
BANQUE
CENTRALE

01 THE BCL'S ACTIVITIES

1 THE BCL'S ACTIVITIES

1.1 MONETARY POLICY OPERATIONS

The Governing Council of the European Central Bank (ECB) defines monetary policy for the euro area as a whole. The main objective of monetary policy is to ensure price stability. Once decided centrally, it is applied in a decentralised manner; the BCL ensures its implementation in Luxembourg.

The instruments used in this framework include conventional measures as described in the next section, but also unconventional measures (section 1.1.2.) that emerged during the major financial crisis.

1.1.1 Conventional operations

Conventional monetary policy operations, which have been used by the Eurosystem since its establishment, are operations related to the management of the liquidity needs of the banking system. Their operational framework comprises three main instruments: open market operations, standing facilities and minimum reserves.

Owing to the increase in excess liquidity in the Eurosystem, the use of the conventional operations has gradually declined.

Open Market Operations

Traditionally, open market operations play an important role in steering interest rates, managing bank liquidity and provide an indication of the stance of monetary policy.

The Eurosystem's regular open market operations comprise both liquidity-providing operations in euro with a maturity of one week (the main refinancing operation, MRO) and liquidity-providing operations in euro with a maturity of three months (the longer-term refinancing operation, LTRO).

MROs are used to steer short-term interest rates, manage bank liquidity and indicate the stance of monetary policy in the euro area, while LTROs provide additional, longer-term refinancing to the financial sector. These reverse operations (i.e. loans secured by collateral), are conducted on a decentralised basis through regular tenders with the BCL.

Fine-tuning and structural operations are less regular open market operations. The former aims at dealing with unexpected liquidity fluctuations in the market for banking liquidity, in particular to mitigate the impact on interest rates, while the latter is mainly aimed at continuously adjusting the structural position of the Eurosystem vis-à-vis the financial sector. Considering the large amount of excess liquidity in the system, structural operations have not been used in recent years.

Standing Facilities

Standing facilities allow credit institutions to manage their liquidity on an overnight basis. The Eurosystem offers two standing facilities to credit institutions: the marginal lending facility, which provides liquidity against the mobilisation of sufficient eligible collateral assets, and the deposit facility, which allows overnight deposits. Lending and deposit operations are both remunerated at interest rates set by the Governing Council.

Minimum Reserves

Credit institutions established in the euro area are required to hold minimum reserves with the national central banks. The calculation method and the amount required are determined by the Governing Council. The minimum reserve requirement is one of the monetary policy instruments of the Eurosystem.

These reserves essentially fulfil two functions. On the one hand, they contribute to the stabilisation of short-term money market interest rates by building up reserves on average over the maintenance period. On the other hand, in normal times, they aim to create (or increase) a structural need for refinancing of the banking system within the Eurosystem. These two functions facilitate the Eurosystem's regulation of the money market.

The minimum reserves are remunerated at the rates of the Eurosystem's main refinancing operations over the maintenance period, weighted by the number of days in the period (see section 1.1.1.3).

1.1.1.1. Open market operations in 2019

1.1.1.1.1 Main refinancing operations

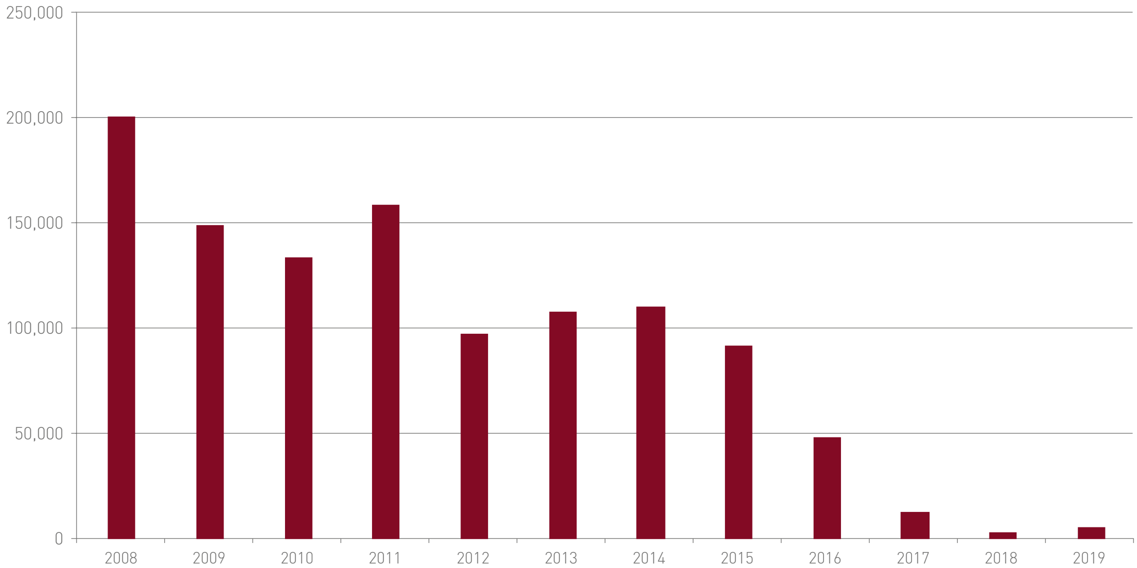
From October 2008 and throughout 2019, the weekly main refinancing operations (MROs) were conducted through a fixed rate tender procedure, with all tenders being allotted at the MRO rate.

In accordance with the Governing Council decision of 7 March 2019, conventional operations will continue to be conducted through fixed rate tenders, with full allotment for as long as needed and at least until the end of the reserve maintenance period starting in March 2021.

In 2019, the MRO rate remained unchanged at 0%; its effective rate since 16 March 2016.

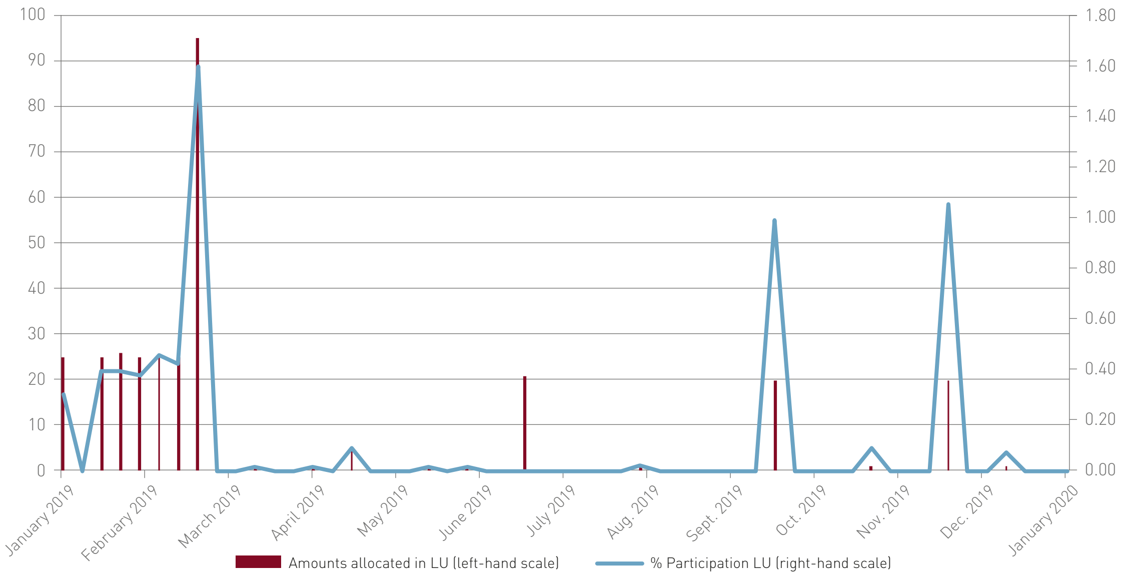
In 2019, at euro area level, participation in the MROs increased slightly from the historical low observed in 2018, reaching an average of €6.02 billion borrowed on average per week. The table below shows the annual change in the average amounts borrowed per operation in the euro area since 2008.

Chart 1:
Average Amounts allocated per MRO in the euro area (in million euros)



Source: BCL

Chart 2:
MRO - Amounts allocated in Luxembourg in 2019 and Luxembourg share in the euro area (in million euros)



Source: BCL

In 2019, about ten Luxembourg counterparties showed a sporadic interest in the MROs.

1.1.1.1.2 Longer-term refinancing operations (LTROs)

No BCL counterparty participated in the three-month refinancing operations in 2019.

In the euro area, the amounts borrowed under the LTRO were about €1.1 billion in 2019, with the number of counterparties ranging from 9 to 17.

1.1.1.1.3 Other operations (fine-tuning and structural operations)

There were no such operations in 2019.

1.1.1.2 Standing Facilities in 2019

Luxembourg counterparties can use the BCL's standing deposit or lending facilities at the rates set by the Governing Council.

On 12 September 2019, the Governing Council lowered the rate on the deposit facility by 10 basis points to -0.50% (it had been maintained at -0.40% since 16 March 2016).

The marginal lending rate remained unchanged at 0.25% throughout 2019. It has been at that level since 16 March 2016.

Marginal lending facility

The marginal lending facility was rarely used in 2019. In general, Luxembourg counterparties made only occasional use of the facility.

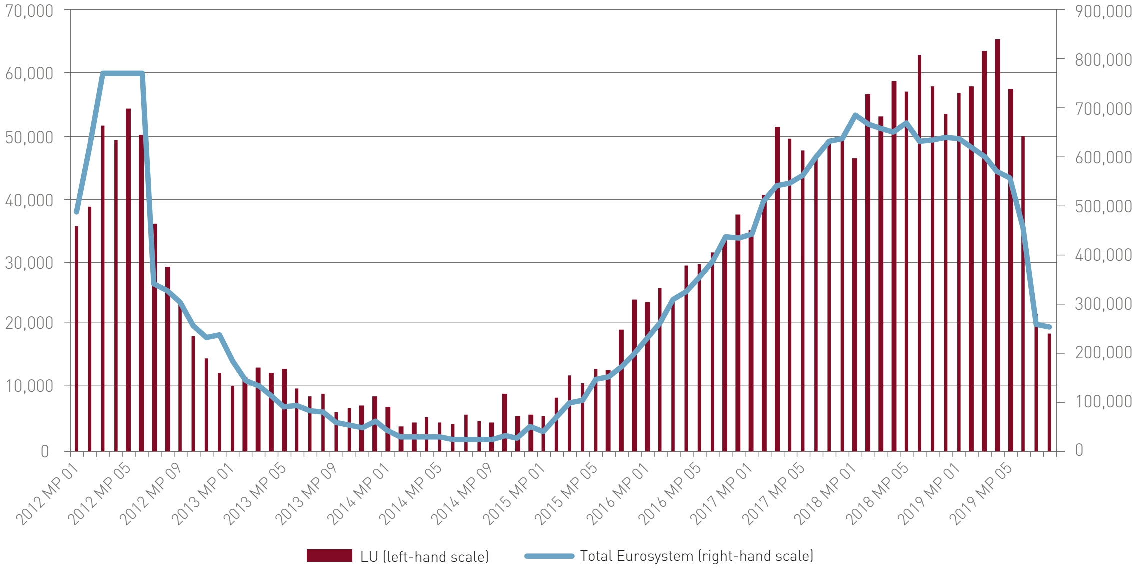
Deposit facility

Despite the negative interest rate applied, counterparties of the BCL have made use of the deposit facility. The high amounts reflect the growth in excess liquidity, the characteristics of the major banking stakeholders in the financial marketplace and regulatory requirements, particularly with regard to the compliance with the liquidity coverage ratio (LCR).

The introduction in October 2019 of the two-tier system for the remuneration of excess reserves (see Section 1.1.1.3) had a significant impact on the use of the deposit facility, as counterparties preferred to maintain their excess liquidity on the current account rather than placing it on the overnight deposit facility, which does not benefit from this provision.

As a result, the amounts deposited by Luxembourg banks on the deposit facility with the BCL decreased significantly at the end of 2019: from an average of €58.6 billion until the end of October 2019 to an average of €20.2 billion since the implementation of the two-tier system.

Chart 3:
Amounts deposited on the deposit facility in Luxembourg and in the euro area (daily average)
(in million euros)



Source: BCL

1.1.1.3 Reserve requirements in 2019

Since January 2012, the reserve requirement ratio has been 1% of certain liabilities on the balance sheet of banks with a maturity of up to two years.

The minimum reserves are remunerated at the rate of the Eurosystem's main refinancing operations over the maintenance period, weighted by the number of days in the period.

On 30 October 2019, the Eurosystem implemented a two-tier system amending the remuneration of excess reserves. Under this system, part of the excess liquidity held by credit institutions with the Eurosystem is remunerated at 0%, while the deposit facility rate is applied to the excess reserves not exempted by this scheme.

For each credit institution, the Governing Council has set the share of the excess liquidity not subject to negative remuneration (exempted quota) at six times the amount of its reserve requirements.

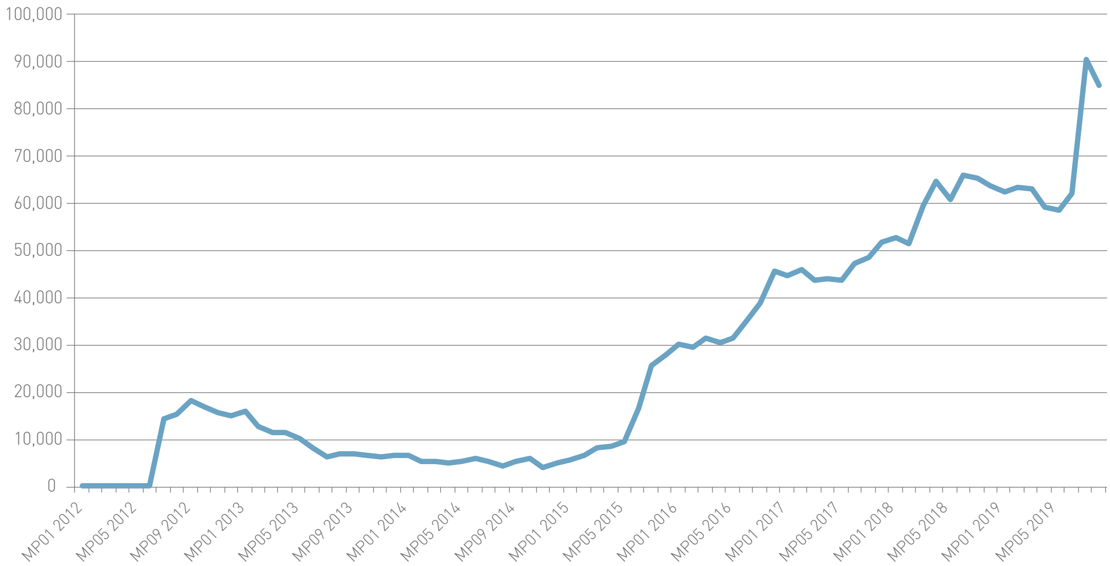
The multiplier and the rate of remuneration of the excess liquidity not subject to the deposit facility rate may be changed over time.

Since 2015, the amount of excess reserves in Luxembourg has continued to increase, mainly due to the asset purchase programmes, regulatory prudential requirements in terms of liquidity and elements specific to the Luxembourg financial centre.

Since October 2019, the increase in current account deposits of Luxembourg counterparties has been strengthened by the introduction of the two-tier system for the remuneration of excess reserves.

Thus, in 2019, excess reserves in Luxembourg amounted to €68.1 billion on a daily average basis, a 12% increase compared to 2018.

Chart 4:
Excess reserves of Luxembourg counterparties since 2012 (daily average)
(in million euros)



Source: BCL

1.1.2 Non-conventional operations

1.1.2.1 Temporary foreign exchange auctions

Since the onset of the financial crisis in 2007, the Eurosystem has conducted foreign currency operations in cooperation with a number of major central banks, thereby providing foreign currency liquidity to counterparties in the euro area using bilateral ECB swap lines with these major central banks.

In 2014, the Governing Council decided to continue conducting one-week US dollar liquidity-providing operations for euro area banks until an unspecified date. This decision remained in force throughout 2019.

As in previous years, the participation of Luxembourg counterparties in US dollar transactions in 2019 has been minimal. At euro area level, participation has remained limited, although there was a greater interest in the year-end operation, with 13 counterparties taking part for a total amount of $3,728.4 million.

1.1.2.2 Extension of the maturities of operations

Since 2007, the different phases of the financial crisis have led the ECB to offer several types of non-standard longer-term refinancing operations (LTROs). An overview is provided in the table below.

Table 1:
Overview of non-conventional Longer-Term Refinancing Operations (LTRO) since 2007

Type	Number of operations conducted until end of 2019	Allocation of the first and the last operation	Total amount allocated in the euro area (in eur billion)	Maximum number of applicants in a single operation in the euro area
Suppl. 3 month LTRO	24	August 2007-December 2009	831	146
6 months LTRO	20	April 2008-August 2011	416	181
1 month LTRO	70	September 2008-July 2014	2599	210
1 year LTRO	4	June 2009-October 2011	671	1121
3 year LTRO	2	December 2011-February 2012	1019	800
Targeted LTRO	8	September 2014-June 2016	432	306
Targeted LTRO II	4	June 2016-March 2017	740	514
Targeted LTRO III	2	September 2019-running	101	122

Source: BCL

Under the Targeted LTROs (TLTROs), the borrowing allowance for banks is linked to the loans they grant to the non-financial sector and to households (excluding mortgages).

On 7 March 2019, a new series of targeted refinancing operations (TLTRO-III) was announced, comprising seven longer-term targeted operations. Each operation is conducted quarterly, starting in September 2019 and has a maturity of three years. An early redemption option is foreseen two years after the start of each operation.

The previous series of Targeted LTROs (TLTRO-II) consisted of four transactions, from June 2016 to March 2017, each with a four-year maturity and prepayment option after two years. These borrowing operations will mature in 2020 and 2021.

Two TLTRO-III targeted operations were conducted in September and December 2019.

As at 31 December 2019, the liquidity provided to euro area banks through TLTROs represented 98% of the overall liquidity provided through refinancing operations.

Table 2 below shows the outstanding amount of targeted operations outstanding as at 31 December 2019, together with Luxembourg's share of these operations.

Table 2:
Targeted LTRO - Allocated amounts in the euro area (in € million) and Luxembourg share

	Date	Maturity	LUXEMBOURG	EURO AREA	%
TLTRO II.1	Jun-16	Jun-20	3,571.44	399,288.94	0.89%
TLTRO II.2	Sep-16	Sep-20	0,00	45,269.77	-
TLTRO II.3	Dec-16	Dec-20	0,00	62,160.82	-
TLTRO II.4	Mar-17	Mar-21	1,525.00	233,473.71	0.65%
Total TLTRO II			**5,096.44**	**740,193.24**	**0.69%**
TLTRO III.1	Sep-19	Sep-22	0.00	3,396.25	-
TLTRO III.2	Dec-19	Dec-22	428.17	97,718.00	0.44%
Total TLTRO III			**428.17**	**101,114.25**	**0.42%**

Sources: BCL, ECB

1.1.2.3 Asset purchase programmes

From 2009 onwards, in addition to the non-standard measures relating to refinancing operations, several securities purchase programmes were implemented to address the risks of a too prolonged period of low inflation.

In October 2014, against the background of a deterioration in the medium-term inflation outlook for the euro area, the Governing Council introduced a series of unconventional monetary policy measures in the form of a number of very large financial asset purchase programmes, with a view to further easing monetary and financial conditions.

Since 2016 and until the end of 2019, the extended asset purchase programmes have included the following programmes involving both public and private sector securities:

- the third Covered Bond Purchase Programme (CBPP3), which began on 20 October 2014;
- the Asset-Backed Securities Purchase Programme (ABSPP) introduced on 21 November 2014;
- the Public Sector Securities Purchase Programme (PSSP) which was launched on 9 March 2015;
- the Corporate Sector Securities Purchase Programme (CSPP) conducted since 8 June 2016.

On 13 December 2018, the Governing Council decided to discontinue net purchases under the asset purchase programmes as of 1 January 2019, while continuing to reinvest maturing securities purchased, in any event until the Governing Council perceives a sustainable adjustment in the inflation trajectory in line with its medium-term objective of below but close to 2%

From January to October 2019, the Eurosystem thus reinvested the full nominal amounts of the matured securities held in the portfolios of the purchase programmes, with the aim of maintaining the level of cumulative net purchases reached as at 31 December 2018 in each programme.

On 12 September 2019, the Governing Council of the ECB decided to resume net purchases at a monthly rate of €20 billion from 1 November onwards. These will continue for as long as necessary to reinforce the accommodative effect of the key ECB interest rates and will end shortly before the increase in the key ECB interest rates.

Table 3:
Pattern of net monthly purchases under the asset purchase program

From March 2015 until March 2016	€60 billion
From April 2016 until March 2017	€80 billion
From April 2017 until December 2017	€60 billion
From January 2018 until September 2018	€30 billion
From October 2018 until December 2018	€15 billion
Since November 2019	€20 billion

Source: ECB

Table 4:
Amount oustanding of the asset purchase programme of the Eurosystem as of 31 December 2019 (in € million)

Asset Backed Securities Purchase Programme	Covered Bond Purchase Programme 3	Public Sector Purchase Programme	Corporate Securities Purchase Programme	TOTAL of securities held within the framework of monetary policy (APP)
ABSPP	*CBPP3*	*PSPP*	*CSPP*	
28,403	263,612	2,102,927	184,505	2,579,447

Source: ECB

1.1.2.4 Other Asset Purchase Programmes - Completed Programmes

1) Securities Markets Programme

In May 2010, the Governing Council launched a securities markets programme.

The objective of this programme was to address the tension in a number of segments of the euro area debt securities markets and to restore an appropriate monetary policy transmission mechanism.

In order to neutralise the impact of these bond purchases, the Eurosystem carried out specific actions to absorb the liquidity injected via the programme. These operations ceased in June 2014.

The programme ended in September 2012, following the Governing Council's decision to introduce outright monetary transactions (see below).

On 31 December 2019, the outstanding balance of assets purchased under this programme that had not matured yet amounted to €47,908 million.

2) Covered Bond Purchase Programme

Covered bonds are key instruments for the financing of credit institutions. The first covered bond purchase programme (CBPP), amounting to €60 billion, began in July 2009 and ended on 30 June 2010.

The second purchase programme (CBPP2), with an initial amount of €40 billion, started in November 2011 and ended on 31 October 2012. Following the improvement of the supply and demand relationship for covered bonds in the euro area, only €16.4 billion of assets were purchased under this programme.

As at 31 December 2019, the outstanding amount of assets purchased under CBPP and CBPP2 for the euro area as a whole that had not yet matured was €4,671 million.

3) Outright Monetary Transactions Programme (OMT)

The outright monetary transactions programme was announced by the Governing Council on 6 September 2012, against the backdrop of a fragmentation of the sovereign debt market. As yet, it has not been activated. The main objective of this programme is to preserve the transmission and uniqueness of monetary policy in the euro area.

Its eventual implementation would be subject to strict compliance by the Member State with the conditions set out in a European Financial Stability Fund (EFSF) or European Stability Mechanism (ESM) programme for a macroeconomic adjustment programme or a precautionary programme. Where appropriate, OMT would focus on the shortest part of the yield curve, in particular on sovereign bonds with a maturity between one and three years.

1.1.3 Management of collateralisation of Eurosystem credit operations

In 2019, the Eurosystem continued its work aimed at enhancing collateral management. This work took place, amongst others, in the group AMI-SeCo[2], in which the Eurosystem in its capacity as catalyst analyses together with market participants dossiers related to collateral mobilisation. AMI-SeCo documents are published on the ECB's website. Furthermore, in the context of work related to its "Vision 2020"[3], the Eurosystem will further harmonise its collateralisation procedures.

List of eligible assets

According to Article 18 of the Statute of the ESCB and the ECB, all Eurosystem credit operations are conducted on the basis of "adequate collateral". As such, each counterparty provides assets as collateral for its credit operations conducted with a national central bank of the Eurosystem. These assets have to comply with eligibility criteria specified in the Eurosystem's General Documentation on Eurosystem Monetary Policy Instruments and Procedures.

The Eurosystem accepts as collateral marketable and non-marketable assets, including notably credit claims. The list of eligible marketable assets is published on the ECB's website.

Eurosystem counterparties use different channels and procedures for the mobilisation of eligible assets. The mobilisation of marketable assets requires the implication of one or more securities settlement systems. Non-marketable assets are mobilised according to procedures developed by each national central bank (domestic mobilisation), or with the intermediation of a correspondent central bank (cross-border mobilisation).

On 10 May 2019, the Guideline ECB/2019/11 amended the Guideline ECB/2014/60 on the implementation of the Eurosystem monetary policy framework. The main changes introduced are as follows:

- Clarification of the definition of agencies as issuers or guarantors of debt instruments.
- Incorporation of the transparency requirements of the EU Securitisation Regulation (Regulation (EU) No 2017/2402) into the Eurosystem collateral framework.
- Phasing out of the use of "rating tools" as credit assessment source.
- Simplification of the recognition process for multilateral development banks and international organisations.
- Amendment to eligibility criteria applicable to floating rate credit claims.

The Guideline ECB/2019/11 is available on the ECB website.

2 Advisory Group on Market Infrastructures for Securities and Collateral.

3 See section 1.6.1.

1.2 FOREIGN EXCHANGE RESERVE MANAGEMENT BY BCL

The ECB's foreign exchange reserves have been managed in a decentralised manner by the national central banks (NCB) of the Eurosystem since January 1999. In accordance with the statutes of the Eurosystem and in line with its share in the ECB's capital key, the Banque centrale du Luxembourg (BCL) initially transferred €74.6 million in foreign exchange assets to the ECB.

For each NCB, the capital allocation key is adjusted every five years in line with its gross domestic product (GDP) and population. After the last regular adjustment in 2019, the capital key for the BCL was set at 0.227%.

As of 31 December 2019, the ECB's reserves managed by the BCL corresponded to a market value of €430.8 million. One of the objectives of the management of the foreign exchange reserves is to ensure that the Eurosystem has a sufficient amount of liquidity at all times for possible intervention in foreign exchange markets. Security and liquidity are therefore essential requirements for the management of these reserves.

In the same context, the level of gold assets, which are passively managed, is set by the Governing Council, taking into account strategic considerations as well as market conditions.

1.3 MANAGEMENT OF THE BCL'S ASSETS

1.3.1 Conceptual Framework

1.3.1.1 Investment Policy Objectives

The main objectives of the investment policy are to generate regular income and to ensure, over the long term, a return that takes into account capital preservation and liquidity considerations. The BCL applies an investment policy which prioritizes the following objectives:

- Security and stability of financial assets;
- Coverage of the operational expenses;
- Generation of profit.

This investment management policy follows the principle of risk diversification and is based on modern portfolio management theory.

The investment approach incorporates:

- an analysis of economic conditions and international financial markets;
- an asset allocation process that involves assessing the returns on different international markets;
- the development of a clearly defined strategy;
- the preservation of the capital value of the assets by following a risk-diversification process and by requiring investment to be of a specific quality;
- the application of strict risk control measures.

Investment decisions are based on both fundamental and technical analysis which take the following into account:

- market risk (interest rates, foreign exchange rates, equity prices, commodity prices);
- credit risk (minimum credit ratings criteria by international rating agencies);
- liquidity risk (concentration limits by sector, issuer and issue, with efforts to ensure geographic diversification in the day-to-day management).

1.3.1.2 Sustainable investment policy objectives

The management of the BCL's own funds is carried out according to investment criteria that comply with environmental, social and governance (ESG) principles.

Since 2018, the BCL has been a member of the Network of Central Banks and Supervisors for Greening the Financial System (NGFS), which contributes in particular to the development of environmental and climate risk management.

All of BCL's investments are now regularly monitored by an external consultant specializing in ESG ratings. In the event of non-compliance with ESG criteria, issuers are in principle excluded from the list of assets eligible for BCL investments.

In order to promote the principle of sustainability in its investments, the BCL launched several initiatives in 2019. Consequently, green bonds and socially responsible investments are now an integral part of its investment universe, while ensuring other investment criteria and limits are satisfied.

Additionally, the BCL decided to transform its portfolio of strategic foreign exchange reserves in US dollars (USD) into a portfolio of dedicated green bonds and to follow the same approach for the portfolio of strategic reserves in Chinese renminbi that it intends to launch in 2020.

Finally, the BCL also applied ESG criteria to the equity portion of its pension fund.

1.3.1.3 Performance Measurement

The quality of investment decisions is measured by comparing the performance to external benchmarks. This allows performance to be attributed to strategic and tactical decision levels as well as to day-to-day management.

1.3.2 Institutional Structure

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

Level 1: the Council

The BCL Council approves the guidelines of the asset management framework. The Council has thereby allowed the BCL to provide asset management services to third parties and to set up its own portfolios in order to ensure the diversification of its income. These guidelines also include the risk control framework applied to asset management.

Level 2: the Executive Board

The Executive Board defines and quantifies the risk management framework. It determines the maximum risk allowance (MRA) which corresponds to the maximum level of risk that can be taken in the management of the BCL's assets. It specifies risk management measures such as the Value at Risk (VaR) method and the application of stress testing scenarios. The Executive Board also sets warning thresholds that trigger the convening of emergency meetings for assessment and evaluation purposes. Additionally, the Board determines the annual budget.

Level 3: the Asset and Liability Management Committee ALCO

The Asset and Liability Management Committee (ALCO) annually determines the strategic benchmark, in accordance with the framework established by the Executive Board, by examining the impact of each risk (market, credit and liquidity risk) arising from the proposed investment policies, not only on the overall balance sheet and the profit and loss account of the BCL. During the year, the ALCO regularly assesses the results of the investment policy.

Level 4: the tactical committees

The tactical committees develop proposals for tactical benchmarks that comply with the permitted deviation relative to the strategic benchmark and monitor the evolution of the portfolios on a short-term basis. The tactical decisions are taken in the following committees:

- the Tactical Investment Committee for the BCL's own funds;
- the Foreign Exchange Committee for the ECB's pooled foreign reserves;
- the Tactical Investment Committee for the pension fund of the BCL.

Level 5: the Portfolio Management Team

The Portfolio Managers execute transactions within the authorised investment limits.

1.3.3 Risk Control

The Risk Management unit monitors the positions of all the portfolios and ensures compliance with predefined investment limits. This monitoring is carried out daily and independently of the BCL Front Office. It incorporates portfolio risk management measurements such as Value at Risk (VaR) and stress testing scenarios.

1.3.4 Structure and Composition of the Portfolios

Most of the BCL's own funds are invested in fixed income securities denominated in euros. The strategic orientation enables diversification into other asset categories.

The BCL manages different types of portfolios, namely:

Investment Portfolio

The investment portfolio invests the BCL's own funds. The main objective of this portfolio, denominated in euros, is to maximize the return while satisfying the risk constraints (see point 1.3.2). As of 31 December 2019, the total market value (including accrued interest) amounted to €701 million. In the absence of investment opportunities offering sufficient return in view of the risks involved, the portfolio was reduced in size.

During 2019, the percentage of fixed income securities with a maturity of more than three years decreased from 35% to 24% of the portfolio, while the amount of bonds with a maturity of one to three years fell from 51% to 42%. At the end of 2019, the quantity of floating rate bonds and fixed-rate securities with a maturity under one year increased from 14% to 34% of the portfolio.

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

Liquidity Portfolio

This portfolio comprises the other assets, largely based on an agreement within the Eurosystem for TARGET2 accounts and other liabilities. This portfolio also aims to increase the revenue of the bank. The instruments used are mainly short-term fixed-coupon bonds, floating rate bonds and commercial paper, provided that these instruments comply with strict and predefined investment criteria. Due to negative short-term interest rates, this portfolio remains inactive for the time being.

Table 5:
Répartition des avoirs au 31 décembre 2019

	Investment Portfolio	Liquidity Portfolio
<1 Year	34%	0%
1-3 Years	42%	0%
> 3 Years	24%	0%

Source: Wall Street System

Own Reserve Portfolio in Foreign Currencies

The main objective of the portfolio of own reserves in foreign currencies is to have an intervention portfolio in place in addition to the common foreign exchange reserves transferred to the ECB. The principal objective of this portfolio is to maintain security and liquidity. As of 31 December 2019, the total market value of this portfolio in foreign currency amounted to €187 million.

In addition to the USD portfolio, the BCL launched a multicurrency portfolio made up of G10 currencies. The market value of this portfolio amounted to €36 million as of December 31, 2019.

Pension Fund Portfolio

The management of this fund is presented in section 2.2.3 of this annual report.

ECB Reserve Portfolio

The management of this portfolio is described in section 1.2 of this annual 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's service providers (ESP) which includes seven central banks within the Eurosystem, offering institutional clients (central banks, public authorities and international organisations) a comprehensive range of services for managing euro denominated reserves in a standardised framework as defined by the ECB.

1.4 BANKNOTES AND COINS

The *Banque centrale du Luxembourg* (BCL), in cooperation with the European Central Bank (ECB) and the other national central banks (NCBs) of the Eurosystem, is responsible for putting euro banknotes and coins into circulation. It contributes to maintaining public confidence in the single currency by managing the circulation of banknotes and coins and combating counterfeiting. Through its activities in the field of Luxembourg's numismatics, it contributes to the further enhancing the reputation of the Grand Duchy of Luxembourg.

1.4.1 Production of banknotes and coins

Within the Eurosystem, the production of euro banknotes is allocated according to a decentralised pooling scenario adopted in 2002. Each NCB is responsible for supplying part of the total requirements for specific denominations.

Euro banknotes are produced on the basis of requirements expressed by the NCBs and aggregated by the ECB.

In this context, the BCL was responsible for the production of 14.82 million €20 banknotes of the "Europa" series in 2019 (compared with 8 million €5 banknotes of the "Europa" series in 2018). The BCL had these banknotes produced following a tender procedure organised with other central banks (see Section 1.4.4 National and international cooperation). The entire volume of banknotes to be produced by this group of central banks was printed on 100% sustainably produced cotton-fibre banknote paper, a premiere within the Eurosystem.

Under the terms of an agreement concluded with the Luxembourg State, the BCL also ensures the production of the Luxembourg`s euro coins that it placed into circulation. As the BCL still had sufficient stocks of coins for all denominations, it did not produce any coins for circulation in 2019.

1.4.2 Circulation of banknotes and coins

1.4.2.1 Euro banknotes and coins

1.4.2.1.1 Banknotes

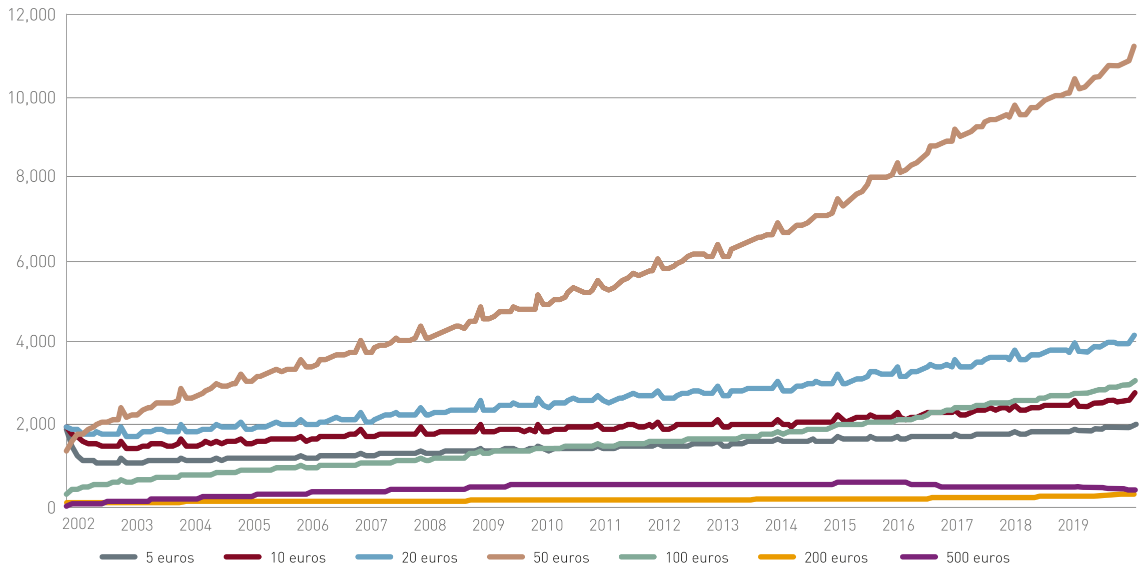
During the year under review, the BCL issued 2.7 million notes. The number of €10 and €20 banknotes paid in by financial institutions exceeded the number of banknotes withdrawn. This phenomenon is explained by the fact that these denominations are brought into the country by tourists and, particularly, cross-border workers.

For the euro area as a whole, after a slight increase in 2018, the circulation of the €500 banknote decreased in 2019 (-14.5%). This decline followed the Governing Council's decision in May 2016 to discontinue the production and issuance of this denomination. This was partly offset by higher demand for €200 banknotes (+61.4%), €100 banknotes (+8.8%) and €50 banknotes (+7.4%). In terms of volume, the €50 banknotes accounted for the majority of banknotes in circulation.

As at 31 December 2019 the number of banknotes put into circulation by the Eurosystem was 24.06 billion, an increase of 6.4% compared with the previous year.

The graph below illustrates how the circulation of the different denominations has evolved.

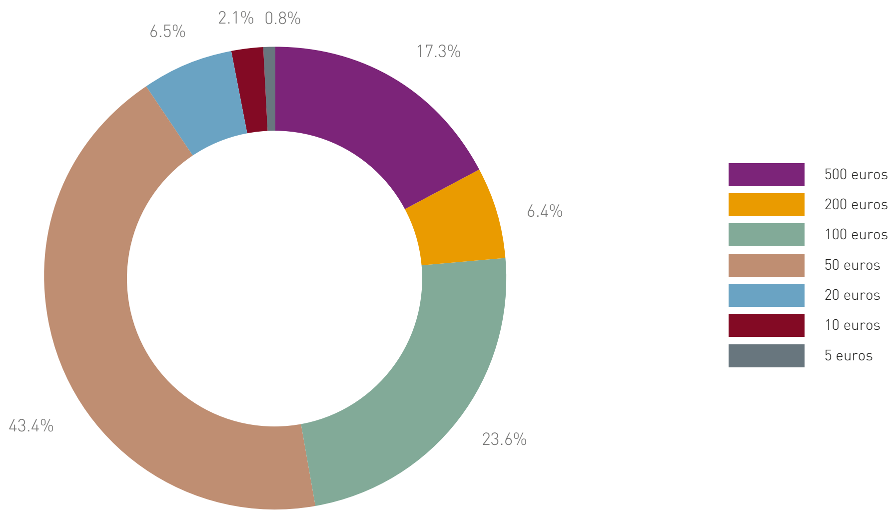
Chart 5:
Evolution of the number of euro banknotes put into circulation by the Eurosystem since 2002
(in millions of banknotes)



Source: ECB

In value terms, the net issuance of banknotes in Luxembourg increased by €0.7 billion, 0.7% more than the previous year. At European level, the net issuance increased by €61.6 billion, which equals a 5% increase. In the euro area, the total amount in circulation was €1,292.7 billion at the end of 2019. The breakdown by denomination is illustrated in the graph below.

Chart 6:
Breakdown of the value of euro banknotes put into circulation by the Eurosystem as at 31 December 2019

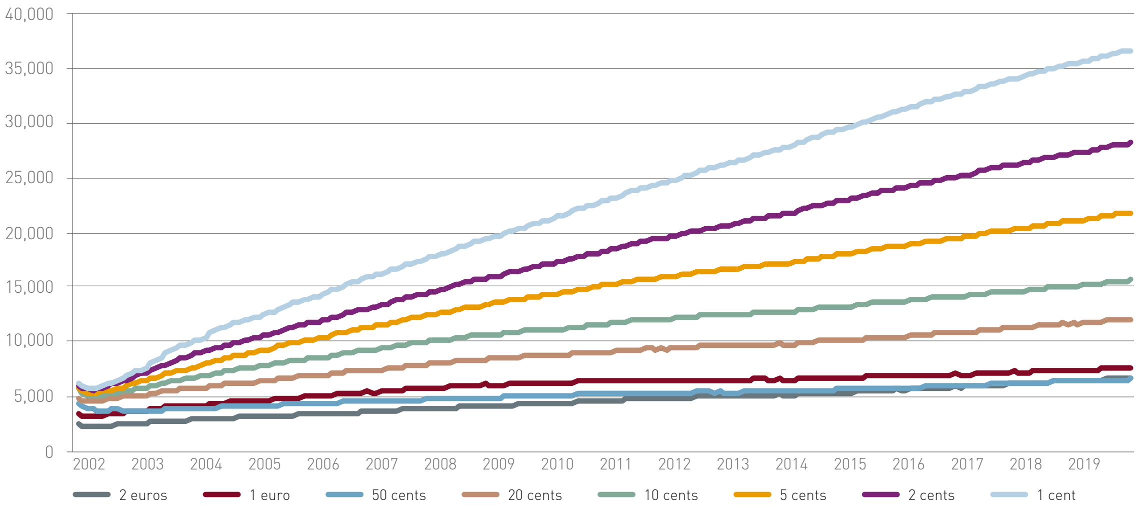


Source: ECB

1.4.2.1.2 Coins

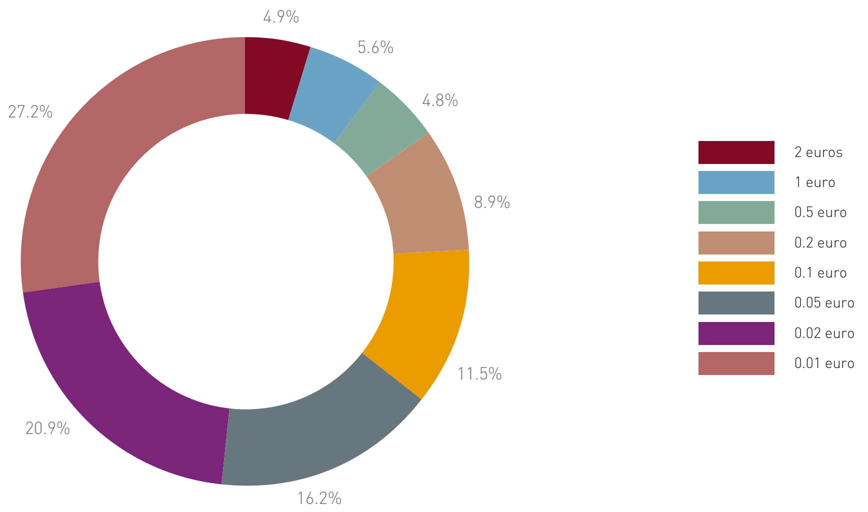
The volume of coins put into circulation in Luxembourg in 2019 increased by 26.48 million units, a 3.1% increase compared to the previous year. At euro area level, the total number of euro coins in circulation grew by 3.3%, reaching 135.1 billion coins. The value of euro coins in circulation in the euro area reached €29.99 billion on 31 December 2019, a 3.4% increase compared to the previous year. The value of coins put into circulation in Luxembourg grew by 3.2%.

Chart 7:
Evolution of the number of euro coins put into circulation in the euro area since 2002
(in millions of coins)



Source: ECB

Chart 8:
Breakdown by denomination of the volume of coins in circulation in the euro area on 31 December 2019



Source: ECB

1.4.2.2 Luxembourg franc banknotes

During the year under review, the total value of Luxembourg franc banknotes issued by the Institut Monétaire Luxembourgeois and not yet presented for exchange, fell from LUF 201.6 million to LUF 200.2 million, a 0.72% decrease. Their total value expressed in euro equals to €4.96 million.

Table 6:
Luxembourg franc (LUF) banknotes still in circulation at 31 December 2019

LUF	number	value in LUF	value in EUR
5,000	10,845	54,224,999	1,344,202.62
1,000	67,129	67,129,000	1,664,084.44
100	788,197	78,819,699	1,953,889.31
total	**866,171**	**200,173,699**	**4,962,176.37**

[1 EUR = 40.3399 LUF]
Source: BCL

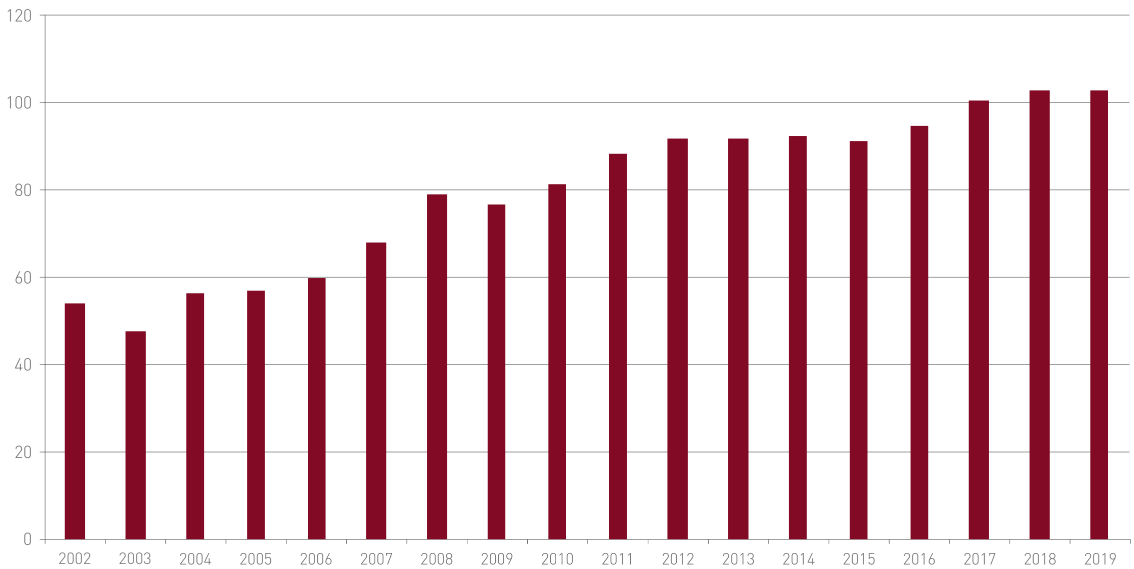
As of end-2004, Luxembourg franc coins are neither reimbursed nor exchanged.

1.4.3 Sorting of euro banknotes and coins

The volume of euro banknotes returned by financial institutions to the BCL increased very slightly (0.2%) compared to the previous year, from 103 to 103.2 million banknotes. Over the past four years, banknote returns made at the BCL have steadily increased and crossed the threshold of 100 million banknotes for the first time in 2017.

The graph below describes the evolution of the banknote returns at the BCL since 2002.

Chart 9:
Returns of euro banknotes by financial institutions at the BCL (millions of notes)



Source: BCL

The returned banknotes are processed by banknote sorting machines, which are capable of verifying the authenticity and cleanliness of each banknote. In 2019, 10.5 million banknotes of all denominations (as compared to 10.9 million in 2018) were destroyed because they were unfit for circulation, representing an average destruction rate of 10.6%, compared to 10.1% in the previous year.

This rate varies significantly depending on denominations processed: while small denominations circulate more and thus wear out more quickly, the higher denominations must be replaced less often. In addition, all euro banknotes of the first series returned to the BCL are destroyed and replaced by notes of the "Europa" series.

1.4.4 National and international cooperation

In the fight against counterfeiting of euro banknotes and coins, the BCL closely cooperates with the ECB and the competent national authorities. For the analysis of counterfeits and mutilated euro banknotes and coins, the BCL has been cooperating with the Banque de France and the Deutsche Bundesbank since 2002.

The BCL also cooperates with ten Eurosystem central banks (Belgium, Estonia, Ireland, Cyprus, Latvia, Malta, the Netherlands, Austria, Portugal and Finland) in the management and maintenance of the CashSSP IT application. This application not only enables the management of banknote and coin stocks and the monitoring of the sorting activity of currency, but also the receipt of the return and withdrawal announcements of local commercial banks in a secure manner.

For several years, the BCL has been pooling its share of banknote production with seven Eurosystem central banks (Estonia, Cyprus, Malta, the Netherlands, Slovenia, Slovakia and Finland). The objective is to share the resources and experience needed to monitor banknote production. In 2019, the Central Bank of Ireland decided to join this cooperation with its share of banknote production for 2020.

1.4.5 Issuance of the new "Europa" banknote series

The "Europa" banknote series, based on the theme of "European eras and architectural styles" like the first series, was gradually introduced: the new series' first banknote, the €5, was put into circulation on 2 May 2013, followed by the €10 on 23 September 2014 and by the €20 on 25 November 2015. A little under two years later, on 4 April 2017, the €50 banknote was put into circulation.

Unveiled to the public on 17 September 2018, the €100 and €200 banknotes will be put into circulation together on 28 May 2019. With the issuance of these last two denominations, the "Europa" series will be complete.

The "Europa" series of banknotes incorporates new or improved security features to ensure advanced protection against counterfeiting and allow the public to quickly distinguish a genuine banknote from a counterfeit.

The issuance of the €500 banknote was stopped on 26 January 2019, following a decision by the Governing Council on 4 May 2016 to exclude this denomination from the "Europa" series. To ensure a smooth transition and for logistical reasons, the issuance of the €500 banknote was stopped on 27 April 2019 in Austria and Germany.

Even after the issue of the €500 banknote has been stopped, it shall retain its legal tender status and may continue to be used as a means of payment and a store of value.

Euro banknotes of the first series retain their value and can be exchanged with the Eurosystem NCBs for an unlimited period of time. The date of the loss of legal tender status of the first series of banknotes will be communicated well in advance.

1.4.6 Numismatic issues

The BCL issues numismatic products on the theme of the Grand Duchy's history and culture. At its numismatic counter, more than 1 700 sales transactions were completed in 2019. Around 3 500 parcels were sent out, corresponding to sales made through traditional mail or via the Internet shop of the BCL (https://eshop.bcl.lu).

During 2019, the BCL issued the following numismatic products:

- a €2 commemorative coin dedicated to the 100th anniversary of the accession to the throne of the Grand Duchess Charlotte;
- the 2019 Brilliant uncirculated (BU) set comprises Luxembourg's euro coins of the 2019 series (including the first €2 commemorative coin of 2019);
- a second €2 commemorative coin, dedicated to the 100th anniversary of universal suffrage;
- the 2019 Proof set, composed of ten coins;
- a gold coin and a silver coin issued in memory of Grand Duke Jean;
- a silver-niobium coin dedicated to the castle of Bourglinster and constituting the eleventh and last element of the series devoted to the castles of Luxembourg;
- a silver-nordic gold coin dedicated to the great crested grebe and constituting the eleventh element of the series devoted to the fauna and flora of Luxembourg;
- a nordic gold-silver coin dedicated to the University of Luxembourg and constituting the fourth element of the series devoted to the outstanding constructions in Luxembourg;
- a set of three tri-metallic coins dedicated to the three Luxembourg inscriptions in the UNESCO programs, namely the "Family of Man" exhibition, the city of Luxembourg and its fortifications as well as the dancing procession of Echternach.

1.5 STATISTICS

The Banque centrale du Luxembourg (BCL) develops, collects, compiles and disseminates a wide range of statistics that enable it to fulfil its legal tasks within the European System of Central Banks (ESCB), the European Systemic Risk Board (ESRB) and at national level. This information is also used by other national institutions such as the Institut national de la statistique et des études économiques (STATEC) and the Commission de surveillance du secteur financier (CSSF) in the context of their respective missions.

Within the framework of a cooperation agreement with STATEC, the BCL has produced quarterly financial accounts statistics (with the exception of public sector data) since March 2013.

As part of a tripartite cooperation agreement between the ECB, the European Stability Mechanism (ESM) and the BCL, the latter compiles macroeconomic aggregates on the basis of accounting data transmitted by the ESM. This statistical data is necessary for the ECB to compile euro area aggregates; indeed, for the purpose of statistics, the ESM is considered a resident euro area financial corporation.

Within the framework of a tripartite cooperation agreement with the ECB and the European Investment Bank (EIB), the BCL collects statistical reports from the EIB. The data collected, that is in line with the statistical data collected from banks, is necessary for the ECB to compile macroeconomic aggregates.

During 2014, the People's Bank of China (PBOC) and the BCL signed a Memorandum of Understanding aimed at establishing cooperation between the two institutions in terms of monitoring, information exchange and evaluation regarding the renminbi market. As part of this agreement, the BCL monitors developments in this market and regularly provides the BPOC with information on these matters.

Since 2012, the BCL has been collecting statistics on payment instruments and transactions. Some of this data is transmitted in aggregated form to the ECB. In particular, the data collected provides information on the use of the various payment instruments in force in Luxembourg and on the use of the various payment channels. Payments made in electronic money are also covered by the collection.

During 2019, the Commissariat aux assurances (CAA) and the BCL signed a cooperation agreement on the collection of information from pension funds in Luxembourg. The objective of this agreement, which regulates the modalities of information exchange in the field of pension funds between the two signatories, is to avoid double reporting in Luxembourg and thus to limit the administrative burden on pension funds.

Finally, on the basis of the cooperation agreement in the field of public finance statistics, STATEC and BCL are cooperating to improve information flows between both institutions.

1.5.1 New data collections

In 2019, the Bank introduced a new statistical data collection from pension funds. However, in accordance with the cooperation agreement between the CAA and the BCL as well as the cooperation between the CSSF and the BCL, the latter does not collect data from pension funds. The information gathered by the two supervisory authorities will be made available to the BCL to enable it to fulfil the requirements of Regulation ECB/2018/12 of 26 January 2018 on statistical reporting requirements of pension funds.

1.5.2 Other statistical developments

The BCL publishes a large number of financial sector statistics on its website and provides STATEC with some of the data required under the International Monetary Fund's (IMF) Special Data Dissemination Standard (SDDS).

In 2019, the BCL, in collaboration with the CSSF, participated in the preparation of the Financial Stability Board's shadow banking report, providing all the statistical data required for this exercise.

During 2019, several changes were implemented to meet growing public demand and to improve the information available to users, in particular on securities and direct investment data. The Bank also contributed to Luxembourg's efforts to comply with the International Monetary Fund's Special Data Dissemination Standard Plus (SDDS Plus), the highest existing level of data dissemination.

Finally, the BCL continued its efforts to make statistics more accessible and user-friendly, notably by improving its statistical press releases on banking activity in order to provide more detailed information on bank credit developments.

1.6 PAYMENTS AND SECURITY SETTLEMENT SYSTEMS

1.6.1 Vision 2020

In 2019, the Eurosystem continued its work related to its Vision 2020 program. This program consists of three projects with significant impacts on all Eurosystem counterparties and other market participants.

The first project, TIPS[4], is a pan-European real-time gross settlement service in central bank money for instantaneous transfers, available 365 days a year, 24 hours a day. The service has been operational since November 2018.

TARGET Consolidation, the second part of this program, will lead in November 2021 to the replacement of the TARGET2 platform by a new large-value payment module (RTGS[5]) with a new centralised CLM[6] liquidity management tool.

The third project, ECMS[7], will consist of a centralised system for managing the collateral provided by counterparties in order to collateralize their credit operations with the Eurosystem. It will be deployed in November 2022.

In order to facilitate communication with these new systems, the Eurosystem will set up a single portal, ESMIG[8], based on the ISO 20022 standard, which will serve as a single entry point for all these services from 2021.

As a member of the Eurosystem, the Banque centrale du Luxembourg (BCL) is taking part in these three projects and will promote the use of these infrastructures in Luxembourg. BCL will support market players in their migration projects to the new infrastructures. To this end, in 2019 the BCL has organised four technical information sessions for Luxembourg banks concerning the migration to the future systems.

1.6.2 TARGET2-LU

Since 19 November 2007, the real-time gross settlement system (RTGS) TARGET2 runs on the Single Shared Platform (SSP) operated in common by 25 central banks of the ESCB. Twenty of these central banks are from the Eurosystem.[9]

The Luxembourg TARGET2-LU component currently has 48 direct participants (one more than in 2018). Furthermore, there are 25 indirect participants (four fewer than in 2018) and two auxiliary systems (one fewer than in 2018).

Domestic payments

In 2019, participants in TARGET2-LU exchanged a monthly average of 19,967 payments (against 20,232 in 2018) for a value of €135.8 billion - against €85.9 billion in 2018. Of these payments, 12,976 or 65% were retail payments. Their value represented a monthly average of €6.6 billion or 4.9% of the domestic value exchanged.

In TARGET2-LU, volumes stabilised in 2018 (-1.0%) and 2019 (-1.3%).

4 TIPS: *TARGET Instant Payment Settlement.*

5 RTGS: *Real-Time Gross Settlement.*

6 CLM: *Central Liquidity Management*

7 *Eurosystem Collateral Management System*

8 ESMIG: *Eurosystem Single Market Infrastructure Gateway*

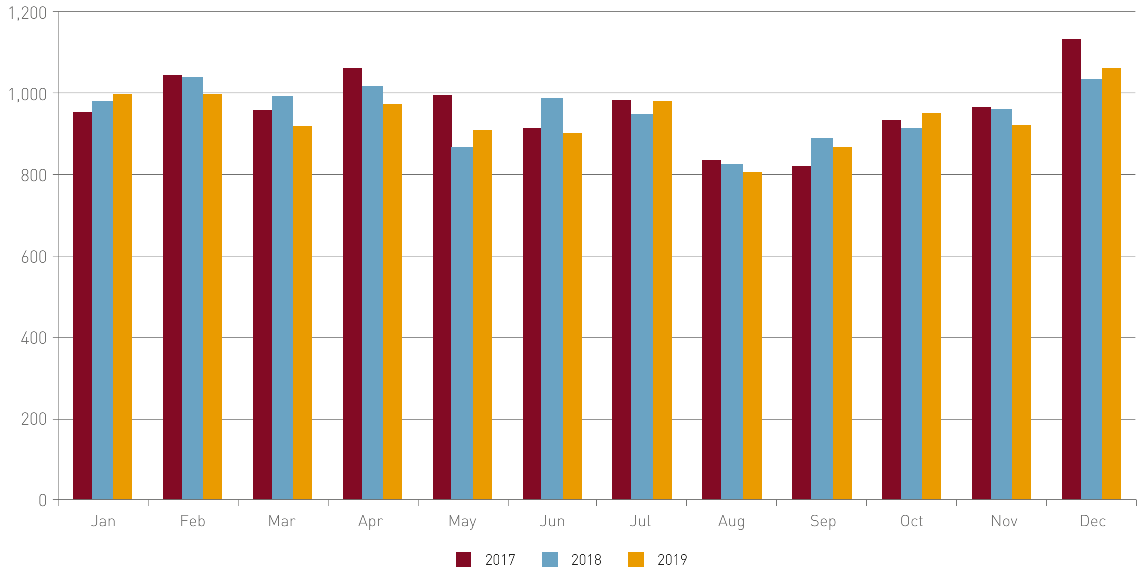
9 The 25 central banks include: the ECB and the 19 NCBs plus five central banks of EU countries which have not (yet) adopted the euro (Bulgaria, Croatia, Denmark, Poland and Romania).

On the other hand, in 2019 the value of domestic payments exchanged increased significantly (+58%). This is the result of a strong increase in the value of interbank payments (+62.7%). The small increase in customer payments (+1.6%) only marginally influenced this increase.

The average value of a domestic retail payment was €511 492 whereas the average value of a domestic interbank payment was €18 754 052 in 2019.

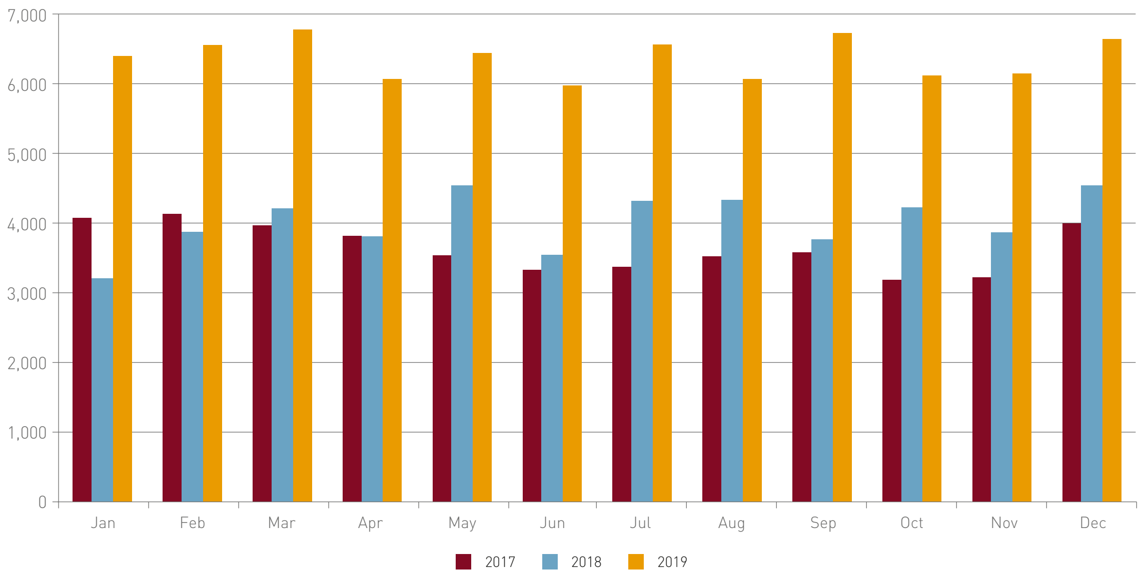
The following two charts 10 and 11 illustrate the developments in average daily volumes and values in domestic payments.

Chart 10:
Domestic payments: average daily volumes



Sources: CRAKS1/TARGET2

Chart 11:
Domestic payments: average daily values (in euro millions)



Sources: CRAKS1/TARGET2

Cross border payments

In 2019, participants in TARGET2-LU sent a monthly average of 124,554 payments to other countries of the EU, an increase of 11.4%. The monthly average value of these payments increased by 27.7% to €1 085 billion.

The volume of retail payments increased by 2.44% to reach 49,279 payments, representing 39.6% of total cross-border volume. The relative part of retail payments has been in decline since 2016; in 2019 it fell by 3.47 percentage points. The volume of interbank payments increased by 18.2%, thus reaching a monthly average of 75,275 transactions in 2019.

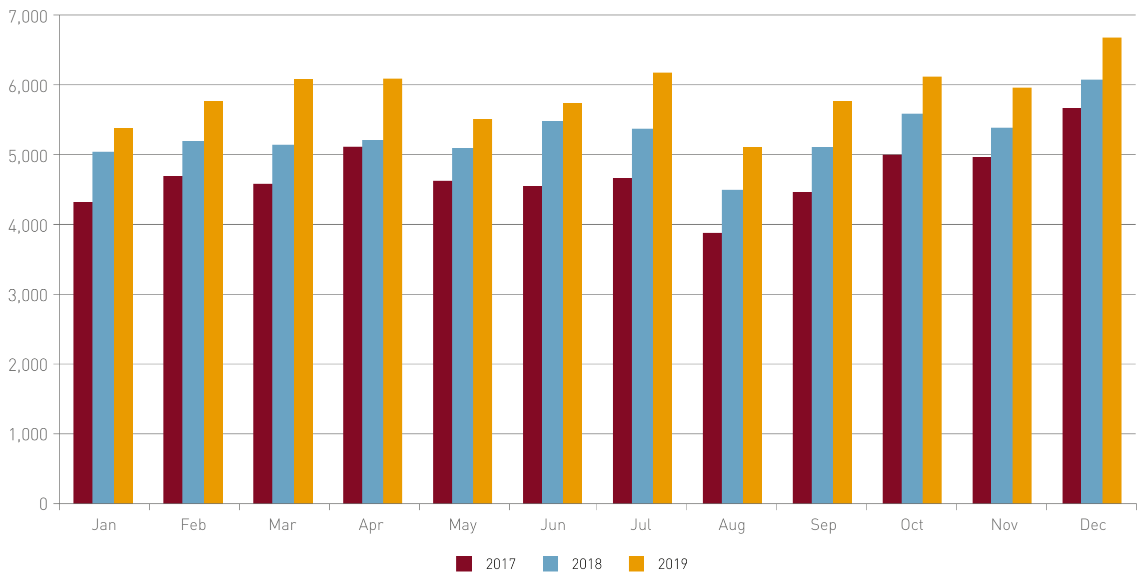
In value terms, the average monthly retail payments increased by 3.7% to an average of €47.22 billion, representing 4.4% of the total value exchanged. The value of monthly interbank cross border payments increased by 29% to €1 037.6 billion.

Overall, in 2019, outgoing cross-border payments[10] increased by 11.4% in volume and 27.7% in value. The average value of an outgoing transaction was €8.71 million (against €7.60 million in 2018). The average value of a retail cross-border payment was €958 301 in 2019.

In 2019, participants in TARGET2-LU received 115 674 payments on average per month from abroad[11] which is an increase of 8.7% compared to 2018. Participants issued 144,956 payments on average per month in 2019 which is an increase of 9.8% compared to 2018. The average value of incoming payments was €1,212.5 billion or 1.67% lower than the value sent.

Charts 12 and 13 display the trend of average daily volumes and values in cross-border payments sent by Luxembourgish participants.

Chart 12:
Outgoing cross-border payments: average daily volumes

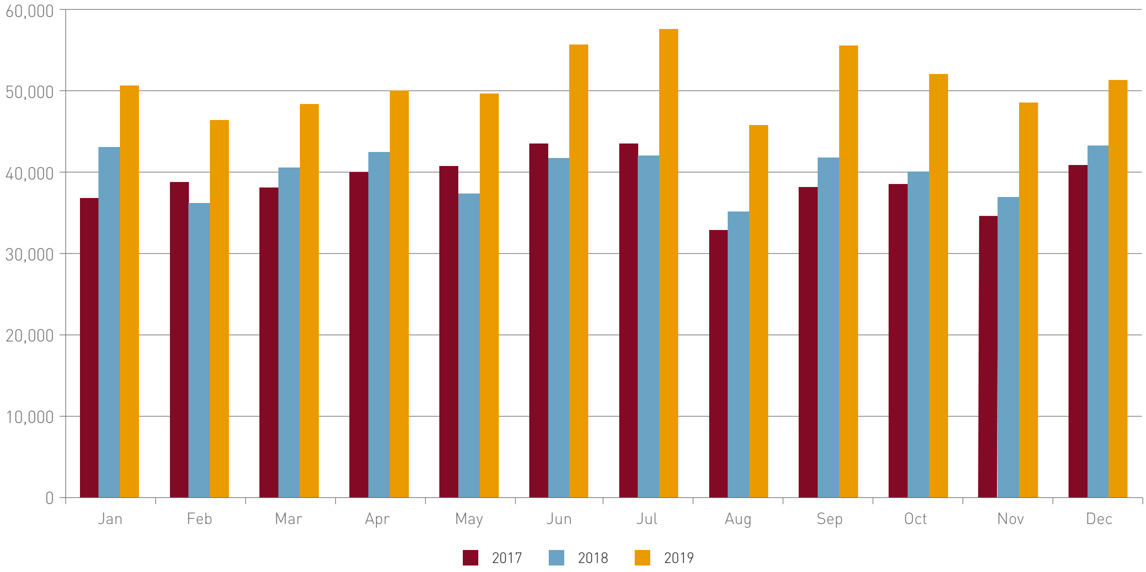


Sources: CRAKS1/TARGET2

10 From the central bank of Luxembourg to the other 24 participating central banks.

11 "Abroad" refers to the other 24 participating central banks.

Chart 13:
Outgoing cross-border payments: average daily values (in € millions)



Sources: CRAKS1/TARGET2

Aggregated figures of domestic and cross border payments

The total number of outgoing payments issued by participants in TARGET2-LU in 2019 amounted to 1 734 251, i.e. a yearly increase of 9.5%. Of these payments, 747 056 or 43.1% were retail payments.

Table 7 provides an overview of average daily volumes of payments over one year since 2014.

The average monthly value of all outgoing payments in 2019 was €1,233.1 billion of which €54 billion (4.4%) were retail payments. Similar to the previous five years, the value of 80.05% of these payments was below €250 000.

On average, 67.9% of the retail payments and 84.4% of the interbank payments were settled each day before noon. They represented 49% and 80.2% of the respective values.

Table 7:
Volumes of outgoing sent 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
2014	931	20.4%	3,639	79.6%	4,570	2,694	37.1%
2015	932	17.5%	4,397	82.5%	5,329	3,102	36.8%
2016	973	17.1%	4,719	82.9%	5,692	2,968	34.3%
2017	965	17.0%	4,701	83.0%	5,666	3,653	39.2%
2018	955	15.3%	5,270	84.7%	6,224	4,047	39.4%
2019	940	13.8%	5,866	86.2%	6,806	4,389	39.2%
Variation 2018-2019	-1.49%		+11.31%		+9.35%	+8.45%	

Source: BCL

TARGET2-LU compared to other systems participating in TARGET2

All national RTGS systems participating in TARGET2 transferred a monthly average of 7.31 million payments in 2019, approximately the same amount as in the previous year (-0.06 million). Luxembourg's portion represented 2.04% of this volume (1.84% in 2018). The average monthly value exchanged amounted to €36,771 billion (€36,041 billion in 2018). Luxembourg's share of the exchanged value was 3.43% (2.67% in 2018).

In 2019, 60% of all payments in the national RTGS system which relied on TARGET2 were domestic transactions. The part of interbank payments increased by 1 percentage point to reach 25%. In TARGET2-LU, domestic payments represented 13.79% and interbank payments 56.9% of the volume.

The average value of a TARGET2 payment amounted €5.03 million in 2019. In TARGET2-LU, this value was €8.45 million.

The maximum daily number of outgoing payments in TARGET2 was 525,074 (30 September 2019). For Luxembourg, the maximum daily amount was reached on 23 April 2019 with 10,473 payments (the aforementioned date was the first business day after four consecutive days of closure for the Easter weekend).

Availability and performance of TARGET2

The availability of the TARGET2 platform, and thus of TARGET2-LU, was 100% in 2019, compared to 99.98% in the previous year. The SSP received a daily average of 350 072 payment instructions, 0.79% less than in 2018. In 2019, 99.99% of all instructions were processed within five minutes of receipt.

1.6.3 Retail payments in Luxembourg

Alongside notes and coins, the most widely used payment instruments in Luxembourg are payment cards (debit and credit cards), credit transfers and direct debits[12]. Network-based electronic money, which is issued and operated by credit institutions or electronic money institutions, is mainly used for remote payments. Several banks in Luxembourg offer mobile applications enabling point-of-sale, payments, internet payments, payment of invoices or P2P payments. The main payment card issuers and acquirers offer contactless payments[13] and without the use of a personal identification code[14]. Several card issuers also offer the possibility to pay through a personal connected object (for example a watch).

12 Cheques are no longer daily payment instruments; their usage is on the decrease.

13 Via NFC technology.

14 The amount is generally limited to 25 euros per payment.

Table 8:
Distribution of payment instruments in Luxembourg (share in number of transactions, %)

	2018[15]	2019
Credit transfers and standing orders	28.78	25.08
Direct debits	7.09	6.78
Debit cards	33.77	37.17
Credit cards	30.27	30.89
Cheques	0.09	0.08
Total	100	100

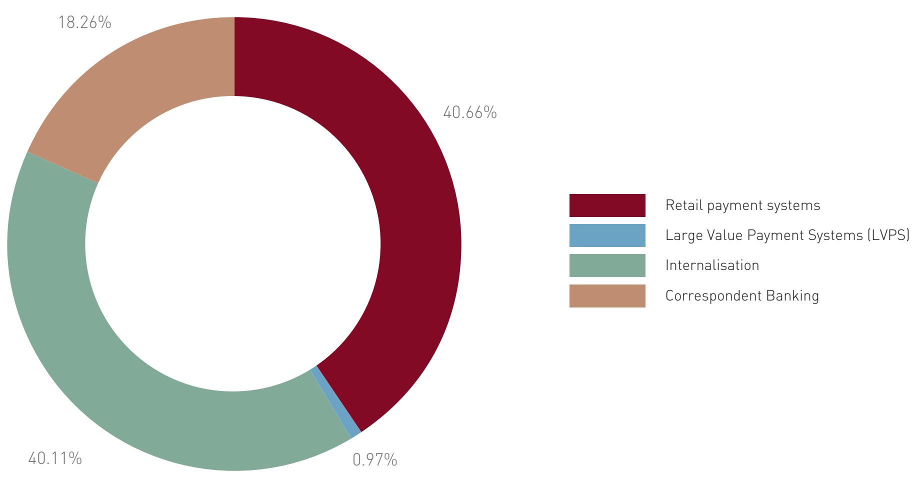
Source: BCL

Customer credit transfers and standing orders

Credit transfers can be processed internally in banks, through a payment system or through correspondent banking agreements.

Banks in Luxembourg process the majority of their non-internal credit transfer and standing order transactions (domestic[16] and cross-border) in retail payment systems (please refer to the chart below).

Chart 14:
Share in volume of customer transfers in 2019. Distribution per settlement channel.



Source: BCL

15 Revised data as compared to the annual report 2018.

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

Table 9:
Customer credit transfers and standing orders[17]

Credit transfers sent	2018[18]	2019	Change (%)
Total volume of customer transfers (in millions of transactions)	86.74	85.29	-1.67
Volume of customer transfers processed for the account of non-MFI customers [19] (in millions of transactions)	81.67	78.72	-3.61
Average value of customers' transfers[20] (in euro)	3,330	3,718	11.65

Source: BCL

In 2019, the total number of credit transfers issued in Luxembourg amounted to 85.29 million, of which 78.72 million were executed on behalf of customers that are not monetary financial institutions.

Transactions settled in retail payment systems (e.g. Step2, Equens) provide a good indicator of the use of credit transfers by households and non-financial corporations. In 2019, the average value of these transfers amounted to €3,718.

Direct debits

SEPA[21] direct debits in Luxemburg are mainly processed in retail payment systems.

Direct debits (SEPA and non-SEPA)

	2018[22]	2019	Change (%)
Volume (in millions of transactions)	21.36	23.05	7.91
Value (in euro million)	12,264	11,707	-4.54

Source: BCL

Payment cards in Luxembourg

Banks and other categories of payment services providers in Luxembourg issue debit and credit cards in international schemes.

Payment card activity[23] in 2019 and its annual trend are detailed in the tables below.

Number of payment cards issued in Luxembourg

Volume (number of cards)	2018[24]	2019	Change (%)
Debit cards	1,121,792	1,123,172	0.12
Credit cards	1,825,898	2,043,891	11.94%[25]

Source: BCL

17 Credit transfers resulting of standing orders are included.

18 Revised data as compared to the annual report 2018.

19 MFI stands for Monetary Financial Institution. The non-MFIs category includes corporates and households but also non-monetary investment funds.

20 It refers to the average value of credit transfers processed in the retail systems Step2 and Equens.

21 Single Euro Payments Area.

22 Revised data as compared to the annual report 2018.

23 Payment transactions and ATM withdrawals.

24 Revised data as compared to the 2018 annual report. Prepaid cards have been classified as debit cards instead of credit cards.

25 This variation is due to the activity of one issuer in Luxembourg.

Transactions on cards issued in Luxembourg[26] (issuing activity)

Volume (in millions of transactions)	2018[27]	2019	Change (%)
Debit cards	101.77	126.39	24.19[28]
Credit cards	91.22	105.02	15.13[29]
Value (in euro billion)	**2018[30]**	**2019**	**Change (%)**
Debit cards	7.16	7.86	9.78[31]
Credit cards	7.78	8.69	11.70[32]

Source: BCL

Transactions in Luxembourg on cards issued in Luxembourg or abroad[33] (acquiring activity)

Volume (in millions of transactions)	2018	2019	Change (%)
Debit cards	62.98	66.50	5.59
Credit cards	25.78	28.03	8.73
Value (in euro billion)	**2018**	**2019**	**Change (%)**
Debit cards	4.90	4.95	1.02
Credit cards	2.12	2.15	1.42

Source: BCL

The Single Euro Payments Area SEPA and innovations

Within the Single Euro Payments Area (SEPA), cashless payments will be processed without distinction between national and cross-border payments in the euro area since 2014 (and in other EU countries since 2016). To ensure a harmonised implementation of SEPA, the ECB established the Euro Retail Payments Board[34] in 2013. This body also presides over the coordinated development of an integrated, competitive and innovative euro retail payments market.

It is currently focusing on the application of instant payments, mobile person-to-person payments, contactless payments, request to pay[35] and payment initiation services[36].

Instant payment allows the payee to have the funds available within seconds of the payor initiating the payment. The European SEPA euro instant transfer scheme[37] has been operational since November 2017. The scheme is optional, nevertheless the volume of participation is constantly growing.

26 Transactions in Luxembourg and abroad.

27 Revised data as compared to the 2018 annual report.

28 This significant change concerns almost all issuers.

29 This significant change concerns almost all issuers.

30 Revised data as compared to the annual report 2018.

31 This significant change concerns almost all issuers.

32 This sharp increase concerns almost all issuers.

33 Activity of Luxembourgish acquirers only. Data on the activity of foreign acquirers in Luxembourg are not available.

34 Euro Retail Payments Board (ERPB). The ERPB is chaired by the ECB. Its members are representatives of the players in the European retail payment services market on both the demand and supply sides. The national central banks participate on a rotating basis.

35 The future payee sends a "Request to Pay" message to the payer, containing the payment information (e.g. references, amount, payee IDs), which will be used to establish and send a payment (typically a transfer).

36 Initiation of a payment order at the user's request with a provider but relating to a payment account he holds with another payment service provider. For the legal definition and further details, please refer to Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) 1093/2010, and repealing Directive 2007/64/EC (commonly referred to as the revised Payment Services Directive (PSD2)).

37 SEPA Instant Credit Transfer (SCT Inst). The scheme is operated by the European Payments Council.

In order to support the integrated development of SEPA instant credit transfers, the Eurosystem deployed the TIPS service in November 2018. It enables real-time pan-European gross settlement in central bank money of instant credit transfers between participating banks[38].

To support the development of autonomous payments in Europe, the Eurosystem reiterated the objectives of its strategy. These include pan-European acceptance for point-of-sale and online payments, security and convenience, cost-saving efficiency, and a European identity and governance.

1.6.4 Securities settlement systems

Selection of eligible depositories

For the mobilisation of securities by its counterparties, the Eurosystem has selected eligible securities settlement systems (SSS) operated by central securities depositories (CSDs). A securities settlement system or a link is eligible if it complies with two eligibility criteria specified by the Eurosystem in its General Documentation on Eurosystem monetary policy instruments and procedures. Eligibility criterion (a) requires that a SSS or a link comply with the requirements set out in Regulation (EU) No 909/2014 of the European Parliament and the Council on improving securities settlement in the European Union and on central securities depositories, and amending Directives 98/26/EC, 2014/65/ EU, and Regulation (EU) No 236/2012. Eligibility criterion (b) requires that a SSS or a link comply with the legal and operational requirements specified by the Eurosystem. The new eligibility framework also applies to SSSs and links that were approved under the past eligibility framework.

In Luxembourg, the systems operated by Clearstream Banking S.A. (CBL) and LuxCSD S.A. (LuxCSD) are eligible for the mobilisation of securities by the Eurosystem's counterparties.

A domestic mobilisation of securities is also possible via the triparty collateral management service operated by CBL. Detailed information on this topic, including the framework for assessment of triparty agents in view of their eligibility for collateralisation of Eurosystem credit operations, is available on the BCL's website.

Cross-border use of securities

Besides using eligible securities held at the national depository, counterparties can receive credit from their national central bank by providing collateral issued in a depository located in another country of the euro area. The Eurosystem foresees two methods of using securities on a cross-border basis:

- the Correspondent Central Banking Model, or
- links established between depositories' securities settlement systems.

38 See 1.6.1

1) The Correspondent Central Banking Model

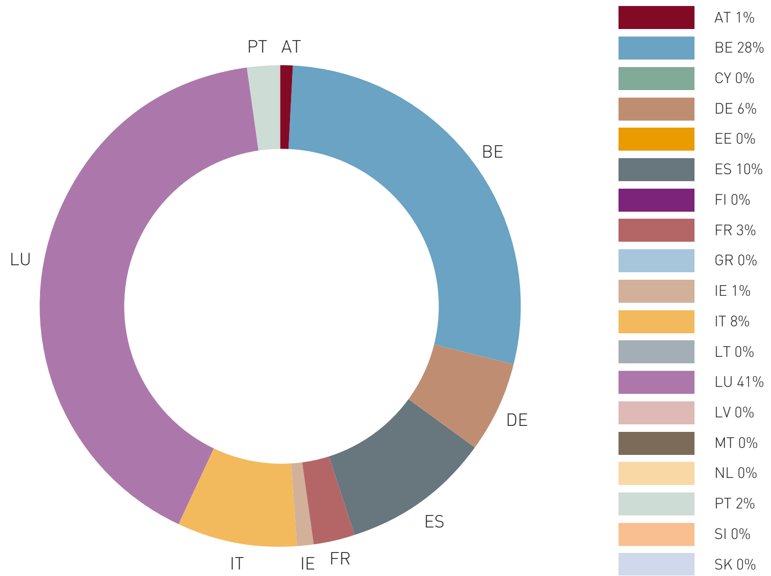
The Correspondent Central Banking Model (CCBM) enables all counterparties of the Eurosystem to use securities on a cross-border basis even if there is no eligible link between the national depository and the foreign depository in which the counterparty holds securities.

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 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. Moreover, the home central bank (HCB) grants the credit to its counterparty based on the confirmations it receives from the CCB.

The CCBM is also used for the cross-border mobilisation of securities via the triparty collateral management services offered by CBL, Clearstream Banking AG, Frankfurt (CBF), Euroclear Bank and Euroclear France.

At Eurosystem level, the infrastructure CCBM accounted in 2019 for about half of the cross-border mobilisation of securities used in Eurosystem credit operations. In terms of value, the most active correspondent central banks in 2019 were those of Luxembourg (41.4%), Belgium (27.6%), Spain (10.4%), Italy (8%) and Germany (5.6%).

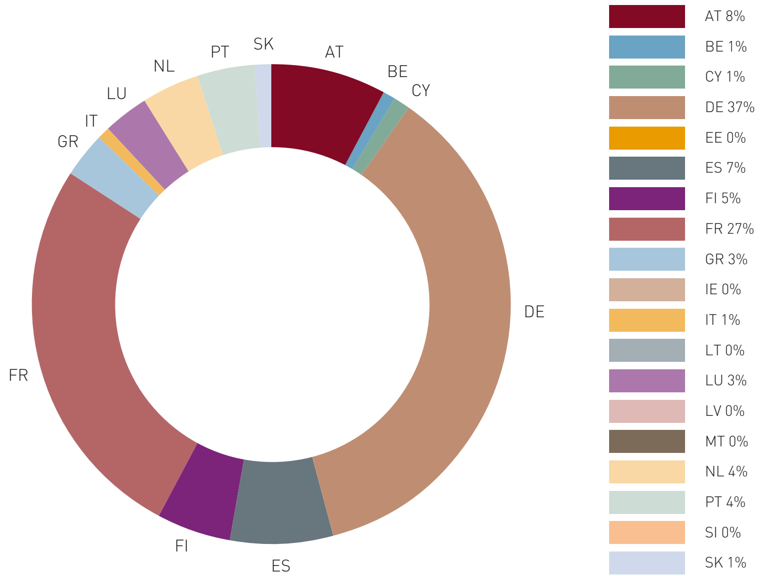
Chart 15:
Correspondent central banks 2019



Source: ECB

The most active home central banks were those of Germany (36.5%), France (27%), Austria (7.71%), Spain (7.06%) and of Finland (5%).

Chart 16:
Home central banks 2019



Source: ECB

<u>2) Links established between securities settlement systems of CSDs</u>

Currently two types of links are eligible, direct links and relayed links:

- direct links allow a SSS established in one country to make securities issued in a system in another country available through securities accounts maintained between the two systems;
- relayed links enable the transfer of securities between two systems without bilateral relationship by using a third intermediary system.

In 2019, Luxembourg counterparties could use the direct links between CBL and CBF, Euroclear Bank, Euroclear Finland, KDD (Slovenia), BOGS (Greece), CDCP (Slovakia), VP SECURITIES (Denmark) and LuxCSD, as well as the relayed links of CBL via CBF between CBL and Euroclear France, Euroclear Netherlands, MaltaClear, Monte Titoli (Italy), NBB SSS (Belgium), and OeKB (Austria). Among these links, Luxembourg counterparties primarily used the links with CBF and Euroclear France. The direct link between LuxCSD and CBF was considered eligible for Eurosystem credit operations as well as the relayed links of LuxCSD via CBF between LuxCSD and Euroclear France, Euroclear Netherlands, Monte Titoli, NBB-SSS and OeKB.

It should be noted that Eurosystem counterparties use a large number of securities held in Luxembourg as collateral, either in the CCBM, through the use of links, or through a combination of the CCBM and links. In 2019, Luxembourg's share in the cross-border use of securities within the Eurosystem was 33%.

1.6.5 TARGET2-Securities

TARGET2-Securities (T2S) is a centralised platform delivering harmonised clearing and settlement services to the market. It provides a harmonised domestic and cross-border securities settlement service in euro or other currencies in central bank money.

The T2S platform encompasses both the securities accounts managed by the central securities depositories and the dedicated cash accounts (DCAs) hosted by the central banks. The DCAs are used to provide the liquidity necessary to settle the securities purchase transactions on T2S and to receive the cash proceeds resulting from the settlement of sales on T2S. The DCAs are funded by the RTGS account they are associated with. For euro payments, the RTGS account is a TARGET2 account.

The settlement efficiency is improved on T2S owing to several mechanisms, including the autocollateralisation service. This is a credit operation automatically triggered when a participant fails to settle a securities purchase transaction because of a lack of cash on its DCA. In this case, T2S will automatically select eligible collateral, either by mobilising assets available on the participants' securities account (auto-collateralisation "on stock") or by using the very securities that are being purchased (auto-collateralisation "on flow"). T2S will then pledge these securities in favour of the central bank; in exchange, the participant receives a central bank intraday credit.

The BCL has been offering DCAs to participants that requested them. The BCL has also prepared the activation of the autocollateralisation service, which is available to participants of LuxCSD on request.

1.6.6 LuxCSD

LuxCSD – Luxembourg's central securities depository – was jointly created in 2010 by the BCL and Clearstream International on the basis of an equal shareholding. It provides securities settlement services in central bank money. LuxCSD provides the following main services:

- the settlement of securities transactions in central bank money;
- the settlement of free of payment transactions;
- direct settlement against counterparties in domestic markets;
- securities issuance services with settlement in central bank money or free of payment;
- securities custody services;
- the routing of orders in investment fund shares;
- issuance of the Legal Entity Identifier for Luxembourg legal entities;
- a national access point to T2S.

The securities issued and admitted to LuxCSD may be bonds, shares or UCITS, domiciled in Luxembourg or abroad.

Luxembourg counterparties can use LuxCSD and its links approved by the Eurosystem in order to collateralise Eurosystem credit operations.

Since 2018, LuxCSD has been reorganising its access to other securities settlement systems by using the German system CBF as main access point. This reorganisation has increased in 2019 and will continue in 2020.

The governance of LuxCSD is performed by an audit committee and by a Board of Directors. The BCL is not active in the governance bodies of LuxCSD.

1.7 FINANCIAL STABILITY AND PRUDENTIAL SUPERVISION

1.7.1 Macro-prudential supervision

The financial stability mandate attributed to the BCL is based on the Treaty on the Functioning of the Euro¬pean Union (TFEU) – through the central bank's participation in the Eurosystem – and on national legislation.

At European level, Article 127, paragraph 5, of the TFEU foresees that the European System of Central Banks (ESCB), in addition to its core central tasks, should contribute to 'the smooth conduct of policies pursued by the competent authorities relating to the prudential supervision of credit institutions and the stability of the financial system'.

The EU prudential rules (CRD IV and CRR) for the banking system. The rules have been implemented in Luxembourg, notably through the transposition of CRD IV.[39] [40] [41] In June 2019, CRD V (2019/878/EU) and CRR II (Reg (EU) 2019/876) were published in the Official Journal of the European Union, with numerous amendments both at micro-prudential level (introduction of a leverage ratio, net stable funding ratio, new rules for credit risk and market risk, etc.) and at macro-prudential level (adjustments concerning the buffer for Other Systemically Important Institutions and to the systemic risk buffer).[42] These changes will apply as of June 2021, if there is no transition period.

At national level, Article 2, paragraph 6, of the organic law of the BCL foresees that '[…] the Central Bank shall coop¬erate with the Government and with prudential supervision authorities at national level, as well as with the other central banks at Community and international level, to contribute to ensuring financial stability, notably within committees set up for this purpose'. In line with the European Systemic Risk Board's (ESRB) Recommendation, regarding the macro-prudential mandate of national authorities, the Luxembourg legislator has adopted the Law of 1 April 2015 establishing the national macro-prudential authority, namely the Systemic Risk Committee.[43] [44] Within this Committee, the BCL has a leading role in macro-prudential supervision and is in charge of the Secretariat, which falls under the hierarchical authority of the BCL Governor.[45] In this context, the Secretariat is responsible for preparing the Committee's meetings, drafting Recommendations and Opinions as well as conducting macro-prudential analyses required for the decision-making process of the Committee. In addition to its financial stability mandate, due to the role of payment and securities settlement systems within the financial system, the national legislator has entrusted the BCL with the supervision of the payment and securities settlement systems.[46]

39 Transposed by the Law of 23 July 2015 transposing Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013; - transposing Articles 2 and 3 of Directive 2011/89/EU of the European Parliament and of the Council of 16 November 2011; - transposing Article 6(6) of Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011; - amendment of: 1. the amended law of 5 April 1993 on the financial sector; 2. the amended law of 23 December 1998 establishing a commission for the supervision of the financial sector.

40 See Directive 2013/36/EU (Capital Requirement Directive IV; CRD IV) of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC (CRD IV Directive).

41 Regulation (EU) No. 575/2013 (Capital Requirement Regulation; CRR) of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No. 648/2012.

42 See "A Review of Macroprudential Policy in the EU in 2018" - special feature C (CERS 2019) for an overview of the new banking package provided for by CRD V and CRR II.

43 See Recommendation of the ESRB of 22 December 2011 (ESRB/2011/3).

44 In French, Comité du risque systémique (CdRS). See the Law of 1 April 2015 establishing a Systemic Risk Committe and amending the modified law of 23 December 1998 regarding the monetary status and the Central Bank of Luxembourg.

45 See Sub-Recommendation B-3 of the Recommendation of the ESRB on the macro-prudential mandate of national authorities (ESRB/2011/3).

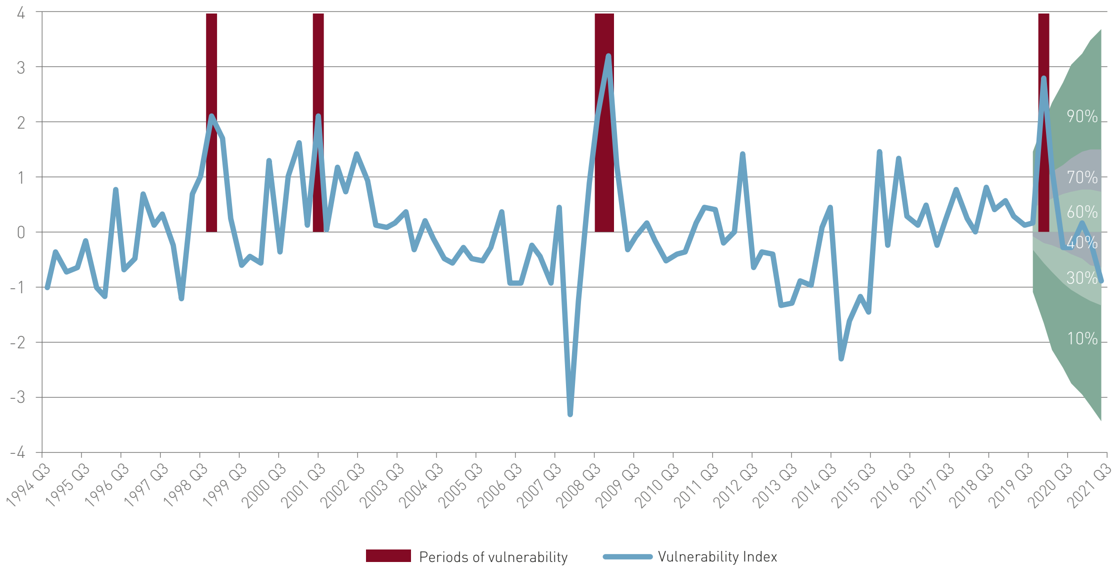
46 Article 2(5) of the organic law of the BCL.

1.7.1.1 Macro-prudential surveillance in Luxembourg

Since the inception of the Systemic Risk Committee (Comité du risque systémique - CdRS), the BCL has been involved in the monitoring of systemic risks, i.e. those risks likely to impair the stability of the national financial system as a whole. To this end, the BCL must be able to identify and measure the accumulation of risks over time as well as their distribution within the financial system. Given the importance of the banking system and the investment fund sector, the analysis conducted mainly focuses on the risk assessment for these two main components of the national financial system. In this context, and given the growing importance of the parallel banking system and recent developments of the European regulatory framework, the BCL has already undertaken several analyses in order to assess the degree of interconnectedness between investment funds and the banking sector, and to model vulnerabilities, which could affect investment funds by using estimated levels of probabilities of default. The temporal dimension of risk is analysed by monitoring indicators such as the credit cycle, asset prices, leverage, maturity mismatches and other specific indicators of liquidity.

In the context of the Financial Stability Review, the BCL uses various indicators (a dashboard), including probabilities of default, z scores and a vulnerability index to assess the financial stability of Luxembourg's financial sector.[47] [48] The chart below provides an example of the evolution of the vulnerability index for Luxembourg banks.

Chart 17:
Forecast of the evolution of the vulnerability index for Luxembourg banks: 2020 Q1-2021 Q4



Source: BCL; Period: 1994 Q4-2019 Q4. Forecast: 2020 Q1-2021 Q4

Measures of vulnerability for Undertakings for Collective Investment (UCITS) were also developed in order to assess potential systemic credit risk arising from the interconnections between the different categories of investment funds as well as their interactions with the macroeconomic environment. The intersectorial dimension of cyclical and structural systemic risk was analysed using several tools that allow for the assessment of the position of the economy in the financial cycle, the interconnectedness and the size of linkages between financial institutions.

47 The z score remains an approximation of the index reflecting the distance to the default threshold of a bank or a firm. The fundamental difference between the z score and the distance to default is statistical. This difference lies in the data used to assess the financial soundness of banks (balance sheet vs. market data).

48 Rouabah, A. (2007) : Mesure de la vulnérabilité du secteur bancaire luxembourgeois. Banque centrale du Luxembourg. Cahier d'étude N° 24. April.

In order to assess the domestic and cross-border interbank linkages, the BCL approach relies on network analysis techniques that focus on assessing the interconnections between the banking sector, notably custodian banks and investment funds. The construction of an indicator called the "alpha index" allows potential vulnerabilities arising from significant bank and investment fund linkages to be monitored.[49] The following Chart depicts the approach used by the BCL to assess the importance of the underlying risks due to the potential strengthening of links between the different components of the Luxembourg financial system. Any significant increase in the alpha index is subject to a deeper analysis in order to identify the relevant entities and the underlying reasons for such an increase.[50]

Chart 18:
Quarterly dynamics of the alpha index: 2014 Q4-2019 Q4

Source: BCL. Period: 2014 Q4-2019 Q4

The BCL conducts regular analysis in order to model the linkages between the financial sector and the real economy and continues to develop models for stress testing. The analysis of banks' liquidity in case of adverse shocks is also undertaken. In this context, it may be noted that a number of indicators developed by the BCL take a forward looking approach. In order to anticipate risks associated with rising vulnerabilities in the banking sector, the BCL monitors the evolution of its synthetic indicator of financial vulnerability and conducts macro-prudential stress tests.

The BCL continues to closely monitor the evolution of residential real estate prices and the potential vulnerabilities for households and credit institutions, possibly arising from these dynamics. To this end, the BCL has developed an econometric model, integrating supply side and demand side constraints, which facilitates a quarterly risk assessment. These results have been included in a systemic risk dashboard developed by the BCL. The dashboard incorporates a set of both quantitative and qualitative indicators aimed at detecting potential systemic risks arising within one component of the financial sector and/or within an economic sector relevant for financial stability. Information provided by the dashboard could be used as a tool to assess whether the intermediate objectives of macro-prudential policy are being achieved. The dashboard also includes multiple indicators such as an estimation of Luxembourg's financial cycle and the degree of interconnectedness within the financial sector. This dashboard has been complemented by a number of specific studies aimed at identifying the emergence of new risks following changes in the regulatory, macroeconomic and financial environment.

49 The alpha index is a measure of the ratio between the number of fundamental circuits observed in a network to the maximum number possible. Its value ranges from 0 to 1.

50 For more details on the construction of the alpha index, see the BCL Financial Stability Review, Chapter 3, 2020.

The BCL uses the Basel Committee on Banking Supervision (BCBS) D SIB framework, as well as the guidelines developed by the European Banking Authority (EBA) to identify systemic banks in Luxembourg. This framework is based on a series of indicators including certain relevant parameters such as the size of the institution, its level of interconnectedness and the probability that other banks provide similar services in the event of default (i.e. its degree of substitutability). In 2017, as one of its contributions to the Luxembourg Systemic Risk Committee, the BCL extended the methodology used to identify systemically important institutions in Luxembourg. Drawing on network analysis methods, two new criteria have been included in the methodology in order to account for the interconnections between banks and investment funds. In addition, the BCL participates in the group, which has been set up to establish norms regarding macroprudential supervision.

The BCL is a member of the Regional Consultative Group for Europe of the Financial Stability Board (FSB), the latter being the international body in charge of monitoring and drafting recommendations for the global financial system. Since 2017, the BCL has contributed to the work of the FSB on financial stability risks associated with activities conducted by non-bank financial intermediaries. The results of this analysis are published on an annual basis.[51]

Moreover, with the implementation of the Single Supervisory Mechanism (SSM), the BCL participates in the SSM groups dedicated to crisis management and risk analysis. The BCL also takes an active role in the EBA's standing committee on 'regulation and policy' and in the EBA subgroup on crisis management.

With the entry into force of the SSM, the ECB has a role in the domain of macro-prudential policy. Although national authorities retain primary responsibility for the implementation of macro-prudential measures, the ECB– in coordination with those authorities – take additional measures defined in the EU Regulation on policies relating to the prudential supervision of credit institutions (ESM Regulation).[52]

Measures available to the ECB include the setting of the capital buffer rates as defined in CRD IV as well as the measures under Article 458 of the CRR[53], such as the definition of risk weights to tackle asset bubbles in the real estate sector, liquidity requirements, public disclosure requirements, or intra-financial sector exposures limits. Against this backdrop, the Financial Stability Committee (FSC) of the ECB was established in order to assist decision-making bod¬ies fulfil their responsibilities in relation to prudential supervision and financial system stability.

The BCL, in performing its functions for macro-prudential surveillance, contributes to several committees and working groups of the European System of Central Banks (ESCB), such as the FSC and its substructures. These substructures include two subgroups dedicated to macro-prudential analysis and policy. The BCL also takes part in the working group on crisis management and resolution and in the expert groups dealing with legal acts and draft technical standards.

The macro-prudential policy framework at European level continues to face challenges. In particular, further harmonisation of the national macroprudential toolkits would facilitate the implementation and coordination of macro-prudential policy within the EU. In addition, such a harmonisation would facilitate the ECB's close cooperation with the ESRB, which is the body responsible for the macroprudential oversight of the European financial system.

1.7.1.2 The European Systemic Risk Board

The European Systemic Risk Board (ESRB) is comprised of more than 70 institutions – including central banks, national and European financial supervisory authorities, the European Commission, etc –; it is composed of both a General Board and a Steering Committee. The technical work is shared between the Advisory Technical Committee (ATC), which consists of experts from the member institutions, and the Advisory Scientific Committee (ASC), which has academic experts amongst its membership.

51 FSB (2020). *Global Monitoring Report on Non-Bank Financial Intermediation.* January

52 See Council Regulation (EU) No 1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions.

53 See footnote 1.

Within this structure, central banks play a major role in European macro-prudential supervision given their expertise and existing responsibilities in preserving financial stability. The Governor of the BCL is a voting member of the ESRB General Board, which is the unique decision making body of the ESRB. Furthermore, the national micro prudential supervisory authorities also participate at ESRB General Board level in order to share their expertise and specific information, although they do not hold voting rights. The BCL is also represented at General Board level as a liquidity supervisor according to a rotation principle among the other national supervisory authorities. Finally, the BCL shares its macro-prudential, monetary and statistical expertise through the participation of its staff members in the analysis and technical work conducted by the ESRB.

The purpose of the ESRB is to identify systemic risks at the level of the European financial system as a whole and to issue clear warnings and recommendations to addressees. Adherence to these recommendations is based on a "comply or explain" principle.

The ESRB General Board holds its regular plenary meetings at least four times per year. Throughout 2018, the ESRB's work focused primarily on the following topics:

- the identification and assessment of general risks of a systemic nature, followed by discussions on the necessary macro-prudential actions, and the annual review of the ESRB risk dashboard. In 2018, indicators for insurance companies and central clearing counterparties were added to the ESRB risk dashboard;

- the continuation of the EU-wide risk assessment of the residential real estate market, the results of which were published in September 2019, and follow up the first report drafted in 2016.[54] [55] Following the publication of the first report, the ESRB issued warnings to those European countries, including Luxembourg, where the vulnerabilities were most significant. In view of the absence of more favourable developments in relation to the risks associated with the Luxembourg housing market since 2016, and in particular the high level of household debt, the ESRB issued a recommendation to the Luxembourg government in September 2019.[56] The ESRB proposed the establishment of a legal framework allowing the activation of macro-prudential measures for borrowers (see section 1.7.1.3 for more details on the action of the CdRS in 2019 and the Law of 4 December 2019);

- the amendment in March 2019 of the recommendation issued in 2016 on "closing real estate data gaps" (ESRB/2016/14).[57] The objective of the new Recommendation is to extend the data collection to commercial real estate so that national macro-prudential authorities can assess, in a harmonised manner, the development of systemic risks in the real estate sector. In order to comply with this new recommendation, the CdRS has set up a working group made up of representatives of the member institutions, including STATEC.

With the entry into force of CRD V and CRRII in June 2021, the ESRB will see its mandate and role extended:

- The ESRB will have the power to issue an opinion on the adequacy of the level of the risk weights and the loss given default from the perspective of the macro-prudential use of the instruments provided for in Articles 124 and 164 of CRR II;

- The ESRB will become a notification hub for disseminating notifications of Member States' usage of macro-prudential instruments in order to strengthen its role in coordinating macro-prudential policy in the EU. To facilitate administrative management, the notification procedures for the countercyclical capital buffer and the systemic risk buffer have been simplified.

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54 CERS (2019). *Follow-up report on countries that received ESRB warnings in 2016 on medium-term vulnerabilities in the residential real estate sector.* September.

55 ESRB (2016). Vulnerabilities in the EU residential real estate sector.

56 ESRB/2019/06 on medium-term vulnerabilities in the residential real estate sector in Luxembourg.

57 ESRB/2016/14 on closing real estate data gaps.

The BCL contributes to the work carried out by the substructures of the ESRB, particularly through the Advisory Technical Committee and its substructures related to macro-prudential instruments, the identification of risks and macro-prudential analysis. The BCL also participates in the expert group on stress testing and for the development the ESRB risk dashboard and heat map.

Since September 2019, the BCL has joined the second phase of the Expert Group on Macroprudential Stance in charge of proposing the conceptual framework to qualify the orientation of a macro-prudential policy stance (restrictive or accommodating) whose first report was published in 2019.[58] The aim of this second phase is to assess the tools needed to operationalise the conceptual framework for macroprudential stance.

Due to the persistent low interest rate environment, the members of the ESRB General Board decided to review the conclusions of the 2016 report entitled "Macroprudential policy issues arising from low interest rates and structural changes in the EU financial sector". The objective is to provide an updated assessment of the evolution of the financial stability and macro-prudential policy challenges associated with the low interest rate environment. To this end, the ESRB has set up a "task force" jointly chaired by representatives of the ECB's Financial Stability Committee and the Scientific Advisory and Technical Advisory Committees. The report of this task force is expected to be finalised by the end of 2020.

1.7.1.3 The Secretariat of the Systemic Risk Committee

Following the Recommendation of the ESRB of 22 December 2011, the macro-prudential framework in Luxembourg was established by the adoption of the Law of 1 April 2015.[59] Thus, the Luxembourgish legislator opted for a board-based institutional structure for the macro-prudential authority and, therefore, created a Systemic Risk Committee (the Committee) composed of all national authorities carrying a role in financial stability. The Committee consists of four members, namely (i) the Government, (ii) the Central Bank of Luxembourg (BCL), (iii) the Financial Sector Supervisory Commission[60] (CSSF), and (iv) the Insurance Commission[61] (CAA). The member institutions of the Committee are represented, respectively, by (i) the member of the Government who has the financial centre in his duties, (ii) the Director General of the BCL, (iii) the Director General of Financial Sector Supervisory Commission (CSSF), and (iv) the Director of the Insurance Commission (CAA). Similarly, four alternate members from these institutions sit on this Committee and replace the members in case of absences. The Committee is chaired by the member of the Government and, in his absence, by the Director General of the BCL.

The collegiate form of the Committee reflects the aim of the Luxembourg law to cover all parts of the domestic financial sector in order to prevent the emergence or mitigate any sources of systemic risk and contagion from one sector to another. Such a holistic view to the financial system is also reflected in the composition of the Committee's Secretariat which counts among its membership a correspondent per authority represented within the Committee.

As a decision-making body, the Committee relies on its Secretariat, which plays an essential role in the preparation of meetings and the conduct macro-prudential analyses. Thus, given the expertise of central banks in macro-prudential policy, and in accordance with the role entrusted to it by the ESRB Recommendation[62], the Luxembourg legislator has attributed the Committee's Secretariat to the BCL, under the hierarchical authority of its Governor.

Thanks to its composition and the expertise of its various departments, the BCL benefits from the identification, evaluation and analytical capabilities with respect to systemic risks that are likely to emerge in the main components of the national financial system. Moreover, the Secretariat focuses on strengthening cooperation and the exchange of information between the Committee's members.

58 ESRB (2019). Features of a macroprudential stance: initial considerations. April.

59 See law of 1 April 2015 establishing a Systemic Risk Committee and amending the modified law of 23 December 1998 regarding the monetary status and the Central Bank of Luxembourg.

60 In French, Commission de surveillance du secteur financier.

61 In French, Commissariat aux assurances.

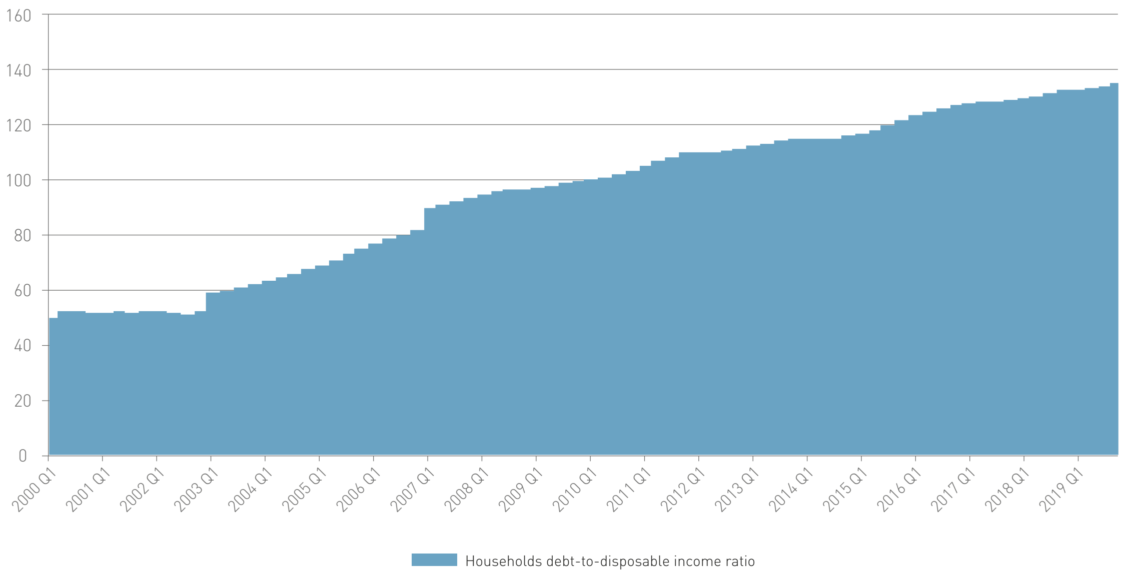
62 See Recommendation B-3 of the Recommendation of the ESRB of 22 December 2011 on the macro-prudential mandate of national authorities to Member States (ESRB/2011/3).

The CdRS, in accordance with IMF recommendations, published the first edition of the BCL's systemic risk surveillance note in September 2019.[63] [64] Four sources of potential vulnerabilities have been identified:

- The continuing rise in residential property prices in Luxembourg and the high level of household indebtedness in relation to household disposable income;
- The amplification of the credit cycle induced by a sustained growth of credit to non-financial corporations and households;
- Weak banking profitability in a macroeconomic, regulatory and interest rate environment that is less favourable to the expansion of banking activity;
- Interconnections of credit institutions, in particular custodian banks, with the investment fund sector.

In 2019, the analyses undertaken by the CdRS focused on both the cyclical and the structural dimensions of systemic risk. The cyclical nature of systemic risk relates to its time dimension, i.e. the accumulation of vulnerabilities through time that can affect the stability of the national financial system. This dimension is captured via the extraction of the credit cycle based on data for credit to the non-financial sector (households and non-financial companies) or residential real estate prices. In Luxembourg, structural risk may be associated with the sustainability of mortgage debt of households, which amounts to 136% of household disposable income as of the fourth quarter of 2019 (Chart 19).

Chart 19:
Households mortgage debt over disposable income ratio (in %)



Sources: ECB, STATEC, BCL calculations. Period: 2000 Q1 to 2019 Q4

Regarding systemic risk analyses, the BCL has further developed the analytical tools it uses to estimate the financial cycle. First, the use of statistical filtering techniques allows the BCL to identify the contribution of each economic sector (households and non-financial companies) to the overall cycle and also provides a granular view of the contribution of each individual bank.

These statistical approaches have been complemented with other empirical techniques such as the unobserved component model and wavelet analysis. Together, these different methodologies allow the BCL to better assess the evolution of credit in Luxembourg, in particular the magnitude and the length of the cycle.

63 See FMI Luxembourg Financial Sector Assessment Programme 2017.

64 http://cdrs.lu/autres-publications/

These analyses revealed in 2018 the development of cyclical vulnerabilities in Luxembourg associated with bank credit growth to the non-financial sector and the sustained growth in residential real estate prices against the backdrop of increasing household indebtedness in a low interest rate environment. In order to ensure the resilience of the banking sector in case of a turn in the financial cycle, the CdRS addressed a recommendation to the designated authority to activate the CCyB with a buffer calibration of 0.25% for the first quarter of 2019.[65] In face of the continued increase in cyclical risks in 2019, fuelled by the sustained growth in credit to the non-financial private sector as well as by the rise in house prices in a context of high household debt, the CdRS recommended in December 2019 to the designated authority to increase the counter-cyclical capital buffer rate to 0.5% for the first quarter of 2020. In accordance with the regulation in force at the EU level, the activation come into effect on 1 January 2021 following the one-year phase-in period.

The BCL has been extensively analysing structural systemic risks associated with household indebtedness in Luxembourg. Indeed, household indebtedness has been identified as a potential source of vulnerability for the stability of the domestic banking sector.[66] In view of addressing this potential weakness, the government, following the proposal of the CdRS, submitted a draft bill on macroprudential measures for residential mortgage credit to the Chamber of Deputies. The draft bill foresaw the implementation of new borrower-based measures in Luxembourg such as a cap on the Loan-to-Value ratio (LTV), Debt Service-to-Income ratio (DSTI) as well as an extended access for the BCL to the aggregate data of public institutions. Following the objections put forward in the opinion of the State Council and that of the National Commission for Data Protection (NCDP), the bill was amended in 2019.[67];[68] This legislative process was completed with the adoption of the Law of 4 December 2019 by the Chamber of Deputies.[69] In addition, the new law extended the BCL's access to data available from public administrations in order to enable it to deepen its assessment and analysis of macro-prudential issues in relation to the tasks of the Systemic Risk Committee.[70]

In view of a potential activation of these new macroprudential instruments, the BCL has improved the capacity for analysis related to the calibration of borrower-based instruments in 2019. Data from the CSSF's *ad hoc* collection is used to obtain a detailed description of the standards for granting mortgage loans in Luxembourg. These analyses, based on survey data, aim to provide a detailed description of mortgage credit characteristics in Luxembourg. In addition, the BCL has developed a dynamic stochastic general equilibrium (DSGE) model in order to simulate alternative calibrations of these instruments.[71] Together, the survey data and the results from the theoretical model will allow the authorities to determine the appropriate calibration of borrower-based measures in order to help mitigate potential risks for the stability of the Luxembourg financial system.

In accordance with its mandate, in 2019 the Luxembourg Systemic Risk Committee adopted seven Recommendations and one Opinion in order to comply with the legal requirements and to reinforce the resilience of the national financial system. The Committee adopted and issued the following Recommendations and Opinion:

- Recommendation (CRS/2019/001) on the reciprocity of the measure of the National Bank of Belgium imposing an increase of the risk weights applied to retail customer exposures secured by residential property located in Belgium;

- Recommendations (CRS/2019/002), (CRS/2019/005), (CRS/2019/006) and (CRS/2019/008) on the setting of the countercyclical capital buffer rates, for the second, third and fourth quarters of 2019 and the first quarter of 2020, respectively;

65 Recommandation du Comité du risque systémique du 10 décembre 2018 concernant la fixation du taux de coussin contracyclique pour le premier trimestre de l'année 2019.

66 See for example BCL (2018). Revue de stabilité financière. Box 1.1, page 22 to 24.

67 Avis 52.581 du Conseil d'État du 20 mars 2018.

68 Avis de la Commission nationale pour la protection des données - Délibération n° 220/2018 du 29 mars 2018.

69 http://legilux.public.lu/eli/etat/leg/loi/2019/12/04/a811/jo.

70 Article II of the Law of 4 December 2019.

71 Sangaré, I (2019). *Housing sector and optimal macroprudential policy in an estimated DSGE model for Luxembourg.* Cahier d'étude. Banque centrale du Luxembourg. July.

- Recommendation (CRS/2019/003) on the reciprocity of the measure adopted by the Finansinspektionen imposing a minimum average risk weight of 25% applied to exposures to retail customers secured by residential real estate located in Sweden;

- Recommendation (CRS/2019/004) on the reciprocity of the measure aimed at tightening the limit on large exposures to a maximum level of 5% of eligible own funds for systemic banks, applicable to their exposures to non-financial corporations highly indebted with their head office in France adopted by the High Council for Financial Stability (HCSF);

- Opinion (CRS/2019/007) on the annual designation and re-examination of capital buffers for other systemically important institutions.

1.7.2 Micro-prudential supervision

1.7.2.1 Liquidity supervision

The mission to supervise the liquidity of market operators was entrusted to BCL through an amendment to its Organic Law in October 2008. The main purpose of supervising market operators' liquidity is to assess the liquidity situation and liquidity risk management of credit institutions, being counterparties of the BCL in monetary policy operations. Since 2014, this supervision has been carried out in the context of the Single Supervisory Mechanism (SSM).

As shortcomings in the management of liquidity risk of certain operators were one of the main causes of the financial turmoil in 2008, liquidity management and liquidity risk management have been a subject of particular attention for supervisory authorities at the international level in recent years.

Liquidity regulation is also important for a central bank since it acts, on the one hand, as a provider of liquidity to the financial system and, on the other hand, it can detect and even prevent a chain of market failures, thereby limiting systemic risk.

1.7.2.1.1 Liquidity risk supervision of credit institutions established in Luxembourg in the context of the Single Supervisory Mechanism

In the context of the implementation of the Banking Union and the establishment of the SSM, the ECB assumed responsibility for the supervision of all euro area banks on 4 November 2014.

This supervision is carried out directly by the ECB for those banks and banking groups considered "significant", including their subsidiaries and branches, while it is entrusted to the national competent authorities (NCAs) for the so-called "less significant" banks, under the ultimate oversight of the ECB.

The main criteria used in the SSM Regulation to define the significance of a bank apply at the highest level of consolidation and are as follows:

- its size (a total value of assets in excess of EUR 30 billion);

- its importance for the economy of the EU or a participating Member State (a total value of assets greater than 20% of the gross domestic product (GDP) of the participating Member State, unless the total value of assets is less than EUR 5 billion); and

- its importance with regard to cross-border activities.

The day-to-day supervision of "significant" credit institutions is carried out by the Joint Supervisory Teams (JSTs), comprised of staff from the ECB and competent authorities, including national central banks.

The BCL participates in the JST of significant banks established in Luxembourg, as well as in some JSTs of significant banks established in other euro area Member States with subsidiaries in Luxembourg, to supervise liquidity risk. In this context, the supervision of liquidity risk is carried out on the basis of common methodologies and standards developed jointly by the ECB, the competent authorities and the national central banks of the SSM. As less significant banks are subject to supervision by the authorities at national level, the BCL continues to supervise liquidity risk of banks established in Luxembourg, in cooperation with the Commission de surveillance du secteur financier (CSSF).

Within the JST, as well as in the context of the supervision of less significant banks, the BCL conducts the annual assessments of banks' liquidity risk as part of the Supervisory Review and Evaluation Process (SREP) in order to determine the adequacy of their liquidity risk management and liquidity resources. In this context, on-site visits were carried out in 2019 to gain a more detailed understanding of these banks' liquidity risk management framework. In addition, the BCL carries recurring tasks out such as controlling the prudential liquidity reportings and monitoring the liquidity situation of banks.

In addition to the liquidity supervision tasks, the BCL is also represented, jointly with the CSSF, on the Supervisory Board, which plans and carries out the supervisory tasks of the SSM and proposes draft decisions for adoption by the Governing Council. In this context, a coordination unit has been set up at BCL to ensure the follow-up of files and draft decisions submitted to the Supervisory Board and the Governing Council of the ECB. In 2019, the coordination unit processed more than 1,500 written procedures submitted for decision and prepared the meetings of the Supervisory Board.

Within the framework of the SSM, the BCL also participates in the work of various groups and committees established at the ECB. These groups and committees assist the Supervisory Board in its decision-making.

1.7.2.1.2 Tools for liquidity supervision

In addition to the supervisory work carried out within the framework of the SSM, BCL conducts ongoing monitoring of credit institutions at national level. This monitoring is based on the regular analysis of qualitative and quantitative information at the level of individual credit institutions and at aggregate level. In order to monitor the liquidity situation of market participants on a daily basis, the BCL has set up a daily reporting on the liquidity situation of credit institutions since 2010. This reporting is mainly required for large credit institutions and credit institutions that act as counterparties in monetary policy.

Based on a database containing the historical data included in the daily liquidity reporting, the BCL has developed an analytical tool to assess the short-term liquidity situation of credit institutions and changes in the liquidity situation over time and on an individual basis. At the same time, the BCL has developed an analytical tool to assess credit institutions' liquidity vulnerabilities on an individual level, but also to identify liquidity risks at an aggregate level.

In addition, information from the prudential and statistical reportings are summarised for each supervised entity in the form of single dashboards. Particular attention is paid to the liquidity standards, the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR). These reports are mandatory for all credit institutions on an individual and consolidated basis. In accordance with the delegated act stipulating specifications for the LCR and details of its phasing-in period, the LCR became a binding standard on 1 October 2015. The minimum requirement to cover liquidity needs is 100% as from 1 January 2018. BCL has implemented a model enabling it to carry out simulations of the NSFR. Since the beginning of 2015, credit institutions have been submitting quarterly prudential reporting on asset encumbrance. Since April 2016, a monthly prudential reporting on additional liquidity monitoring elements is also required. BCL carries out checks on these reports submitted by significant and less significant banks.

Following the introduction of the above-mentioned prudential liquidity reporting, automated tools for processing and exploiting these data were put in place. The objective is to provide supervisors with analytical functionalities to facilitate an effective and efficient assessment of the banks liquidity situation in the supervisory process. Thus, these tools enable supervisors to detect potential liquidity problems at an institution that may arise from a negative trend in a particular reported item or absolute result identified.

Finally, a daily report citing certain financial market indicators has also been developed. All of these tools make it possible to carry out the necessary analyses as part of the BCL's supervisory role with regard to liquidity.

1.7.2.1.3 National and international cooperation

BCL participates in the working groups dedicated to liquidity at the level of the Basel Committee and the European Banking Authority (EBA). It is also represented on the Board of Supervisors of the EBA as well as on other committees and subgroups that are relevant in the context of its supervisory mission. As a general rule, BCL's involvement in these committees and working groups is carried out jointly with the CSSF.

In addition, the Director General of the BCL is a member of the Resolution Board, the Council for the Protection of Depositors and Investors, the Resolution Fund and the Luxembourg Deposit Guarantee Fund.

1.7.2.2 Oversight of payment and settlement infrastructures

The oversight of market infrastructures and the promotion of the smooth functioning of payment and securities settlement infrastructures are essential missions of the ESCB owing to the important role of such infrastructures for the implementation of monetary policy, the safeguarding of the stability of the financial sector and the contribution to the smooth functioning of the economy in general.

The TFEU and the statute of the ESCB include a number of provisions relating to payment systems and assign oversight responsibilities to the Eurosystem, composed of the ECB and the national central banks of the euro area. At national level, in accordance with the provisions of the Law of 23 December 1998 on the monetary status and the Banque centrale du Luxembourg, the BCL is responsible for ensuring the safety and efficiency of payment and securities settlement systems as well as the safety of payment instruments.

Moreover, the regulation BCL 2016/N° 21 of 15 January 2016 sets, among others, the general oversight framework as well as the obligations of system operators, payment instrument issuers and governance authorities and specifies the procedures for executing the oversight activity. The regulation also stipulates that the BCL carries out its oversight activity based on quantitative and qualitative information of a variable nature collected on a regular or *ad hoc* basis from the entities concerned. This information is completed by regular meetings and, if need be, onsite visits as well as regular self-assessments by the stakeholders of the degree of compliance of their infrastructure with the applicable recommendations, standards or principles defined by the Eurosystem and adopted by the Governing Council of the ECB. The information collected relates in particular to the development of the infrastructures' activities, their performance, governance and the risk management. In this context, the BCL coordinates and cooperates closely with the CSSF.

Complementary to its oversight activities of systems and infrastructures operating in Luxembourg and of payment instruments made available to the public in Luxembourg, the BCL also contributes to the oversight activities jointly performed at the level of the Eurosystem, which in particular targets infrastructures and payment instruments of a pan-European scale and which do not have a clear domestic anchorage.

Finally, the BCL also partakes to the activities of the Eurosystem aimed at reinforcing the resilience of market infrastructures against cyber threats.

Payment systems

By means of its participation in committees and working groups, the BCL contributed to the oversight activities of the payment system TARGET2, operated by the Eurosystem, as well of the payment systems EURO1 and STEP2, operated by EBA Clearing. The oversight activities relating to these systems are jointly conducted at the level of the Eurosystem, under the coordination of the ECB acting as competent authority.

As regards TARGET2, in addition to the joint oversight at the level of the Eurosystem, the BCL also oversees certain decentralised aspects of the system in Luxembourg (TARGET2-LU), such as the local technical components ensuring the connectivity of the BCL to the single platform and the contractual framework between the BCL and the participants in Luxembourg.

Overall, the abovementioned payment systems have functioned in a stable and resilient manner in 2019.

Securities settlement systems

In 2019, the BCL oversight in the field of securities settlement systems focused on the activities and functioning of the systems operated in Luxembourg by Clearstream Banking S.A. and LuxCSD S.A. In this regard, the BCL monitored the daily functioning of such infrastructures, as well as the development of their activities and the risks to which they are exposed to, through the analysis of the monthly information gathered from the operators and the participation in thematic meetings and visits. The functioning of these securities settlement systems proved stable and robust throughout 2019.

As concerns the system operated by Clearstream Banking S.A., the BCL, in cooperation with the CSSF, also followed up on the last open recommendations from the two assessments conducted in 2016. The first assessment, performed jointly by the BCL and the CSSF, related to the compliance of the securities settlement system against the CPMI-IOSCO[72] principles. The second assessment was undertaken by the International Monetary Fund (IMF) in the context of the Financial Sector Assessment Program (FSAP) and was published in August 2017. Moreover, in accordance with its oversight responsibility for securities settlement systems in Luxembourg, the BCL continued, in collaboration with the CSSF, its review of the application files submitted by the operators of securities settlement systems in Luxembourg[73] in view of their forthcoming authorisation as central securities depositories in the context of Regulation 909/2014. In this context, the BCL participated in thematic meetings organised by the CSSF, as competent authority, with the concerned operators. The BCL also conveyed its comments with regard to the compliance of the submitted files. In addition, following the declaration by the CSSF of the completeness of the application file of LuxCSD S.A. on 28 October 2019 and the subsequent consultation by the CSSF of the BCL, as the representative of the Eurosystem for the central bank of issue for the euro, the BCL prepared a detailed opinion on the authorisation of LuxCSD S.A. This opinion, which describes the Eurosystem views on the features of the securities settlement system operated by LuxCSD S.A., was approved by the Governing Council of the ECB. Its outcome was transmitted to the CSSF at the beginning of 2020.

Furthermore, in the context if the oversight of securities settlement systems, the BCL pursued its cooperation with other central banks and supervisory authorities. The BCL cooperated in particular with the National Bank of Belgium (NBB), pursuant to the Memorandum of Understanding signed in December 2017 between the BCL, the NBB and the CSSF on aspects of common interest relating to the interoperable link between the securities settlement systems operated by Clearstream Banking S.A. and Euroclear Bank.

The BCL also continued its cooperation with the Czech National Bank pursuant to the cooperation agreement signed between the two central banks in July 2009 concerning the oversight of the activities of Clearstream Operations Prague s.r.o., to which Clearstream Banking S.A. and Clearstream Services S.A. (technical agent of CBL) have outsourced a number of operational processes.

Finally, with regard to the settlement platform Target2-Securities (T2S), which offers harmonised securities settlement services in central bank money in euro and other currencies, the BCL, in collaboration with the ECB and other central banks of the Eurosystem, took part in the assessment of the compliance of the platform against the CPMI-IOSCO principles for financial market infrastructures. The assessment, which was launched in February 2018, was finalised and approved by the Governing Council of the ECB on 4 October 2019.

Cyber resilience

Through its participation in different working groups, the BCL contributed to the implementation of the Eurosystem strategy in the field of cyber-resilience of market infrastructures. This strategy aims at reinforcing the maturity of financial market infrastructures with regard to cyber-security so as to increase the cyber-resilience of the financial sector as a whole.

72 Committee on Payments and Market Infrastructures - International Organization of Securities Commissions.

73 Pursuant to the EU Regulation n° 909/2014 of the European Parliament and the Council of 23 July 2014 on improving the settlement of securities transactions in the European Union and central securities depositories and related regulatory technical standards.

In 2019, the BCL also initiated an internal reflection to define an approach for a potential implementation of TIBER-EU[74] in Luxembourg.

Moreover, the BCL requested a self-assessment from the operators of securities settlement systems Clearstream Banking S.A. and LuxCSD S.A. against the Eurosystem Cyber Resilience Oversight Expectations (CROE). These expectations were published by the ECB in December 2018 and are based on the CPMI-IOSCO guidance on cyber resilience for financial market infrastructures. In this context, the BCL will conduct a detailed evaluation in 2020 of the level of maturity of the abovementioned systems with regard to cyber resilience.

The oversight in the field of cyber-resilience is also conducted via the participation of the BCL in the Euro Cyber-Resilience Board (ECRB), along with six other central banks of the Eurosystem. In 2019, the ECRB prepared an initiative, the Cyber Information and Intelligence Sharing Initiative (CIISI-EU), aimed at implementing an electronic platform for sharing information and good practices. The BCL intends to pursue its involvement in this project, which is foreseen to be put into operation in 2020.

Payment instruments

Payment instruments comprise, among others, the credit transfer, direct debit, card payments and e-money schemes issued and/or used by the public in Luxembourg.

In 2019, the BCL monitored the evolution of the activities of issuers as well as payment solutions in Luxembourg and paid attention to developments in this field, in particular aspects linked to security. The oversight by the BCL was based on the analysis of qualitative and quantitative information collected from the entities concerned. The BCL has also exercised its oversight by way of specific information gathered in meetings with some entities.

Moreover, at the level of the Eurosystem, the BCL supported the work of the joint assessment group for the international card payment scheme VISA. In this context, the BCL contributed in particular to a specific assessment relating to tokenisation solutions used in the field of card payments. The BCL also took part in the joint evaluation of the SEPA[75] direct debit, credit transfer and instant credit transfer schemes, which was coordinated by the Eurosystem. Finally, the BCL actively contributed to the review (which has not yet been finalised) of the Eurosystem framework for the oversight of payment instruments, as well as to the elaboration of the sixth Eurosystem card fraud report.

Furthermore, the BCL actively contributed to the work of the European forum on the security of retail payments (SecuRe Pay), co-chaired by the ECB and EBA. The objective of this forum is to facilitate a common understanding on issues relating to the security of retail payments in the European Union among central banks responsible for the oversight of payment instruments and the authorities in charge of the prudential supervision of payment service providers. In 2019, the BCL contributed in particular to the practical implementation work for the EBA guidelines on the collection of fraud statistics in the context of the Payment Services Directive (PSD2)[76]. The BCL also pursued its participation in the network of experts in the context of the Questions and Answers (Q&A) tool of the EBA on PSD2 with regard to questions relating to the security of payment instruments.

1.8 REGULATORY AND LEGISLATIVE DEVELOPMENTS

1.8.1 European legislation

The Banque centrale du Luxembourg (BCL) follows with particular interest the developments in terms of European and national legislation that are relevant to the Eurosystem and relate to the deepening of the Economic and Monetary Union (EMU), in particular those concerning the Banking Union, the Capital Markets Union and economic governance.

74 Threat Intelligence Based Ethical Red Teaming – European Union.

75 Single Euro Payments Area.

76 Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market

In 2019, discussions continued on the deepening of EMU, as well as on the broader orientation of European integration.

1.8.1.1 Banking Union

The Banking Union is based on three pillars: the Single Supervisory Mechanism (SSM) since 4 November 2014, the Single Resolution Mechanism (SRM) since 1 January 2016 and the European Deposit Insurance Scheme (EDIS). This last pillar has not yet been completed.

1.8.1.1.1 Prudential supervision

SSM Scope

The geographical scope of the SSM covers the Members States whose currency is the euro, as well as Member States of the European Union (EU) outside of the euro area, which voluntarily submit to the banking supervision of the ECB under a regime of close cooperation.

On 27 May 2019, Croatia was the second EU Member State outside the euro area, after Bulgaria in 2018, to make a request for the establishment of close cooperation in the field of banking supervision as provided for in the SSM Regulation[77]. At the end of 2019, the ECB was in the process of assessing the requests of these two EU Member States.

SSM supervised entities

At euro area level, the number of institutions subject to the direct prudential supervision of the ECB has decreased slightly to 117 significant institutions as of 31 December 2019, compared to 119 in 2018.

The number of significant institutions having their registered office in Luxembourg decreased from six to five in 2019[78]. The five institutions under the direct supervision of the ECB are:

- Banque et Caisse d'Épargne de l'État, Luxembourg;
- Banque Internationale à Luxembourg S.A.;
- J.P. Morgan Bank Luxembourg S.A.;
- Precision Capital S.A.;
- RBC Investor Services Bank S.A.

SSM Governance

The Governing Council is the ultimate decision-making body of the ECB in the area of prudential supervision of credit institutions.

In addition, the SSM Regulation provides for the creation, within the ECB, of a Supervisory Board responsible for preparing draft decisions on banking supervisory matters. It is notably composed of one representative of each national competent authority and, where the national central bank (NCB) is not the national competent authority, by one representative of the NCB in addition to one from the supervisory authority. It is composed of 32 members, including one member from the BCL. This internal body of the ECB held 18 meetings in 2019.

During 2019, the Governing Council adopted 1,395 prudential decisions, mainly via written procedures, based on "complete draft decisions" proposed by the Supervisory Board and according to a non-objection procedure. Banking supervision decisions in the field of macroprudential supervision are not taken according to the non-objection procedure and the Governing Council may amend the draft decisions proposed by the Supervisory Board. In addition, the non-objection procedure does not apply when it comes

77 Article 7 of the Council Regulation (EU) No 1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions (SSM Regulation).

78 The authorisation of ABLV Bank Luxembourg, S.A. was withdrawn following the commencement of its judicial liquidation on 2 July 2019.

to determining the general framework governing practical arrangements for cooperation within the SSM, which falls within the remit of the decision-making bodies of the ECB, i.e. the Governing Council and the Executive Board.

Joint Supervisory Teams

Joint Supervisory Teams (JSTs) are the main operational structure responsible for conducting the SSM supervision. Pursuant to the SSM Framework Regulation[79], the BCL participates in the JSTs of significant institutions having their registered office in Luxembourg, as well as in some JSTs of significant banks established in other SSM Member States, which have subsidiaries in Luxembourg[80].

Review of prudential requirements

In November 2016, the European Commission presented a package of reforms of existing European banking rules in order to further strengthen the resilience of EU credit institutions and reinforce financial stability.

2019 marked the adoption of the "banking package" consisting of four main legal acts:

- Regulation (EU) 2019/876[81] amending the Capital Requirements Regulation (CRR);
- Regulation (EU) 2019/877[82] amending the Single Resolution Mechanism (SRM) Regulation.
- Directive (EU) 2019/878[83] amending the Capital Requirements Directive (CRD); and
- Directive (EU) 2019/879[84] amending the Bank Recovery and Resolution Directive[85] (BRRD).

1.8.1.1.2 Resolution of banks

The SRM[86] is the second pillar of the Banking Union. It provides for a harmonised crisis management regime based on the BRRD[87]. It offers a centralised European institutional framework for the resolution of significant banks and cross-border groups in the Member States participating in the SSM[88].

The SRM area corresponds to the SSM area, including the euro area.

The SRM is based on a Single Resolution Board (SRB[89]) and a Single Resolution Fund (SRF[90]). As the European resolution authority for the Banking Union, the SRB is responsible for preparing and enforcing the

79 Regulation (EU) No 468/2014 of the European Central Bank of 16 April 2014 establishing the framework for cooperation within the Single Supervisory Mechanism between the European Central Bank and national competent authorities and with national designated authorities (SSM Framework Regulation) (ECB/2014/17).

80 For further details, please see Section 1.7.2.1.1.

81 Regulation (EU) 2019/876 of the European Parliament and of the Council of 20 May 2019 amending Regulation (EU) No 575/2013 as regards the leverage ratio, the net stable funding ratio, requirements for own funds and eligible liabilities, counterparty credit risk, market risk, exposures to central counterparties, exposures to collective investment undertakings, large exposures, reporting and disclosure requirements, and Regulation (EU) No 648/2012.

82 Regulation (EU) 2019/877 of the European Parliament and of the Council of 20 May 2019 amending Regulation (EU) No 806/2014 as regards the loss-absorbing and recapitalisation capacity of credit institutions and investment firms.

83 Directive (EU) 2019/878 of the European Parliament and of the Council of 20 May 2019 amending Directive 2013/36/EU as regards exempted entities, financial holding companies, mixed financial holding companies, remuneration, supervisory measures and powers and capital conservation measures.

84 Directive (EU) 2019/879 of the European Parliament and of the Council of 20 May 2019 amending Directive 2014/59/EU as regards the loss-absorbing and recapitalisation capacity of credit institutions and investment firms and Directive 98/26/EC.

85 In French: *directive sur le redressement et la résolution des banques* (BRRD).

86 Regulation (EU) No 806/2014 of the European Parliament and the Council of 15 July 2014 establishing uniform rules and a uniform procedure for the resolution of credit institutions and certain investment firms in the framework of a Single Resolution Mechanism and a Single Resolution Fund and amending Regulation (EU) No 1093/2010 (the "SRM Regulation").

87 Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms and amending Council Directive 82/891/EEC, and Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC and 2011/35/EC, 2012/30/EU and 2013/36/EU, and Regulations (EU) No 1093/2010 and (EU) No 648/2012 of the European Parliament and the Council.

88 The legislative measures adopted by EU ambassadors in February 2019 on a revised set of rules to reduce risks in the EU banking sector also include amendments to the SRM Regulation and the BRRD.

89 In French: *Conseil de résolution unique* (CRU).

90 In French: *Fonds de résolution unique* (FRU).

resolution of banks that are failing or likely to fail[91], in cooperation with the national resolution authorities of participating Member States. Moreover, the SRB signed a cooperation agreement with the ECB in 2015. The SRB has its seat in Brussels and is composed of six full-time members. On 15 August 2019, the SRB decided that the resolution of the Latvian bank, AS PNB Banka, was not in the public interest; therefore, a resolution scheme was not adopted[92].

As regards the SRF, it is established under the control of the SRB to guarantee the availability of funding, in the medium-term, in case of restructuring of a credit institution. This fund is set up through bank contributions, which initially take place at national level.

An intergovernmental agreement on the transfer and mutualisation of the contributions to the SRF, signed on 21 May 2014, provides, in relation to banks covered by the SRM, for the progressive transfer of the existing national resolution funds to the SRF, during a transition period. The contributions of banks are allocated to different compartments corresponding to each participating Member State. According to the terms of the agreement, those compartments will be subject to a progressive mutualisation, so that they are merged at the end of the transition period.

In the context of an ongoing reform of the European Stability Mechanism (ESM), it has also been agreed to establish a common safety net for the SRF.

To this purpose, in a declaration adopted on 14 December 2018, the euro area summit approved the terms of reference of such common safety net for the SRF, which specify the terms of its implementation. It also approved the terms for the reform of the ESM and asked the Eurogroup to prepare the necessary amendments to the Treaty establishing the ESM.

On 4 December 2019, the Eurogroup agreed in principle, subject to national ratification procedures, on all elements related to the ESM reform. The euro summit of 13 December 2019 tasked the Eurogroup to continue to work on this reform.

1.8.1.1.3 Deposit Protection

Concerning the third pillar of the Banking Union, namely the European Deposit Insurance Scheme (EDIS[93]), on 24 November 2015 the European Commission published a proposal[94] for a regulation aimed at establishing in three consecutive phases a fully-fledged EDIS by 2024.

The EDIS would help increase depositors' confidence and ensure a level playing field for all banks in the Banking Union, hence contributing to greater financial stability in the euro as a whole.

To encourage progress in the ongoing negotiations at European Parliament and Council level, the Commission, in its Communication of 11 October 2017[95] on completing the Banking Union, suggested some possible alternatives with regard to the phases and timeline of the EDIS[96].

In 2019, the Council continued the works at technical level, in line with its revised progress report of June 2018 on the European Commission's initiatives to strengthen the Banking Union[97].

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91 In French: *défaillance prévisible ou avérée.*

92 For more information, see the website of the SRB.

93 In French, *Système européen d'assurance des dépôts* (SEAD).

94 Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) 806/2014 in order to establish a European Deposit Insurance Scheme, 24.11.2015, COM(2015) 586 final, 2015/0270 (COD).

95 Communication to the European Parliament, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions of 11 October 2017 on completing the Banking Union (COM(2017) 592 final).

96 The Communication envisages a more gradual introduction of EDIS compared with the original proposal of November 2015. There would be only two phases: a more limited reinsurance phase and, subsequently, coinsurance. However, moving to this second phase would be conditional on achieving progress in reducing risks.

97 On 21 January 2019, the Council of the EU published a press release following a Eurogroup meeting of the same date on the next steps concerning the EDIS. In this regard, a high-level working group having a broad mandate was established to bring the discussions to a more focused level. In June 2019, the chairman of such working group presented a report to the Eurogroup on further strengthening the Banking Union, including EDIS, followed by a letter (3 December 2019) proposing a roadmap for beginning political negotiations.

The proposal for the EDIS regulation is based on the framework currently applicable to national Deposit Guarantee Schemes (DGS), which is provided for by Directive (EU) n° 2014/49/EU on DGS[98], aimed at improving the protection of depositors beyond the requirements of Directive 94/19/EC[99], as amended by Directive 2009/14/EC[100]. This directive has improved the functioning of national DGS and offers better protection to depositors, namely by ensuring a harmonised coverage up to € 100,000 in the whole EU and through a reduction of the delays of reimbursement to seven working days.

Finally, the EDIS aims at ensuring full harmonisation of deposit protection by setting up a common fund to which all banks of the Banking Union would contribute in the context of a European system administered by a central authority, namely the existing Single Resolution Board. This would also allow aligning the three pillars of Banking Union (supervision, resolution and deposit guarantee).

This third pillar of the Banking Union is supported by the Eurosystem.

1.8.1.2 Economic Governance

Due to the financial and economic crisis, work has been carried out to deepen EMU.

In the budgetary area, the reform aims to strengthen and further develop budgetary surveillance and to introduce additional surveillance for euro area Member States. The objective is to ensure the correction of excessive deficits and the integration of European recommendations on economic and budgetary policies in national budgetary procedures.

In parallel, in order to ensure the stability of the euro area as a whole, stabilisation mechanisms have been put in place. Since 1 July 2013, a permanent mechanism, the European Stability Mechanism (ESM) has generally replaced the temporary stabilisation mechanisms that were set up in 2010[101].

The ESM is an international financial institution headquartered in Luxembourg.

The architecture of EMU remains incomplete. Strengthening economic governance and completing the Banking Union and Capital Markets Union[102] remain the major challenges for the consolidation of EMU.

In 2019, discussions on deepening EMU continued. They included in particular the completion of the Banking Union, the reform of the ESM and the design of a budgetary instrument of convergence and competitiveness for the euro area.

Work to establish a Capital Markets Union has also continued.

Capital Markets Union

Despite progress in finalising the implementation of the 2015 Action Plan, national markets remain fragmented. Economic and geopolitical developments such as digitisation, climate change and the withdrawal of the United Kingdom from the European Union on 31 January 2020 have reinforced the need to complete the Union's capital markets.

On the basis of the Council conclusions of 5 December 2019, the Commission is required to draw up a new roadmap, benefiting from the work of the High-Level Forum on Capital Markets Union, which began on 26 November 2019 under the chairmanship of Mr Thomas Wieser.

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98 In French: *Directive relative aux systèmes de garantie des dépôts* (DSGD). Directive 2014/49/EU of the European Parliament and of the Council of 16 April 2014 on deposit guarantee schemes (recast).

99 Directive 94/19/EC of the European Parliament and of the Council of 30 May 1994 on deposit-guarantee schemes.

100 Directive 2009/14/EC of the European Parliament and of the Council of 11 March 2009 amending Directive 94/19/EC on deposit-guarantee schemes as regards the coverage level and the payout delay.

101 The European Financial Stability Fund (EFSF), in French: le Fonds européen de stabilité financière (FESF) and the European Financial Stabilisation Mechanism (EFSM), in French: le Mécanisme européen de stabilisation financière (MESF).

102 In French: *Union des marchés des capitaux.*

European Stability Mechanism

As a follow-up to the euro area summit of 21 June 2019, the Eurogroup reached an agreement in principle on 4 December 2019 on the elements related to the reform of the ESM. The scope of the new tasks of the ESM was agreed by the euro area finance ministers in their report to the euro area summit in December 2018. These include the further development of the ESM instruments, strengthening the role of the ESM and establishing a common backstop[103] for the SRF.

Budgetary instrument of convergence and competitiveness

The Eurogroup reached a broad agreement on the establishment of a budgetary instrument for convergence and competitiveness (BICC) for the euro area and for the Member States of the European Exchange Rate Mechanism[104] (ERM II) on a voluntary basis, placed within the EU budget.

Banking Union

Technical work on strengthening the Banking Union continued.

Within the current regulatory framework, the Eurosystem regularly emphasises the need for consistent application over time and by all Member States of the provisions of the European regulatory framework for economic and fiscal policies in order to enhance the resilience of the euro area economy. Improving the functioning of EMU is considered a priority, with the Eurosystem supporting ongoing work to deepen it.

1.8.1.3 ECB Legal Acts

The ECB has adopted several legal acts, which have been published in the Official Journal of the European Union.

Securities settlement systems

In the field of securities settlement systems, the ECB has adopted Decision (EU) 2019/1006 of the ECB of 7 June 2019 amending Decision ECB/2011/20 establishing detailed rules and procedures for implementing the eligibility criteria for central securities depositories to access TARGET2-Securities services (ECB/2019/15).

This amending legal act introduces limited and essentially technical changes to the criteria for a central securities depository to be eligible for access to T2S services.

Monetary policy

In the field of monetary policy, the ECB has, in particular, adopted the following legal acts:

- Decision (EU) 2019/1743 of the ECB of 15 October 2019 on the remuneration of holdings of excess reserves and of certain deposits (recast) (ECB/2019/31);
- Decision (EU) 2019/1558 of the ECB of 12 September 2019 amending Decision (EU) 2019/1311 on a third series of targeted longer-term refinancing operations (ECB/2019/28);
- Decision (EU) 2019/1312 of the ECB of 22 July 2019 amending Decision (EU) 2016/810 (ECB/2016/10) on a second series of targeted longer-term refinancing operations (ECB/2019/22);
- Decision (EU) 2019/1311 of the ECB of 22 July 2019 on a third series of targeted longer-term refinancing operations (ECB/2019/21).

103 In French: *Filet de sécurité.*

104 In French: *Mécanisme de change européen (MCE II).*

Decision ECB/2019/31 introduces a two-tier system for excess reserve remuneration approved by the Governing Council within the set of non-standard monetary policy measures announced on 12 September 2019.

The other legal acts define the rules with the specific characteristics of the TLTRO III operations decided by the Governing Council in March 2019 and further specified in June 2019.

The Governing Council of the ECB decided on 12 September 2019 to modify some of the key parameters of the third series of targeted longer-term refinancing operations (TLTRO III). The maturity of all operations will be extended from two to three years, with a voluntary repayment option and the pricing of TLTRO III operation to be revisited.

Banknotes

In the field of banknotes, the ECB has, in particular, adopted:

- Decision (EU) 2019/669 of the ECB of 4 April 2019 amending Decision ECB/2013/10 on the denominations, specifications, reproduction, exchange and withdrawal of euro banknotes (ECB/2019/9)

The ECB has decided to make modifications to the second series of euro banknotes, known as the Europa series. The modifications relate to the height of the euro banknotes, the addition of the initials of the ECB in Croatian to the banknotes, the adaptation of the documentation to be provided in order to establish the origin of the euro banknotes, clarifications on the exchange of damaged banknotes and the exclusion of the €500 denomination banknotes from the Europa series.

- Decision (EU) 2019/2195 of the ECB of 5 December 2019 amending Decision ECB/2010/14 on the authenticity and fitness checking and recirculation of euro banknotes (ECB/2019/39)

This amending Decision aims to improve the efficiency of cash recirculation, incorporating Coin Dispensing Machines as a new category of banknote handling machines, and clarifying the reporting obligations of professional cash handlers.

Statistics

In the field of statistics, the ECB has, in particular, adopted the following legal acts:

- Regulation (EU) 2019/1677 of the ECB of 27 September 2019 amending Regulation (EU) No 1333/2014 concerning statistics on the money markets (ECB/2019/29)[105];

To further ensure the availability of high quality statistics on the euro money market, the Regulation amends the minimum standards to be applied by reporting agents under Regulation (EU) No 1333/2014 (ECB/2014/48). In addition to the duty to provide timely reports of all transactions within the scope of the reporting obligation to the ECB or the relevant NCB and to ensure that the statistical information concerning these transactions is impartial, objective and reliable, and is compiled and submitted in a manner that protects its integrity; reporting agents must also make themselves available to respond within set deadlines to any queries raised by the ECB or the NCBs about the accuracy of the statistical information.

105 OJ L 257, 8.10.2019, p. 18.

- Decision (EU) 2019/1348 of the ECB of 18 July 2019 on the procedure for recognising non-euro area Member States as reporting Member States under Regulation (EU) 2016/867 on the collection of granular credit and credit risk data (ECB/2019/20)[106];

In line with the provisions of Regulation (EU) 2016/867 (ECB/2016/13), the common granular analytical credit data base (hereinafter "AnaCredit") shared between the Eurosystem central banks should be open, on a voluntary basis, to non-euro area Member States, in particular those participating in the SSM, in order to broaden its geographical and data scope, and increase harmonisation across the Union. This ECB Decision lays down the terms of the procedure for recognising non-euro area Member States as reporting Member States in the context of the AnaCredit framework.

- Guideline (EU) 2019/1386 of the ECB of 7 June 2019 amending Guideline ECB/2014/15 on monetary and financial statistics (ECB/2019/18)[107];

The ECB Guideline updates the framework for reporting statistics on pension funds (PFs) set out in Guideline ECB/2014/15 in the light of the requirements stemming from Regulation (EU) 2018/231 of the ECB (ECB/2018/2) on requirements for the collection and reporting of pension funds statistics.

- Guideline (EU) 2019/1335 of the ECB of 7 June 2019 amending Guideline (EU) 2018/876 on the Register of Institutions and Affiliates Data (ECB/2019/17)[108];

The amendment allows Register of Institutions and Affiliates Data (RIAD) to contain (i) up-to-date relevant data for the determination of the euro short-term rate; (ii) data on PFs; and (iii) an additional attribute value for the confidentiality status of data recorded in RIAD.

Banking supervision

In the field of banking supervision, the ECB has, in particular, adopted the following legal acts:

- Decision (EU) 2019/322 of the ECB of 31 January 2019 on delegation of the power to adopt decisions regarding supervisory powers granted under national law (ECB/2019/4)[109]

This Decision specifies the criteria for the delegation of decision-making powers to the heads of work units of the ECB for the adoption of national powers decisions. The delegation of decision-making powers is without prejudice to the supervisory assessment to be performed for the purposes of taking national powers decisions.

- Decision (EU) 2019/1376 of the ECB of 23 July 2019 on delegation of the power to adopt decisions on passporting, acquisition of qualifying holdings and withdrawal of authorisations of credit institutions (ECB/2019/23)[110]

This Decision specifies the criteria for the delegation of decision-making powers to the heads of work units of the ECB for the adoption of passporting, qualifying holding and withdrawal decisions. The delegation of decision-making powers is without prejudice to the supervisory assessment to be performed for the purposes of taking passporting, qualifying holding and withdrawal decisions.

106 OJ L 214, 16.8.2019, p. 3.

107 OJ L 232, 6.9.2019, p. 1.

108 OJ L 2018, 8.8.2019, p. 47.

109 OJ L 55, 25.2.2019, p. 7.

110 OJ L 224, 28.8.2019, p. 1.

- Memorandum of Understanding between the European Court of Auditors and the ECB regarding audits on the ECB's supervisory tasks (9 October 2019);

This Memorandum of Understanding covers the ECA's audit of the ECB's supervisory tasks as conferred on it by Article 20(7) of the SSM Regulation.

1.8.1.4 Litigation related to the European System of Central Banks and the Single Supervisory Mechanism

In 2019, the Court of Justice and the General Court of the European Union issued judgments and orders concerning the ECB and the ESCB, including on the single supervisory and resolution mechanism[111].

In the context of the ESCB, the judgment of the Court of Justice of the European Union (ECJ) of 26 February 2019[112] ruled for the first time on the basis of Article 14.2., second paragraph, of the Statute of the European System of Central Banks and of the European Central Bank (ESCB/ECB Statute) by annulling the decision of the *Korupcijas novēršanas un apkarošanas birojs* (Anti-Corruption Office, Latvia) of 19 February 2018 in so far as it prohibits Mr Ilmārs Rimšēviès from exercising his functions as Governor of the Latvian Central Bank (Latvijas Banka).

Various actions had been brought by Mr Rimšēviès (C-202/18) and the ECB (C-238/18) against that decision.

Firstly, the ECJ held that a prohibition, even temporary as in the present case, of an NCB governor from exercising his functions constitutes relieving him of office, the legality of which must be reviewed by the ECJ.

Secondly, the ECJ held that the action referred to in the second paragraph of Article 14.2 of the ESCB/ECB Statute was aimed at annulling an act of national law based on the "particular institutional context"[113] in which the ESCB operates, derogating from the general division of powers between the national court and the Union court as laid down in the Treaties. The ESCB represents a novel legal construct in Union law, which brings together national institutions, namely the NCBs, and a Union institution, namely the ECB, and causes them to cooperate closely, within which a different articulation and a less marked distinction between the Union legal order and the national legal orders prevails.

However, Article 14.2 of the ESCB/ECB Statute draws the consequences of this highly integrated system intended by the authors of the Treaties for the ESCB and, in particular, of the functional duplication of the Governor of an NCB, which is clearly a national authority, acting however within the framework of the ESCB and, when he is Governor of an NCB of a Member State whose currency is the euro, sits on the main governing body of the ECB.

It is because of this hybrid status and, as underlined by the ECJ, with a view to ensuring the functional independence of NCB Governors within the ESCB, that, by way of exception, a decision taken by a national authority which relieves one of them of its functions may be referred to the Court.

Thirdly, the ECJ concluded that Latvia had not established that removing Mr Rimšēviès from office was based on the existence of sufficient evidence of serious misconduct within the meaning of the second paragraph of Article 14.2 of the ESCB/ECB Statute.

111 See Case T-281/18, ABLV Bank / ECB; Case C-450/17 P, Landeskreditbank Baden-Württemberg /ECB, and joined Cases C-152/18 P et C-153/18P, Crédit Mutuel Arkéa / ECB.

112 Joined Cases C-202/18 et C-238/18, Ilmārs Rimšēvičs (C-202/18), BCE (C-238/18) c/ République de Lettonie.

113 See point 69 of the judgment in the joined Cases C-202/18 and C-238/18.

1.8.2 National legislation

1.8.2.1 Enacted Law

New technologies for secure electronic recording

The Law of 1 March 2019 amending the modified Law of 1 August 2001 on the circulation of securities[114] aims at creating a legal framework for the circulation of securities using new technologies for secure electronic recording in order to enhance legal certainty in this field.

The Law of 1 March 2019 incorporates in the amended Law of 1 August 2001 on the circulation of securities the registration in securities accounts and the circulation of securities on the basis of secure electronic recording technologies, such as distributed ledger technology (DLT) and notably the blockchain technology. Although not explicitly mentioned, this law also validates the use of tokens that can be stored on the blockchain.

For the sake of legal certainty, the same law provides, on the one hand, that the use of secure electronic recording devices does not affect the fungible nature of securities and, on the other hand, that transfers performed by these new devices are to be considered as transfers between securities accounts in the meaning of the abovementioned Law of 1 August 2001.

In addition, it is also specified that the use of a secure electronic recording device has no effect on the application of the Law of 1 August 2001, on the situation of securities that remain located with the relevant account keeper, as well as on the validity or enforceability of securities and collateral created in accordance with the Law of 5 August 2005 on financial collateral arrangements.

Withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union

The Law of 8 April 2019[115] reflects one of the various laws adopted by the legislator for the financial sector relating to the withdrawal of the United Kingdom of Great Britain and Northern Ireland (the United Kingdom) from the European Union (Brexit).

In particular, it aims to introduce temporary measures for the financial sector by establishing under certain conditions a transitional regime in order to avoid the risks, such as for financial stability and for the proper functioning of the financial markets, arising from a withdrawal without an agreement ("hard Brexit") and to ensure an orderly transition[116].

The said law also amends the Law of 10 November 2009 on payment services. It activates the option contained in recital 7 of Directive 98/26/EC on settlement finality by allowing the Grand Duchy of Luxembourg to make the provisions of the Directive applicable to institutions, which are participants in third country systems, as well as to collateral constituted in the context of participation in such systems.

The BCL is henceforth responsible for keeping the register of third country payment and securities settlement systems, without however imposing the realisation of assessments and verifications inherent in a designation process, as defined in the Law of 10 November 2009 on payment services and applicable to systems subject to a formal agreement governed by Luxembourg law.

114 Official Gazette of the Grand Duchy of Luxembourg, Memorial A - N° 111 of 5 March 2019.

115 Law of 8 April 2019 on measures to be taken in relation to the financial sector in the event of the withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union and amending: 1° the amended Act of 5 April 1993 on the financial sector; 2° the amended law of 10 November 2009 on payment services; 3° the amended law of 17 December 2010 concerning undertakings for collective investment; 4° the amended law of 12 July 2013 on alternative investment fund managers; 5° the amended law of 7 December 2015 on the insurance sector; and 6° the amended law of 18 December 2015 relating to the default of credit institutions and certain investment firms (Official Journal of the Grand Duchy of Luxembourg, Mémorial A - N° 237 of 11 April 2019 (parl. doc. 7401)).

116 In view of the withdrawal of the United Kingdom by 31 January 2020 in accordance with Article 50(2) TEU, such temporary measures are currently not required.

The third country system shall be automatically admitted in the relevant register if it meets the three conditions set out in the new definition introduced in Article 107, point (1a), namely:

(i) it is a formal agreement, as defined, with common rules and standardised procedures for the clearing or execution of transfer orders between participants;

(ii) that the system is governed by the laws of a third country;

(iii) that it is subject to supervision by a supervisory authority of a State whose central bank holds a participation in the capital of the Bank for International Settlements.

This part of the Law entered into force on 15 April 2019 and is not conditional upon the withdrawal of the United Kingdom from the European Union in accordance with Article 50(3) of the TEU without an agreement having been concluded (hard Brexit).

Macroprudential measures relating to residential mortgages

The Law of 4 December 2019[117] amended the Law of 5 April 1993 on the financial sector[118] and the Law of 1 April 2015 establishing a Systemic Risk Committee[119] by introducing macro-prudential measures that can be used specifically in the event of a threat to the national financial stability coming from developments in the Luxembourg real estate sector. In particular, this law lays down a number of conditions for the granting of credit in respect of real estate properties for residential use located in Luxembourg, which can be applied by the CSSF upon concertation with the BCL within the Systemic Risk Committee. The law also grants the BCL a right of access to aggregated information available from national administrations, public institutions other than those placed under the supervision of municipalities and other competent authorities, provided that such information is necessary for the BCL's research and analysis activities in connection with the task of the Systemic Risk Committee.

The ECB was consulted and issued its opinions on 19 February 2018[120] and 27 September 2019[121].

In its complementary opinion of 27 September 2019, the ECB emphasised, in particular, that:

"The ECB has already delivered its opinion on the draft law. The ECB notes that the draft amendments do not alter aspects on which the ECB has previously given its opinion. Against this backdrop, the ECB reiterates the observations made in its previous opinion[122]. The ECB emphasises, in particular, that the Banque centrale du Luxembourg (BCL) should play a leading role in macroprudential oversight, given BCL's expertise and existing responsibilities in the area of financial stability."

117 Law of 4 December 2019 amending: 1° the amended law of 5 April 1993 on the financial sector; 2° the law of 1st April 2015 establishing a Luxembourg Systemic Risk Committee and amending the amended law of 23 December 1998 concerning the monetary status and the Central Bank of Luxembourg (Official Gazette of the Grand Duchy of Luxembourg, Memorial A - N° 811 of 5 December 2019 (parl. doc. 7218).

118 Amended law of 5 April 1993 on the financial sector.

119 Law of 1st April 2015 establishing a Luxembourg Systemic Risk Committee and amending the amended law of 23 December 1998 concerning the monetary status and the Central Bank of Luxembourg.

120 See ECB Opinion of 19 February 2018 (CON/2018/9). All ECB Opinions are published on the ECB website: www.ecb.europa.eu.

121 See ECB Opinion of 27 September 2019 (CON/2019/34).

122 See ECB Opinion CON/2018/9 and in particular the paragraphs 2 and 3.3:
"The ECB issued an opinion on the draft law establishing the Systemic Risk Committee in 2014 (See Opinion CON/2014/46). The following observations are without prejudice to the recommendations made in that opinion, which are reiterated in this opinion, notably the principle that the ECB and the national central banks (NCBs) should play a leading role in macro-prudential oversight, given their expertise and existing responsibilities in the area of financial stability (point 5.2) and that any additional task that may be entrusted to the BCL with regard to macro-prudential policy must not affect the BCL's institutional, functional and financial independence, or that of its Governor (...)
From a statistical perspective, the ECB notes the extended right of the BCL to access information available from State departments and public institutions. This is basically in line with Article 32 of the BCL Organic Law, which stipulates that, in order to undertake its tasks, the BCL shall be empowered to collect the necessary statistical information, either from the competent national authorities or directly from economic agents. The BCL may likewise perform spot checks of the information from these authorities and economic agents, in accordance with relevant Community law provisions and within the competences of the ESCB and the ECB. However, the draft law, which concerns the research and analysis work of the Systemic Risk Committee, should also provide for access to more granular information, to the extent and at the level of detail necessary for the performance of tasks of the ESCB. This would be a necessary condition to the exercise of the analytical capabilities of the BCL, also with regard to its role in the Systemic Risk Committee."

1.8.2.2 BCL Regulations

The BCL has adopted *Regulation 2019/N° 26 of 5 August 2019 amending Regulation of the Banque centrale du Luxembourg 2014/N° 18 of 21 August 2014 implementing Guideline ECB/2014/31 on additional temporary measures relating to Eurosystem refinancing operations and eligibility of collateral*[123].

This Regulation amends BCL Regulation 2014/N° 18 of 21 August 2014[124], taking into account the modifications introduced by Guideline ECB/2019/13[125] to ECB Guideline ECB/2014/31[126] on additional temporary measures for Eurosystem refinancing operations and eligibility of collateral. Amendments include the deletion of the provisions concerning the Hellenic Republic and the Republic of Cyprus and a modification of the provision on the suspension of the requirements for credit quality thresholds for certain marketable instruments, which is now subject to an explicit decision of the Governing Council of the ECB.

1.8.2.3 Legal interest rate

The legal interest rate for the year 2019 was set at 2.00%[127].

This rate does not correspond to a particular money market reference rate.

Late payment interest rates on overdue claims in commercial transactions are calculated, unless otherwise provided for by contract, on the basis of the ECB's reference rate plus a margin. The late payment interest rate is published every six months in the Memorial B (Official Gazette). For the first semester of 2019, the late payment interest rate was set at 8%[128].

The above-mentioned rate includes the margin provided for by the amended Law of 18 April 2004 on payment deadlines and late payment interests. This margin was set at 8% starting from 15 April 2013 following the entry into force of the Law of 29 March 2013 on combating late payment in commercial transactions[129].

1.8.2.4 Draft laws

Draft law No. 7464

Protection of the euro against counterfeiting; authenticity and fitness checking and recirculation of euro banknotes[130]

The draft law aims to align the Luxembourg legal framework on the protection of the euro against counterfeiting with the relevant Union legislation in this area.

123 http://www.bcl.lu/fr/cadre_juridique/documents_nationaux/reglements_bcl/_reglements_de_la_bcl/Reglement-BCL_2019_26-_FR_.pdf

124 http://www.bcl.lu/fr/cadre_juridique/documents_nationaux/reglements_bcl/_reglements_de_la_bcl/Reglement-BCL_2014_18.pdf

125 Guideline (EU) 2019/1034 of the ECB of 10 May 2019 amending Guideline ECB/2014/31 on additional temporary measures relating to Eurosystem refinancing operations and eligibility of collateral (ECB/2019/13).

126 Guideline of the ECB of 9 July 2014 on additional temporary measures relating to Eurosystem refinancing operations and eligibility of collateral and amending Guideline ECB/2007/9(recast) (ECB/2014/31).

127 Grand-ducal Regulation of 21 December 2018 on the determination of the legal interest rate for the year 2019 (Official Gazette of the Grand Duchy of Luxembourg, Memorial A – N° 1167 of 21 December 2018).

128 Official Gazette of the Grand Duchy of Luxembourg, Memorial B – N° 569 of 5 March 2019.

129 Law of 29 March 2013 on combating late payment in commercial transactions implementing Directive 2011/7/EU of the European Parliament and Council of 16 February 2011 on combating late payment in commercial transaction, and amending the law of 18 April 2004 on payment deadlines and late payment interests.

130 Bill on the implementation of Council Regulation (EC) No 44/2009 of 18 December 2008 amending Council Regulation (EC) No 1338/2001 of 28 June 2001 laying down measures necessary for the protection of the euro against counterfeiting and of Regulation (EU) No 1210/2010 of the European Parliament and of the Council of 15 December 2010 concerning authentication of euro coins and handling of euro coins unfit for circulation and amending various laws, including the Law of 23 December 1998 on the monetary status and the Banque centrale du Luxembourg.

More specifically, the draft law implements Council Regulation (EC) No 44/2009 of 18 December 2008 amending Council Regulation (EC) No 1338/2001 of 28 June 2001 laying down measures necessary for the protection of the euro against counterfeiting (Regulation (EC) No 1338/2001) and Regulation (EU) No 1210/2010 of the European Parliament and of the Council of 15 December 2010 concerning authentication of euro coins and handling of euro coins unfit for circulation (Regulation (EU) No 1210/2010).

Article 6 of Council Regulation (EC) No 1338/2001, as amended, imposes a twofold obligation on credit institutions and other institutions professionally active in the handling of banknotes and coins.

Furthermore, the bill contains implementation measures for the Decision ECB/2010/14 of the European Central Bank of 16 September 2010 on the authenticity and fitness checking and recirculation of euro banknotes (Decision ECB/2010/14), as amended by the Decision of the ECB of 7 September 2012 (ECB/2012/19).

Also amending the Law of 23 December 1998 on the monetary status and the Banque centrale du Luxembourg, the draft law formally designates the BCL as the competent authority for ensuring compliance with the European legislation for recirculation of euro banknotes and coins. Since 2012, BCL is designated as the competent authority within the meaning of Article 4 of Council Regulation (EC) No 1338/2001, as the National Analysis Centre (NAC), and as the Coin National Analysis Centre (CNAC) within the meaning of Article 5 of this Regulation. The draft law enhances the powers of the BCL to ensure the protection of the euro against counterfeiting.

Further, the draft law grants investigatory powers to the BCL.

The ECB received a request for an opinion from the Luxembourg Minister of Finance on 8 August 2019. In its opinion of 23 September 2019[131]*, the ECB welcomes the introduction under the draft law of a new set of powers and instruments at the disposal of the BCL, recalling the need for the government to remunerate and reimburse the costs incurred by BCL for the issue, placing into circulation and protection of the euro against counterfeiting, in accordance with a financial relations agreement between the BCL and the government. Such payment for performing the relevant tasks should occur, in a full and adequate manner, on the basis of "arm's length" commercial terms.*

While the ECB stresses the amendment of the national criminal law provisions, the ECB also takes note of the approach taken by the Luxembourg legislator providing for the possible imposition of injunctions and financial penalties by the BCL.

131 See ECB Opinion of 23 September 2019 (CON/2019/33). All ECB Opinions are published on the ECB website: www.ecb.europa.eu.

Draft law No. 7467[132]

Fight against money laundering and counter terrorist financing

The purpose of this draft law is to introduce the necessary modifications, amongst others, to the amended Law of 12 November 2004 on the fight against money laundering and counter terrorist financing (AML/CTF) in order to transpose certain provisions of the 5th Anti-Money Laundering Directive (AMLD5)[133] at national level.

The draft law, which also takes into account the broader recommendations of the Financial Action Task Force (FATF), aims at extending the scope of AML rules as to include virtual asset service providers.

Furthermore, the draft law introduces measures to strengthen and harmonise the treatment of countries identified by the European Commission as "high-risk countries" and enhances cross-border cooperation between supervisory authorities. In this latter regard, exchange of information and cooperation are foreseen, amongst others, to the benefit of the ECB.

1.9 COMMUNICATION

1.9.1 Publications

The Banque centrale du Luxembourg (BCL), in accordance with its organic law, publishes an annual report on its activities. It is available in French and English.

In 2019, the BCL has also published three Bulletins, the Financial Stability Review and 15 Working Papers.

The BCL's Working Papers, which are available on the BCL website, report the results of research carried out by BCL staff. They are preceded by a non-technical summary.

1.9.2 External BCL training

1.9.2.1 Cooperation with secondary schools

The BCL has organised presentations for students in the last two years of secondary school whose curriculum includes economics. In the auditorium of the Monterey building, these classes and their respective teachers took part in an educational and interactive presentation on the organisation and missions of the BCL and the Eurosystem. Other subjects were also addressed, according to teachers' requests and students' questions.

In 2018-2019, the BCL organised for the sixth time in Luxembourg the Generation €uro Students' Award school competition introduced by the Eurosystem. This competition, which has been organised in approximately ten euro area countries since 2011, is aimed at secondary school students aged 16 to 19, particularly those studying economics. Its purpose is to provide a better understanding of the role and functioning of the Eurosystem.

132 Draft law amending: 1) the amended Law of 12 November 2004 on the fight against money laundering and counter terrorist financing; 2) the amended Law of 9 December 1976 on the organisation of the profession of notary; 3) the amended Law of 4 December 1990 on the organisation of the service of judicial officers; 4) the amended Law of 10 August 1991 on the legal profession; 5) the amended Law of 10 June 1999 on the organisation of the profession of chartered accountant; 6) the amended Law of 23 July 2016 on the audit profession, in view of the transposition of certain provisions of Directive (EU) 2018/843 of the European Parliament and of the Council of 30 May 2018 amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purpose of money laundering or terrorist financing and Directives 2009/138/EC and 2013/36/EU.

133 Directive (EU) 2018/843 of the European Parliament and of the Council of 30 May 2018 amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purpose of money laundering or terrorist financing and amending Directives 2009/138/EC and 2013/36/EU.

The winning Luxembourg team, accompanied by its teacher, was welcomed at the ECB on 7 and 8 May 2019 for the European prize-giving ceremony alongside the winning teams from the other participating countries, in the presence of Mr Gaston Reinesch, Governor of the BCL, and Mr Mario Draghi, President of the European Central Bank (ECB).

Members of the "One Direction" team from the Athénée de Luxembourg. From left to right: Brian Lackner; Elisabeth Martin; Mr Christophe Baustert, Professor; Mr Mario Draghi, President of the ECB; Egan Paquay; Carl Amedeo Czarnocki Luscheschi and Mr Gaston Reinesch, Governor of the Banque centrale du Luxembourg. One winning student, Serena Boukelmoun, was unable to attend the ceremony.

The seventh Luxembourg edition of the competition was launched on 10 October 2019, during an information session for teachers and students organised at the Athénée de Luxembourg. Presentations were given to the participating pupils and teachers to prepare them for the different rounds of the competition. This seventh edition could not be concluded due to the restriction measures related to the COVID-19 pandemic.

1.9.2.2 Cooperation with schools

For the fifth time, the BCL participated independently in the European Money Week (*Woch vun de Suen*[134]). From 25 to 29 March 2019, the BCL offered a programme enabling groups of pupils in cycle 4.1 (primary school) to familiarise themselves with money in general and the security features of the euro banknotes and coins in particular. During the 2.5-hour educational sessions organised throughout the week, students initially benefitted from fun and interactive presentations, including films and games.

They then put their knowledge to the test by participating in a workshop in order to, among other things, test their knowledge of the security features of the euro banknotes. The programme offered by the BCL has been a great success, with a total of more than 330 students taking part from different schools across the country.

134 An initiative of the ABBL

1.9.2.3 Presentations for groups of visitors

In 2019, the BCL continued to welcome visitors for presentations. A programme enables groups of 15 to 25 people to sign up for a presentation on the history of the BCL and the Luxembourg currency as well as on the Bank's missions. This initiative meets the BCL's desire to make its European and national missions better known to the general public.

The BCL can welcome one group of visitors per month, either on Thursday evenings (18.00 – 19.30) or Friday afternoons (14.30 – 16.00), for a presentation in French, Luxembourgish or English, depending on visitors' wishes. Visits can be booked on request by e-mail (info@bcl.lu).

Photo de groupe des visiteurs de la *Seniorenakademie* Itzig.

1.9.3 The BCL website

The BCL has continued to modernise and improve its website.

In total, nearly 179,000 people visited the BCL site in 2019 (more than 34.3 million clicks and more than 9.9 million pages viewed).

In 2019, the most consulted document was the numismatic programme, which was downloaded nearly 8,000 times.

1.9.4 Video communication

In order to better present its missions and activities, in 2017, the BCL launched a series of short explanatory films which are available on its website (www.bcl.lu) and on its YouTube channel.

In 2019, the BCL continued this series by producing a promotional teaser and a short video about the Open Day in June 2019. A film presenting the visitors' welcoming programme was also produced. Moreover, in autumn 2019, the BCL published a video on the conference organised jointly with the Toulouse School of Economics in September 2019 on the following topic: "The Future of the International Monetary System".

1.9.5 The BCL library

The BCL library, inaugurated in 2005, is part of the national network of Luxembourg libraries.

The library's publications are mainly related to economics and law. The collection includes publications from international organisations, but also from national central banks.

The library is accessible to the public by prior appointment by telephone (+352 4774 4275) or by e-mail (bibliotheque@bcl.lu).

1.9.6 Press relations

Throughout 2019, the BCL has been in regular contact with the national and international press. A total of 89 press releases were issued in 2019.

1.9.7 Information campaign on the new 100 and 200 euro banknotes from the Europa series

The new 100 and 200 euro banknotes were put into circulation on 28 May 2019. The 100 and 200 euro banknotes complete the Europa series.

Brochures on the new 100 and 200 euro banknotes have been made available to the general public and professionals in banks and POST Luxembourg counters.

Information on the new 100 and 200 euro banknotes and their security features have been published on the ECB's website (www.ecb.europa.eu) and on the BCL's website (www.bcl.lu).

Information material was also available to the public and retailers at the BCL's Numismatic Centre.

1.9.8 Conferences and events

The BCL has been involved in the organisation of the following conferences and events:

BCL's participation in "Orange Week"

Once again, the BCL participated in "Orange Week", a campaign launched by the UN Secretary General to raise awareness about violence against women and girls, and to put an end to sexual violence.

To mark this occasion, from 25 November to 10 December 2019, the BCL headquarters and other public buildings, monuments and tourist sites in the Grand Duchy of Luxembourg were illuminated in orange.

The facade of the historic building illuminated in orange.
Photo: BCL

Open day

On 15 June 2019, the BCL organised an open day to celebrate the 20th anniversary of the euro; it was a huge success.

More than 1,000 people attended the event and were able to discover the different fields of competence of the Central Bank as well as its activities and the history of the euro.

The hall and the first floor of the historical headquarters of the BCL were opened to the public, allowing them to learn about the European and national missions of the Bank through information panels and short educational films.

The Governor of the BCL, Mr. Gaston Reinesch, took the opportunity to answer questions from visitors.

Gaston Reinesch, Governor of the BCL, in discussion with a visitor.

Visitors were able to enjoy a birthday cake specially prepared for the occasion. Mr. Gaston Reinesch, the Governor of the BCL, and Mr. Xavier Bettel, the Prime Minister, cut the cake together. The cake contained beans that allowed visitors to win numismatic products, including gold coins.

Mr Xavier Bettel, the Prime Minister, and Mr Gaston Reinesch, the Governor of the BCL, cutting the birthday cake.

The public was also able to learn about the rich history of Luxembourg's currency thanks to an exceptional exhibition covering the period from the time of John the Blind to the banknotes issued by the Luxembourg Monetary Institute. Banknotes from other countries, pre-dating the advent of the euro (D-Mark, French Franc, Italian Lira, etc.), were also on display.

A workshop on the security features of euro banknotes enabled visitors to identify these features, which are not visible to the naked eye, using specific equipment. The handling of banknotes and coins at the BCL was also explained during this workshop.

Workshop on safety features.

From 10.00 a.m. onwards, the "Euro Wheel" game gave the luckiest participants the chance to win numerous prizes throughout the day. Moreover, a dedicated child-friendly zone was set up offering the youngest visitors the opportunity to familiarise themselves with the currency in a fun and entertaining way.

The broad range of activities enabled everyone to take part in the festivities.

The BCL also installed a bouncy castle and food trucks on its forecourt, offering visitors a blend of culinary delights and family entertainment.

Conference "The Future of the International Monetary System"

On 17 September 2019, the BCL, in collaboration with the Toulouse School of Economics (TSE), organised a high-level conference entitled "The Future of the International Monetary System".

More than 600 people participated in this conference introduced by Mr. Gaston Reinesch. The following persons took part:

Panel 1 - The Future of the International Monetary System

- Mr Philip Lane (Panel Chair, European Central Bank)
- Ms Hélène Rey (London Business School)
- Mr Claudio Borio (Bank for International Settlements)
- Ms Gita Gopinath (International Monetary Fund)

Panel 2 - Crypto-assets, Central Bank Digital Money and Libra: Implications for the International Monetary System

- Mr. Jean Tirole (Panel Chair, Toulouse School of Economics)
- Mr. Benoît Coeuré (European Central Bank)
- Mr. Obstfeld (University of California, Berkeley)

From left to right: Claudio Borio (Bank for International Settlements), Jean Tirole (Toulouse School of Economics), Gita Gopinath (International Monetary Fund), Gaston Reinesch (Banque centrale du Luxembourg), Maurice Obstfeld (University of California, Berkeley), Hélène Rey (London Business School), Philip Lane (European Central Bank), Benoît Coeuré (European Central Bank)

Group photo of the conference speakers as well as the speakers who participated in a closed academic session at the BCL.
First row: from left to right: Oleg Itskhoki (Woodrow Wilson School), Xavier Vives (IESE Barcelona), Arvind Krishnamurthy (Stanford Graduate School of Business), Claudio Borio (BIS), Gita Gopinath (IMF), Gaston Reinesch (BCL), Maurice Obstfeld (University of California, Berkeley), Hélène Rey (London Business School), Philip Lane (ECB), Julien Matheron (Banque de France), Stephanie Curcuru (Federal Reserve Board).
Second row: from left to right: Pierre-Olivier Gourinchas (University of California, Berkeley), Matteo Maggiori (Harvard University), Luca Fornaro (Barcelona Graduate School of Economics), Jean Tirole (TSE), Stéphane Guibaud (Sciences Po Paris), Emmanuel Farhi (Harvard University), Benoît Coeuré (ECB).

As part of the same conference, the BCL and the TSE organised an academic session held behind closed doors at the BCL.

Gaston Reinesch (BCL)

Julien Matheron (Banque de France)

Gita Gopinath (FMI)

Emmanuel Farhi (Harvard University)

Fabrice Collard (TSE)

Stephanie E. Curcuru (Federal Reserve Board)

Luca Fornaro (Barcelona Graduate School of Economics)

Hélène Rey (London Business School)

Matteo Maggiori (Harvard University)

Jean Tirole (TSE)

Xavier Vives (IESE Barcelona)

Pierre-Olivier Gourinchas (University of California, Berkeley)

Arvind Krishnamurthy (Stanford Graduate School of Business)

Maurice Obstfeld (University of California, Berkeley)

Stéphane Guibaud (Sciences Po Paris)

Oleg Itskhoki (Princeton University)

Keith Kuester (University of Bonn)

Bridge Forum Dialogue Conferences

On 10 January 2019, a conference was held on the following subject: "Twenty years after the euro, what economic prospects for Europe?". It was organised under the chairmanship of Mr Gaston Reinesch, Governor of the BCL and President of the The Bridge - Forum Dialogue association.

The speaker was Mr François Villeroy de Galhau, Governor of the Banque de France.

On 30 January 2019, a conference "Surviving the Pyrocene: why two degrees matter? Perspective on climate change" was organised under the chairmanship of Professor Susanne Siebentritt, Physics Professor and Head of the Laboratory for Photovoltaics at the University of Luxembourg.

The speaker was Professor Hans Joachim Schellnhuber, Director Emeritus of the Potsdam Institute for Climate Impact Research and Member of German Advisory Council of Global Change, "The Father of the 2 Degrees Limit".

On 4 July 2019 "The AIIB and cooperation between Europe and Asia" conference was held under the chairmanship of Mr Andrew McDowell, Vice-President of the European Investment Bank.

The speaker was the Right Honourable Sir Danny Alexander, Vice-President, Corporate Secretary of the Asian Infrastructure Investment Bank (AIIB).

On 29 October 2019, a conference on "Der Karlspreis und ich - Bericht eines Zeitzeugen von den ersten Anfängen bis heute" was organised. The speaker was Mr. Georg Helg, Member of the Board of the Charlemagne Prize Society.

Visitors to the BCL

On 10 January 2019, Mr Gaston Reinesch, Governor of the BCL, received Mr François Villeroy de Galhau, Governor of the Banque de France, for a working visit to the BCL.

During his visit, Mr Villeroy de Galhau gave a speech to BCL staff on the subject of "The Banque de France and the Eurosystem".

Subsequently, Mr Villeroy de Galhau also gave a speech at a public conference organised jointly with the The Bridge - Forum Dialogue association, on the theme "Twenty years after the euro, what economic prospects for Europe?" chaired by Gaston Reinesch.

M. Gaston Reinesch, Gouverneur de la BCL, et M. François Villeroy de Galhau, Gouverneur de la Banque de France

1.9.9 Research activities and university cooperation

The BCL published research output through its working papers series as well as the Bulletin and Financial Stability Review. Several studies were published in peer-reviewed scientific journals *(Journal of Labour Market Research, Journal of Economic Dynamics and Control, Quarterly Journal of Economics and Finance, IZA Journal of Labor Policy).*

BCL researchers also presented their results in seminars and workshops organised by other institutions, including the ECB, the Central Bank of Ireland, the *Deutsche Bundesbank*, the Austrian Economic Association, the European Association of Labour Economists, the *Société française de statistique*, the Halle Institute for Economic Research and the World Statistics Congress.

As stated above, BCL researchers prepared several studies intended to contribute to the discussion in the *Comité du risque systémique* (see 1.7.1.3). Some of these projects were developed within the partnership with the Toulouse School of Economics (TSE). This partnership takes the form of joint publications, tutoring, training, conferences and workshops, as well as the exchange of visiting researchers between the BCL and the TSE.

The BCL is a member of the Eurosystem "Household Finance and Consumption Network". This research network designed and conducted a harmonised survey on the consumption and financial behaviour of households in the euro area. In Luxembourg, this survey was carried out by the BCL in collaboration with the Luxembourg Institute of Socio-Economic Research (LISER, formerly CEPS/Instead). Results of the first two surveys were published as working papers or as text boxes in the BCL Bulletin.

In June 2019, the BCL organised a workshop on household finance and consumption. This workshop was intended to bring together researchers active in this domain in Luxembourg and in the Greater Region.

<u>University cooperation</u>

The BCL continue its cooperation with the University of Luxembourg, with several staff members lecturing at the Luxembourg School of Finance as well as at the Faculty of Law, Economics and Finance. A course on monetary and banking economics was also given at the *Université de Lorraine*.

The BCL also organised *ad hoc* presentations for groups of university students.

1.10 EUROPEAN ACTIVITIES

1.10.1 Activities at the level of the European Central Bank

The Governor of the BCL participates in the meetings of the Governing Council and the General Council of the ECB. The members of the Governing Council act in their personal capacity and not as national representatives.

Meetings of the Governing Council are, as a rule, held in Frankfurt at the ECB's premises, twice a month. Decisions on monetary policy are taken by the Governing Council, in general, every six weeks, with the other meetings being devoted to other topics on which the Governing Council is required to take a decision. In 2019, some 1,600 decisions were adopted by the Governing Council via written procedure. A majority of these written procedures fall exclusively or partially within the remit of the SSM. Written procedures are in fact the most widely used decision-making tool used by the Governing Council in this area. In fields related to central bank functions, the share of decisions taken during Governing Council meetings is relatively higher.

The General Council, consisting of the President and the Vice-President of the ECB as well as the Governors of the ESCB usually meets quarterly, in Frankfurt. The other members of the Executive Board of the ECB participate in the meetings of the General Council, without however having member status.

Committees with specific mandates and areas of competence assist the decision-making bodies of the ECB in the fulfilment of their tasks. The Governing Council or the Executive Board of the ECB may call upon them to study specific topics.

The committees report to the Governing Council through the Executive Board of the ECB.

In 2019, 16 Eurosystem/ESCB committees and a "conference" were active to provide expertise in their respective fields of competence and to support the decision-making process in the Governing Council.

The committees are usually composed of members of staff of the Eurosystem central banks. However, the NCBs of the Member States that have not (yet) adopted the euro participate in committee meetings whenever they deal with issues falling within the field of competence of the General Council. Representatives of other relevant institutions and bodies may also be invited.

To support the work related to the SSM, some of these committees meet, when necessary, in SSM composition, i.e. including representatives of those competent national authorities that are not NCBs.

Under the aegis of the committees, there are meetings of working groups and task forces with specific objectives, in accordance with the mandate of the committee to which they are linked. The Governing Council may also establish High-Level Groups or Task Forces to study particular issues.

1.10.2 The Economic and Financial Committee

The Economic and Financial Committee (EFC) was established by the Treaty on the Functioning of the European Union. It is composed of representatives of the Treasuries or Ministries of Finance and Central Banks of the Member States of the European Union (EU), as well as of the European Commission and the ECB.

The EFC was established to promote coordination of Member States' policies to the extent necessary for the proper functioning of the internal market.

Its tasks include providing the framework for dialogue between the European Council and the ECB, monitoring the economic and financial situation in the Member States, contributing to the coordination of economic and budgetary policies and providing information on issues relating to financial markets, exchange rate policies and relations with third countries and international institutions.

The EFC meets in two configurations: plenary and restricted. In the plenary configuration, the EFC meets with representatives of the administrations and national central banks (NCBs) of the EU Member States, the Commission and the ECB. It then plays an important role in the preparation of European positions for the G20[135], the International Monetary Fund (IMF) and the Financial Stability Committee (FSB)[136]. It also deals with economic policy issues discussed at informal meetings of the ECOFIN Council[137], to which, inter alia, the governors of the EU NCBs and the President of the ECB are invited.

NCB representatives do not participate in EFC meetings held in restricted format. In this second configuration, the EFC also meets in the framework of the Eurogroup working group, limited to euro area member countries, the Commission and the ECB, in order to prepare the work of the Eurogroup[138]. The Eurogroup is an informal body in which ministers of the euro area Member States discuss issues specifically related to the euro as well as broader issues with implications for the fiscal, monetary and structural policies of the euro area countries.

In 2019, the EFC held eleven meetings, ten of which were plenary meetings, and met twice in a specific "Financial Stability Table" format. It then included senior representatives of the European Supervisory[139] Authorities and the European Systemic Risk Board (ESRB).

At its plenary meetings, the EFC continued to follow closely the deepening of Economic and Monetary Union, in particular progress towards Banking Union and Capital Market Union, as well as financial market developments and risks to financial stability in the EU. The EFC also contributed to the preparation of Ecofin meetings, in particular by proposing draft conclusions.

The EFC comprises various sub-committees covering in particular the activities of the IMF, the functioning of public debt markets in the EU and the production and circulation of euro coins[140].

135 The Group of Twenty (G20) brings together the world's major advanced and emerging economies, including 19 member countries from all continents and the European Union.

136 For the IMF and FSB, see Sections 1.11.2 and 1.7.1.1.

137 The Economic and Financial Affairs Council (ECOFIN) is composed of the Economics and Finance Ministers of all EU Member States.

138 In English, *Eurogroup Working Group* (EWG).

139 *These are the European Banking Authority* (EBA), the *European Insurance and Occupational* Pensions Authority (EIOPA) and the *European Securities and Markets Authority* (ESMA).

140 These are the *Sub-Committee on IMF and related issues* (SCIMF), the *Sub-Committee on EU Sovereign Debt Markets*, and the *Euro Coin Sub-Committee.*

The BCL is a member of the subcommittee that discusses IMF-related issues and ensures the harmonisation of Member States' positions in the IMF Executive Board. In 2019, this subcommittee (SCIMF) worked, among other things, on the issue of IMF resources, including the renewal of the New Arrangements to Borrow (NAB). This covered a review of conditionality and the design of IMF-supported programs.

The Euro Coins Subcommittee covers issues relating to the production and circulation of euro coins. It monitors the development of counterfeiting affecting euro coins. It proposes to the EFC the possible issuance of commemorative €2 coins for the celebration of European events. The subcommittee is assisted by a working group dealing with operational aspects of coins, including the coordination of coin production and the reduction of existing coin stocks through exchange or stock transfer operations between euro-area Member States. A BCL staff member has chaired this working group since the end of 2019. In 2018, the subcommittee established a small working group to prepare a report on the measures to be taken in the event that a decision is made to issue one or more new euro coins. This working group, also chaired by a staff member of the BCL, submitted its report to the subcommittee at the end of 2019. The final adoption of the report will take place in 2020.

1.10.3 Other European committees

On 24 April 2013, the European Statistical System (ESS) and the ESCB signed a Memorandum of Understanding on the cooperation between the two statistical systems. In order to improve this cooperation, both systems have established the European Statistical Forum in which National Central Banks, National Statistical Institutes, the European Commission and the ECB are represented. This forum will establish an annual work programme with the major objective of improving cooperation between the two systems.

The Committee on Monetary, Financial and Balance of Payments Statistics (CMFB), for its part, continues to deal in depth with cases that fall within the common remit of the two statistical systems. The CMFB is also responsible for deciding on the development and coordination of the categories of statistics required under the policies applied by the European Council, the European Commission and the various committees that assist them. The CMFB represents National Central Banks, National Statistical Institutes, the European Commission and the ECB. Working groups with specific objectives operate under the aegis of this committee.

The European Committee of Central Balance Sheet Offices (ECCBSO), of which the BCL has been a member since 2014, is an advisory body created in 1987 by a group of European Central Banks in charge of the management of national Central Balance Sheet Offices. The Committee's initial objective was to improve the analysis of non-financial corporate data. The Committee's objectives have been extended by central banks in areas such as statistics, economic and financial research, financial stability, supervision and risk assessment to cover the use of data from non-financial corporations. It should be noted that the *Institut national de la statistique et des études économiques* (STATEC), which is responsible for the Central Balance Sheet Office in Luxembourg, is a member of this committee.

During 2019, the BCL actively contributed to the work carried out in these three forums. Progress has been achieved, notably in the areas of financial accounts, balance of payments, financial services, public finance and national accounts statistics.

1.11 NATIONAL AND EXTERNAL ACTIVITIES

1.11.1 National Activities

1.11.1.1 Relations with the Parliament

On 5 April 2019, the BCL presented to the Financial and Budget Commission of the Luxembourg Parliament its opinion on the government's draft budgetary plan on revenues and expenditures for 2019 and the pluriannual programme for the years 2018-2022.

On 2 December 2019, the BCL presented to the Financial and Budget Commission of the Luxembourg Parliament its opinion on the government's draft budgetary plan on revenues and expenditures for 2020 and the pluriannual programme for the years 2019-2023.

1.11.1.2 BCL Committee Activities

Advisory Commission on Banking and Monetary Statistics

The *Commission consultative Statistiques bancaires et monétaires* (CCSBM), set up by the BCL, aims to ensure efficient collection of banking and monetary statistics by the BCL and to establish a dialogue with the credit institutions subject to statistical reporting.

Operational Crisis Prevention Group

In 2007, the BCL established the Operational Crisis Prevention Group (OCPG) with the mandate of enhancing the financial sector's preparation with regard to large scale operational disruptions.

Members of the group and participants in meetings include the Luxembourg Bankers Association (ABBL), the supervisory authority (Commission de Surveillance du Secteur Financier, CSSF) as well as systemically important financial institutions and market infrastructures established in Luxembourg.

The group implemented notification and communication tool for crises. It also started making contacts with providers of critical services (provision of electricity and telecommunication services and market infrastructures in a first iteration) to establish privileged partnerships and to improve the communication in case of major operational issues.

Meetings were opportunities for the BCL to exchange with the members on the activities and initiatives of the Eurosystem on cyber-security, in particular on the Euro Cyber Resilience Board (ECRB).

1.11.1.3 Activities of external committees in which the BCL participates

The Economic Committee (Comité de conjoncture)

The Economic Committee acts within the framework of the legislation authorising the government to take measures to prevent redundancies for cyclical and structural reasons and to stabilise employment. The Committee contributes to the analysis of the Luxembourg economy and the monitoring of topical economic policy issues.

The BCL's contribution to the Economic Committee is twofold: firstly, the BCL collects information on economic developments in Luxembourg and, secondly, the BCL provides insights into the latest developments in the financial sector and monetary areas.

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

The BCL participates as an observer in the meetings of the Consumer Price Index Commission, which is in charge of advising and assisting STATEC in the compilation of consumer price indices. The Commission also issues technical opinions on the monthly compilation of the consumer price index and monitors the compliance with national and European regulations. The BCL presents its inflation projections for Luxembourg and provides explanations regarding the BCL's work in the area of consumer prices.

Banking Accounting Committee (Comité comptabilité bancaire)

The purpose of the Banking Accounting Committee, set up by the CSSF, is to ensure an exchange of views between the supervisory authority, the BCL and the stakeholders in the Luxembourg financial centre. The CSSF consults the Committee when drafting circulars relating to bank accounting.

Higher Statistical Council (Conseil supérieur de la statistique)

The Higher Statistical Council (CSS) acts in an advisory capacity for STATEC and issues an opinion on its annual programme. To this end, STATEC submits to the Higher Statistical Council for Statistics, at the end of each year, a report on the work accomplished during the previous year and a programme of work to be carried out during the coming year. The report and the programme are the subject of an opinion of the Higher Statistical Council.

The BCL regularly participates in the work of this Committee as an observer.

The BCL contributes to the work of the Higher Statistical Council, in particular by providing its opinion on the documents submitted to it. It also provides STATEC with data collected on the financial centre to enable it to carry out its work programme.

Committee on Public Statistics (Comité des statistiques publiques)

The *Committee on Public Statistics* (CSP) has a coordinating role in the field of government statistics. Thus, it draws up an inventory of all surveys in the Luxembourg statistical system, analyses the possibilities of satisfying requests from existing sources and ensures the implementation of the statistical programme in compliance with the good practices of the Luxembourg statistical system and the relevant international standards.

The BCL regularly participates in the work of this Committee as an observer.

Accounting Standards Board (Commission des normes comptables)

Since October 2013, the BCL has been a member of the Accounting Standards Board (CNC).

The CNC is an economic interest grouping (*groupement d'intérêt économique*) whose role is to:

- advise the Government on accounting matters;
- contribute to the development of an accounting doctrine;
- participate in discussions on accounting matters with European and international bodies. Since 2014, the CNC has represented Luxembourg on the European Consultative Group on Financial Information (EFRAG);
- assume missions entrusted to it by the Law of 30 July 2013 reforming the CNC and modifying various provisions relating to accounting and annual accounts of companies, as well as to the consolidated accounts of certain forms of companies.

2019 was mainly marked by the publication of the Luxembourg regulation of 12 September 2019 determining the content of the standardised chart of accounts referred to in Article 12 of the Commercial Law. This new Standard Chart of Accounts (Plan comptable normalisé, hereafter the "PCN") will apply, for the first time, to fiscal years starting on 1 January 2020.

On a doctrinal level, the CNC has published several Q&A sessions, namely:

- Q&A CNC 19/016 - Accounting offset of "contracts in progress" and "payments on account on work and contracts in progress" in the balance sheet;
- Q&A CNC 19/017 - Deadline for filing in the Trade and Companies Register (RCS) consolidated accounts established for legal purposes;
- Q&A CNC 19/018 - Reserved alternative investment funds (RAIF): Standardised chart of accounts (PCN) and formalism for filing financial data;
- Q&A CNC 19/019 - Categorisation of companies: interpretation of the repetition criterion referred to in Article 36 of the Law of 19 December 2002 as amended concerning the trade and companies register as well as the accounting and annual accounts of companies and modifying certain other legal provisions (LRCS).

Prior to the first application of the 2020 PCN and in view of the growing number of vehicles (legal forms and regulatory statutes), in December 2019 the CNC published a table summarising the obligations applicable to the filing of financial data and advertising. The purpose of this table is notably to clarify the scope of the companies targeted by the PCN, by the standardised collection on the electronic platform for Financial Data Collection (eCDF), by the RCS filing and by the accounting publication in the Electronic Compendium of Companies and Associations (Recueil Electronique des Sociétés et Associations - RESA) and thus contribute to a more harmonised application of Luxembourg accounting law.

In accordance with the work programme adopted for the 2018/2022 mandate, in 2019 the CNC devoted a significant part of its resources to the Luxembourg accounting law overhaul project. In this context, a complete analysis was carried out on the exercise of the options included in Accounting Directive 2013/34/EU and the application rules of international accounting standards (1606/2002). Likewise, observations were drawn up and reflections were made on the existing gaps in the accounting directive and on the advisability of filling them in the national accounting law.

Here is a brief, non-exhaustive overview of the main projects carried out by the CNC to which the BCL contributed.

1.11.2 International activities

Activities at the level of the International Monetary Fund

The primary objective of the International Monetary Fund (IMF) is to ensure the stability of the monetary system by addressing all macroeconomic and financial issues that affect global stability.

The Board of Governors is the IMF's supreme decision-making body. It is composed of a Governor and an Alternate Governor for each member country. Thus, the Director General of the BCL is Luxembourg's Alternate Governor at the IMF. The Board of Governors has delegated most of its powers to the IMF Executive Board, where the 189 members of the IMF are represented by 24 Executive Directors.

Luxembourg holds the position of Senior Advisor in the constituency headed on a rotating basis by a Belgian or Dutch Executive Director for a four-year period. Apart from the Benelux countries, the other twelve members of this constituency are, in descending order of quota, Ukraine, Israel, Romania, Bulgaria, Croatia, Cyprus, Bosnia and Herzegovina, Georgia, Moldova, Northern Macedonia, Armenia and Montenegro.

Member countries' quotas are an essential component of the IMF's financial resources. They broadly correspond to the relative position of each country in the world economy. Luxembourg's quota has been set at 1,321.80 million Special Drawing Rights (SDRs).

In order to supplement its resources on a temporary basis, the IMF can also borrow through agreements such as the multilateral New Arrangements to Borrow (NABs) or bilateral credits from its members. After quotas, these NABs and bilateral borrowing are, respectively, the IMF's second and third line of defence in terms of financial resources.

Since February 2016, Luxembourg's participation in the NAB has been SDR 493.12 million. At the end of 2019, the credits granted by Luxembourg within the framework of the NAB reached SDR 30.99 million.

In addition, from 2012 onwards – and in the light of the delays incurred by the 14^{th} General Review of Quotas – a number of countries, mainly European, pledged to increase the IMF's resources by US $461 billion through bilateral borrowing arrangements. In this framework, in April 2014, Luxembourg signed a bilateral credit line in favour of the IMF amounting to 2.1 billion euro. This bilateral credit has been extended several times and will expire at the latest by the end of 2020.

The BCL handles Luxembourg's financial operations vis-à-vis the IMF. It holds Luxembourg's assets and liabilities with regard to the IMF under the General Resources Account and the SDR account. Luxembourg's quota is recorded in full in the BCL's balance sheet. At the end of 2019, the reserve position – i.e. the difference between Luxembourg's total quota with the IMF and the IMF's holdings of euro denominated assets at the BCL – was SDR 229.73 million, equivalent to 17.38% of Luxembourg's quota. Also at the end of 2019, Luxembourg held SDR 249.76 million, i.e. 101.27% of its SDR allocation.

Activities at the Bank of International Settlements (BIS) level

Established in 1930, the Bank for International Settlements (BIS) is the oldest international financial institution. The BIS promotes international cooperation between monetary authorities and financial sector supervisory authorities through meetings that it organises at regular intervals. Through the Basel Process framework, it also hosts at its headquarters international groups pursuing global financial stability, including the Basel Committee on Banking Supervision and the Financial Stability Board. The BIS supports them, facilitates their meetings, and helps set international standards in banking. Moreover, the BIS carries out research and policy analysis on issues of relevance for central banks and monetary authorities. The BIS currently comprises 62 member central banks and monetary authorities from advanced and developing countries.

The BCL is closely involved in the activities of various committees and working groups of the BIS.[141] The BCL is represented by its Governor at the Global Economy Meeting and at the All Governors' Meeting, which both take place every two months, generally at the headquarters of the BIS in Basel. Governors and other senior officials of BIS member central banks discuss current developments and the outlook for the world economy and financial markets. They also exchange views and experiences on issues of particular interest to central banks.

Economic debates focus on macroeconomic and financial developments in the main advanced and emerging economies. The issues addressed by the Global Economy Meeting in 2019 included signals of overheating in the global economy, the relationship between financial conditions and economic activity, the impact of fiscal policy on the economic outlook and monetary policy, monetary policy communication, spillovers and spillbacks, and the financial cycle and corporate balance sheets.

The All Governors' Meeting discussed notably the following topics during the year under review: artificial intelligence and machine learning in the financial service industry and the issues they raise for central banks, banknote counterfeiting risks and procurement and their implications for central banks, the Legal Entity Identifier and its future, and financial inclusion.

Furthermore, the BCL participates in the Committee on the Global Financial System (CGFS) and in the Annual General Meeting of the BIS. The CGFS monitors financial market developments for Governors attending the Global Economy Meeting. The mandate of the CGFS is to identify and assess sources of risk in global financial markets, deepen understanding of the structural underpinnings of these markets, and promote improvements in their functioning and stability.

141 The major BIS committees and working groups are: The Financial Stability Board, the Group of Central Bank Governors and Heads of Supervision, the Committee on the Global Financial System, the Committee on Payments and Market Infrastructures, the Markets Committee, the Central Bank Governance Group, the Irving Fisher Committee on Central Bank Statistics, the International Association of Insurance Supervisors and the International Association of Deposit Insurers.

Activities within the Central Banks and Supervisors Network for Greening the Financial System

The BCL has been a member of the Central Banks and Supervisors Network for Greening the Financial System (NGFS) since September 2018. The NGFS was established at the first international climate summit (*One Planet Summit*) held in Paris in December 2017. It exchanges best practices and shares experiences to promote climate and environmental risk management in the financial sector and to facilitate the transition to a sustainable economy. It aims to contribute to achieving the objectives of the Paris Agreement, i.e. to limit global warming to "well below 2°C".

The work of the NGFS is organised around three specific axes (*Workstreams*), namely micro-prudential/supervision, macro-financial and the promotion of green finance. The BCL is represented in the NGFS Plenary Session and participates in the work on macro-finance and scaling up green finance (*Workstreams* 2 and 3).

In 2019, the NGFS met in Plenary Session on the margins of the International Monetary Fund (IMF) and World Bank Spring Meetings and Annual Meetings held, respectively, in April and October. The Network published a Sustainable and Responsible Investment Guide for Central Banks' Portfolio Management in October. It also discussed the implications of climate change for macroeconomic and financial stability. The results of this analysis were presented in a technical paper published in July.

1.12 EUROSYSTEM PROCUREMENT COORDINATION OFFICE (EPCO)

In December 2007, the Governing Council of the European Central Bank (ECB) designated the BCL to host the Eurosystem Procurement Coordination Office (EPCO), with the objective of coordinating procurement of goods and services of the Central Banks of the ESCB that are necessary for the performance of Eurosystem tasks.

The mandate of BCL, as the host central bank of EPCO, was renewed from 1 January 2020 and runs until 31 December 2024 with the possibility of renewal.

According to the terms of the ECB Decision laying down the framework for joint Eurosystem procurement[142], EPCO's main task is to identify and coordinate cases of joint procurement that are likely to bring benefits or where there is a need for harmonisation of goods and services for the Central Banks[143], as well as other eligible institutions[144] which could have interest in participating in EPCO's activities.

To achieve these objectives, EPCO has continued to focus its activities on the identification and coordination of joint procurement procedures of interest for the participating Central Banks, as well as on the management and promotion of agreements concluded for the benefits of its members.

EPCO's procurement programme approved by the Governing Council, includes IT goods and services, market data services, consultancy and training services, air transport and hotel services and banknote related items.

In 2019, as part of its missions, EPCO coordinated 24 joint procurement procedures. For each procedure, one "Lead Central Bank" is nominated for its implementation in coordination with EPCO.

As part of the studies and exchanges of information carried out in collaboration with the networks of experts from the Central Banks participating in EPCO, new joint procurement opportunities (16) have also been identified to be launched from 2020 onwards. Other opportunities (27) were under analysis.

142 Decision of the European Central Bank of 17 November 2008 laying down the framework for joint Eurosystem procurement (ECB/2008/17) (2008/893/EC) as modified by Decision ECB/2015/51.

143 In 2019 EPCO regrouped in total 23 Central Banks: 19 Central Banks of the Eurosystem participated in EPCO's activities, as well as 4 Central Banks that are not part of the euro-zone. Discussions have been held with other Central Banks of the ESCB expressing an interest for future participation with EPCO.

144 Since 2016, certain institutions that are not part of the ESCB can take part in EPCO's procurements under the conditions defined by the Decision ECB/2008/17.

The framework agreements in place resulting from the joint procurement procedures (34) have generated considerable financial and administrative benefits for the Central Banks and EPCO's participating institutions.

Moreover, EPCO continued to facilitate the exchange and development of best practices, in collaboration with its experts' networks, thus promoting a reinforced cooperation in the area of public procurement within the ESCB.

The execution of the EPCO budget in 2019 (part of a multi-annual financial envelope) has proven to be lower that the budget initially allocated.