ANNUAL REPORT 2019

BANQUE CENTRALE DU LUXEMBOURG
EUROSYSTEM

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MISSION STATEMENT OF THE BCL

The *Banque centrale du Luxembourg* (BCL) is a public institution created by Luxembourg law. The BCL's independance is based on its organic law, the Treaty on the European Union and the Treaty on the Functioning of the European Union. The BCL is a member of the European System of Central Banks (ESCB) composed of the National Central Banks of all 28 EU Member States and the European Central Bank (ECB).

THE MISSION

The Bank is a member of the Eurosystem that consists of the European Central Bank and the National Central Banks of the Member States that have adopted the euro. It takes part in the Single Supervisory Mechanism (SSM). It is in charge of managing the monetary and financial responsibilities granted to it as one of the National Central Banks of the ESCB.

At the national level, the central bank has to carry out the tasks conferred on it by the national laws and conventions.

It is developing the following fields of competence:

- Research and studies and their communication thereof, which aim to prepare, on the one hand, monetary policy decisions and, on the other hand, the development of wider knowledge concerning monetary, financial and economic issues;

- Collection and analysis of statistics in the monetary, financial and balance of payments fields;

- Implementation of monetary policy;

- Organisation and supervision of payment and securities settlement systems;

- Issuance and circulation of banknotes and coins;

- Financial asset management, both on own account and for third parties;

- Participation in the prudential supervision of the financial system and the exercise of the oversight of payment and securities settlement systems, in order to ensure the stability of the financial system in Luxembourg;

- Advisory services to legislative and regulatory authorities in financial and monetary areas.

THE VISION

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

Among Luxembourg institutions, the BCL ensures that it is capable of fulfilling all its national, European and international obligations.

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

CORPORATE VALUES

Consequently, the values associated with its action are:

- Professionalism, guaranteed by highly specialised employees, high-performance tools and a high-level infrastructure;
- Quality in all its services;
- Stability provided by its long term vision of all its activities;
- Objectivity resulting from the establishment of precise rules that are equally applied;
- Integrity, guaranteed by the transparency of its internal operations and with respect to professional ethics;
- A good governance, within and through the governing bodies concerned with the use of the highest standards in governance.

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THE GOVERNOR'S MESSAGE

The year 2019 marked the 20th anniversary of the advent of the euro. On 1 January 1999, eleven countries decided to share their monetary sovereignty in order to create a single currency and a single monetary policy. The Economic and Monetary Union, already advocated in the Werner Report, whose 50th anniversary we will celebrate in October 2020, was to become a reality. The tangible expression of this decision came three years later with the introduction of banknotes and coins.

Today, the euro, the second most important currency in the world, is shared by some 340 million citizens in 19 countries. While the single currency has transformed our daily lives and increased the efficiency of the single market, the financial and sovereign debt crisis has exposed the risks of an unfinished institutional architecture. The lessons learned have led to the strengthening of the Economic and Monetary Union, notably through the establishment of a single supervisory mechanism and a new crisis management set-up. While this has significantly strengthened the resilience of the euro area, further progress is needed, such as the completion of the Banking Union and the creation of a capital markets union.

At the time of writing, we are facing another crisis, of a global dimension and of a completely different nature, which we need to address in a spirit of solidarity. While the COVID-19 pandemic is first and foremost a human tragedy, it also has major economic consequences.

The sanitary crisis has generated a supply shock, coupled with a demand shock. Entire segments of economic activity have been put on hold, causing an increase in unemployment and plunging many economic agents into precariousness. The intensity of the shock we are facing depends on several variables that are difficult to predict, including the evolution of the virus and the associated periods of lockdown. Moreover, while the economic shock would undoubtedly have been more severe in the absence of the ambitious mitigation measures put in place, their effectiveness can only be measured over time.

Given the high degree of uncertainty surrounding the various scenarios and projections, they should be treated with caution. While the expected size of the negative economic impact can vary greatly depending on the assumptions chosen, it is recognised that the euro area will not escape a recession in 2020. This severe economic impact, coupled with falling energy prices, have also put downward pressure on inflation in the euro area.

The Governing Council of the European Central Bank (ECB) has taken a series of measures to support the euro area economy in this difficult environment. These aim to ensure the smooth transmission of the Eurosystem's monetary policy. By contributing to the easing of financing conditions, these measures support the provision of credit by banks to households and businesses on favourable terms, complementing the fiscal measures already taken or to be taken at national and European levels.

Since the resumption of the Eurosystem's asset purchase programme in November 2019, monthly net purchases have amounted to €20 billion. Because of the COVID-19 crisis, the Governing Council decided to introduce a temporary envelope of €120 billion to make additional asset purchases by the end of the year. The Governing Council plans to use net asset purchases for as long as necessary and to discontinue them shortly before starting to raise the key ECB interest rates.

The Governing Council also decided to create a new temporary programme directly related to the pandemic. This programme, the Pandemic Emergency Purchase Programme (PEPP), announced in March 2020, initially amounted to €750 billion and was increased to €1,350 billion in June. Purchases will be made at least until the end of June 2021 and for as long as necessary until the Governing Council deems that the coronavirus crisis is over. Also, maturing principal payments will be reinvested at least until the end of 2022. Under this programme, the Eurosystem purchases both public and private securities. As with the asset purchase programme, the risks related to the acquisition of private securities are fully shared, while those related to the acquisition of public securities are pooled up to 20%. The risk relating to the acquisition of the remaining 80%, representing purchases on the secondary market of national debt by national central banks, is not shared.

Also in the context of the crisis, the Governing Council launched a series of seven Pandemic Emergency Longer-Term Refinancing Operations (PELTROs). These operations are aimed at supporting liquidity conditions in the euro area financial system and helping to preserve the smooth functioning of money markets. They started in May 2020 and will mature gradually between July 2021 and September 2021.

In order to provide banks with longer-term liquidity, the Governing Council decided to conduct temporary additional longer-term refinancing operations (LTROs). It also decided to apply more favourable conditions to all targeted longer-term refinancing operations launched in September 2019 (TLTRO III) from June 2020 for a one-year period. This liquidity provision aims to stimulate the provision of credit to the real economy by offering participating banks extremely low interest rates, provided that they channel sufficient loans to non-financial corporations and households. If these conditions are met, the banks repay less to the central bank than they borrowed. Housing loans are excluded from this mechanism.

Another important measure has been the easing of the eligibility conditions for collateral. Indeed, the central bank can only grant credit to banks against collateral. If the eligibility conditions are no longer met, for example because of downgrades by rating agencies, the pool of available collateral is reduced, which may constrain banks' ability to borrow from the central bank and, at the same time, their ability to finance the economy. This can be avoided by easing eligibility requirements. By increasing its risk tolerance, the Eurosystem therefore also supports the provision of credit.

Finally, mention should be made of prudential measures. The Single Supervisory Mechanism has taken microprudential measures to facilitate the provision of bank credit to the real economy. The same applies to many national macroprudential authorities, whose measures facilitate the absorption of bank losses.

While monetary and prudential policy measures have contributed significantly to the crisis response, they can only come in support of other ambitious measures. I therefore welcome the European initiatives to address the impact of the pandemic. Concerted national measures aligned with European initiatives are also needed.

In 2019, in addition to the resumption of asset purchases and the launch of the third round of targeted longer-term refinancing operations, the Governing Council decided to lower the rate on the deposit facility from -0.4% to -0.5%. Moreover, it decided to introduce a two-tier reserve remuneration system (tiering). Since 30 October 2019, this mechanism aims to exclude from the application of the deposit facility rate part of the reserves that banks deposit with euro area central banks in excess of their reserve requirements. This exempted part is remunerated at 0%.

The year under review was also marked by the launch on 28 May of the new 100- and 200-euro banknotes of the Europa series. The production of the 500-euro banknote was discontinued in May 2016 and the series is now complete.

Finally, 2019 saw the end of Mario Draghi's term of office as President of the ECB on 31 October. Ms Christine Lagarde, former Managing Director of the International Monetary Fund, replaced him in this position for a term of eight years.

At the national level, the 20th anniversary of the introduction of the euro provided an opportunity for the BCL to organise an open door event in an expanded format. The public was thus able to learn about the Bank's European and national missions and discover the very 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 prior to the advent of the euro were also on display. A workshop on the security features of the euro banknotes was also a great success. The Prime Minister honoured us with his presence to celebrate this symbolic milestone. I would like to thank all those who joined us on that day.

In September, the BCL organised, in co-operation with the Toulouse School of Economics (TSE), a conference on the future of the international monetary system. This highly notable event benefited from the contribution of Jean Tirole and Emmanuel Farhi. It was with great emotion that we learned that Emmanuel Farhi passed away prematurely[1]. Considered as one of the most brilliant and influential economists, he was also appreciated for his modesty. Our thoughts go out to his family and loved ones.

This event, which was attended by some 800 people, brought together policy makers from international institutions and leading academics to discuss issues that could shape the evolution of the international monetary system in the years ahead, such as the emergence of crypto-actives and "stable coins". The wealth of the exchanges that have taken place can only encourage us to repeat this experience.

In order to attract promising young talent, the Bank has set up a Graduate programme. The first edition of this programme, which aims to recruit a limited number of candidates per year and train them in the various central banking activities, attracted a large number of applications. We hope to maintain this interest.

Before concluding, on behalf of the governing bodies of the BCL, I would like to thank the staff for their commitment during this sanitary crisis. Their dedication and the smooth transition to home-based work for a large majority of staff ensured the continuity of our operations. In particular, I would also like to express my gratitude to those who faced an exceptional workload due to the preparation and implementation of the monetary policy measures taken by the Governing Council over the past few months.

Finally, on behalf of the governing bodies of the BCL and its staff, I would like to pay a final tribute to His Royal Highness Grand Duke Jean, who passed away on 23 April 2019. His courage, integrity, humanity and unwavering commitment will remain an example to us all.

Gaston Reinesch

1 * Emmanuel Farhi passed away on 23 July 2020.


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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

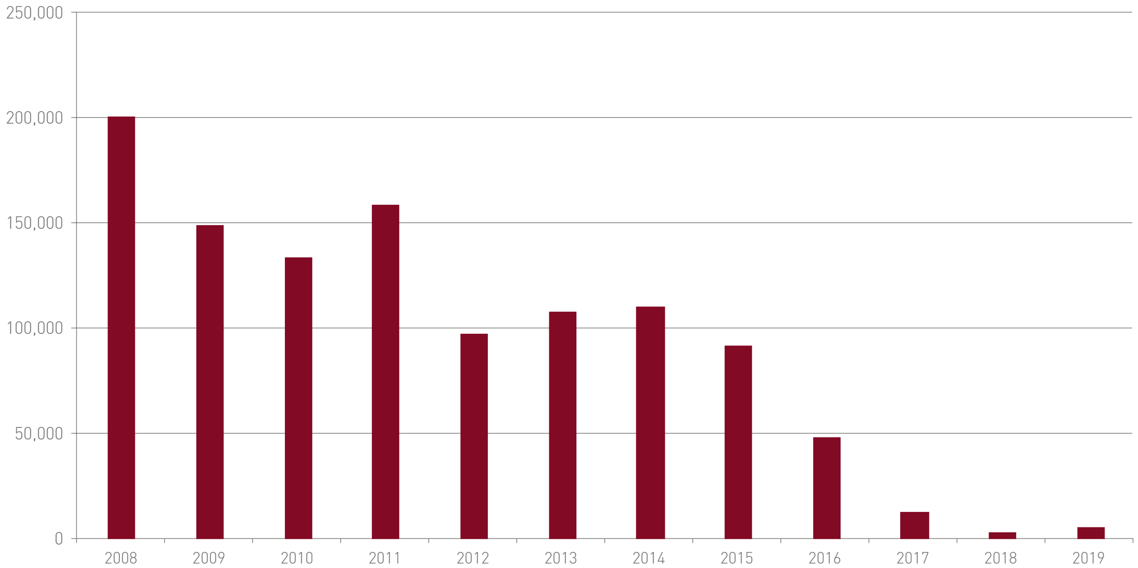
From October 2008 and throughout 2019, the weekly main refinancing operations (MROs) were conducted through a fixed rate tender procedure, with all tenders being allotted at the MRO rate.

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.

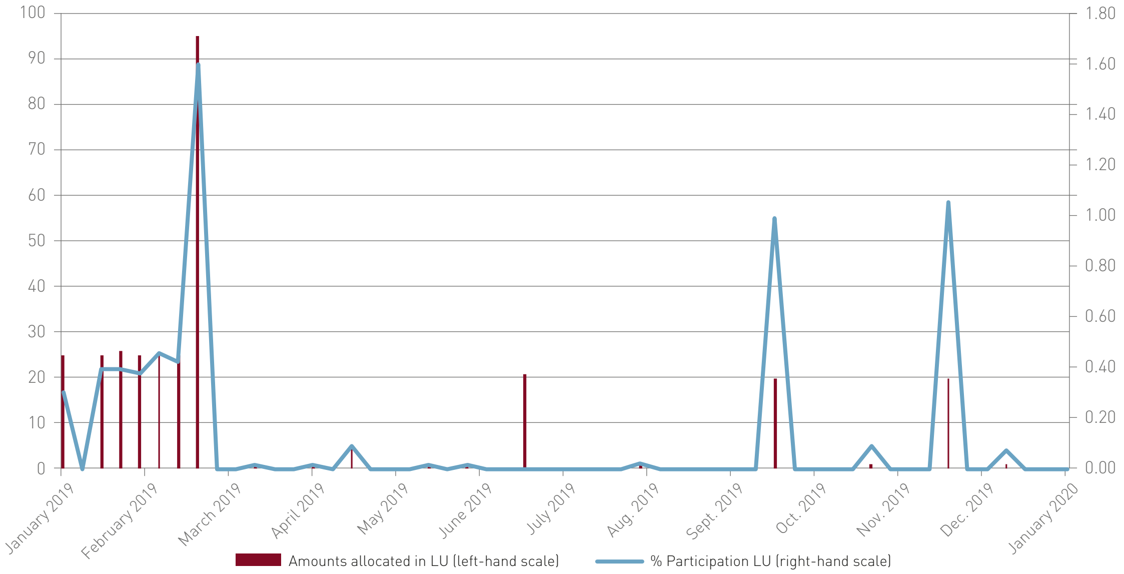
In 2019, at euro area level, participation in the MROs increased slightly from the historical low observed in 2018, reaching an average of €6.02 billion borrowed on average per week. The table below shows the annual change in the average amounts borrowed per operation in the euro area since 2008.

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.

<u>Marginal lending facility</u>

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

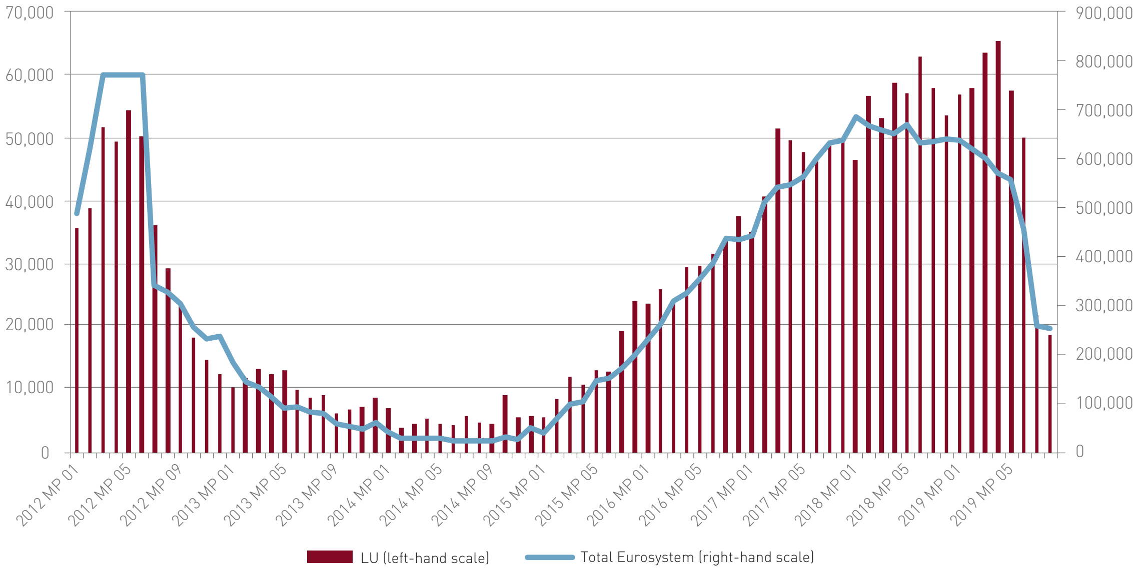
<u>Deposit facility</u>

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.

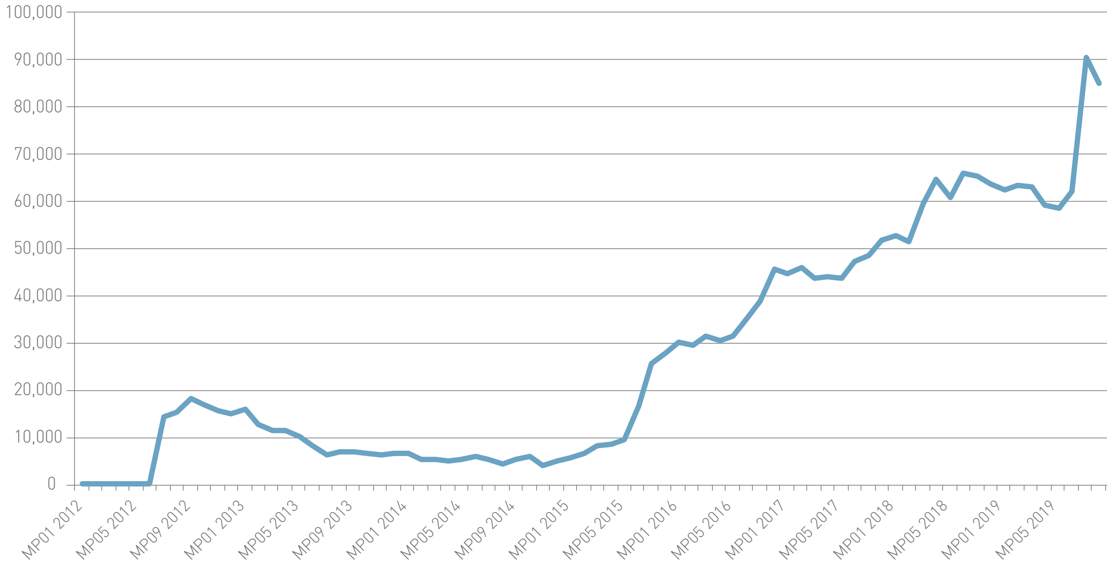
The multiplier and the rate of remuneration of the excess liquidity not subject to the deposit facility rate may be changed over time.

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

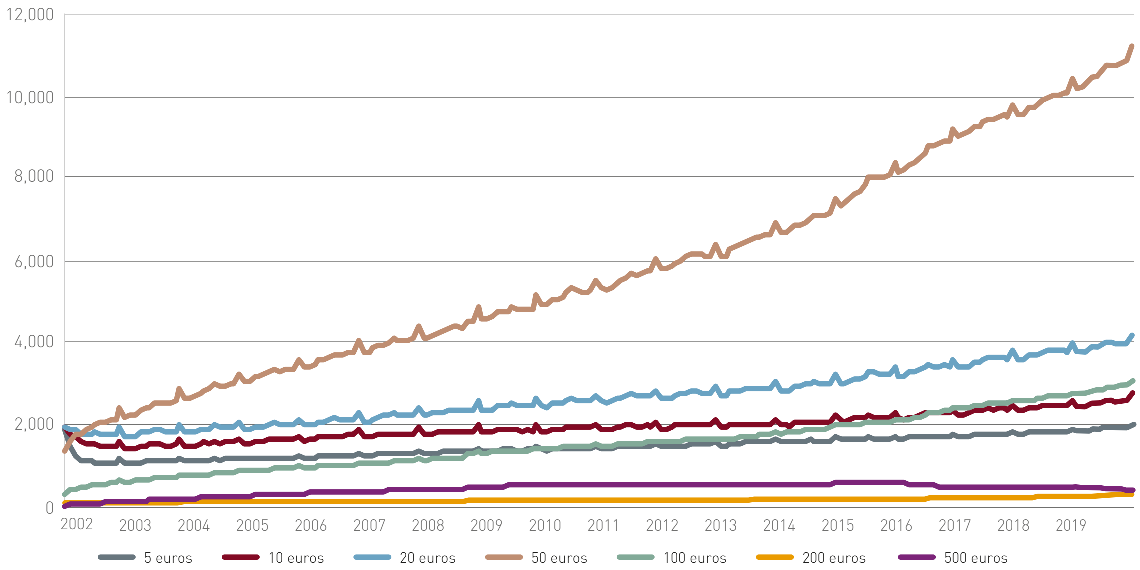
During the year under review, the BCL issued 2.7 million notes. The number of €10 and €20 banknotes paid in by financial institutions exceeded the number of banknotes withdrawn. This phenomenon is explained by the fact that these denominations are brought into the country by tourists and, particularly,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

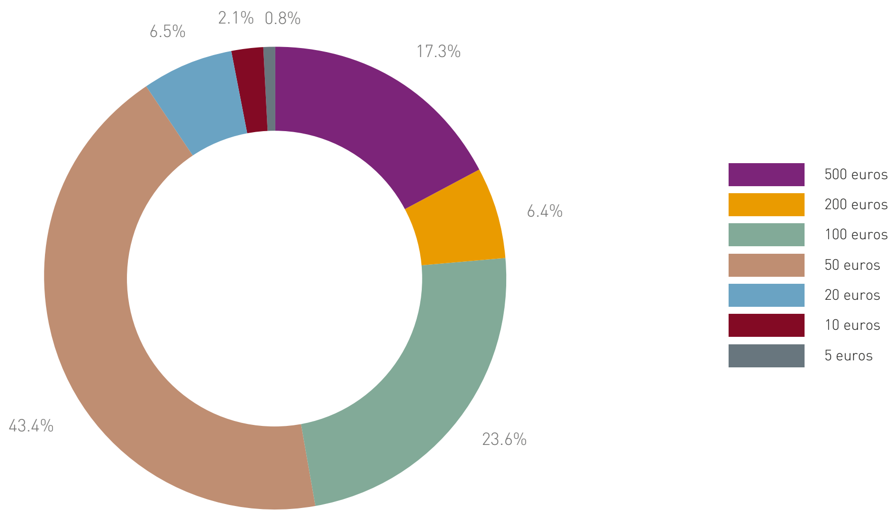
Chart 5:
Evolution of the number of euro banknotes put into circulation by the Eurosystem since 2002
(in millions of banknotes)



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

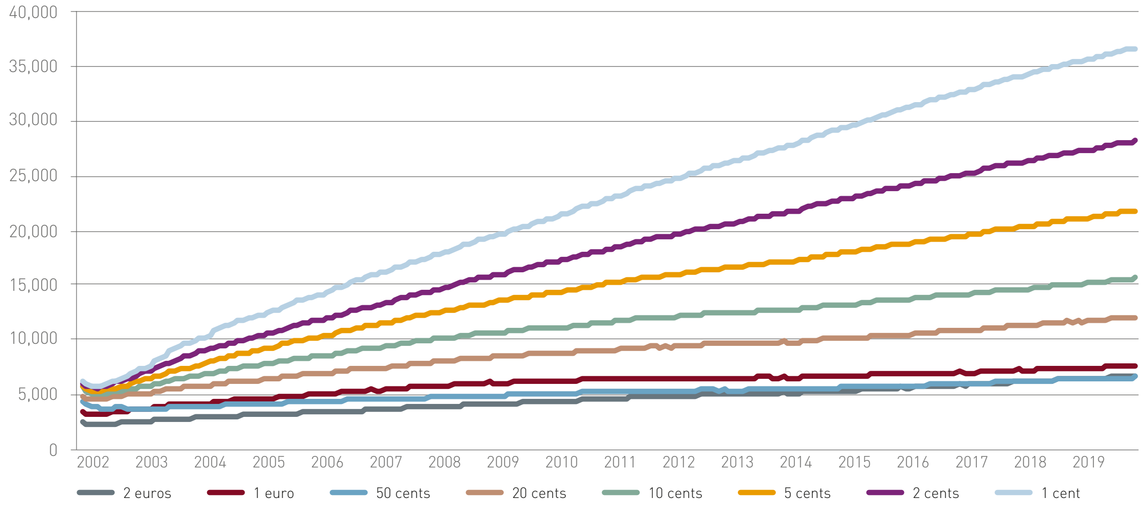


Source: ECB

1.4.2.1.2 Coins

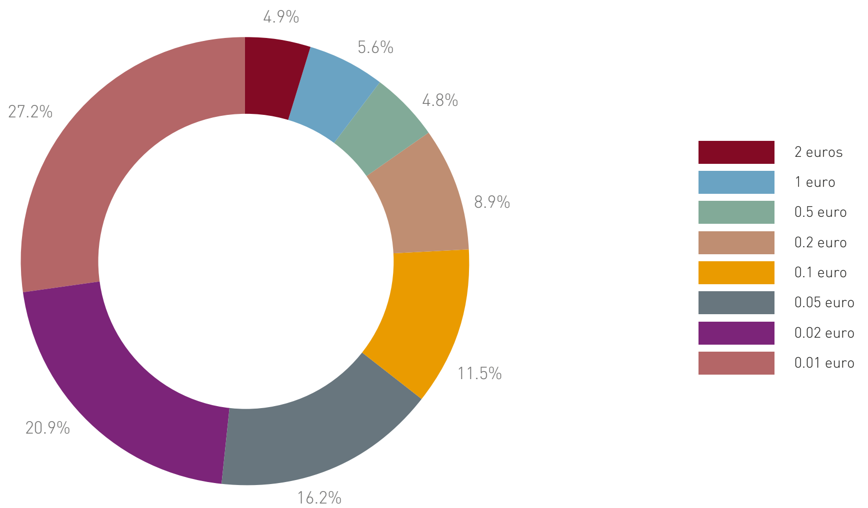
The volume of coins put into circulation in Luxembourg in 2019 increased by 26.48 million units, a 3.1% increase compared to the previous year. At euro area level, the total number of euro coins in circulation grew by 3.3%, reaching 135.1 billion coins. The value of euro coins in circulation in the euro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

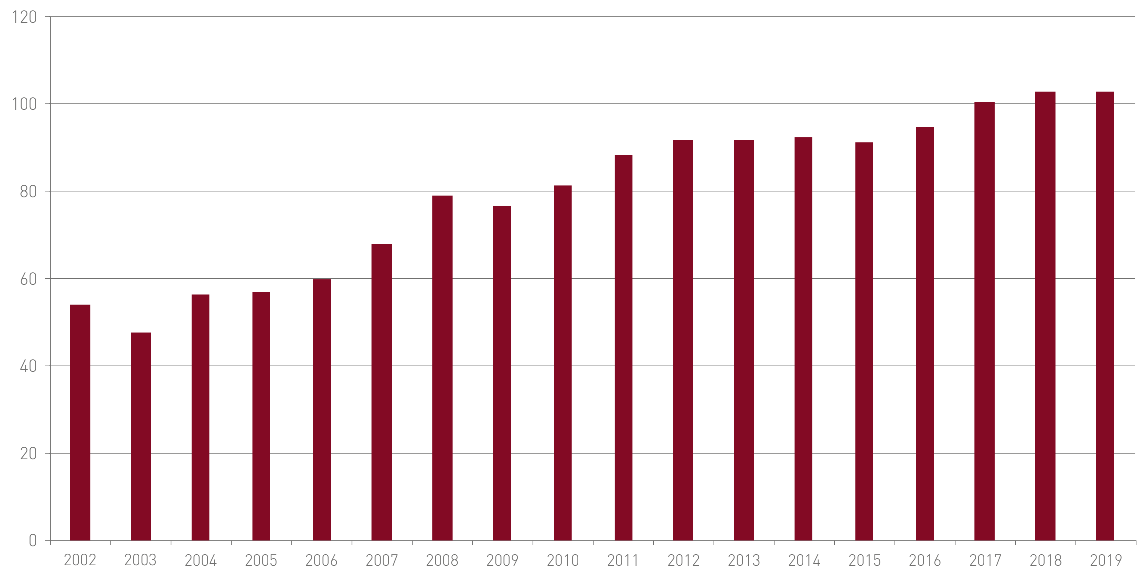
As of end-2004, Luxembourg franc coins are neither reimbursed nor exchanged.

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*

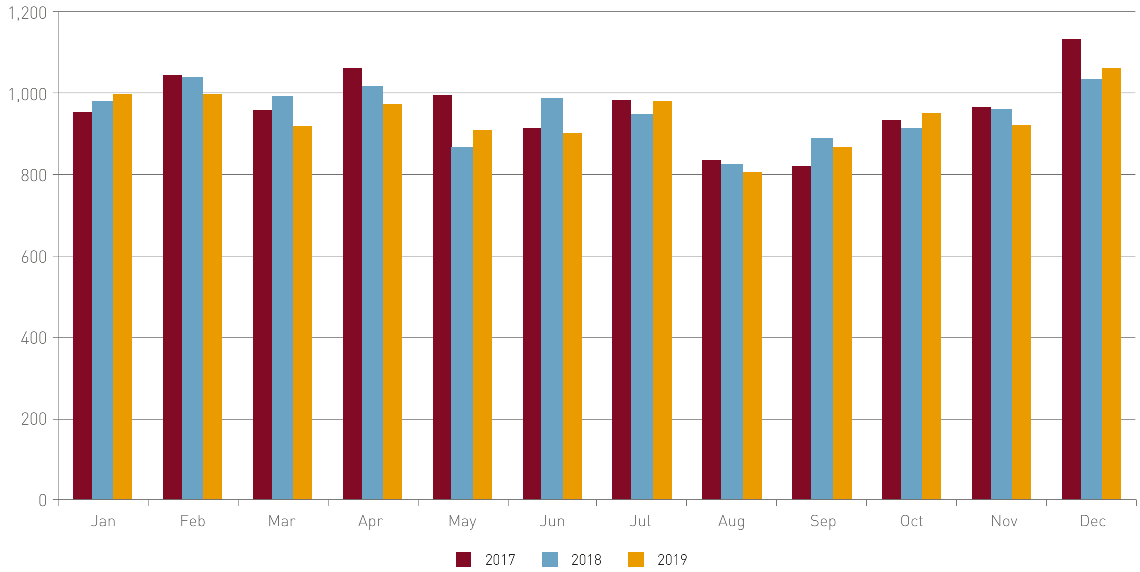
9 The 25 central banks include: the ECB and the 19 NCBs plus five central banks of EU countries which have not (yet) adopted the euro (Bulgaria, Croatia, Denmark, Poland and Romania).

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.

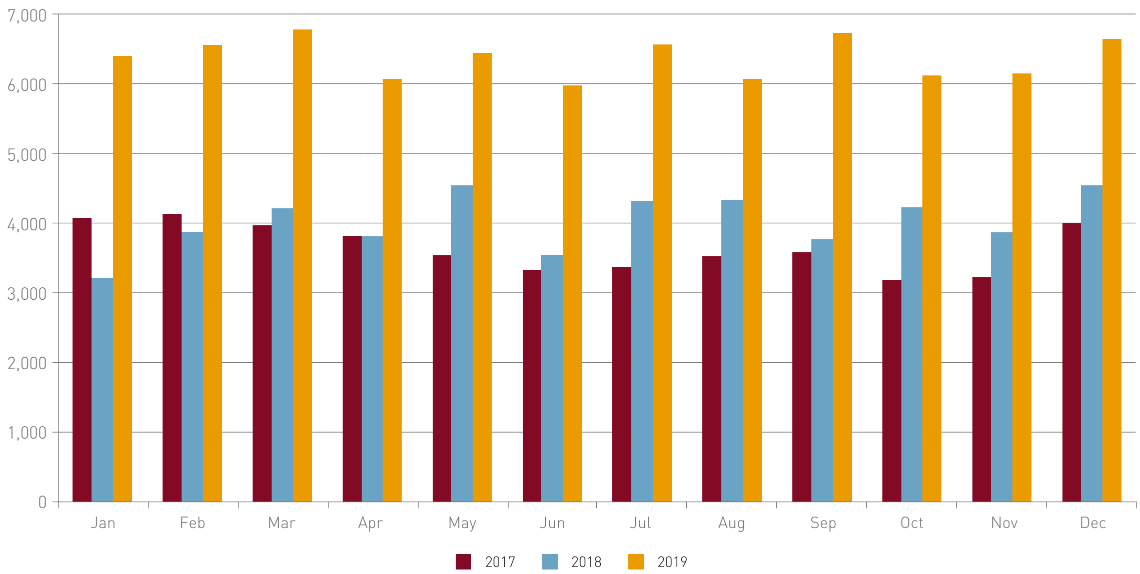
The following two charts 10 and 11 illustrate the developments in average daily volumes and values in domestic payments.

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.

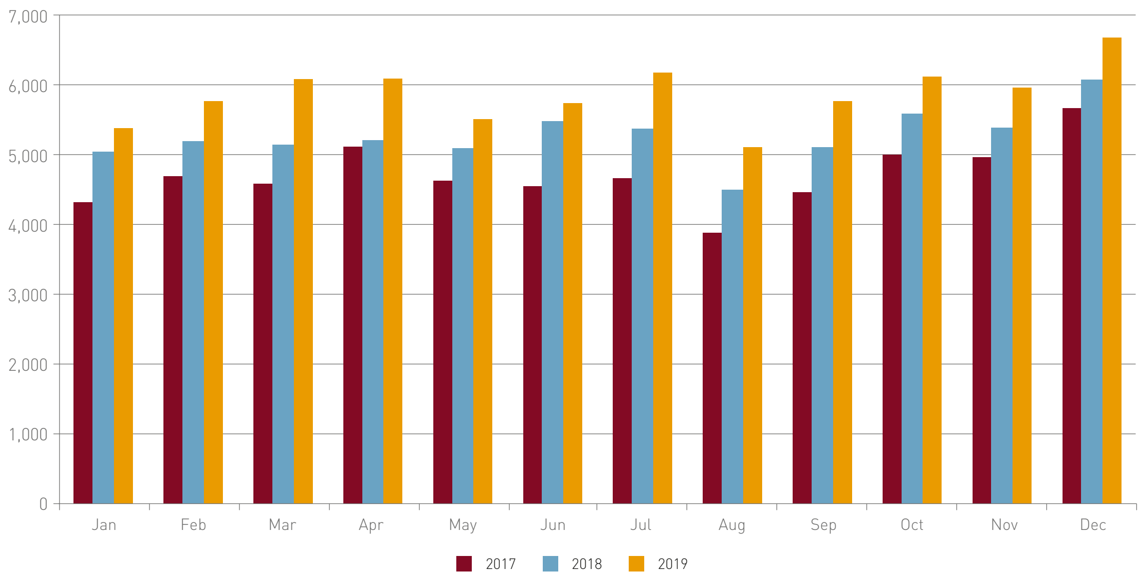
In value terms, the average monthly retail payments increased by 3.7% to an average of €47.22 billion, representing 4.4% of the total value exchanged. The value of monthly interbank cross border payments increased by 29% to €1 037.6 billion.

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

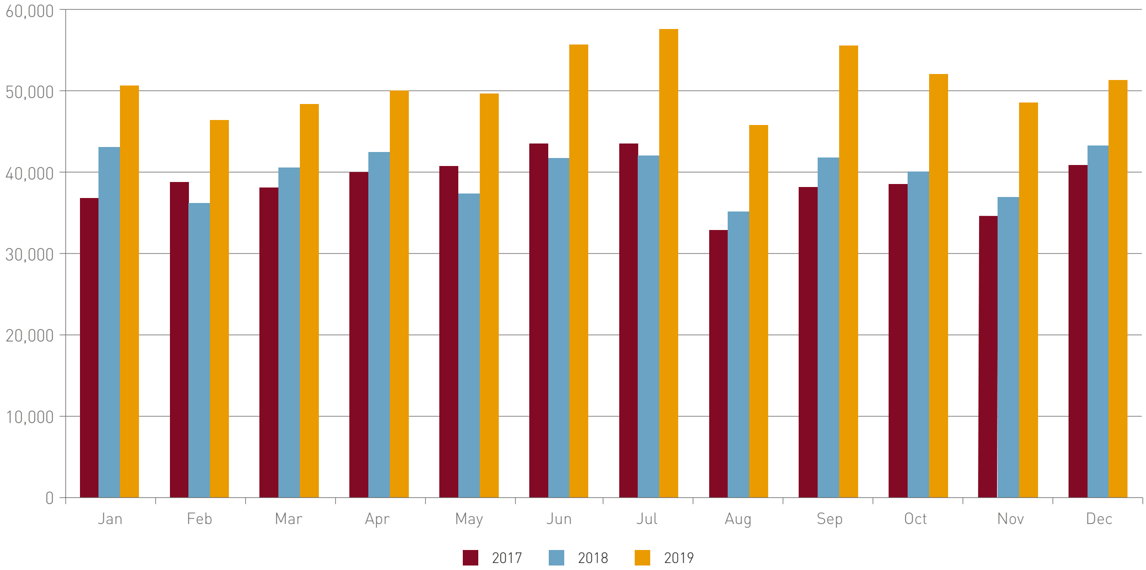


Sources: CRAKS1/TARGET2

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

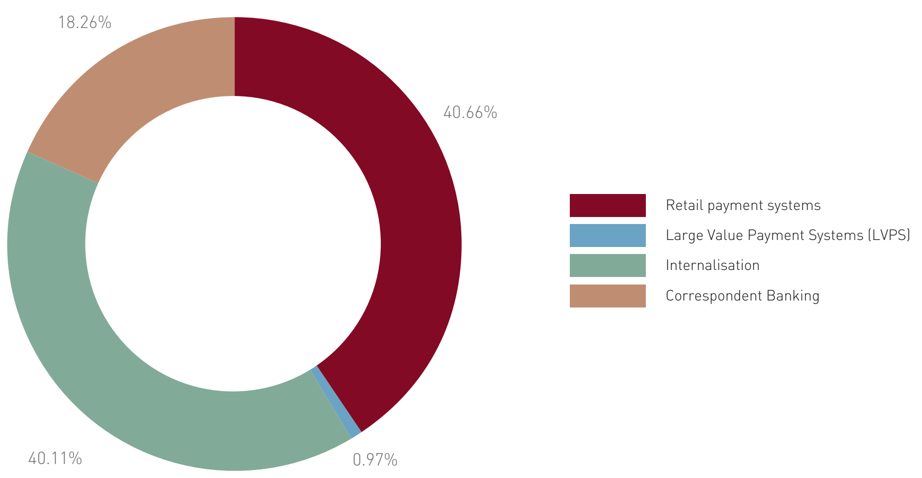
Source: BCL

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

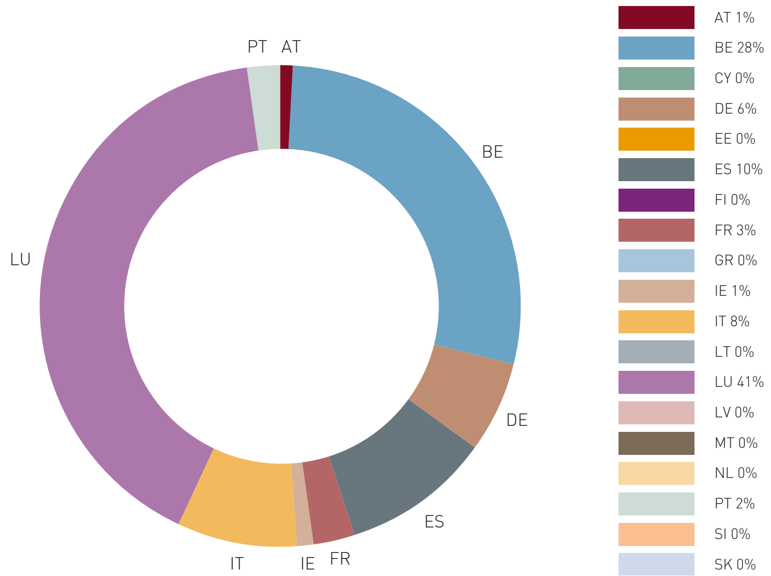
The Correspondent Central Banking Model (CCBM) enables all counterparties of the Eurosystem to use securities on a cross-border basis even if there is no eligible link between the national depository and the foreign depository in which the counterparty holds securities.

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%).

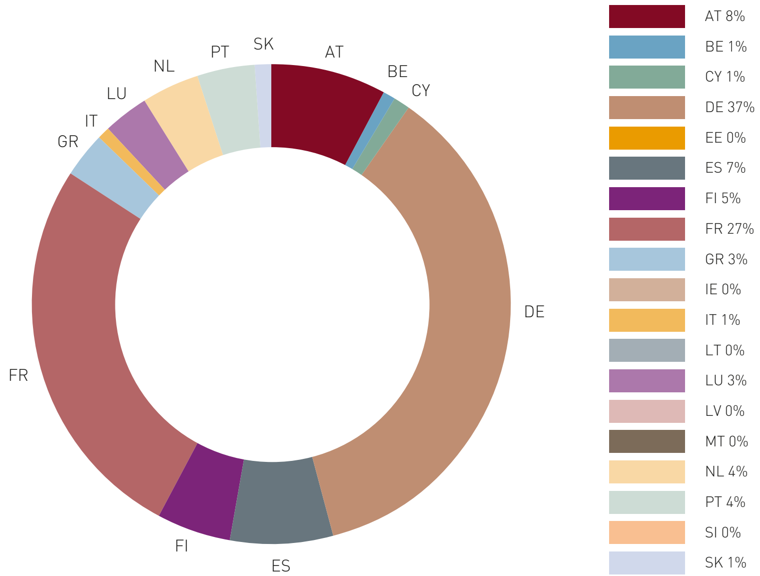
Chart 15:
Correspondent central banks 2019



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

2) Links established between securities settlement systems of CSDs

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).

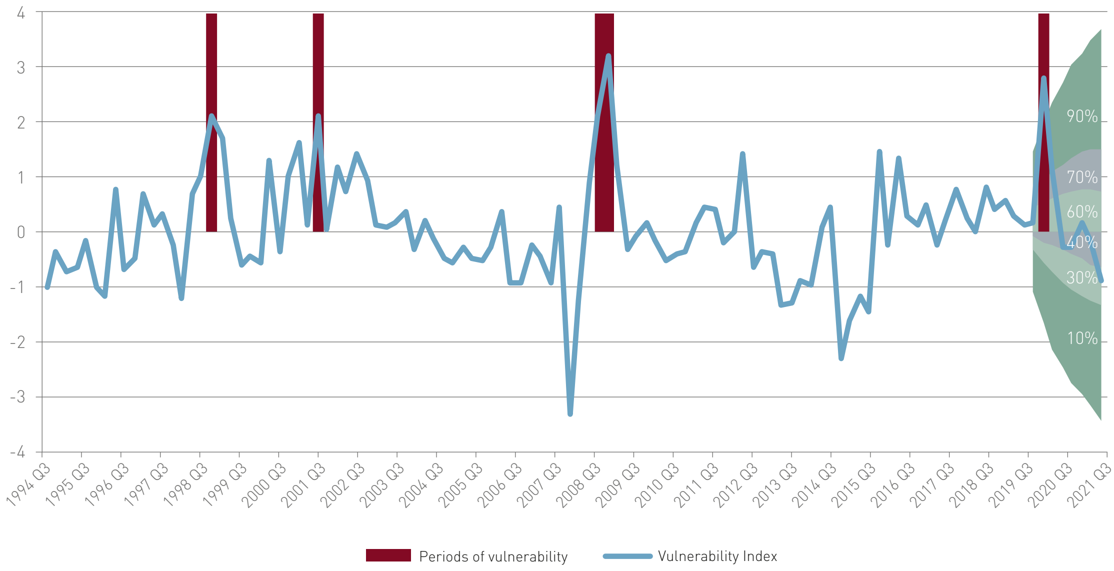
46 Article 2(5) of the organic law of the BCL.

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

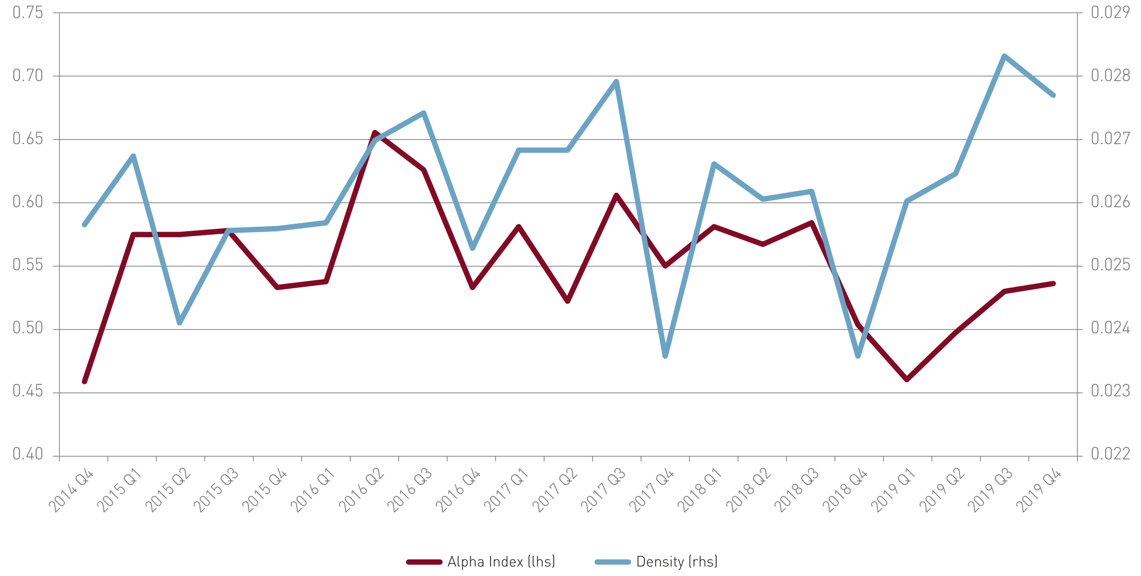
Measures of vulnerability for Undertakings for Collective Investment (UCITS) were also developed in order to assess potential systemic credit risk arising from the interconnections between the different categories of investment funds as well as their interactions with the macroeconomic environment. The 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.

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.

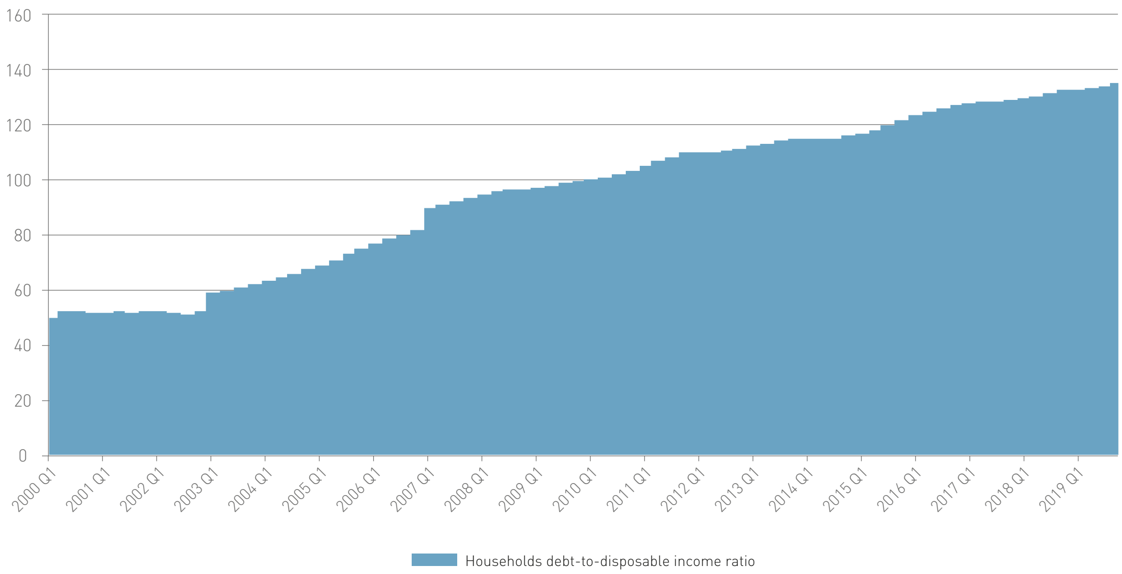
62 See Recommendation B-3 of the Recommendation of the ESRB of 22 December 2011 on the macro-prudential mandate of national authorities to Member States (ESRB/2011/3).

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)

Arvind Krishnamurthy (Stanford Graduate School of Business)

Maurice Obstfeld (University of California, Berkeley)

Pierre-Olivier Gourinchas (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.

University cooperation

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 14th 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.

02 THE BCL AS AN ORGANISATION

2 THE BCL AS AN ORGANISATION

2.1 CORPORATE GOVERNANCE

2.1.1 The Council

Article 6 of the Founding Law of 23 December 1998 defines the powers of the Council of the Bank. In 2019, the Council consisted of the following members:

President: Mr Gaston Reinesch
Members: Mr Pierre Beck
Mr Pit Hentgen
Ms Nadia Manzari
Ms Martine Reicherts
Mr Romain Schintgen
Mr Roland Weyland
Mr Michel Wurth
Mr Claude Zimmer

During 2019, the Council held six meetings. The Council approved the financial accounts as at 31 December 2018, the budgetary trends and subsequently the budget for the 2020 financial year.

Audit Committee

Since 2001, the Audit Committee, composed of members of the Council, has assisted the BCL Council in selecting the statutory auditor to be proposed to the Government, in determining the scope of the specific controls to be performed by the statutory auditor, and in the approval of the financial accounts by the Council. The Audit Committee is informed of the internal audit plan. It may invite the head of Internal Audit and the BCL's statutory auditor to assist in carrying out its work.

At its meeting on 14 December 2018, the Council reappointed the members of the Audit Committee for the 2019 financial year: Mr. Pit Hentgen, Mr. Romain Schintgen and Mr. Claude Zimmer. The Audit Committee, which was chaired by Mr. Claude Zimmer in 2019, met four times.

2.1.2 The Governor

His Royal Highness Grand Duke Henri of Luxembourg, based on a proposal by the Government in Cabinet, appointed Mr Gaston Reinesch as the Director General (Governor) of the Banque centrale du Luxembourg for a renewed six-year period as of 1 January 2019.

2.1.3 The Executive Board

The Executive Board is the highest executive authority of the BCL. It takes the decisions and draws up the measures necessary for the institution to carry out its tasks.

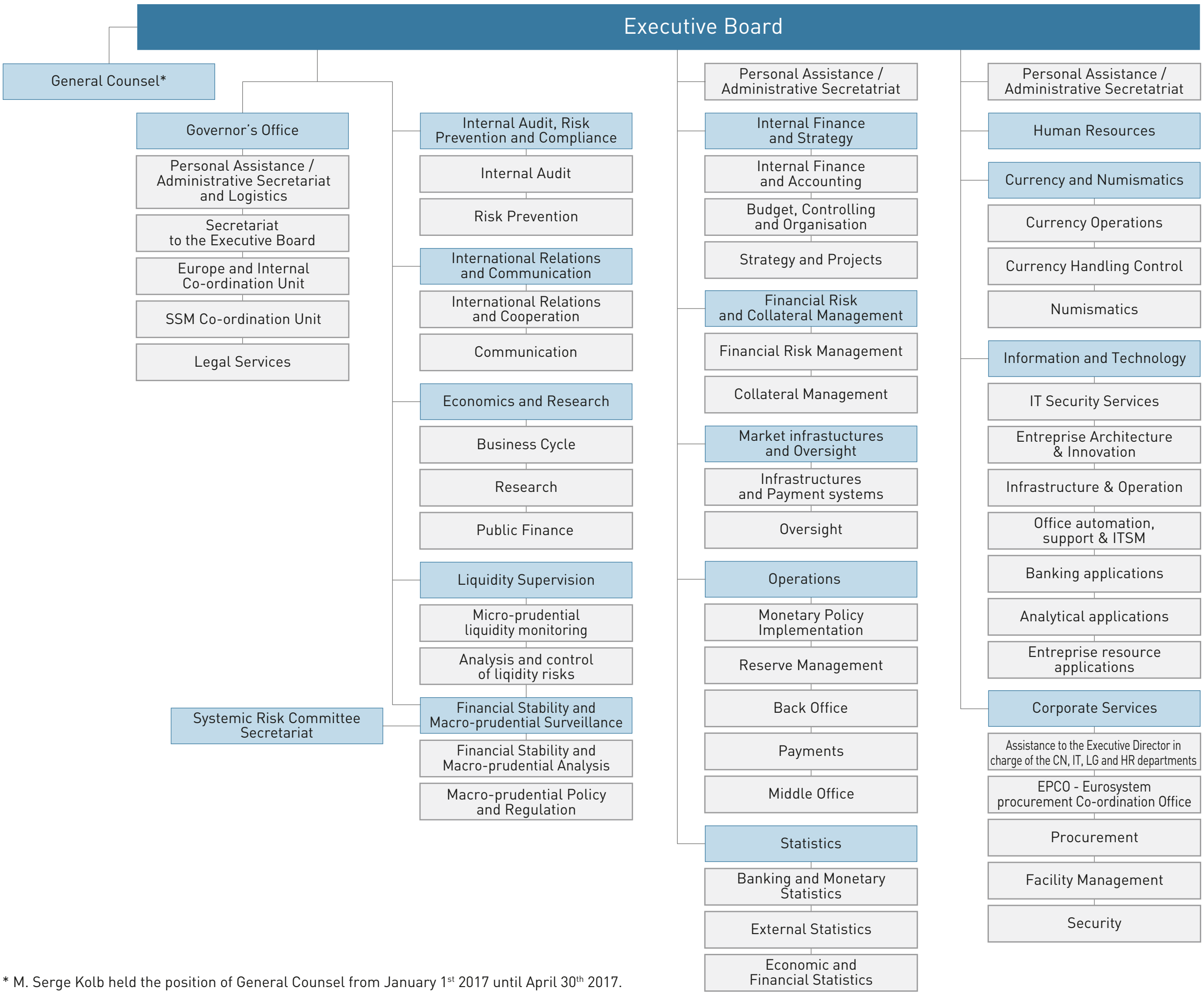
Without prejudice to the independence of the Director General from any instructions in his capacity as a member of the Governing Council of the European Central Bank (ECB), the decisions of the Executive Board shall be taken collectively.

The Executive Board consists of a Director General and two Directors. The composition consists of the following members as at 31 December 2019:

- Director General: Mr Gaston Reinesch;
- Directors: Mr Pierre Beck and Mr Roland Weyland.

The members of the Executive Board receive a salary according to the wage scale in the public sector as well as different allowances. The remuneration components are subject to the current legal tax rates (i.e. the progressive tax rate) in Luxembourg.

2.1.4 Organisation chart as at 31 December 2019



* M. Serge Kolb held the position of General Counsel from January 1st 2017 until April 30th 2017.

2.1.5 Internal control and risk management

The BCL's internal control and risk management system is based on generally accepted principles in the financial sector and within the European System of Central Banks and the Single Supervisory Mechanism (ESCB/SSM), taking into consideration the specific central banking activities.

The Executive Board has defined the general framework and the principles of the internal control system, which is based on the three lines of defense model.

Responsibility for the effective operation of the internal control rests with the first line of defense composed of the management and its employees.

The second line of defense consists of the entities responsible for specific areas of expertise to ensure segregation of duties appropriate to the BCL's activities. These units are the Financial Risk Management and Collateral Management sections, the Risk Prevention section as well as the Controlling function and Project Management Office (PMO):

- The Financial Risk Management section is responsible for the analysis of financial risks, the surveillance of the implementation of decisions taken by the committees and the Executive Board, the surveillance of the investment limits and reporting on these matters;

- The Collateral Management section is entrusted with the risk management responsibility in the field of collateral, and in particular for ABS (asset-backed securities);

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

  While operational departments are responsible for identifying the risks associated with their activities and for implementing appropriate measures to mitigate those risks, the Risk Prevention section has the following responsibilities:

  - establish a common methodology for risk analysis;
  - provide assistance in the identification and evaluation of risks;
  - ensure periodical reporting on the residual operational risks.

  The Risk Prevention section is also in charge of coordinating the Business Continuity Plan and the related testing. Since the end of 2019, the manager in charge of the Risk Prevention section also serves as the *Chief Information Security Officer (CISO)* and is entrusted with the BCL's cyber resilience programme.

  The Compliance function, which is administratively attached to the Risk Prevention section, aims to identify, evaluate and monitor the risk of non-compliance within the BCL. The Compliance function's role is to intervene in the following areas:

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

- The Controlling function provides assurance that the available resources are used effectively and any misuse is detected without delay. It ensures the proper functioning of the budgetary procedure and supervises the execution of the budget. It reports on a regular basis on the follow-up thereof. The Project Management Office (PMO) is entrusted with the same responsibilities in the area of project management.

As the third line of defense, the Internal Audit unit is in charge of the independent and objective evaluation of the internal control system and of its operation. The Internal Audit unit is independent from the other administrative units and reports directly to the President of the Council.

The Internal Audit unit relies on internationally accepted professional standards, as applied by the ESCB/SSM. The annual internal audit plan includes audit engagements at national level, as well as audits that are coordinated by the Internal Auditors Committee, in compliance with the ESCB/SSM audit charter. The Internal Audit unit may issue recommendations to be implemented by the entities in charge. The Internal Audit ensures their follow-up.

Finally, the Audit Committee is informed about the internal control and risk management framework and of its operation.

2.1.6 External control

In accordance with Article 15 of the organic law of the BCL, the statutory auditor, appointed by the Government for a period of five years, is responsible for verifying and certifying the accuracy and completeness of BCL's accounts. Moreover, the external auditor is mandated by the BCL's Council to perform additional reviews and specific controls.

At European level, the nomination of BCL's statutory auditor is approved by the Council of Ministers of the EU, upon recommendation of the Governing Council of the ECB. In this context, the statutory auditor is also entrusted with the performance of specific engagements at Eurosystem level.

In accordance with the appointment and approval process provided for by the Statute of the ESCB and of the ECB (Article 27.1), a procedure for selecting the next auditor for the period 2019 to 2023 was launched in 2018, following an open call for tenders at European level. As of 14 February 2019, the Governing Council of the ECB recommended Ernst & Young S.A. to the Council of the European Union, which issued its approval on 19 March 2019. The Government nominated Ernst & Young S.A. as the BCL's external auditor following a ministerial decree dated 14 May 2019.

2.1.7 Codes of Conduct

A Code of Conduct defining internal and external rules of conduct is applicable to all BCL staff. Without prejudice to the provisions of civil service legislation, social legislation and existing contractual commitments, this Code provides for ethical standards of non-discrimination, integrity, independence and professional secrecy, to which all addressees have to strictly adhere.

The application of the Code of Conduct, in respect of the Director General, on his request, has been further strengthened at his own expense. Furthermore, in order to avoid any suspicion of conflict of interest in connection with his function as a member of the Governing Council of the ECB, the Director General does not participate in the BCL's investment committees responsible for managing the BCL's portfolios. In addition, as regards the Executive Board, the Director General does not take part in the deliberations on this subject. As the President of the Council, his responsibilities are limited to those of an administrator.

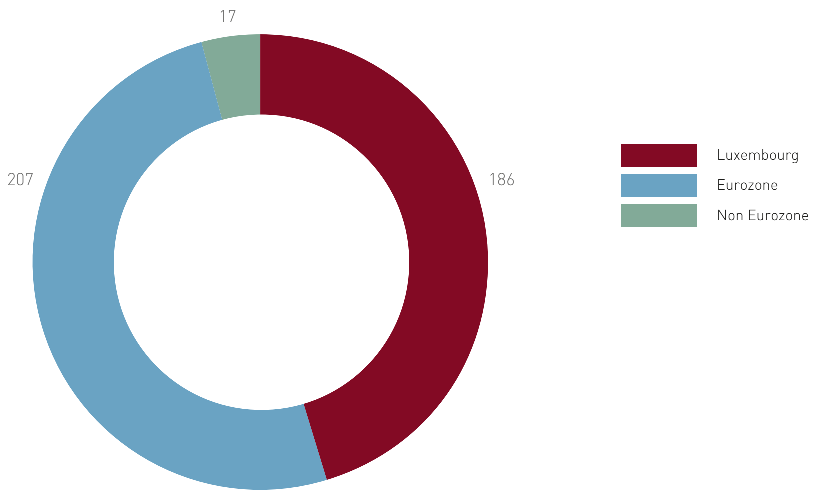
As of 1 January 2019, the ECB's Single Code of Conduct became applicable, replacing the Codes applicable to the Governing Council and the Supervisory Board. This new Code establishes a harmonised system of rules for members of the *High Level ECB bodies.*

2.2 HUMAN RESOURCES

2.2.1 Evolution of the workforce

The workforce at the Banque centrale du Luxembourg (BCL) has continued to grow. As of 31 December 2019, the BCL employed 410 people, representing 396.47 full-time equivalents. This workforce was made up of 26 different nationalities, which represents a source of enrichment for the institution's human capital.

Chart 20:
Distribution of agents according to their nationality



The BCL is experiencing a gradual renewal of its teams: in 2019, 35 new staff members were hired, 6 staff members left and 11 staff members retired.

2.2.2 Human Resources Management

In 2019, the HR department put in place a framework and an organisation of the department that meets the current and future needs of the Bank:

- HR team organisation and structure: redefinition of the team's roles and responsibilities and establishment of an HR partnership with the Bank's various departments;
- process modelling for continuous improvement and automation of certain tasks;
- upgrading of available HR tools and their deployment.

In the area of recruitment, BCL pays particular attention to developing its employer brand. It takes regular action and maintains a regular presence at recruitment fairs and on social networks.

The Graduate Programme, introduced in 2018, has enabled four young graduates to be integrated into a training programme dedicated to the specific professions of central bankers.

The training policy has been defined in such a way as to enable BCL employees to perform their duties in an optimal manner through an adequate mastery of the required knowledge.

The training catalogue is continually enriched by offers of introductory, continuing and specialised training to ensure that it is in line with the required skills, which are constantly evolving.

2.2.3 BCL Pension Fund

Because of the special status reserved by the legislator to the BCL, in 2001, the institution launched a pension fund in order to finance the statutory pension liabilities (1st pillar) of its staff members. The BCL affiliates staff members of different statuses to the fund, according to the provisions of its organic law.

The pension fund is set up within the Bank and is managed autonomously. In order to ensure exemplary transparency in its financial situation, the pension fund has its own separate accounts with an identification of its assets and its liabilities in the balance sheet of the BCL.

In order to ensure good governance, the pension fund is supervised by a decision-making body, the Steering Committee which appoints the stakeholders and validates the strategic axis and the general principles governing the investment and treasury policy of the pension fund. These strategic axes are proposed to the Steering Committee by an advisory Committee, the ALCO Committee.[145]

Since the State does not intervene in the financing of the statutory pensions (1st pillar) of BCL staff members, the pension fund is exclusively financed, on the one hand, by pension deductions made on the salaries of the staff members in compliance with the rules of the pension scheme applicable to them according to their status and, on the other hand, by the regular and ad hoc payments made by the Bank itself.

2.3 INTERNAL FINANCE AND STRATEGY

2.3.1 Accounting and reporting

The BCL regularly updates its accounting system and its procedures in order to meet the quality standards of the Eurosystem. As in previous years, the BCL has participated in the Working Groups on ESCB's financial framework and has transposed the accounting revisions accordingly.

The Eurosystem imposes specific harmonised rules on the daily reporting of balance sheet data by each central bank.

The control systems are adapted to changes in the operations carried out during the period under review.

The BCL regularly monitors the evolution of balance sheet items, off-balance-sheet items and the profit and loss accounts. Investments, revenues and expenses are monitored particularly closely with special attention to the correct execution of signing powers.

The monthly balance sheet of the BCL is published on its website.

The management information system, in the form of dashboard reports, satisfies the continuous need to oversee the Bank's activities. These tables include all activities of the Bank. The BCL strictly monitors the development of the interest margin and compares the profitability of its investments to set benchmarks.

The BCL's decision-making bodies are regularly informed of the results of these activities in order to determine future targets and actions.

145 *Assets and Liabilities Committee.*

2.3.2 Budget

The preparation of the budget, in accordance with the BCL's organic law, is part of the multi-year results planning framework, the primary aim of which is to ensure long-term financial equilibrium. The budget also determines the upper threshold of operational and investment expenses that the BCL may incur during a financial year.

The 2019 BCL budget has been drawn up in accordance with the budget procedure and the guidelines set out by the BCL's Council on 17 July 2018. It was approved by the Council of the BCL on 14 December 2018. On 5 July 2019, the BCL's Council approved an extension to the budget for a property project.

In particular, the 2019 BCL budget incorporates the following key elements:

- the Eurosystem's unconventional monetary policy measures have been prolonged in 2019 with an impact on the BCL's business volume;
- the Eurosystem's key interest rates remain at a historically low level, which has a negative impact on the BCL's net income;
- at Eurosystem level, cooperation continues with the ongoing consolidation of systems in operation, a significant number of joint projects and joint procurement procedures between national central banks under the aegis of the Eurosystem Procurement Coordination Office;
- at national level, the specialisation of the tasks to be performed also continues, in particular in macro-prudential supervision, the oversight of payment systems and securities settlement and statistical collection. The activities of the Systemic Risk Committee, for which the BCL provides the secretariat, generate an additional burden for the BCL;
- in view of a significant number of vacant positions and retirements, recruitment remains paramount. In view of the development of the Bank's activities, additional reinforcement of staff is necessary;
- the digitisation of operations and the strengthening of IT security continue;
- the BCL has continued its additional contributions to the Bank's pension fund;
- historically low interest rates combined with a constantly increasing workforce make it increasingly difficult to cover operating expenses with recurring income.

The Internal Finance and Strategy Department oversees budget execution and prepares quarterly reports for the attention of the Executive Board. At the end of each financial year, a detailed analysis of the variances between budgeted and actual expenditures is established. This analysis is submitted to the Management and the Executive Board and Council of the BCL for information purposes and approval. The conclusions that can be drawn from it are taken into account for the preparation of future budgets.

As at 31 December 2019, operating and investment expenses remained below budget.

2.3.3 Strategic Planning and Management Control

The purpose of Management Control is to strengthen efficiency and accountability within BCL, allowing the Executive Board to focus more on strategic decisions. To this end, Management Control assists the Executive Board by providing quantitative and qualitative analyses useful for decision-making.

In addition, the BCL also participated in several project controlling activities at Eurosystem and ESCB level in connection with the preparation and monitoring of joint projects and the underlying methodology.

Cost accounting, as an integral part of the Management Control function, identifies, analyses and monitors the costs associated with each activity. In addition, it is used to establish financial data for the invoicing of services provided. The methodology used is compliant with the harmonised set of rules at Eurosystem level. It consists of allocating BCL's operating expenses according to their purpose, i.e. to the entities concerned, and determining the expenses inherent to each of BCL's activities.

To facilitate planning and monitoring of the use of the necessary resources, the BCL has an analytical tool for measure and evaluating the allocation of human resources and material for the various missions of a central bank. Combined with the cost accounting system, it enables the Executive Board to better monitor the Bank's operational and organisational performance. In addition, reports containing both financial and operational indicators establish the correspondence between tasks and activities on the one hand, and the defined strategic axes and objectives on the other.

As for the new Strategy and Projects section, through its Project Management Office (PMO) function, it is in charge of coordinating and prioritising projects and managing BCL's project portfolio. The PMO assists the BCL Internal Steering Committee (BISC) and the Executive Board in the preparation of project decisions. In 2019, a new project methodology was finalised and approved.

The BISC, whose secretariat is provided by the PMO, monitors the progress of all ongoing projects as well as the launch of new projects. The Overall Project Monitoring Report (OPMR), prepared by the PMO on the basis of individual project progress reports, enables the BISC to better monitor the progress of individual projects and to ensure communication with the Executive Board on project matters.

As the BCL continues to develop its activities, a more comprehensive medium- and long-term planning remains a necessity. In 2019, BCL continued to develop a scorecard to identify areas of activity that need to be strengthened. Strategic planning efforts are being stepped up to ensure optimal alignment of the BCL with the current economic, financial and institutional environment.

2.4 FINANCIAL STATEMENTS

Preamble

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

2.4.1 Key figures as of year-end (in euro)

	2019	2018	Change in % 2019/2018
Total assets	207 256 558 436	227 941 615 519	-9%
Liabilities to credit institutions	100 531 528 383	119 841 344 531	-16%
Lending to credit institutions	4 724 610 000	5 141 440 000	-8%
Own funds [1], revaluation accounts, administrative provisions and specific banking risks provisions	1 295 474 562	1 270 346 840	2%
Net result from banking activities [2]	514 288 141	496 144 708	4%
Net result from banking activities adjusted by net monetary income allocation	71 105 371	70 543 874	1%
Total net income	86 481 525	86 244 300	0.3%
Administrative and operational expenses	84 491 422	84 256 015	0.3%
Net profit	1 990 103	1 988 284	0.1%
Staff	407	389	5%
BCL's weighting in the capital of the ESCB	0.2270%	0.2030%	
BCL's weighting in lending to credit institutions related to monetary policy operations	0.757%	0.700%	

([1]) Capital, reserves, provisions for general banking risks and net profit to be allocated to the reserves
([2]) Net ajusted interest income, net result from fees and commissions, net result on financial operations

2.4.2 Report of the Réviseur d'Entreprises agréé

Opinion

We have audited the financial accounts of Banque centrale du Luxembourg, which comprise the balance sheet as at 31 December 2019, and the profit and loss account for the year then ended, and the notes to the financial accounts, including a summary of significant accounting policies.

In our opinion, the accompanying financial accounts give a true and fair view of the financial position of the Banque centrale du Luxembourg as at 31 December 2019, and of the results of its operations for the year then ended in accordance with accounting principles generally accepted in Luxembourg and those defined by the European System of Central Banks.

Basis for Opinion

We conducted our audit in accordance with the Law of 23 July 2016 on the audit profession (the Law of 23 July 2016) and with International Standards on Auditing (ISAs) as adopted for Luxembourg by the "Commission de Surveillance du Secteur Financier" (CSSF). Our responsibilities under those Law and standards are further described in the "responsibilities of the "Réviseur d'entreprises agréé" for the audit of the financial accounts" section of our report. We are also independent of the Banque centrale du Luxembourg in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code) as adopted for Luxembourg by the CSSF together with the ethical requirements that are relevant to our audit of the financial accounts, and have fulfilled our other ethical responsibilities under those ethical requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other matter

The financial accounts of the Banque centrale du Luxembourg as at 31 December 2018 have been audited by another "Réviseur d'entreprises agréé" who expressed an unqualified opinion on these financial accounts on 20 March 2019.

Responsibilities of the Management for the financial accounts

The financial accounts are prepared by the Management and approved by the Council. The Management is responsible for the preparation and fair presentation of these financial accounts in accordance with accounting principles generally accepted in Luxembourg and those defined by the European System of Central Banks, and for such internal control as the Management determines is necessary to enable the preparation of financial accounts that are free from material misstatement, whether due to fraud or error.

In preparing the financial accounts, the Management is responsible for using the going concern basis of accounting.

Responsibilities of the "Réviseur d'entreprises agréé" for the audit of the financial accounts

Our objectives are to obtain reasonable assurance about whether the financial accounts as a whole are free from material misstatement, whether due to fraud or error, and to issue a report of the "Réviseur d'entreprises agréé" that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Law of 23 July 2016 and with ISAs as adopted for Luxembourg by the CSSF will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial accounts.

As part of an audit in accordance with the Law of 23 July 2016 and with ISAs as adopted for Luxembourg by the CSSF, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial accounts, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Banque centrale du Luxembourg's internal control;

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Management;

- Conclude on the appropriateness of Management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Banque centrale du Luxembourg's ability to continue as a going concern. If we concluded that a material uncertainty exists, we would be required to draw attention in our report of the "Réviseur d'entreprises agréé" to the related disclosures in the financial accounts or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our report of the "Réviseur d'entreprises agréé";

- Evaluate the overall presentation, structure and content of the financial accounts, including the disclosures, and whether the financial accounts represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Ernst & Young
Société anonyme
Cabinet de révision agréé

Sylvie Testa

Luxembourg, 20 March 2020

2.4.3 Balance sheet as at 31 December 2019

ASSETS	Notes	2019 EUR	2018 EUR
Gold and gold receivables	3	97 890 020	80 763 435
Claims on non-euro area residents denominated in foreign currency	4	839 875 979	740 507 367
- Receivables from the IMF	4.1.	627 715 115	583 385 660
- Balances with banks, security investments, external loans and other external assets	4.2.	212 160 864	157 121 707
Claims on euro area residents denominated in foreign currency	5	392 908 218	622 778 652
Claims on non-euro area residents denominated in euro	6	346 403 995	409 923 881
- Balances with banks, security investments and loans		346 403 995	409 923 881
Lending to euro area credit institutions related to monetary policy operations denominated in euro	7	4 724 610 000	5 141 440 000
- Main refinancing operations	7.1.	-	45 000 000
- Longer-term refinancing operations	7.2.	4 724 610 000	5 096 440 000
Other claims on euro area credit institutions denominated in euro	8	598 656 935	628 395 386
Securities of euro area residents denominated in euro	9	7 406 458 328	7 014 310 249
- Securities held for monetary policy purposes	9.1.	7 062 893 372	6 596 941 266
- Other securities	9.2.	343 564 956	417 368 983
Intra-Eurosystem claims	10	192 150 082 767	212 689 661 346
- Participating interest in the ECB	10.1.	51 256 492	36 396 638
- Claims equivalent to the transfer of foreign reserves to the ECB	10.2.	131 548 868	117 640 617
- Other claims within the Eurosystem	10.3.	191 967 277 407	212 535 624 091
Other assets	11	699 672 194	613 835 203
- Tangible and intangible assets	11.1.	110 438 231	54 707 733
- Other financial assets	11.2.	504 192 311	471 893 118
- Accruals and prepaid expenses	11.3.	78 711 285	83 259 995
- Sundry	11.4.	6 330 367	3 974 357
Total assets		**207 256 558 436**	**227 941 615 519**

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

LIABILITIES	Notes	2019 EUR	2018 EUR
Banknotes in circulation	12	3 878 226 000	3 268 660 770
Liabilities to euro area credit institutions related to monetary policy operations denominated in euro	13	100 531 528 383	119 841 344 531
- Current accounts (covering the minimum reserve system)	13.1.	81 314 028 383	69 766 448 907
- Deposit facility	13.2.	19 217 500 000	50 074 895 624
Other liabilities on euro area credit institutions denominated in euro		-	10
Liabilities to other euro area residents denominated in euro	14	2 850 181 041	2 988 649 105
- General government	14.1.	795 220 864	801 617 708
- Other liabilities	14.2.	2 054 960 177	2 187 031 397
Liabilities to non-euro area residents denominated in euro	15	2 071 037 576	4 041 904 009
Liabilities to non-euro area residents denominated in foreign currency	16	524 545 623	598 130 381
Counterpart of special drawing rights allocated by the IMF	17	304 307 452	299 744 937
Intra-Eurosystem liabilities	18	95 291 292 570	95 166 762 155
- Net liabilities related to the allocation of euro banknotes within the Eurosystem	18.1., 12	95 291 292 570	95 166 762 155
Items in course of settlement		20	140 364
Other liabilities	19	75 726 610	65 073 398
- Accruals and income collected in advance		68 667 567	56 839 002
- Sundry		7 059 043	8 234 396
Provisions	20	1 384 006 812	1 348 923 888
- Provision for banking risks	20.1.	949 820 296	948 332 888
- Provision for pensions	20.2.	433 980 816	400 394 500
- Other provisions		205 700	196 500
Revaluation accounts	21	146 064 392	124 630 117
Capital and reserves	22	197 651 854	195 663 570
- Capital	22.1.	175 000 000	175 000 000
- Reserves	22.2.	22 651 854	20 663 570
Profit for the year	40	1 990 103	1 988 284
Total liabilities		**207 256 558 436**	**227 941 615 519**

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

2.4.4 Off-balance sheet as at 31 December 2019

	Notes	2019 EUR	2018 EUR
Securities received as collateral	23	130 031 953 392	127 455 615 176
Foreign currency reserve assets managed on behalf of the ECB	24	430 850 043	391 624 275
Futures - Purchases	25	-	87 336 200
Futures - Sales	25	-	65 200 000

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

2.4.5 Profit and loss account for the year ending 31 December 2019

	Notes	2019 EUR	2018 EUR
Interest income	26	562 139 521	540 879 791
Interest expense	26	(47 837 615)	(47 445 718)
Net interest income	26	**514 301 906**	**493 434 073**
Realised gains/(losses) arising from financial operations	27	1 152 838	13 938 270
Write-downs on financial assets and positions	28	(429 403)	(10 841 265)
Transfer (to)/from provisions for risks	29	(1 703 343)	2 615 180
Net result of financial operations, write-downs and risk provisions		**(979 908)**	**5 712 185**
Fees and commissions income	30	10 115 925	9 840 956
Fees and commissions expense	30	(10 853 124)	(10 227 325)
Net result from fees and commissions	30	**(737 199)**	**(386 369)**
Income from participating interests	31	8 694 108	5 444 391
Net result of pooling of monetary income	32	(443 182 770)	(425 600 834)
Other income	33	8 385 390	7 640 854
Total net income		**86 481 527**	**86 244 300**
Staff costs	34	(47 160 539)	(44 797 585)
-Gross salaries		(44 980 322)	(42 686 187)
-Other staff costs		(2 180 217)	(2 111 398)
BCL's contribution to the legal pension scheme	35	(9 887 056)	(12 119 599)
Other administrative expenses	36	(19 506 233)	(18 083 297)
Depreciation of tangible and intangible assets	11.1., 37	(4 634 564)	(6 295 275)
Banknote production services	38	(882 899)	(346 581)
Other expenses	39	(2 420 133)	(2 613 679)
Result of the year	40	**1 990 103**	**1 988 284**

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

2.4.6 Notes to the financial statements as at 31 December 2019

NOTE 1 – GENERAL INFORMATION

The Banque centrale du Luxembourg ("the BCL" or "the Bank") was founded in accordance with the law of 22 April 1998. The Founding Law of 23 December 1998 as modified, stipulates that the main task of the BCL shall be to contribute to the exercise of the tasks of the European System of Central Banks (ESCB) so as to achieve the objectives of the ESCB. The BCL is also responsible for the oversight of the general market liquidity situation and the evaluation of the market participants in this respect. The BCL is authorised to take and sell participations as well as, in exceptional circumstances, to make short-term lending to counterparties with appropriate guarantees. In addition, establishing the single supervisory mechanism, the macro-prudential authority, the single resolution mechanism, and the deposit guarantee scheme have resulted and continue to entail new missions and responsibilities for the BCL.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The principal accounting policies applied in the preparation of the financial statements are set out below:

2.1 Layout of the financial statements

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

2.2 Accounting principles

The following accounting principles have been applied:

- economic reality and transparency;
- prudence;
- recognition of post-balance sheet events;
- continuity of methods and comparability;
- relative significance;
- going concern concept;
- recognition of charges and income in the accounting period they relate to.

2.3 Basis of preparation

The financial statements have been prepared under the historical cost convention, modified to include the valuation at market prices of securities (other than those classified as held-to-maturity and those held for monetary policy purposes), gold and of all other on-balance-sheet and off-balance-sheet assets and liabilities denominated in foreign currency.

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

2.4 Gold and foreign currency assets and liabilities

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

When necessary, assets and liabilities denominated in foreign currencies are revalued on a currency by currency basis including on-balance sheet and off-balance sheet items.

Revaluation to the market price for assets and liabilities denominated in foreign currency is treated separately from the exchange rate revaluation.

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

2.5 Rules applicable to the portfolios held by the BCL

Securities currently held for monetary policy purposes are accounted for at amortised cost (purchase or transfer price adjusted by pro rata of premiums and discounts) (subject to impairment).

Marketable securities other than securities held for monetary policy purposes and those classified as held-to-maturity are valued at the market price prevailing on the balance sheet date. Marketable securities classified as held-to-maturity are valued at amortised cost subject to impairment.

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

Off-balance-sheet instruments are revalued on an item-by-item basis. Daily changes in the variation margin of open interest rate futures contracts are recorded in the Profit and Loss Account.

The Agreement on Net Financial Assets (ANFA) is an agreement between the National Central Banks (NCBs) of the euro area and the European Central Bank (ECB), which together form the Eurosystem. The objective of this agreement is for the Governing Council of the ECB to ensure a full control of the consolidated balance sheet of the Eurosystem. The agreement sets rules and limits for holdings of financial assets which are related to national tasks of the NCBs other than the monetary policy. As part of this agreement, the principle of a dynamic exemption is foreseen in relation to the maximum amount of net financial assets (NFA). This dynamic exemption, which applies to the BCL, adjusts the historical waiver (ensuring that the NCBs do not have to reduce their NFA below a level which is linked to their historical starting position) over time in proportion to the growth or decline of Eurosystem maximum NFA.

2.6 Recognition of gains and losses

Income and expenses are recognised in the period in which they are earned or incurred.

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

At the end of the year, unrealised revaluation gains on foreign currencies, securities and financial instruments are not considered in the profit and loss account, but transferred to a revaluation account on the liabilities side of the balance sheet.

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

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

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

2.7 Presentation of interest income and expense

With a view to harmonizing at Eurosystem level, the interest income and expense arising from monetary policy operations are presented on a net basis on a balance sheet (sub-) item level under either "Interest income" or "Interest expenses", depending on whether the net amount is positive or negative.

2.8 Events after the reporting period

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

2.9 Banknotes in circulation

The ECB and the euro area NCBs, which together comprise the Eurosystem, issue euro banknotes. The total value of euro banknotes in circulation is allocated to the Eurosystem central banks on the last working day of each month in accordance with the banknote allocation key.

The ECB has been allocated a share of 8% of the total value of euro banknotes in circulation, whereas the remaining 92% has been allocated to NCBs according to their weightings in the capital key of the ECB. The share of banknotes allocated to each NCB is disclosed in the balance sheet under liability item "Banknotes in circulation".

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

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

2.10 Intra-Eurosystem claims and liabilities

Intra-Eurosystem balances result primarily from cross-border payments in the EU that are settled in central bank money in euro. They are settled in TARGET2 (Trans-European Automated Real-time Gross settlement Express Transfer system) and give rise to bilateral balances in the TARGET2 accounts of EU central banks. These bilateral balances are netted out and then assigned to the ECB on a daily basis, leaving each NCB with a single net bilateral position vis-à-vis the ECB only. Intra-Eurosystem balances of the BCL vis-à-vis the ECB arising from TARGET2, as well as other intra-Eurosystem balances denominated in euro are presented on the balance sheet of the BCL as a single net asset position and disclosed under "Other claims within the Eurosystem (net)".

Intra-Eurosystem claims and liabilities arising from TARGET2 balances and counterparties accounts are shown as a single net position on the balance sheet of the BCL.

There are other claims or liabilities of the BCL vis-à-vis the Eurosystem due to its participation in the capital of the ECB (see the sub-item "Participating interest in the ECB"), the transfer of a part of foreign reserves (see the sub-item "Claims equivalent to the transfer of foreign reserves"), the interim profit distributions and accrued liabilities from the ECB resulting from the distribution of the monetary income results and the allocation of euro banknotes between the NCBs and the ECB.

The "Participating interest in the ECB" sub-item includes:
(i) the NCBs' paid-up share in the ECB's subscribed capital, and
(ii) any net amount paid by the NCBs due to the increase in their shares in the ECB's equity value resulting from all previous ECB's capital key adjustments.

Intra-Eurosystem balances arising from the allocation of euro banknotes within the Eurosystem are included as a single net position under "Net liabilities related to the allocation of euro banknotes within the Eurosystem".

2.11 Treatment of tangible and intangible assets

The tangible and intangible assets, except for land and works of art, are stated at their acquisition cost less depreciation. Depreciation is calculated on a straight-line basis over the estimated useful life of the fixed asset:

	Years
Buildings	50
Renovation of buildings	10
Furniture and equipment	3-5
Computer hardware and software	4

The buildings are owned by the BCL in the perspective of a durable and very long-term use. The estimated useful life of the buidlings was reviewed in 2019 and align to this principle. Therefore, the economic benefits expected from the buildings is now fixed over a period of 50 years, instead of 25 years previously, this is in line with the practices recommended at the Eurosystem level according to the methodology established by the committee in charge of cost controlling (COMCO).

This revision of the amortisation plan for the buildings is considered as a change in estimates, which takes effect starting from the 2019 financial year.

2.12 Pension fund

Since 1 January 1999, after the entry into force of the Founding Law of 23 December 1998, as modified, the legal pension claims (1st pillar) of the BCL's staff are fully borne by the BCL. The pension fund was set up in 2000.

The actuarial method determines the pension fund's liability related to old age, disability or survival for each member of staff. The actuarial model is based, among other things, on each member of staff's personal and past and foreseeable career data, on the forecast of the cost and standard of living as well as on an average rate of return generated by the fund's assets.

The BCL's liabilities related to pensions are shown in the account "Provisions for pensions". The provision increases as a result of regular transfers from the wage share and from the notional employer's share and decrease by pension payments to retirees. At the year end, the provision is adjusted in the light of the new actuarial calculation. In addition, if necessary, periodic transfers from the account "Booking reserve of the pension fund", equivalent to the gains generated by the fund's assets, to adjust the account "Provision for pensions".

In cases where regular transfers and the results of the pension fund would be insufficient to cover the BCL's pension liabilities, the difference between the existing provision and the accrued liabilities valued by the actuary is covered in the same trend by an additional contribution from the BCL. The BCL applies the method of projected unit credit in line with international standards.

2.13 Provision for banking risks

In accordance with the prudence principle, the BCL's provision policy intends to cover specific and general risks resulting from the Bank's activities.

NOTE 3 – GOLD AND GOLD RECEIVABLES

As at 31 December 2019, the BCL holds 72 291.36 ounces of fine gold amounting to 97.9 million euro (72 048.39 ounces of fine gold amounting to 80.8 million euro on 31 December 2018).

On the balance sheet date, gold is valued on the basis of the euro price per fine ounce derived from the quotation in US dollars established at the London fixing on 31 December 2019.

NOTE 4 - CLAIMS ON NON-EURO AREA RESIDENTS DENOMINATED IN FOREIGN CURRENCY

	2019 EUR	2018 EUR
Receivables from the IMF	627 715 115	583 385 660
Balances with banks, security investments, external loans and other external assets	212 160 864	157 121 707
	839 875 979	**740 507 367**

Under this item are recorded the BCL's foreign exchange reserve holdings with counterparties situated outside the euro area (including international and supranational institutions and non-Eurosystem central banks).

4.1 Receivables from the IMF

This sub-item contains receivables from the International Monetary Fund (IMF) made up of reserve tranche position, SDR holdings and new arrangements to borrow. SDR are reserve assets created by the IMF and allocated by it to its members. A member's SDR holdings initially amount to the SDR allocated. Afterwards, SDR holdings are subject to fluctuations as a result of encashments and transactions. The reserve tranche position corresponds to the net amount of the quota and the IMF's currency holding and takes into account the re-evaluation of the general account. The new arrangements to borrow are credit agreements between the IMF and the Government of Luxembourg.

4.2 Balances with banks, security investments, external loans and other external assets

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

The US dollar portfolio, which amounts to 161.3 million euro as at 31 December 2019 (140.8 million euro on 31 December 2018), mainly consists of government bonds and bonds issued by international and supranational institutions denominated in US dollars. Securities are valued at market prices. As at 31 December 2019, their value at market prices included a positive net revaluation adjustment amounting to 2.0 million euro (negative net revaluation adjustment amounting to 0.5 million euro on 31 December 2018).

The foreign currency investment securities portfolio amounts to 10.2 million euro at 31 December 2019 (nil in 2018). As at 31 December 2019, their market value includes a negative net valuation adjustment of 0.1 million euro (nil in 2018).

Balances with banks amounted to 40.7 million euro as at 31 December 2019 (16.4 million euro on 31 December 2018).

NOTE 5 – CLAIMS ON EURO AREA RESIDENTS DENOMINATED IN FOREIGN CURRENCY

This item contains balances in foreign currency held by the BCL on accounts with euro area counterparties which amounts to 393 million euro as at 31 December 2019 (623 million euro on 31 December 2018).

NOTE 6 – CLAIMS ON NON-EURO AREA RESIDENTS DENOMINATED IN EURO

	2019 EUR	2018 EUR
Balances with banks	1 514	440 997
Available-for-sale securities portfolio	346 402 481	409 482 884
	346 403 995	**409 923 881**

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

The available-for-sale securities portfolio contains government bonds and bonds issued by companies outside the euro area denominated in euro. Securities are valued at market value. As at 31 December 2019, the market value of the latter comprised a negative net revaluation adjustment amounting to 10.6 million euro including the premium and discount amortisation (negative net revaluation adjustment amounting to 7.7 million euro on 31 December 2018).

NOTE 7 - LENDING TO EURO AREA CREDIT INSTITUTIONS RELATED TO MONETARY POLICY OPERATIONS DENOMINATED IN EURO

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

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

	2019 EUR	2018 EUR
Main refinancing operations	-	45 000 000
Longer-term refinancing operations	4 724 610 000	5 096 440 000
Fine-tuning reverse operations	-	-
Structural reverse operations	-	-
Marginal lending facility	-	-
Credits related to margin calls	-	-
	4 724 610 000	**5 141 440 000**

As at 31 December 2019, the total Eurosystem holding of monetary policy assets amounts to 624 233 million euro (734 382 million euro as at 31 December 2018) of which the BCL holds 4 725 million euro (5 141 million euro as at 31 December 2018).

In accordance with Article 32.4 of the Statute of the ESCB, any risks from monetary policy operations, if they were to materialise, may be shared, by decision of the Governing Council, in full by the Eurosystem NCBs, in proportion to the prevailing ECB capital key shares.

Losses can only materialise if both the counterparty fails and the recovery of funds received from the resolution of the collateral provided by the counterparty is not sufficient.

It should be noted that for specific collateral which can be accepted by NCBs at their own discretion, risk sharing has been excluded by the Governing Council of the ECB.

7.1 Main refinancing operations

Main refinancing operations are executed through liquidity providing reverse transactions with a weekly frequency and a maturity of normally one week, on the basis of standard tenders.

Since October 2008, these operations were conducted as fixed rate tender procedures. These operations play a key role in achieving the aims of steering interest rate, managing market liquidity and signalling the monetary policy stance.

7.2 Longer-term refinancing operations

These operations aim to provide counterparties with additional longer-term refinancing. In 2019 operations were conducted with maturities equal to the reserve maintenance period and with maturities between 36 and 48 months. These operations were conducted at fixed rate with allotment of the total amount bid.

In 2016, the Governing Council introduced a series of four targeted longer-term refinancing operations (TLTRO II). These operations have a four-year maturity, with a possibility of repayment after two years. According to the decisions taken by the Governing Council, the final interest rate applicable to each TLTRO-II operation depended on the lending behaviour of the counterparties for the period between 1 February 2016 and 31 January 2018 and would be between the MRO rate and the deposit facility rate at the time of the allotment.

Additionally, in 2019 the Governing Council introduced a new series of seven quarterly targeted longer-term refinancing operations (TLTRO III). These operations have a three-year maturity, with a possibility of repayment after two years. According to the decisions taken by the Governing Council, the final interest rate applicable to each TLTRO-III operation can be as low as the average interest rate on the deposit facility prevailing over the life of the operation. Given that the rate for accruing interest will only be known starting from 2021 and that a reliable estimate is not possible until that time, the deposit facility rate is used for calculating the TLTRO III interest for 2019, as this was deemed a prudent approach.

7.3 Fine-tuning reverse operations

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

7.4 Structural reverse operations

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

7.5 Marginal lending facility

This sub-item includes a standing facility enabling counterparties to obtain overnight credit from the BCL at a pre-specified interest rate against eligible collateral.

7.6 Credits related to margin calls

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

NOTE 8 – OTHER CLAIMS ON EURO AREA CREDIT INSTITUTIONS DENOMINATED IN EURO

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

NOTE 9 – SECURITIES OF EURO AREA RESIDENTS DENOMINATED IN EURO

	2019 EUR	2018 EUR
Securities held for monetary policy purposes	7 062 893 372	6 596 941 266
Other securities	343 564 956	417 368 983
- available-for-sale securities portfolio	*298 262 467*	*371 919 994*
- held-to-maturity securities portfolio	*45 302 489*	*45 448 989*
	7 406 458 328	**7 014 310 249**

9.1 Securities held for monetary policy purposes

This item contains securities acquired by the BCL within the scope of the third purchase programme for covered bonds (CBPP3), the securities markets programme (SMP) and the public sector purchase programme (PSPP).

The SMP was terminated on 6 September 2012.

On 1 November 2019 the Eurosystem restarted its net purchases of securities under the asset purchase programme (APP) at a monthly pace of 20 billion euro on average. This restart of net purchases followed a period of ten months since end-2018 during which the Eurosystem only reinvested, in full, the principal payments from maturing securities purchased under the APP. The Governing Council expects net purchases to run for as long as necessary to reinforce the accommodative impact of its policy rates, and to end shortly before it starts raising the key ECB interest rates. The Governing Council also intends to continue the reinvestments for an extended period of time past the date when the Governing Council starts raising the key ECB interest rates, and in any case for as long as necessary to maintain favourable liquidity conditions and an ample degree of monetary accommodation.

The securities purchased under all of these programmes are valued on an amortised cost basis subject to impairment. The amortised cost of the securities held by BCL, as well as their market value (which is provided for comparison purposes only), are as follows:

Securities held for monetary policy purposes	2019 EUR		2018 EUR	
	Amortised cost	Market value	Amortised cost	Market value
Third covered bond purchase programme	2 119 233 536	2 196 278 890	1 651 208 628	1 661 989 692
Securities markets programme	55 675 328	61 002 850	65 604 078	72 542 650
Public sector purchase programme	4 887 984 508	5 000 986 644	4 880 128 560	4 891 276 796
	7 062 893 372	**7 258 268 384**	**6 596 941 266**	**6 625 809 138**

Market values are indicative and were derived on the basis of market quotes. When market quotes were not available, the amortised cost was used for the evaluation of the securities portfolio.

The Governing Council assesses on a regular basis the financial risks associated with the securities held under these programmes. Impairment tests are conducted on an annual basis, using data as at the year-end and are approved by the Governing Council. In these tests, impairment indicators are assessed separately for each programme.

The total Eurosystem NCB's holding of securities held in the context of the Asset Purchase Programme (SMP, CBPP3, corporate sector purchase programme – CSPP, and the securities issued by international or supranational institutions held in the public sector purchase programme) amounts to 695.8 billion euro as at 31 December 2019 (710.9 billion euro as at 31 December 2018), of which the BCL holds 5 137.0 million euro (4 706.8 million euro as at 31 December 2018).

As a result of an impairment test conducted as at 31 December 2019 on securities purchased under SMP and PSPP, the Governing Council decided that all future cash flows on these securities are expected to be received. No impairment loss was recorded at the end of the 2019 financial year in the SMP and PSPP portfolios.

In the context of the impairment test conducted as at the end of 2019 on securities purchased under the third covered bond purchase programme ("CBPP3"), the Governing Council identified in the portfolio one impairment indicator for one issuer which had significant financial difficulties in 2019. The Governing Council considered that the identified impairment indicator had not affected the estimated future cash flows. No impairment losses were therefore recorded at the year-end under the third covered bond purchase programme.

In the context of the impairment test conducted on securities purchased under the CSPP programme, it was concluded that the holding of one security owned by one NCB is impaired. In accordance with the principle of prudence, the Governing Council deemed it appropriate to establish a provision for monetary policy operations (see note 20 Provisions). In accordance with Article 32.4 of the ESCB Statute, losses materialising from securities holdings purchased under the Corporate Sector purchase programme ("CSPP") are shared in full by the Eurosystem NCBs, in proportion to their prevailing ECB capital key shares.

9.2 Other securities

The securities recorded under this item include:

- the available-for-sale securities portfolio in euro issued by residents of the euro area amount to 298.3 million euro as at 31 December 2019 (371.9 million euro on 31 December 2018). This portfolio contains government bonds in euro issued by Member States of the euro area and bonds issued by companies of the euro area. Securities are valued at market value. As at 31 December 2019, the market value of the latter comprised a negative net revaluation adjustment amounting to 10.0 million euro including premium and discount amortisation (negative net revaluation adjustment amounting to 7.6 million euro on 31 December 2018). In this portfolio, the BCL does not hold any security issued by the State of the Grand Duchy of Luxembourg;
- the held-to-maturity securities portfolio which securities are intended to be held until maturity. This portfolio is valued at amortised cost, purchase or transfer price adjusted by premiums, discounts and impairment. As at 31 December 2019, these securities amount to 45.3 million euro (45.4 million euro on 31 December 2018). In this portfolio, the BCL does not hold any security issued by the State of the Grand Duchy of Luxembourg.

NOTE 10 – INTRA-EUROSYSTEM CLAIMS

10.1 Participating interest in ECB

Pursuant to Article 28 of the ESCB Statute, the ESCB national central banks are the sole subscribers to the capital of the ECB. Subscriptions depend on shares which are fixed in accordance with Article 29 of the ESCB Statute and are subject to adjustment every five years or whenever there is a change in composition of the ESCB national central banks.

Based on Council Decision of 15 July 2003 on the statistical data to be used for the adjustment of the key for subscription of the capital of the ECB, the NCBs' capital key shares were adjusted on 1 January 2019, by means of transfers among the NCBs as a result of the quinquenal revision.

On 1 January 2019, the share that BCL held in the subscribed capital of the ECB increased by 0.03768%, amounting to 0.32607 % and asset item "10.1 Participating interest in the ECB" increased by 2.6 million euro, amounting to 24.6 million euro held as subscribed and paid-up capital.

The NCBs capital key shares are as follows (in percentage):

Country	Capital key in ESCB	Eurosystem key
	from 1 January 2019	from 1 January 2019
Belgium	2.5280	3.63127
Germany	18.3670	26.38270
Estonia	0.1968	0.28269
Ireland	1.1754	1.68837
Greece	1.7292	2.48385
Spain	8.3391	11.97844
France	14.2061	20.40590
Italy	11.8023	16.95304
Cyprus	0.1503	0.21589
Latvia	0.2731	0.39229
Lithuania	0.4059	0.58304
Luxembourg	0.2270	0.32607
Malta	0.0732	0.10515
Netherlands	4.0677	5.84292
Austria	2.0325	2.91952
Portugal	1.6367	2.35099
Slovenia	0.3361	0.48278
Slovak Republic	0.8004	1.14971
Finland	1.2708	1.82540
Bulgaria	0.8511	-
Czech Republic	1.6172	-
Denmark	1.4986	-
Croatia	0.5673	-
Hungary	1.3348	-
Poland	5.2068	-
Romania	2.4470	-
Sweden	2.5222	-
United Kingdom	14.3374	-
Total	**100.0000**	**100.00000**

The capital shares of the NCBs in the ECB are shown in the following table (in euro):

	Subscribed capital since 1 January 2019	Paid-up since 1 January 2019
Banque Nationale de Belgique	273 656 179	273 656 179
Deutsche Bundesbank	1 988 229 048	1 988 229 048
Eesti Pank	21 303 614	21 303 614
Central Bank of Ireland	127 237 133	127 237 133
Banque de Grèce	187 186 022	187 186 022
Banco de España	902 708 165	902 708 165
Banque de France	1 537 811 329	1 537 811 329
Banca d'Italia	1 277 599 809	1 277 599 809
Central Bank of Cyprus	16 269 986	16 269 986
Latvijas Banka	29 563 094	29 563 094
Lietuvos bankas	43 938 704	43 938 704
Banque centrale du Luxembourg	24 572 766	24 572 766
Central Bank of Malta	7 923 905	7 923 905
De Nederlandsche Bank	440 328 813	440 328 813
Oesterreichische Nationalbank	220 018 269	220 018 269
Banco de Portugal	177 172 891	177 172 891
Banka Slovenije	36 382 849	36 382 849
Národná banka Slovenska	86 643 357	86 643 357
Suomen Pankki – Banque de Finlande	137 564 190	137 564 190
Subtotal for euro area NCB	***7 536 110 122***	***7 536 110 122***
Българска народна банка (Bulgarian National Bank)	92 131 635	3 454 936
Česká národní banka	175 062 014	6 564 826
Danmarks Nationalbank	162 223 556	6 083 383
Hrvatska narodna banka	61 410 265	2 302 885
Magyar Nemzeti Bank	144 492 194	5 418 457
Narodowy Bank Polski	563 636 468	21 136 368
Banca Națională a României	264 887 923	9 933 297
Sveriges Riksbank	273 028 328	10 238 562
Bank of England	1 552 024 564	58 200 921
Subtotal for non-euro area NCB	***3 288 896 948***	***123 333 636***
Total	**10 825 007 070**	**7 659 443 757**

Totals may not add up due to rounding.

10.2 Claims equivalent to the transfer of foreign reserves to the ECB

This sub-item represents the euro-denominated claims on the ECB with respect to the transfer of part of the BCL's foreign reserves. The claims are denominated in euro at a value fixed at the time of their transfer.

They are remunerated at the latest available marginal interest rate used by the Eurosystem in its tender for main refinancing operations, adjusted to reflect a zero return on the gold component.

The adjustments to the capital key weightings of the ECB also resulted in the adjustment of the claim of BCL with respect to the foreign reserve assets transferred to the ECB. In order to reflect its increased capital key share, the euro-denominated claim of BCL increased by 13.9 million euro to 131.5 million euro on 1 January 2019 (117.6 million euro on 31 December 2018).

10.3 Other claims within the Eurosystem

This sub-item represents the BCL's net claims towards the Eurosystem, mostly from transactions resulting from cross-border payments initiated for monetary or financial operations, made via the TARGET2 system, between the BCL and the other NCBs as well as the ECB. This claim amounts to 192.0 billion euro as at

31 December 2019 (212.5 billion euro on 31 December 2018). This decrease results from the drop of the current accounts and of the deposit facilities related to the supply of liquidities by the Eurosystem.

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

NOTE 11 – OTHER ASSETS

11.1 Tangible and intangible assets

Tangible and intangible assets are as follows:

	Lands and Buildings EUR	Furniture and equipment EUR	Software EUR	Other EUR	Total EUR
Cost as at 1 January 2019	117 910 717	19 662 023	13 544 469	3 022 318	154 139 527
Disposals/Transfers	-	96 720	2 113 107	(2 209 827)	-
Acquisitions	58 097 737	1 000 457	293 492	973 376	60 365 062
Cost as at 31 December 2019	**176 008 454**	**20 759 200**	**15 951 068**	**1 785 867**	**214 504 589**
Accumulated depreciation as at 1 January 2019	70 804 084	18 109 544	10 518 166	-	99 431 794
Disposals/Transfers	-	-	-	-	-
Depreciation	2 188 268	913 659	1 532 637	-	4 634 564
Accumulated depreciation as at 31 December 2019	**72 992 352**	**19 023 203**	**12 050 803**	-	**104 066 358**
Net book value as at 31 December 2019	**103 016 102**	**1 735 997**	**3 900 265**	**1 785 867**	**110 438 231**

The sub-item "Lands and Buildings" comprises:

- the acquisition cost of the two premises located on 2, Boulevard Royal;
- the renovations made to the main building ("Siège Royal");
- the costs incurred in relation to the reconstruction and transformation of the "Pierre Werner" building;
- the costs incurred in relation to the reconstruction and transformation of the "Monterey" building;
- the acquisition cost of the building "7, Boulevard Royal";
- the renovations made to the building "7, Boulevard Royal";
- the acquisition cost of the building "1, Boulevard Royal".

11.2 Other financial assets

The components of this item are as follows:

	2019 EUR	2018 EUR
Other participating interests	88 552 887	87 253 250
Pension fund	415 639 424	384 639 868
	504 192 311	**471 893 118**

The other participating interests comprise the BCL's investments held in 2019 in SWIFT, LuxCSD SA., Islamic Liquidity Management Corporation and Bank for International Settlements.

The assets of the pension fund are recorded in the accounts under "Pension fund". The balance of this account corresponds to the net asset value of the fund as calculated by the depositary bank as at 31 December 2019.

11.3 Accruals and prepaid expenses

Most of this item consists of the accrued interests on monetary policy operations, securities and receivables from the IMF. Also included under this item are the commission receivables and the prepaid expenses, including salaries paid for January 2020.

11.4 Sundry

	2019 EUR	2018 EUR
Others	6 330 367	3 974 357
	6 330 367	**3 974 357**

As at 31 December 2019, this sub-item mainly comprises the counterpart of the unrealised loss on SDR recorded in the financial statements of the BCL amounting to 1.1 million euro, which is guaranteed by the Government according to the agreement signed in May 1999 establishing the financial relationship between the Government of Luxembourg and the BCL (unrealised loss on SDR of 1.9 million euro as at 31 December 2018).

NOTE 12 – BANKNOTES IN CIRCULATION

This item consists of the BCL's share of the total euro banknotes in circulation.

During 2019, the total value of banknotes in circulation within the Eurosystem increased by 5.0%. According to the allocation key, the BCL had euro banknotes in circulation worth 3 878.2 million euro at the end of 2019 compared with 3 268.7 million euro at the end of 2018.

The value of the euro banknotes actually issued by the BCL in 2019 increased by 0.7% and worth 99.2 billion euro as at 31 December 2019 (98.4 billion euro as at 31 December 2018). As this was more than the allocated amount, the difference of 95.3 billion euro (95.2 billion euro as at 31 December 2018) is shown under liability sub-item "Net liabilities related to the allocation of euro banknotes within the Eurosystem".

NOTE 13 – LIABILITIES TO EURO AREA CREDIT INSTITUTIONS RELATED TO MONETARY POLICY OPERATIONS DENOMINATED IN EURO

	2019 EUR	2018 EUR
Current accounts (including the minimum reserves)	81 314 028 383	69 766 448 907
Deposit facility	19 217 500 000	50 074 895 624
Fixed-term deposits	-	-
Fine-tuning reverse operations	-	-
Deposits related to margin calls	-	-
	100 531 528 383	**119 841 344 531**

13.1 Current accounts (covering the minimum reserve system)

Current accounts contain the credit balances on the transaction accounts of credit institutions that are required to hold minimum reserves. Banks' minimum reserve balances have been remunerated since January 1, 1999 at the latest available marginal interest rate used by the Eurosystem in its tenders for main refinancing operations. Since June 2014 the reserve holdings exceeding the required minimum reserves are remunerated at zero per cent or the deposit facility rate, whichever is lower. Starting on 30 October 2019, the Governing Council introduced a two-tier system for reserve remuneration, which exempts part of credit institutions' excess liquidity holdings (i.e. reserve holdings in excess of minimum reserve requirements) from negative remuneration at the rate applicable on the deposit facility. The volume of reserve holdings in excess of minimum reserve requirements that was exempt at year-end from the deposit facility rate – the exempt tier – was determined as a multiple of six on an institution's minimum reserve requirements. The non-exempt tier of excess liquidity holdings continues to be remunerated at the lower of either zero percent or the deposit facility rate. This new reserve remuneration system has a significant downward impact on Eurosystem monetary income and, therefore, on BCL income.

13.2 Deposit facility

This sub-item comprises the standing facility allowing credit institutions to make overnight deposits with the BCL at a pre-specified interest rate.

13.3 Fixed-term deposits

This sub-item comprises deposits made at the BCL for the purpose of absorbing market liquidity in connection with fine-tuning operations in the Eurosystem.

13.4 Fine-tuning reverse operations

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

13.5 Deposits related to margin calls

This sub-item comprises deposits made by credit institutions to compensate for the decrease in the value of securities pledged as collateral, below an established trigger point, for other credits granted to these same institutions.

NOTE 14 – LIABILITIES TO OTHER EURO AREA RESIDENTS DENOMINATED IN EURO

14.1 Liabilities to general government

This item records the amounts as follows:

	2019 EUR	2018 EUR
Current accounts	1	1
Account related to euro coins issued by the Treasury	309 758 446	300 063 980
Specific account of the State	353 334 064	366 719 064
Fixed-term deposit	132 128 353	134 834 663
	795 220 864	**801 617 708**

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

The specific account was opened for the State of Luxembourg in 2011 in order to realise operations with the IMF.

The fixed-term deposit relates to the above-mentioned agreement.

14.2 Other liabilities

	2019 EUR	2018 EUR
Other liabilities	2 054 960 177	2 187 031 397
	2 054 960 177	**2 187 031 397**

As at 31 December 2019, this item included mainly a current account held by an European institution.

NOTE 15 – LIABILITIES TO NON-EURO AREA RESIDENTS DENOMINATED IN EURO

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

NOTE 16 – LIABILITIES TO NON-EURO AREA RESIDENTS DENOMINATED IN FOREIGN CURRENCY

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

NOTE 17 – COUNTERPART OF SPECIAL DRAWING RIGHTS ALLOCATED BY THE IMF

The amount shown under this item represents the countervalue of SDR, converted to euro at the same rate as applied to the SDR assets, which should be returned to the IMF in the event of the SDR being cancelled, the SDR Department established by the IMF being closed or if Luxembourg decides to withdraw from it. This liability, of unlimited duration, amounts to SDR 246.6 million, or 304.3 million euro as at 31 December 2019 (SDR 246.6 million, or 299.7 million euro on 31 December 2018).

NOTE 18 – INTRA-EUROSYSTEM LIABILITIES

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

This item consists of the liabilities of the BCL vis-à-vis the Eurosystem relating to the allocation of euro banknotes within the Eurosystem as explained in Note 12. The net position bears interest at the marginal interest rate applying to the main refinancing operations.

NOTE 19 – OTHER LIABILITIES

This item comprises mainly the accrued interest, miscellaneous expenses payable, including suppliers, and the Luxembourg francs banknotes not yet returned.

The Luxembourg franc banknotes still circulating as at 31 December 2019 amount to 5.0 million euro (5.0 million euro on 31 December 2018).

NOTE 20 - PROVISIONS

Provisions are as follows:

	2019 EUR	2018 EUR
Provision for banking risks	949 820 296	948 332 888
Provision for pensions	433 980 816	400 394 500
Other provisions	205 700	196 500
	1 384 006 812	**1 348 923 888**

20.1 Provision for banking risks

Provision for banking risks includes the following items:

Provisions for specific banking risks	2019 EUR	2018 EUR
Provision covering credit and market risk	587 001 204	581 316 320
Provision for monetary policy operations	257 784	464 519
Provision covering operational risk	11 360 000	11 710 000
Provision covering liquidity risk	23 585 939	20 576 680
	622 204 927	**614 067 519**
Provisions for general banking risks	**2019 EUR**	**2018 EUR**
Provision for liabilities resulting from monetary agreements	-	32 341 954
Other provision for general banking risks	327 615 369	301 923 415
	327 615 369	**334 265 369**
	949 820 296	**948 332 888**

20.1.1 Provision covering credit and market risk

The provision of 587.0 million euro as at 31 December 2019 (581.3 million euro on 31 December 2018) corresponds to:

- 8.18% (8.18% on 31 December 2018) of the BCL's own securities portfolio existing as at 31 December 2019 and participations other than the participating interest in the capital of the ECB;
- 8.18% (8.18% on 31 December 2018) of the amount lent by the Eurosystem (main and longer-term refinancing operations) as at year-end for monetary policy purposes multiplied by the BCL's capital key in Eurosystem including securities held in the framework of the Securities Markets Programme, the third covered bond purchase programme and the corporate sector purchase programme, and the securities issued by international or supranational institutions held in the public sector purchase programme (excluding securities held by the ECB).

According to the BCL's guidelines of the Bank's Council, the objective is to target a rate of 12% on all items above. In order to achieve this objective in the light of non-conventional measures, this provision should be progressively increased by an additional amount of more than 1.3 billion euro (2018: 1.1 billion euro) over the next years in order to cover the potential liabilities. It is worth noting that the current financial capacity of the BCL is insufficient to generate the required level of income.

Yet this situation goes against the ECB recommendations on 7 September 2012 in relation to the capital increase of the BCL (CON/2012/69) in which it is noted that: *"The principle of financial independence requires a national central bank (NCB) within the European System of Central Banks (ESCB) to have sufficient means not only to perform its ESCB or Eurosystem-related tasks, but also its national tasks, e.g. financing its administration and own operations. [...] Financial independence primarily implies that an NCB should always be sufficiently capitalised. [...] In particular, the ECB is of the view that the higher the level of capital, reserves and provisions against financial risks is, the higher the safeguards against future losses are."*

20.1.2 Provision for monetary policy operations

In accordance with Article 32.4 of the ESCB Statute, this provision is allocated between the NCB of participating Member States in proportion to their subscribed capital key shares in the ECB prevailing in the year when the initial impairment occured. As a result of the annual impairment test conducted on its CSPP portfolio, the Governing Council has reviewed the appropriateness of the volume of this provision and decided to reduce the provision from a total amount of 161 million euro as at 31 December 2018 to an amount of 89 million euro as at 31 December 2019. The BCL's share in this provision amounts to 257 784 euro (2018: 464 519 euro).

The respective adjustments are reflected in the BCL's profit and loss accounts, the resulting net income amounted to 206 735 euro in 2019.

20.1.3 Provision covering operational risk

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

In 2019, the average has been based on previous years in accordance with these rules.

20.1.4 Provision for liabilities resulting from monetary agreements

Given its nature, this provision, intended to face any future monetary liabilities, has been transferred to the provision for general banking risks as at 31 December 2019.

20.1.5 Other provision for general banking risks

This provision is intended to cover non-specific risks of losses resulting from central bank's activities. Due to the uncertainties of the financial markets, those risks can not be quantified in advance.

After the provision transfer mentioned in note 20.1.4 above, the BCL reversed a part of its provision for general banking risks in 2019 for an amount of 6.7 million euro.

20.2 Provision for pensions

Provision for pensions include the following items:

	2019 EUR	2018 EUR
Provision for pensions	433 980 816	400 394 500
	433 980 816	**400 394 500**

In accordance with its Organic Law, the statutory pensions (first pillar) of its staff members are fully borne by the BCL.

The financing of pension obligations is provided on the one hand through deductions from wages and salaries in accordance with the rules governing the pension regime at the BCL and the other hand by payments made by the BCL.

In line with the obligation of its Organic Law to support the entirety of legal pension costs (first pillar) of its staff members, the BCL bodies decided for 2019 to increase the provision for pensions by an additional contribution of 2.6 million euro.

The pension liabilities of the employer vis-à-vis all its staff members amounted to 434.0 million euro at 31 December 2019 compared with 400.4 million euro at 31 December 2018.

The increase of 33.6 million euro in pension liabilities in 2019 includes mainly:

- salary and wage deductions (employees' share) accounting for 3.5 million euro;
- a transfer from the Pension fund reserve account (adjustment of the actuarial value of pension fund assets) to the provision for pensions account for 23.2 million euro;
- notional employer's share calculated on gross salary and wage for 7.3 million euro;
- an additional contribution from the BCL of 2.6 million euro resulting from the pension liabilities' revaluation;
- pension payments for retired staff members of 3.0 million euro.

The demographic, economic and financial assumptions applied as part of the assessment of pension liabilities at 31 December 2019 are as follows:

Discount rate	3.65%
Wage growth rate (incl. index)	3.30%
Expected return on plan assets	3.95%
Pension growth rate (incl. index)	2.35%
Mortality table	German DAV 2004R tables
Disability rate	0.50%
Staff turnover	0.00%

For all practical purposes, it should be noted with the application of the measurement features from IAS 19 accounting standard, which do not apply to the BCL to determine the pension liabilities, these would be increased to reach an amount of 847.7 million euro.

This standard requires both the use of actuarial method of projected unit credit, as applied by the BCL, and the use of a discount rate corresponding to the Eurozone "corporate" bond rate with an AA rating and a duration - at value date - reflecting those of the liabilities. For the fiscal year 2019, this rate was estimated at 1.30%.

NOTE 21 – REVALUATION ACCOUNTS

	2019 EUR	2018 EUR
Gold	81 989 894	65 198 565
Foreign Currency	47 212 518	42 227 355
Securities and other instruments	16 861 980	17 204 197
	146 064 392	**124 630 117**

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

NOTE 22 - CAPITAL AND RESERVES

22.1 Capital

The State of Luxembourg is the sole shareholder of the BCL's capital for an amount of 175 million euro (unchanged since June 2009).

22.2 Reserves

The reserves amount to 22.7 million euro (20.7 million euro on 31 December 2018). This amount was increased by 2.0 million euro following the allocation of profit for 2018 according to the decision of the BCL's Council in application of its Founding Law (Article 31).

NOTE 23 – SECURITIES RECEIVED AS COLLATERAL

This item includes the securities received as collateral from Luxembourg credit institutions to cover their liabilities related to refinancing operations, marginal lending facilities and intra-day credits.

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

As at 31 December 2019, the market value of these securities amounts to 130.0 billion euro (127.5 billion euro on 31 December 2018).

NOTE 24 - FOREIGN RESERVE ASSETS MANAGED ON BEHALF OF THE ECB

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

NOTE 25 – FUTURES

These items contained as at 31 December 2018 the purchases and sales of interest rate futures presented at notional amount. These transactions were conducted in the context of the management of the BCL's own investments. As at 31 December 2019, no future transaction was contracted.

NOTE 26 – NET INTEREST INCOME

This item includes interest income and expense.

For harmonised presentational purposes in the Eurosystem, interest income and interest expense on monetary policy operarions are netted on a balance sheet sub-item level either as "interest income" or "interest expense", according on the positive or negative net amount.

Interest income and expense are as follows:

Composition of interest income	Amounts in foreign currency EUR	Amounts in euro EUR	Total EUR
	2019	2019	2019
IMF	6 050 692	-	6 050 692
Lending to euro area credit institutions related to monetary policy operations	-	2 861	2 861
Current accounts (including minimum reserves) and deposits related to monetary policy operations	-	482 087 166	482 087 166
Securities held for monetary policy purposes	-	22 962 462	22 962 462
Interest on swap operation	-	2 628 084	2 628 084
Other securities	4 040 961	7 454 482	11 495 443
Other	13 675 840	23 236 973	36 912 813
Total	**23 767 493**	**538 372 028**	**562 139 521**
Composition of interest expense	**Amounts in foreign currency EUR**	**Amounts in euro EUR**	**Total EUR**
	2019	**2019**	**2019**
IMF	(3 041 433)	-	(3 041 433)
Lending to euro area credit institutions related to monetary policy operations	-	(20 161 040)	(20 161 040)
Other liabilities	(14 138 341)	(10 496 801)	(24 635 142)
Total	**(17 179 774)**	**(30 657 841)**	**(47 837 615)**

Composition of interest income	Amounts in foreign currency EUR	Amounts in euro EUR	Total EUR
	2018	2018	2018
IMF	4 961 131	-	4 961 131
Lending to euro area credit institutions related to monetary policy operations	-	13 510	13 510
Current accounts (including minimum reserves) and deposits related to monetary policy operations	-	466 780 150	466 780 150
Securities held for monetary policy purposes	-	19 065 024	19 065 024
Other securities	2 651 680	12 162 265	14 813 945
Other	22 744 974	12 501 057	35 246 031
Total	**30 357 785**	**510 522 006**	**540 879 791**
Composition of interest expense	**Amounts in foreign currency EUR**	**Amounts in euro EUR**	**Total EUR**
	2018	**2018**	**2018**
IMF	(2 777 150)	-	(2 777 150)
Lending to euro area credit institutions related to monetary policy operations	-	(20 482 784)	(20 482 784)
Other liabilities	(18 914 787)	(4 629 901)	(23 544 688)
Interest on swap operation	-	(641 096)	(641 096)
Total	**(21 691 937)**	**(25 753 781)**	**(47 445 718)**

NOTE 27 – REALISED GAINS / (LOSSES) ARISING FROM FINANCIAL OPERATIONS

This item includes the results from transactions in foreign currencies, from securities and from financial instruments linked to interest rates and market prices, i.e. realised gains minus realised losses on these transactions. In 2019, they amount to 4.5 million euro (15.4 million euro on 31 December 2018) and to 3.4 million euro (1.4 million euro on 31 December 2018) respectively, giving a net rounded gain of 1.2 million euro (a net rounded gain of 13.9 million euro on 31 December 2018).

NOTE 28 - WRITE-DOWNS ON FINANCIAL ASSETS AND FOREIGN CURRENCY POSITIONS

This item includes revaluation losses on securities for 0.1 million euro (revaluation losses on securities for 10.8 million euro in 2018) and revaluation losses on foreign currency positions for 0.3 million euro (nil in 2018).

NOTE 29 - TRANSFER (TO)/FROM PROVISIONS FOR RISKS

This item includes the transfers to and from provisions for banking risks and other provisions.

NOTE 30 - NET RESULT FROM FEES AND COMMISSIONS

Fees and commissions income and expense are as follows:

	Fees and commissions income EUR		Fees and commissions expense EUR	
	2019	2018	2019	2018
Securities	8 665 039	8 262 654	(9 575 436)	(9 158 977)
Others	1 450 886	1 578 302	(1 277 688)	(1 068 348)
Total	**10 115 925**	**9 840 956**	**(10 853 124)**	**(10 227 325)**

NOTE 31 - INCOME FROM PARTICIPATING INTERESTS

The ECB's seigniorage income, which arises from the 8% share of euro banknotes allocated to the ECB, as well as the income arising from the securities held under (a) SMP, (b) CBPP3, (c) ABSPP and (d) PSPP is distributed in January of the following year by means of an interim profit distribution, unless otherwise decided by the Governing Council.

It is distributed in full unless it is higher than the ECB's net profit for the year, and subject to any decisions by the Governing Council to make transfers to the provision for foreign exchange rate, interest rate, credit and gold price risks. The Governing Council may also decide to reduce the amount of the income on euro banknotes in circulation, to be distributed in January, by the amount of the costs incurred by the ECB in connection with the issue and handling of euro banknotes.

In 2019, the BCL received 7.8 million euro from the ECB (4.6 million euro as at 31 December 2018).

In 2019 and 2018, the BCL also received a dividend of 0.7 million SDR (0.9 million euro) due to the participating interest held in the Bank for International Settlements (BIS).

In total, this item amounts to 8.7 million euro as at 31 December 2019 (5.4 million euro on 31 December 2018).

NOTE 32 - NET RESULT OF POOLING OF MONETARY INCOME

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

- banknotes in circulation;
- liabilities to credit institutions related to monetary policy operations denominated in euro;
- net intra-Eurosystem liabilities resulting from TARGET2 transactions;
- net intra-Eurosystem liabilities related to the allocation of euro banknotes within the Eurosystem;
- accrued interest recorded at quarter-end by each NCB on monetary policy liabilities the maturity of which is one year or longer.

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

The earmarkable assets consist of the following items:

- lending to euro area credit institutions related to monetary policy operations denominated in euro;
- securities held for monetary policy purposes;
- intra-Eurosystem claims equivalent to the transfer of foreign reserve assets to the ECB;
- net intra-Eurosystem claims resulting from TARGET2 transactions;
- net intra-Eurosystem claims related to the allocation of euro banknotes within the Eurosystem;
- accrued interest recorded at quarter-end by each NCB on monetary policy assets the maturity of which is one year or longer;
- a limited amount of each NCBs' gold holdings in proportion to each NCB's capital key share.

The amount of each NCB's monetary income shall be determined by measuring the actual income that derives from the earmarkable assets recorded in its books. As an exception to this, gold is considered as generating no income and the following are considered to generate income at the latest available marginal interest rate used by the Eurosystem in its tenders for main refinancing operations: (i) securities held for monetary purposes under Decision ECB/2009/16 of 2 July 2009 on the implementation of the covered bonds purchase programme, (ii) securities held for monetary policy purposes under Decision ECB/2011/17 of 3 November 2011 on the implementation of the second covered bonds purchase programme and (iii) debt instruments issued by central, regional and local governments and recognised agencies and substitute debt instruments issued by public non-financial corporations under Decision ECB/2015/10 of 4 March 2015 on the implementation of a secondary markets public sector asset purchase programme.

Where the value of an NCB's earmarkable assets exceeds or falls short of the value of its liability base, the difference shall be offset by applying to the value of the difference the latest available marginal rate for the Eurosystem's main refinancing operations.

The monetary income pooled by the Eurosystem is allocated among NCBs according to the subscribed capital key set at 0.32607% since 1 January 2019.

This item includes the net monetary income allocated to the BCL for 2019 representing an expense amounting to 443 389 505 euro (expense of 425 136 314 euro on 31 December 2018).

This item also contains the BCL's share in the variation of the provision for monetary policy operations with an income of 206 735 euro in 2019 (see Note 20.1.2 "Provision for monetary policy operations").

NOTE 33 – OTHER INCOME

Other income includes revenue for services rendered to third parties, adjustments to prior years' accruals, income from numismatic activities and the recovered functioning costs of EPCO (Eurosystem Procurement Co-ordination Office).

Other income includes also, when appropriate, the BCL's revenue from financial agreements between the Government of Luxembourg and the BCL.

NOTE 34 – STAFF COSTS

	2019 EUR	2018 EUR
Gross wages and salaries	(44 980 322)	(42 686 187)
Other staff costs	(2 180 217)	(2 111 398)
	(47 160 539)	**(44 797 585)**

This item includes the gross wages and salaries, compensations as well as other staff costs (the employer's share of contributions to the social security scheme and meal vouchers).

The amount relevant to the Board of Directors, including the amounts of the representation expenses as decided by Government in council, amounted to 753 945 euro for the year 2019 (742 452 euro for the year 2018).

As at 31 December 2019, the BCL employed 407 persons (389 on 31 December 2018). The average number of persons working for the BCL from 1 January to 31 December 2019 was 393 (377 for the year 2018).

NOTE 35 – BCL'S CONTRIBUTION TO THE LEGAL PENSION SCHEME OF ITS STAFF

	2019 EUR	2018 EUR
Notional employer's share	(7 256 122)	(6 778 644)
Adjustments to the pension liabilities	(2 630 934)	(5 340 955)
	(9 887 056)	**(12 119 599)**

This item includes the notional employer's share of the BCL determined on the basis of the gross wages and salaries for an amount of 7.3 million euro as well as the contribution of the BCL for an amount of 2.6 million euro as a result of the revaluation of pension liabilities (see also Note 20.2 "Provisions for pensions").

NOTE 36 – OTHER ADMINISTRATIVE EXPENSES

This item includes indemnities incurred in order to align the BCL's workforce to its needs from both a recruitment and a qualification perspective, indemnities for hierarchical responsibility, expenses for external consultants, leasing, cleaning and repairing of buildings and equipment, small goods and materials, other services and supplies. It also includes expenses in relation to the Council meeting amounted to 172 817 euro for 2019, of which 167 905 euro for indemnities and attendance fees paid to the 9 members of the Council (95 558 euro for 2018, attendance fees not included).

NOTE 37 – DEPRECIATION OF TANGIBLE AND INTANGIBLE ASSETS

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

NOTE 38 – BANKNOTE PRODUCTION SERVICES

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

NOTE 39 – OTHER EXPENSES

This item includes in particular costs relating to numismatic activities.

NOTE 40 – RESULT FOR THE YEAR

	2019 EUR	2018 EUR
Profit for the year	1 990 103	1 988 284

The fiscal year 2019 shows a profit of 1 990 103 euro (profit of 1 988 284 euro in 2018).

When taking into consideration the BCL's obligation or objective respectively relating to pension (see Note 20.2) and the provision for banking risks (see Note 20.1), the provisional results indicate a trend towards a significant structural loss.

NOTE 41 – EVENTS AFTER THE REPORTING PERIOD

41.1 Adjustment of the ECB's capital key following a departure of a Member State from the EU

As a result of the departure of the United Kingdom from the European Union and consequent withdrawal of the Bank of England from the ESCB, the weightings assigned to the remaining NCBs in the key for subscription to the ECB's capital were adjusted with effect from 1 February 2020, as follows:

Country	Capital key in ESCB (in %)		Eurosystem key (in %)	
	from 1 February 2020	Until 31 January 2020	from 1 February 2020	Until 31 January 2020
Belgium	2.9630	2.5280	3.64324	3.63127
Germany	21.4394	18.3670	26.36145	26.38270
Estonia	0.2291	0.1968	0.28170	0.28269
Ireland	1.3772	1.1754	1.69338	1.68837
Greece	2.0117	1.7292	2.47355	2.48385
Spain	9.6981	8.3391	11.92459	11.97844
France	16.6108	14.2061	20.42430	20.40590
Italy	13.8165	11.8023	16.98849	16.95304
Cyprus	0.1750	0.1503	0.21518	0.21589
Latvia	0.3169	0.2731	0.38965	0.39229
Lithuania	0.4707	0.4059	0.57876	0.58304
Luxembourg	0.2679	0.2270	0.32940	0.32607
Malta	0.0853	0.0732	0.10488	0.10515
Netherlands	4.7662	4.0677	5.86042	5.84292
Austria	2.3804	2.0325	2.92689	2.91952
Portugal	1.9035	1.6367	2.34051	2.35099
Slovenia	0.3916	0.3361	0.48150	0.48278
Slovak Republic	0.9314	0.8004	1.14523	1.14971
Finland	1.4939	1.2708	1.83687	1.82540
Bulgaria	0.9832	0.8511	-	-
Czech Republic	1.8794	1.6172	-	-
Denmark	1.7591	1.4986	-	-
Croatia	0.6595	0.5673	-	-
Hungary	1.5488	1.3348	-	-
Poland	6.0335	5.2068	-	-
Romania	2.8289	2.4470	-	-
Sweden	2.9790	2.5222	-	-
United Kingdom	0.0000	14.3374	-	-
Total	**100.0000**	**100.0000**	**100.00000**	**100.00000**

41.2 Impact on the BCL share in the ECB's capital

The ECB kept its subscribed capital unchanged at 10 825 million euro after Bank of England's withdrawal from the European System of Central Banks (ESCB). The share of the Bank of England in the ECB's subscribed capital, which stood at 14.3%, was reallocated among both the euro area national central banks (NCBs) and the remaining non-euro area NCBs. As a result, the BCL share in the ECB's subscribed capital increased by 0.04%

The ECB's paid-up capital will also remain unchanged at 7 659 million euro in the year of the United Kingdom's departure from the EU, i.e. in 2020, as the remaining NCBs cover the withdrawn Bank of England's paid-up capital of 58 million euro. Euro area NCBs will then pay up in full their increased subscriptions to the ECB capital following Bank of England's withdrawal from the ESCB in two additional annual instalments in 2021 and 2022. As a result, the BCL transferred to the ECB an amount of 0.4 million euro on 1 February 2020, and will transfer to the ECB an amount of 2.0 million euro in 2021 and 2.0 million euro in 2022.

41.3 Impact on NCBs' claims equivalent to the foreign reserve assets transferred to the ECB

Pursuant to Article 30.2 of the Statute of the ESCB, the contributions of the NCBs to the transfer of foreign reserve assets to the ECB are fixed in proportion to their share in the ECB's subscribed capital. Following (a) the increase in the weighting of the euro area NCBs (which have transferred foreign reserve assets to the ECB) in the ECB's subscribed capital resulting from Bank of England's withdrawal from the ESCB and (b) a decision of the Governing Council to reduce the proportion of the euro area NCBs' contributions, so that the total amount of foreign reserve assets already transferred by the euro area NCBs will remain at the current level, the claim equivalent to this transfer was marginally adjusted. This resulted in a minor increase in the BCL's claim of 1.3 million euro, which was paid to the ECB on 1 February 2020.

41.4. Assessment of the impact of the COVID-19 virus on the continuation of the BCL's activities

The BCL proactively and constantly monitors the developments related to the spread of the COVID-19 virus and its consequences for the Bank's activity. Going far beyond the minimum recommendations issued by the public authorities, the Bank prepares for contingency measures in order to be able to continuously ensure its key operations while respecting its missions specified in the organic law, as well as its participation to the ESCB. These developments are not likely to affect the 2019 financial accounts.

03 ANNEXES

3
ANNEXES

3.1 ECB LEGAL ACTS PUBLISHED IN 2019

Securities settlement systems

- Decision (EU) 2019/1006 of the European Central Bank 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)

Monetary policy

In the field of monetary policy, the European Central Bank 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)

Banknotes

In the field of banknotes, the European Central Bank has, in particular, adopted:

- Decision (EU) 2019/669 of the European Central Bank of 4 April 2019 amending Decision ECB/2013/10 on the denominations, specifications, reproduction, exchange and withdrawal of euro banknotes (ECB/2019/9)
- Decision (EU) 2019/2195 of the European Central Bank of 5 December 2019 amending Decision ECB/2010/14 on the authenticity and fitness checking and recirculation of euro banknotes (ECB/2019/39)

Statistics

In the field of statistics, the European Central Bank has, in particular, adopted the following legal acts:

- Regulation (EU) 2019/1677 of the European Central Bank of 27 September 2019 amending Regulation (EU) No 1333/2014 concerning statistics on the money markets (ECB/2019/29);
- Decision (EU) 2019/1348 of the European Central Bank 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);
- Guideline (EU) 2019/1386 of the European Central Bank of 7 June 2019 amending Guideline ECB/2014/15 on monetary and financial statistics (ECB/2019/18);
- Guideline (EU) 2019/1335 of the European Central Bank of 7 June 2019 amending Guideline (EU) 2018/876 on the Register of Institutions and Affiliates Data (ECB/2019/17).

Banking supervision

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

- Recommendation of the European Central Bank of 7 January 2019 on dividend distribution policies (ECB/2019/1)
- Decision (EU) 2019/322 of the European Central Bank of 31 January 2019 on delegation of the power to adopt decisions regarding supervisory powers granted under national law (ECB/2019/4)
- Decision (EU) 2019/323 of the European Central Bank of 12 February 2019 nominating heads of work units to adopt delegated decisions regarding supervisory powers granted under national law (ECB/2019/5)
- Decision (EU) 2019/685 of the European Central Bank of 18 April 2019 on the total amount of annual supervisory fees for 2019 (ECB/2019/10)
- Decision (EU) 2019/976 of the European Central Bank of 29 May 2019 laying down the principles for defining objectives and sharing feedback in joint supervisory teams and repealing Decision (EU) 2017/274 (ECB/2019/14)
- Decision (EU) 2019/1376 of the European Central Bank 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)
- Decision (EU) 2019/1377 of the European Central Bank of 31 July 2019 nominating heads of work units to adopt delegated decisions on passporting, acquisition of qualifying holdings and withdrawal of authorisations of credit institutions (ECB/2019/26)
- Decision (EU) 2019/1378 of the European Central Bank of 9 August 2019 amending Decision ECB/2014/16 concerning the establishment of an Administrative Board of Review and its Operating Rules (ECB/2019/27)
- Decision (EU) 2019/2158 of the European Central Bank of 5 December 2019 on the methodology and procedures for the determination and collection of data regarding fee factors used to calculate annual supervisory fees (ECB/2019/38)
- Corrigendum to Decision (EU) 2019/2158 of the European Central Bank of 5 December 2019 on the methodology and procedures for the determination and collection of data regarding fee factors used to calculate annual supervisory fees (ECB/2019/38) (Official Journal of the European Union L 327 of 17 December 2019)
- Regulation (EU) 2019/2155 of the European Central Bank of 5 December 2019 amending Regulation (EU) No 1163/2014 on supervisory fees (ECB/2019/37)
- Corrigendum to Regulation (EU) 2019/2155 of the European Central Bank of 5 December 2019 amending Regulation (EU) No 1163/2014 on supervisory fees (ECB/2019/37) (Official Journal of the European Union L 327 of 17 December 2019)
- Code of Conduct for high-level European Central Bank Officials (OJ C 89, 8.3.2019, p. 2–9)
- Memorandum of Understanding between the European Court of Auditors and the European Central Bank regarding audits on the ECB's supervisory tasks (9.10.2019)

3.2. BCL REGULATIONS PUBLISHED IN 2019

2019/N°26 of 5 August 2019

Regulation of the Banque centrale du Luxembourg 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 the refinancing operations of the Eurosystem and eligibility of collateral.

Field: Monetary Policy

For a complete list of regulations published by the BCL, please visit the BCL's website (www.bcl.lu).

3.3 LIST OF BCL CIRCULARS PUBLISHED IN 2019

Circular n° 242 of 28 January 2019

Object: Adaptation of the frequency of the report S 0.1 "Daily deposit report" - Adaptation of the TPTBHR report (Security by security - Off-balance sheet data - Resident customers) - to all credit institutions.

For a complete list of circulars published by the BCL, please visit the BCL's website (www.bcl.lu).

3.4 LIST OF BCL PUBLICATIONS PUBLISHED IN 2019

3.4.1 BCL bulletins

- BCL Bulletin 2019/1, April 2019
- BCL Bulletin 2019/2, July 2019
- BCL Bulletin 2019/3, December 2019

For a complete list of bulletins published by the BCL, please visit the BCL's website (www.bcl.lu).

3.4.2 BCL annual report

- Annual Report 2018, French version, July 2019
- Annual Report 2018, English version, October 2019

For a complete list of annual reports published by the BCL, please visit the BCL's website (www.bcl.lu).

3.4.3 Financial Stability Review

- *Revue de Stabilité financière* 2019, June 2019

3.4.4 BCL working papers

- Working Paper n° 138, December 2019
  Non-Linear Exchange Rate Pass-Through to Euro Area Inflation: a Local Projection Approach,
  by Roberta Colavecchio and Ieva Rubene.

- Working Paper n° 137, December 2019
  Peer effects in stock market participation: Evidence from immigration,
  by Anastasia Girshina, Thomas Y. Mathä and Michael Ziegelmeyer.

- Working Paper n° 136, November 2019
  Revisions to Quarterly National Accounts data in Luxembourg, by Bob Krebs.

- Working Paper n° 135, November 2019
  The LU-EAGLE Model with Disaggregated Public Expenditure, by Pablo Garcia Sanchez and Alban Moura.

- Working Paper n° 134, November 2019
  Costly Default and Asymmetric Real Business Cycles,
  by Patrick Fève, Pablo Garcia Sanchez, Alban Moura and Olivier Pierrard.

- Working Paper n° 133, November 2019
  Characterizing the Luxembourg financial cycle: alternatives to statistical filters,
  by Rachida Hennani and John Theal.

- Working Paper n° 132, October 2019
  Why do social networks introduce virtual currencies?, by Gaston Giordana and Paolo Guarda.

- Working Paper n° 131, July 2019
  Employment protection and firm-level job reallocation: Adjusting for coverage,
  by Benedicta Marzinotto and Ladislav Wintr.

- Working Paper n° 130, July 2019
  Central bank digital currencies: The case of universal central bank reserves, by Paolo Fegatelli.

- Working Paper n° 129, July 2019
  Housing sector and optimal macroprudential policy in an estimated DSGE model for Luxembourg,
  by Ibrahima Sangaré.

- Working Paper n° 128, April 2019
  Shocks and labour cost adjustment: Evidence from a survey of European firms,
  by Thomas Y. Mathä, Stephen Millard, Tairi Rõõm, Ladislav Wintr and Robert Wyszyński

- Working Paper n° 127, March 2019
  Analyse de la soutenabilité de la dette publique au Luxembourg, by Florian Henne.

- Working Paper n° 126, March 2019
  Measuring real and financial cycles in Luxembourg: an unobserved components approach,
  by Paolo Guarda and Alban Moura.

- Working Paper n° 125, March 2019
  Shadow Banking and the Great Recession: Evidence from an Estimated DSGE Model,
  by Patrick Fève, Alban Moura and Olivier Pierrard.

For a complete list of working papers published by the BCL, please visit the BCL's website (www.bcl.lu).

3.4.5 BCL brochures

- La Banque centrale du Luxembourg, French version, January 2018
- The Banque centrale du Luxembourg, English version, April 2018
- Die Banque centrale du Luxembourg, German version, April 2018
- Brochure of the BCL's numismatic products (2019)

3.4.6 Information material about the security features of Euro banknotes and coins

For a complete list of the information material concerning the security features of Euro banknotes and coins, please visit the BCL's website (www.bcl.lu).

3.4.7 Publications and external presentations of BCL staff

3.4.7.1 External publications of the BCL's staff members

- Efstathiou, K. and T.Y. Mathä, C. Veiga and L. Wintr (2019): "Active labour market policy use in Luxembourg: Evidence from a firm survey", *Journal of Labour Market Research*, 53(1):12.

- Fève, P., A. Moura and O. Pierrard (2019): "Shadow banking and financial regulation: A small-scale DSGE perspective", *Journal of Economic Dynamics and Control*, 101: 130-144.

- Giordana, G., and M. Ziegelmeyer (2019): "Stress testing household balance sheets in Luxembourg", *The Quarterly Review of Economics and Finance*, 76: 115-138.

- Lydon, R., T.Y. Mathä and S. Millard (2019) "Short-time Work and the Great Recession: Firm-level Evidence from 20 EU Countries", *IZA Journal of Labor Policy*, 8(2).

3.4.7.2 External presentations

- *6th Conference on Household Finance and Consumption,* Dublin, 16-17 December 2019.
- *2019 Annual Workshop of the ESCB Research Cluster 2,* Bundesbank, Frankfurt, 9-11 December 2019.
- *Working Group Econometric Modelling: EAGLE Network,* ECB, Frankfurt, November 2019.
- *1st CompNet Data User Conference,* France Stratégie, CompNet and Halle Institute for Economic Research, Paris, 8-9 October 2019.
- *31st Annual Conference of the European Association of Labour Economists* (EALE), Uppsala, Sweden, 19-21 September 2019.
- *62nd ISI World Statistics Congress,* Kuala Lumpur, August 2019.
- *7th Luxembourg Household Finance and Consumption Workshop,* Banque centrale du Luxembourg, 20-21 June 2019.
- *51e Journées de Statistique,* Société Française de Statistique, Nancy, June 2019.
- *Annual Meeting of the Austrian Economic Association,* Graz, Austria, 25-26 April 2019.

3.5 EUROPEAN CENTRAL BANK PUBLICATIONS

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

ORDER:

European Central Bank
Postfach 160319
D-60066 Frankfurt am Main
http://www.ecb.int

3.6 MONETARY, ECONOMIC AND FINANCIAL STATISTICS PUBLISHED ON THE WEBSITE OF THE BCL

1 **Monetary policy statistics**
- 1.1 Financial statement of the Banque central du Luxembourg
- 1.2 Luxembourg minimum reserve statistics

2 **Monetary and financial developments in the euro area and Luxembourg**
- 2.1 Aggregated balance sheet of the Luxembourg MFIs (excluding the Banque centrale du Luxembourg)
- 2.2 Liabilities of the Luxembourg MFIs included in the euro area monetary aggregates

3 **Capital markets and interest rates**
- 3.1 Luxembourg bank interest rates on euro-denominated deposits and loans by euro area residents - new business

18. Payment statistics

RTGS in Luxembourg

18.1 Volume of payments

18.2 Value of payments

LIPS-Net Retail Payments System

18.3-4 Value of payments

Retail payments

18.5 Use of payment instruments in Luxembourg

3.7 LIST OF ABBREVIATIONS

ABBL	Association des Banques et Banquiers, Luxembourg
ABS	Asset-Backed Securities
ATTF	Agence de transfert de technologie financière (*Luxembourg Agency for the Transfer of Financial Technology*)
BCL	Banque centrale du Luxembourg
BIS	Bank for International Settlement
CCBM	Correspondent central banking model
CETREL	Centre des transferts électroniques Luxembourg (*Center for Electronic Transfers Luxembourg*)
CLS	Continuous linked settlement
CPMI	Committee on Payments and Market Infrastructure
CPSS	Committee on Payment and Settlement
CRD	Capital Requirement Directive
CRR	Capital Requirement Regulation
CSD	Central Securities Depositories
CSSF	Commission de surveillance du secteur financier
EBA	European Banking Authority
ECAF	Eurosystem Credit Assessment Framework
ECB	European Central Bank
EFC	Economic and Financial Committee
EFSF	European Financial Stability Facility
EIB	European Investment Bank
EMU	Economic and Monetary Union
EPC	European Payments Council
ESCB	European System of Central Banks
ESM	European Stability Mechanism
ESMA	European Securities and Markets Authority
ESRB	European Systemic Risk Board
EU	European Union
EUR	Euro
EUROSTAT	Statistical office of the European communities
FSB	Financial Stability Board
GDP	Gross Domestic Product
IMF	International Monetary Fund
IML	Institut Monétaire Luxembourgeois
IOSCO	International Organization of Securities Commissions
LCR	Liquidity Coverage Ratio
LFF	Luxembourg for Finance
LSF	Luxembourg School of Finance
LTRO	Longer-Term Refinancing Operations
LU	Luxembourg
MRA	Maximum Risk Allowance
MRO	Main Refinancing Operations
NCB	National Central Banks
NSFR	Net Stable Funding Ratio
OECD	Organisation for Economic Cooperation and Development
PBC	People's Bank of China
SDR	Special Drawing Rights

SEPA	Single European Payment Area
SSM	Single Supervisory Mechanism
SSS	Securities settlement system
STATEC	Institut national de la statistique et des études économiques (National Institute for Statistics and Economic Studies)
TARGET	Trans-European Automated Real-time Gross settlement Express Transfer system
TFEU	Treaty on the Functioning of the European Union
UCI	Undertaking for Collective Investments
UCITS	Undertaking for Collective Investments in Transferable Securities
USD	US Dollar

3.8 GLOSSARY

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

Central securities depository (CSD): an entity that (i) enables securities transactions to be processed and settled by book entry, and (ii) provides custodial services (e.g. the administration of corporate actions and redemptions), and (iii) plays an active role in ensuring the integrity of securities issues. Securities can be held in physical (but immobilised) form or in dematerialized form (whereby they exist only as electronic records).

Collateral: assets pledged or otherwise transferred (e.g. by credit institutions to central banks) as a guarantee for the repayment of loans, as well as assets sold (e.g. by credit institutions to central banks) under repurchase agreements.

Corporate sector purchase programme (CSPP): On 10 March 2016, the Governing Council decided to establish a new programme to purchase investment-grade euro-denominated bonds issued by non-bank corporations established in the euro area with the aim of further strengthening the pass-through of the conventional policy measures to the real economy by improving directly the financing conditions of the euro area companies.

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

Council of the European Union: the institution of the EU made up of representatives of the governments of the EU Member States, normally ministers responsible for the matters under consideration and the relevant European Commissioner (see also ECOFIN Council).

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

Covered bond purchase programmes (CBPP, CBPP2 and CBPP3): an ECB programme, based on the decision of the Governing Council of 7 May 2009 to purchase euro-denominated covered bonds issued in the euro area in support of a specific financial market segment that is important for the funding of banks and was particularly affected by the financial crisis. The purchases under the programme were for a nominal value of 60 billion euro and they were fully implemented by 30 June 2010. On 6 October 2011 the Governing Council decided to launch a second covered bond purchase programme, the CBPP2. Between November 2011 and October 2012, a nominal amount of € 16.4 billion was purchased on the primary and secondary markets. The CBBP2 ended in November 2012. On 4 September 2014, the Governing Council decided to launch a new euro-denominated covered bonds purchase programme (CBPP3) in the primary and secondary markets.

CPMI-IOSCO: The Committee on Payments and Market Infrastructures (CPMI) promotes the safety and efficiency of payment, clearing and securities settlement related arrangements. The CPMI monitors and analyses developments in these arrangements and is a global standard setter in this area. It also serves as a forum for central bank cooperation in related oversight, policy and operational matters.

The International Organization of Securities Commissions (IOSCO) is a body that brings together the world's securities regulators. The organization develops among others internationally recognized standards of regulation, oversight and enforcement aiming at protecting investors and promoting integrity of securities markets.

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

ECOFIN Council: Council of the European Union reuniting/meeting at the level of the ministers of economics and finance.

Economic and Financial Committee (EFC): a committee which contributes to the preparation of the work of the ECOFIN Council and the European Commission. Its tasks include reviewing the economic and financial situation of both Member States and the EU, and contributing to budgetary surveillance.

Electronic money (e-money): An electronic store of monetary value on a technical device that may be widely used as prepaid bearer instrument for making payments to undertakings other than the issuer, without necessarily involving bank accounts in the transactions.

Euro: The name of the European single currency adopted by the European council at its meeting in Madrid on 15 and 16 December 1995 and used instead of the term ECU originally employed in the Treaty.

EURO1: Multilateral net payment system providing same-day settlement at a pan-European level. EURO1 is operated by EBA Clearing and settles large-value interbank payments in euro.

Euro area: the area encompassing those Member States which have adopted the euro as the single currency in accordance with the Treaty and in which a single monetary policy is conducted under the responsibility of the Governing Council of the European Central Bank. The euro area currently comprises Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia, and Spain.

Eurogroup: an informal gathering of the ministers of economy and finance of the EU Member States whose currency is the euro.

European Central Bank (ECB): the ECB lies at the centre of the Eurosystem and the European System of Central Banks (ESCB) and has its own legal personality in accordance with the Treaty (ARTICLE 282(3)). It ensures that the tasks conferred upon the Eurosystem and the ESCB are implemented either through its own activities or through those of the NCBs, pursuant to the Statute of the ESCB and the ECB. The Eurosystem and the SEBC are governed by the decision-making bodies of the ECB, i.e. by the Governing Council, by the Executive Board, and, as a third decision-making body, by the General Council.

European Financial Stabilisation Mechanism (EFSM): a European Union facility, based on Article 122(2) of the Treaty, enabling the Commission to raise up to € 60 billion on behalf of the European Union to finance loans to EU Member States experiencing serious difficulties or a serious threat of such difficulties due to exceptional events beyond their control. The loans thus granted are subject to strict conditionality under the joint programmes of the European Union and the IMF.

European Financial Stability Facility (EFSF): a limited liability company established by the euro area counterparties, on an intergovernmental basis, for the purpose of providing loans to the euro area countries in financial difficulties. Such financial assistance is subject to strong conditionality in the context of joint EU-IMF programmes. The EFSF has an effective lending capacity of €440 billion, and its loans are financed through the issuance of debt securities, guaranteed by euro area countries on a pro rata basis.

European Stability Mechanism (ESM): an organisation established by the euro area countries, on an intergovernmental basis, offering a permanent crisis management mechanism, which aims to provide emergency financial support to euro area countries in need with a view to safeguarding the financial stability of the euro area as a whole. Its effective lending capacity is € 500 billion and is subject to strict conditionality.

European System of Central Banks (ESCB): composed of the European Central Bank (ECB) and the NCBs of all 28 EU Member States, i.e. it includes, in addition to the members of the Eurosystem, the NCBs of those Member States whose currency is not the euro. The ESCB is governed by the Governing Council and the Executive Board of the ECB, and, as a third decision-making body of the ECB, by the General Council.

European Systemic Risk Board (ESRB): an independent EU body responsible for the macro-prudential oversight of the financial system within the EU. It contributes to the prevention or mitigation of systemic risks to financial stability that arise from developments within the financial system, taking into account macroeconomic developments, so as to avoid periods of widespread financial distress.

Eurosystem: the central banking system of the euro area. It comprises the European Central Bank and the NCBs of the Member States that have adopted the euro.

Executive Board: one of the decision-making bodies of the ECB. It comprises the President and the Vice-President of the ECB and four other members appointed by the European Council, acting by a qualified majority, on a recommendation from the EU Council, after it has consulted the European Parliament and the ECB.

Expanded Asset Purchase Programme (APP): Following the first and second covered bond purchase programmes (CBPP and CBPP2) conducted respectively in 2009-10 and 2011-12, the expanded asset purchase programme (APP) includes all purchase programmes under which private sector securities and public sector securities are purchased to address the risks of a too prolonged period of low inflation. It consists of the third covered bond purchase programme (CBPP3), the asset-backed securities purchase programme (ABSPP), the public sector purchase programme (PSPP) and the corporate sector purchase programme (CSPP).

Fiduciary money: banknotes and coins having the status of legal tender.

Financial stability: condition in which the financial system- comprising financial intermediaries, markets and market infrastructures- is capable of with standing shocks and the unraveling of financial imbalances, thereby mitigating the likelihood of disruptions in the financial intermediation process which are severe enough to significantly impair the allocation of savings to profitable investment opportunities.

Fine-tuning operations: an open market operation executed by the Eurosystem in order to deal with unexpected liquidity fluctuations in the market. The frequency and maturity of fine-tuning operations are not standardised.

G10: The Group of Ten (G10) refers to the group of countries that have agreed to participate in the General Arrangements to Borrow (GAB), a supplementary borrowing arrangement that can be invoked if the IMF's resources are estimated to be below member's needs. The GAB was established in 1962, when the governments of eight IMF members—Belgium, Canada, France, Italy, Japan, the Netherlands, the United Kingdom, and the United States—and the central banks of two others, Germany and Sweden, agreed to make resources available to the IMF for drawings by participants and, under certain circumstances, for drawings by nonparticipants.

G20: The Group of Twenty (G20), refers to a group of key advanced and emerging market economies that was created in 1999, in response to the financial crisis in the late 1990s, to modernise the international financial architecture, strengthen policy coordination between its members, and promote financial stability. In recent years it has increasingly influenced the debate on the global economic and financial policy agenda.

The membership of the G20 comprises the G7 countries (Canada, France, Germany, Italy, Japan, United Kingdom and the United States), Argentina, Australia, Brazil, China, India, Indonesia, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey and the European Union, which is represented by the rotating Council Presidency and the European Central Bank.

Jointly G20 members represent about 85 per cent of global gross domestic product, over 75 per cent of global trade, and two-thirds of the world's population.

General Council: one of the decision-making bodies of the European Central Bank (ECB). It comprises the President and the Vice-President of the ECB and the governors of all the NCBs of the European System of Central Banks.

Governing Council: supreme decision-making body of the European Central Bank (ECB). It comprises all the members of the Executive Board of the ECB and the governors of the NCBs of the Member States that have adopted the euro.

Harmonised index of the consumer prices (HICP): a measure of the development of consumer prices that is compiled by Eurostat and harmonised for all EU Member states.

Key ECB interest rates: the interest rates, set by the Governing Council, which reflect the monetary policy stance of the European Central Bank. They are the rates on the main refinancing operations, the marginal lending facility and the deposit facility.

Longer-term refinancing operations: a regular open market operation executed by the Eurosystem in the form of reverse transactions. Such operations are carried out through a monthly standard tender and normally have a maturity of three months. During the financial market turmoil that started in August 2007, supplementary operations with maturities ranging from one maintenance period to one year were conducted, the frequency of which varied.

Main refinancing operations: a regular open market operation executed by the Eurosystem in the form of reverse transactions. Such operations are carried out through a weekly standard tender and normally have a maturity of one week.

MFIs (monetary financial institutions): financial institutions which together form the money issuing sector of the euro area. These include the Eurosystem, resident credit institutions (as defined by Community law) and all other resident financial institutions whose business is to receive deposits and/or close substitutes for deposits from entities other than MFIs and, for their own account (at least in economic terms), to grant credit and/or invest in securities. The latter group consists predominantly of money market funds.

Open market operations: an operation executed on the initiative of a central bank to influence the financial market. With regard to their aims, regularity and procedures, Eurosystem open market operations can be divided into four categories: main refinancing operations; longer-term refinancing operations; fine-tuning operations; and structural operations. As for the instruments used, reverse transactions are the main open market instrument of the Eurosystem and can be employed in all four categories of operations. In addition, the issuance of debt certificates and outright transactions are available for structural operations, while outright transactions, foreign exchange swaps and the collection of fixed-term deposits are available for the conduct of fine-tuning operations.

Outright Monetary Transactions (OMTs): transactions that aim to safeguard an appropriate monetary policy transmission and the singleness of the monetary policy in the euro area through purchases of euro area government bonds in the secondary market based on strict and effective conditionality.

Outright transaction: A transaction whereby assets are bought or sold up to their maturity (spot or forward).

Price Stability: the maintenance of price stability is the primary objective of the Eurosystem. The Governing Council defines price stability as a year-on-year increase in the Harmonised Index of Consumer Prices for the euro area below 2%. The Governing Council has also made it clear that, in the pursuit of price stability, it aims to maintain inflation rates below, but close to, 2% over the medium term.

Public sector purchase programme (PSPP): On 22 January 2015 the Governing Council expanded its scope of intervention by announcing a securities purchase programme in the public sector (PSPP) scheduled to start on 09 March 2015. The PSPP was the latest of a suite of asset purchase programmes (APP), which included the asset-backed securities (ABSPP) and the covered bonds (CBPP3), aimed at addressing the risk of a of a too prolonged period of low inflation.

The secondary market transactions conducted under the PSPP include high quality euro-denominated instruments issued by the euro area central governments - or by regional and local governments that meet all other eligibility criteria - or by eligible international or supranational institutions and agencies established in the euro area.
The share of purchases in a national central bank's home market is conducted in proportions reflecting the respective share of the national central bank in the ECB's capital key.
Additional eligibility criteria apply to countries subject to an EU-IMF macroeconomic adjustment programme.

Real-time gross settlement (RTGS) system: a settlement system in which processing and settlement take place on a transaction-by transaction basis in real time (see also TARGET2).

SDR (Special Drawing Rights): The SDR was created by the IMF in 1969 as an international reserve asset to supplement its member countries' official reserves. Its value is currently based on a basket of four key international currencies: the euro, the Japanese yen, the pound sterling, and the US dollar. The SDR is neither a currency, nor a claim on the IMF. Rather, it is a potential claim on the freely usable currencies of IMF members.

Securities Markets Programme (SMP): a programme set up in May 2010 for conducting interventions in the euro area public and private debt securities markets to ensure depth and liquidity in dysfunctional market segments with a view to restoring an appropriate monetary policy transmission mechanism. The SMP was terminated when the technical features of the Outright Monetary Transactions were announced on 6 September 2012.

Securities settlement system (SSS): a system which allows the transfer of securities, either free of payment or against payment (delivery versus payment).

Single Resolution Mechanism (SRM): the European banking resolution system, composed of the Single Resolution Board (SRB), together with the Council and the Commission and the national resolution authorities of the participating Member States. Together with the Single Supervisory Mechanism, the SRM is one of the three pillars of the European Banking Union.

Single Supervisory Mechanism (SSM): the European banking supervisory system composed of the ECB and the national supervisory authorities and national central banks of the participating Member States. Together with the SRM, the SSM is one of the three pillars of the European Banking Union.

Stability and Growth Pact (SGP): intended to serve as a means of safeguarding sound government finances in the EU Member States in order to strengthen the conditions for price stability and for strong, sustainable growth conducive to employment creation. The SGP has two arms – a preventive arm and a corrective arm. The preventive arm prescribes that Member States specify medium-term budgetary objectives, while the corrective arm contains concrete specifications on the excessive deficit procedure.

Standing Facilities: Standing facilities aim to provide and absorb overnight liquidity, signal the general monetary policy stance and bound overnight market interest rates. Two standing facilities, which are administered in a decentralised manner by the NCBs, are available to eligible counterparties on their own initiative: the marginal lending facility and the deposit facility.

STEP2: Pan-European Automated Clearing House (PE-ACH) for retail payments in euro. The clearing house is operated by EBA Clearing.

Systemic Risk: the risk that the inability of one participant to meet its obligations in a system will cause other participants to be unable to meet their obligations when due, with possible spillover effects such as significant liquidity or credit problems that may threaten the stability of the financial system. Such inability may be caused by operational or financial problems.

TARGET2: the second-generation TARGET system. It settles payments in euro in central bank money and functions on the basis of a single shared IT platform, to which all payment orders are submitted for processing.

TARGET2-Securtities (T2S): the Eurosystem's single technical platform enabling central securities depositories and NCBs to provide core, borderless and neutral securities settlement services in central bank money in Europe.

Treaty on the Functioning of the European Union (TFEU): Following entry into force of the Treaty of Lisbon on 1 December 2009, the Treaty establishing the European Community was renamed the Treaty on the Functioning of the European Union (TFEU). This Treaty - referred to as the Treaty of Rome (signed in Rome on 25 March 1957) - entered into force on 1 January 1958 to establish the European Economic Community (EEC). The Treaty establishing the European Community was subsequently amended by the Treaty on European Union (often referred to as the Maastricht Treaty) which was signed on 7 February 1992 and entered into force on 1 November 1993, thereby establishing the EU. Thereafter, both the Treaty establishing the European Community and the Treaty on the European Union were amended by the Treaty of Amsterdam, signed on 1 October 1997 and in force as of 1 May 1999, the Treaty of Nice, signed on 28 February 2001 and in force as of 1 February 2003, and then by the Treaty of Lisbon.

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