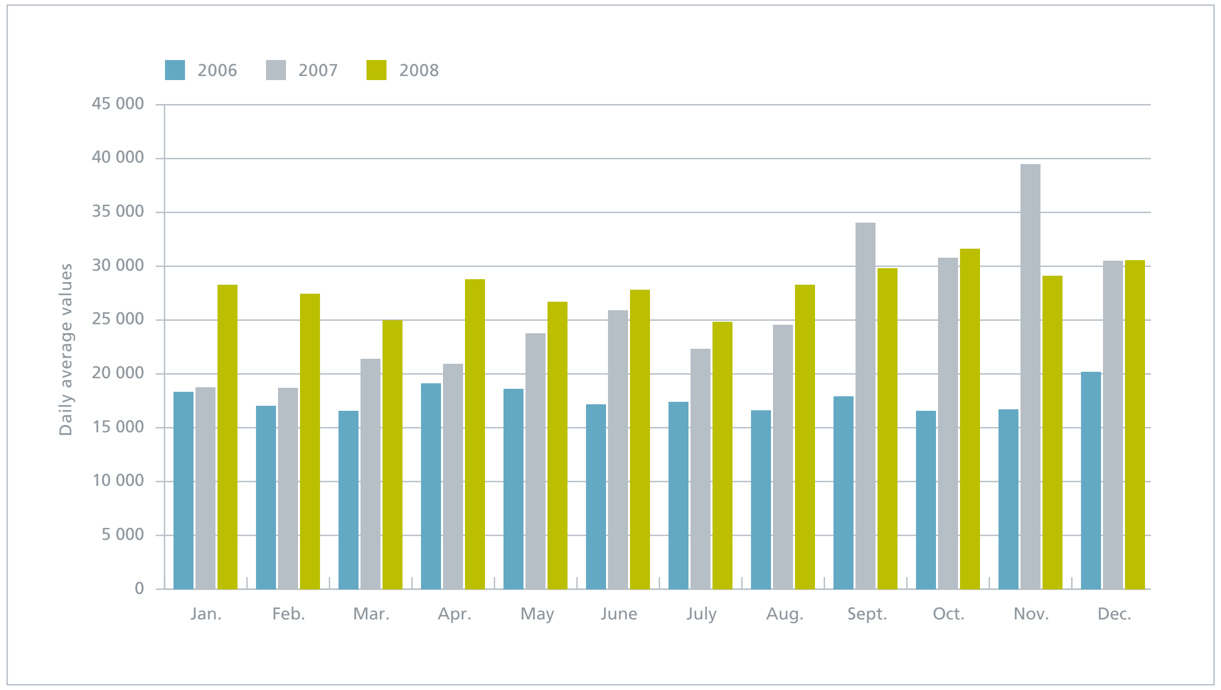



**FIGURE 14 :**
**CROSS-BORDER PAYMENTS SENT : EVOLUTION OF DAILY AVERAGE VALUES**
**(MILLIONS EUROS)**



*Aggregated figures of domestic and cross-border payments*

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

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

VOLUME OF PAYMENTS (DAILY AVERAGES)

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

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

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

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

*Availability of TARGET2-LU*

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

### 2.6.2 Retail payments in Luxembourg

#### 2.6.2.1 Luxembourg participants' activity in STEP2 :

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

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

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

#### 2.6.2.2 The implementation of the SEPA[5] project for non-cash payments:

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

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

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

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

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

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

#### 2.6.3.1 The list of eligible assets

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

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

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

5 Single Euro Payment Area

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

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

- Debt instruments issued by credit institutions, which are traded on accepted non-regulated markets specified on the website of the ECB.

- Subordinated debt instruments when they are protected by an acceptable guarantee as specified in the General Documentation.

- Marketable and non-marketable assets with a credit assessment lower than A- and above or equivalent to BBB-, with the exception of asset-backed securities.

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

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

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

*Selection of central securities depositories at the domestic level*

In order to meet the requirement of "adequate collateral"[8], the Eurosystem also assesses against specific safety criteria securities settlement systems operated by central securities depositories (CSDs) that are settling securities used in the framework of central bank credit operations. Thus, the system of a national CSD is eligible if it obtains, after a compliance check with the Eurosystem user standards, the formal approval of the Governing Council. In this context, the Governing Council approved in December 2008 the use of the new Luxembourg system VP Lux for the settlement of collateral in the framework of Eurosystem credit operations.

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

*Cross-border use of collateral*

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

- the CCBM[9]; 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 first two systems have bilateral accounts. Links have to be approved by the Governing Council before being used for the collateralisation of central bank credit operations. In 2008, Luxembourg counterparties had the possibility to use the direct links between CBL and Clearstream Banking Frankfurt A.G., Euroclear, the SSS operated by National Bank of Belgium, Monte Titoli (Italy), OeKB (Austria), Euroclear Netherlands, and Euroclear France.

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

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

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

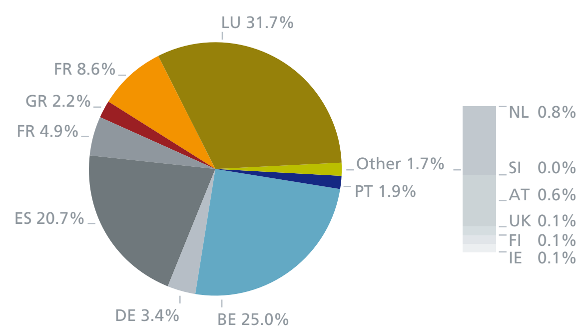
Another important milestone in 2008 was the Governing Council's proposal to CSDs to join the T2S initiative. The Governing Council invited CSDs to express their intention to use T2S, on the basis of detailed documentation comprising amongst others the User Requirements, an economic impact analysis, and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

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

### 2.6.4 Correspondent Central Banking Model (CCBM)

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

FIGURE 15 :
CORRESPONDENT CENTRAL BANKS IN 2008




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

9 Correspondent Central Banking Model, see section 2.6.4.

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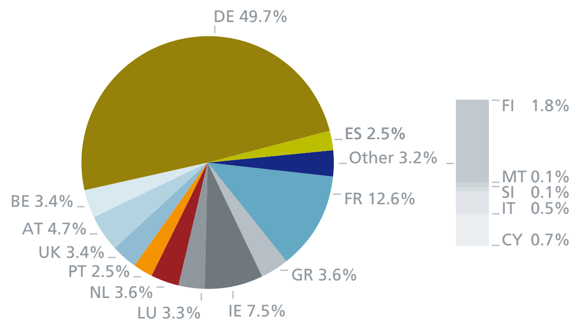
The most active correspondent central banks in 2008 have been those from Luxembourg (31.7%), Belgium (25.0%), Spain (20.7%), and Italy (8.6%). The most active home central banks have been those from Germany (49,7%), France (12.6%), Ireland (7.5%), and from Austria (4.7%).

**FIGURE 16 :
HOME CENTRAL BANKS IN 2008**




### 2.6.5 The Eurosystem's future management of collateral

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

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

CCBM2 will closely interact with the other infrastructures operated by the Eurosystem in the area of 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, the Eurosystem is also analysing the development of a single and harmonised technical access to the three infrastructures through a "Eurosystem Single Interface".



## 2.7 Financial stability

### 2.7.1. Macro-prudential surveillance and liquidity surveillance

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

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

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

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

The financial difficulties witnessed during the crisis by some domestic subsidiaries of foreign credit institutions have highlighted the spill-over effects that financial or reputational problems at the level of the parent company may have for the local subsidiaries. This experience has underlined the need for reinforcing the cooperation between central banks and supervisory authorities both at national and international level.

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

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

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

### 2.7.2 The oversight of payment and securities settlement systems

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

# 2. THE BCL'S OPERATIONS

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

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

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

The oversight of Luxembourg-based systems mostly relies on the oversight framework defined in BCL's Policy and procedures for the oversight of payment and securities settlement systems, which might be complemented in future by specific BCL regulations. The oversight is based on information of general, statistical, financial and internal control nature, required on a regular basis from the operators of the systems. The collected information is analysed, followed-up and complemented through regular contacts with the operators. The oversight aims at an assessment of the policies, practices and internal control procedures so as to maintain an adequate level of security and efficiency in the systems. In this respect, a particular focus is put on liquidity risk, credit risk, operational risk, legal risk and governance risk. This national oversight framework is also in line with European and international recommendations, standards and principles.

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

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

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

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

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

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

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

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

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