LUXEMBOURG FOR FINANCE

CAPITAL MARKETS

THE FINANCIAL CENTRE DEVELOPMENT AGENCY

CONTENT

INTRODUCTION

Capital markets play a key role in supporting economic growth by allocating capital to projects that help create jobs, provide public services, build infrastructure and drive innovation. Whether it is an individual buying a home or saving for a pension, a business raising finance to expand or a government seeking to invest in public services, each benefit from a well-functioning capital markets environment.

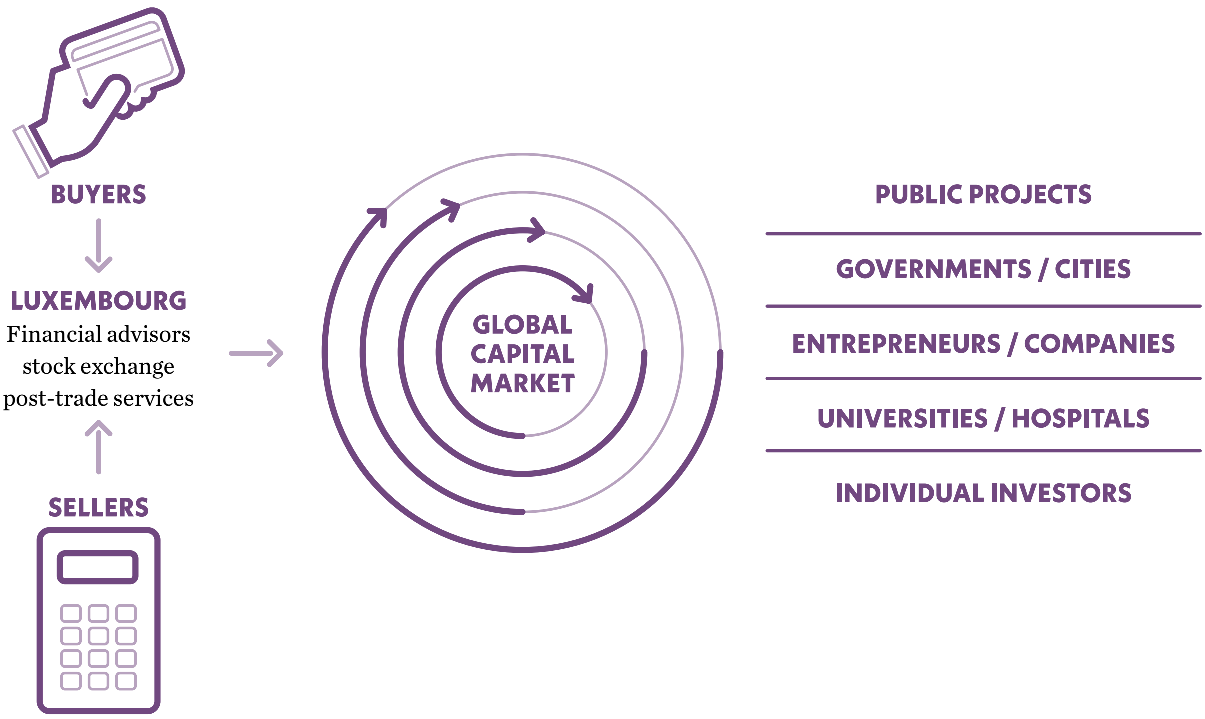
As the leading cross-border financial centre in the eurozone, Luxembourg has developed a comprehensive ecosystem, enabling investors to connect with international markets. The country's capital markets infrastructure and unique international expertise make it the perfect place for companies, ranging from SMEs to multinationals, to finance their European and global activities.

This brochure gives an insight in the multiple solutions offered by the Luxembourg financial centre. This comprises a highly developed market infrastructure, a comprehensive value chain, a large body of service providers, a strong multilingual regulatory framework and a deep talent pool.

Luxembourg is proud of its role as a pioneer. For instance, it is home to the Luxembourg Stock Exchange, which is the leading venue for international bond listings, the Luxembourg Green Exchange, the world's first platform entirely dedicated to ESG bonds, and Clearstream, the international central securities depository. Luxembourg offers the full range of post-trade services including issuance, settlement and custody of securities, as well as investment fund services and global securities financing.

Continuously driving innovation, Luxembourg has grown into an international leader in debt capital markets, a key hub for securitisation and structured finance vehicles, as well as an acknowledged platform for hosting landmark international IPOs.

The high-quality cross-border services provided in Luxembourg have attracted large amounts of business investment and capital to the EU over the past few decades. In doing so, it has played a vital role in the smooth functioning of the European and global financial system, redistributing capital across the continent and boosting prosperity.



A COMPREHENSIVE CAPITAL MARKETS ECOSYSTEM

01

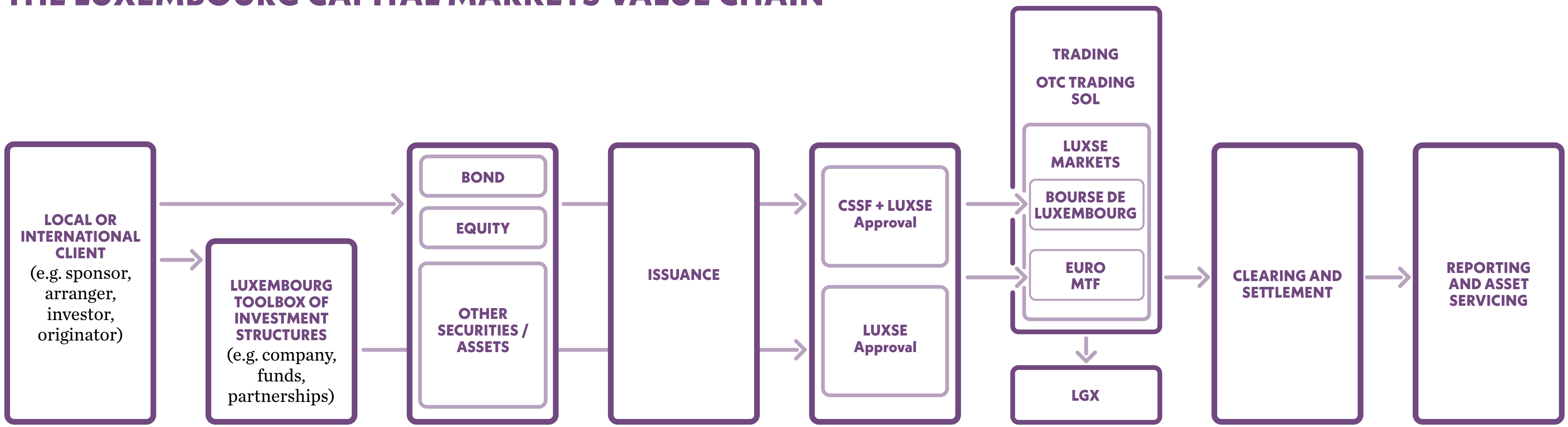
A COMPREHENSIVE CAPITAL MARKETS ECOSYSTEM

Whether a European investor wishes to buy green bonds issued by a Chinese bank or a US private equity firm wishes to invest in European assets that are acquired through a Luxembourg securitisation company, the Luxembourg capital markets value chain can offer the appropriate solution.

A capital markets transaction can be structured entirely in Luxembourg, making use of the value chain from end to end. This would involve the use of a Luxembourg issuing vehicle and Luxembourg service providers (including the custodian, registrar, paying agent, fiscal agent and calculation agent), with documentation governed by Luxembourg law and admission to trading to Luxembourg markets. Other clients may wish to use the legal framework in other jurisdictions and may only require certain elements of the Luxembourg value chain such as the issuing vehicle, an admission to trading to the Luxembourg market or a bank account.

The advantage of the Luxembourg capital markets offering is that it can be used exactly where it is needed and can blend perfectly into an international structure with non-Luxembourg elements.

THE LUXEMBOURG CAPITAL MARKETS VALUE CHAIN



PROCESS

- STRUCTURING
- PLANNING
- DOCUMENTATION
- DRAFTING
- CORPORATE / FUND SET-UP

- PRIMARY MARKET ACTIVITY

- APPROVAL

- LISTING AND TRADING

- POST-TRADE
- REPORTING & CONTINUING OBLIGATIONS

SERVICE PROVIDERS IN LUXEMBOURG

- CORPORATE SERVICES
- FISCAL AGENTS
- LISTING AGENTS
- LAWYERS
- NOTARIES
- ACCOUNTANTS

- REGULATORS
- STOCK EXCHANGE
- ICSD / CSDs
- CUSTODIANS

- PAYING AGENTS
- AUDITORS
- CALCULATION AGENTS
- REPORTING AGENTS
- TAX + ACCOUNTANCY
- ADVISORS
- DEPOSITORY BANKS

A LEADING EU-HUB FOR INTERNATIONAL INVESTORS

- A leading financial centre in the EU
- A comprehensive ecosystem geared towards cross-border financial services and products
- The financial sector regulator accepts official documentation in English, French or German. Articles of incorporation can be submitted in English
- A responsive regulator and EU-wide licensing of financial services
- Europe's leading investment fund centre
- Consistently rated AAA by all three major credit-rating agencies
- A politically stable country with very low public debt → 24,7% of GDP in 2022 (Statec)
- A long track-record of innovation
- The most multilingual country in Europe (Eurobarometer), 22nd worldwide for English proficiency (EF English Proficiency Index 2023)

Luxembourg's financial centre has four main activities: wealth management and banking (retail, commercial, corporate), capital markets, fund management and insurance. Each of these industries is supported by high-quality advisors.

Together with the Luxembourg Stock Exchange and post-trade services providers, this diverse ecosystem promotes a holistic approach and a high degree of synergy that facilitate capital markets activities.

"Financial professionals rely on a comprehensive 'toolbox' of instruments provided through a well-designed legal environment. Tailor-made solutions are crafted for the needs of corporates and investors."

Steve Jacoby,
Partner, Clifford Chance (Luxembourg)

A BROAD INTERNATIONAL SERVICE RANGE

Luxembourg is committed to providing the highest level of service and is home to a large body of capital markets service providers, including bankers, administrative agents, domiciliation agents, paying agents, transfer and register agents, lawyers, chartered accountants and tax advisors. These all offer a broad range of services to international clients.

Determining and structuring the optimal issuing vehicle and product	Financial and business due diligence reviews
Analysis of short-and long-term financial needs and capital requirements	Assessment of tax compliance and tax planning advice
Debt / IPO structuring	Listing process in coordination with all stakeholders – CSSF, Luxembourg Stock Exchange, lawyers
Compliance with local & international legislation	Publishing and filing of regulated information
Market assessment / listing strategy	Post-trade services
Preparation of prospectus & required documents	Assistance with ongoing post-issuance reporting and information distribution

"As a cross-border financial centre, Luxembourg offers the perfect framework within which to set up a vehicle for accessing international capital markets, whether for finance purposes of an international group, or for securitisation purposes."

Nicki Kayser,
Partner, Linklaters (Luxembourg)

Banks in Luxembourg have the expertise to advise on the optimal structure and terms of an issue in order for it to trigger investor interest and accompany the issuer in its contacts with investors. Local consultants and service providers will help determine the most effective legal and tax structure, including the corporate structure of the issuer, and can be counted on to ensure that the necessary substance is present in Luxembourg. Local clearing and settlement is available as well as an admission to listing and trading on the Luxembourg Stock Exchange if required.

All these service providers work together on a regular basis, resulting in efficient, seamless interaction. Testimony to this is the fact that many international companies have set up their group treasury operations in the Grand Duchy, and some even their in-house banks.

LUXEMBOURG LAW FOR CONTRACTS DEALING WITH FINANCIAL ASSETS

Luxembourg's long history with capital markets is also reflected in the widespread and increasing use of Luxembourg law for international securities issuance activity. This role has been reinforced as a consequence of Brexit.

A clear sign in this regard is that the EU and the European Atomic Energy Community (Euratom) have decided to switch the legal framework of their debt issuance programmes from English to Luxembourg law. Since October 2019, the European Stability Mechanism, one of the largest debt issuers in the world, has also made the switch to using Luxembourgish law rather than English law for the issuance of new euro-denominated bills and bonds. The European Investment Bank, the world's largest lender, also makes widespread use of Luxembourg law as the legal base for its lending activity.

The practicality and flexibility of the Luxembourg legal system, along with the ecosystem experience in financial services law, has ensured that this transition from English law is a comparatively simple matter.

The choice of Luxembourg law when drawing up commercial contracts is very often accompanied by the choice of Luxembourg courts for arbitration and as a dispute resolution forum. The Grand Duchy's courts are well known for their professionalism and multilingualism, including widely accepted use of English as a language for proceedings.

"National courts are multilingual (French, German and English) and Luxembourg is home to a number of international law firms with expertise in commercial contracts and associated litigation. This also means that courts and lawyers alike have significant experience in dealing with contracts governed by different legal systems."

François Warken,
Partner, Arendt

HIGHLY DEVELOPED MARKET INFRASTRUCTURE

From listing and trading, to clearing and settlement, Luxembourg offers a solid capital markets environment within a highly developed market infrastructure. The Luxembourg Stock Exchange (LuxSE) is a global specialist in the listing of international securities and is well known for its fast, transparent and customer-focused listing process. For more than fifty years the Exchange has helped companies, institutions and governments around the globe access international capital markets. Furthermore, by listing new products such as green bonds, dim sum bonds and sukuk, it has actively contributed to innovation in the financial marketplace.

THE LUXEMBOURG STOCK EXCHANGE (LUXSE): AN EXCHANGE UNLIKE ANY OTHER

- Leading venue for international bond listings in Europe
- World's first platform entirely dedicated to green social and sustainability bonds
- 41,000 + securities listed
- 100 + jurisdictions
- 1,900 + issuers
- 110+ sovereigns
- 15 public international bodies
- 5,700 + share classes of UCIs listed
- Listings in 70 + currencies

In order to serve more than 1,900+ listed issuers from over 100 jurisdictions, LuxSE offers a broad range of instruments. The majority of business activity revolves around listing debt securities, investment funds, warrants, GDRs and equities.

TWO MARKETS

The Luxembourg Stock Exchange offers issuers two markets: the Bourse de Luxembourg market, which is regulated by European rules and the Euro Multilateral Trading Facility (Euro MTF), the biggest MTF market in Europe, regulated directly by LuxSE.

Bourse de Luxembourg: EU-Regulated Market

- European passport
- 25,000 + listings
- Approval by the Luxembourg financial regulator, the CSSF
- Established since 1929
- IFRS or equivalent

Euro MTF – Exchange-regulated market

- The largest MTF in the EU
- 11,000 + listings
- Approval by LuxSE
- Fast-growing market established in 2005
- National GAAP, IFRS or equivalent

LuxXPrime

In the context of a sustained low interest environment with reduced margins, investors are on the search for diversification and ways to put their assets to work in a safe, secure and transparent manner. In this context, in 2019, LuxSE launched LuxXPrime – a bond trading platform dedicated to retail-sized orders, with the goal of making it easy and safe for private and professional investors to trade retail-sized bonds.

LuxXPrime's Prime Liquidity Provider, EUWAX AG, provides LuxSE trading members with the guarantee of firm prices and the ability to trade with ease throughout the trading day. It is through this state-of- the-art service offering and high levels of liquidity that LuxXPrime offers investors a superior platform with reliable bond trade execution.

Trading on LuxXPrime is limited to LuxSE registered members, namely professional investors or brokers. Private (or individual) investors looking to take advantage of LuxXPrime's service offering, can be facilitated through an authorised LuxSE trading member.

Today LuxXPrime covers over 1,800 retail-sized securities, including 160 Green, Social and Sustainability bonds. Issuers come from 36 countries worldwide and instruments are denominated in 10 currencies.

LUXEMBOURG GREEN EXCHANGE

Exchanges – today more than ever before – play a crucial role in supporting and nurturing growth of the sustainable finance market. In this spirit, in September 2016 the Luxembourg Stock Exchange introduced the Luxembourg Green Exchange, or LGX, the world's first platform exclusively displaying securities that raise proceeds for projects and companies which are fully aligned with recognised international sustainability standards.

"LGX aims to provide issuers, asset managers and investors with an environment for bonds and funds which are green, social, sustainable, or ESG-focused."

Julie Becker,
CEO, LuxSE

With the creation of LGX, LuxSE has become the first exchange to establish a dedicated service that bridges investors' need for increased transparency and issuers' commitment to assure quality of reporting. This innovative mind-set in developing new tools in the sustainability space will channel more funds to the sustainable finance market.

LGX is so far an unmatched concept. It is the first platform that makes industry best practices for sustainable securities, in particular ICMA's Principles and the Climate Bonds Initiative's standards, a mandatory requirement. To be accepted and displayed on LGX an issuer must provide at least one form of a robust external review. A second admission criterion is the commitment to post issuance reporting. The introduction of these requirements has been an important contribution to the market, and a warmly welcomed one, as information about the factual allocation of proceeds is vital to investors.

Today, LGX displays over 1,800 sustainable securities with a total issuance value of over EUR960 bn, accounting for approximately 50% of the amount of green, social and sustainable bonds listed worldwide. LGX also provides easy access to the Chinese domestic green bonds market, by making available information and data on green securities listed in China.

LGX continues to work to expand and upskill the industry on sustainable finance, launching in 2020:

- the LGX Data Hub, which allows investors to analyse previously unstructured pre- and post-issuance information on Green, Social and Sustainability Bonds in a clear and comparable structure; including all those displayed on LGX,
- the LGX Academy, that provides tailor-made, in-person lectures and seminars to those already working in the industry, and those wishing to establish careers in the economy of the future,
- the Solactive LGX Green Bond Impact Index.

INTERNATIONAL RECOGNITION

International issuers, asset managers, law firms, listing agents, banks and investors recognise the advantages that the Luxembourg Stock Exchange has to offer.

These include:

- A fast, customer-minded and secure listing process:
  - the prospectus is reviewed in less than 3 days;
  - 99% of all securities are listed in less than 2 days.
- Pre-listing advisory services
- Access to international investors
- Competitive pricing:
  - no additional fees for prospectus publication;
  - preferential fees for subsequent listings (all issuers) and supranational issuers.
- Automatic admission to trading for all listed securities admitted to the Regulated Market and the Euro MTF
- Access to an advanced trading and post-trading infrastructure relying on Euronext's OPTIQ platform for trading and LCH.Clearnet, Euroclear Bank and Clearstream Banking for clearing and settlement
- One-stop-shop for regulatory reporting – a unique full service process not matched by any other security exchange
- Highly transparent listing process
- Easy access to information – integrated market and investor information; free access to prospectuses and securities-related documentation.

LUXEMBOURG POST-TRADE SERVICES

The listing and trading of securities is usually the most familiar part of the value chain. Less well-known is the area of post-trade, whereby, after listing and trading have been carried out, the buyer ultimately receives securities and the seller receives cash.

> **"Over the past 50 years, Luxembourg's strengths as a location have allowed Clearstream to grow into a leading post-trade market infrastructure provider. In a market environment defined by challenges such as digitisation, economic change and geopolitical uncertainty, we are convinced that Luxembourg's innovative strength, excellent talent pool and quality as a location for strong partnerships will allow it to remain an attractive financial centre for the years to come."**

Philippe Seyll,
CEO of Clearstream Banking S.A.

Post-trade processes include:

- Clearing – the process of managing the actions between trade date and settlement date
- Settlement – the process whereby the buyer receives the purchased securities and the seller receives the corresponding cash for those securities
- Custody – the safekeeping of assets by intermediary banks, brokers and CSDs on behalf of investors
- Asset servicing – income collection, corporate action processing, tax reclamation and proxy voting services
- Securities Financing and Collateral Management – borrowing or lending cash or securities in order to enhance market liquidity or generate yield

The securities servicing industry is supported by a sophisticated intermediation structure that brings investors, issuers, and trading parties together.

CLEARSTREAM

The rapid growth and development of Eurobonds in the 1960s meant that Luxembourg needed to move into international clearing and settlement. The result was the creation in 1970 of the Centrale de Livraison de Valeurs Mobilières, better known as CEDEL.

Today, the organisation is known as Clearstream, one of only two international central securities depositories (ICSDs) worldwide. With around €17.5 tn in assets under custody (on a yearly average), Clearstream ensures that cash and securities are promptly and effectively delivered between trading parties, as well as managing and administering the securities that it holds on behalf of its customers.

A wide range of domestic and internationally traded bonds, equities and investment funds are currently deposited with Clearstream. Its global network extends across close to 60 domestic markets and over 100 currencies, settling more than 500,000 transactions daily.

Clearstream also offers collateral management, securities lending and borrowing services. It provides a deep pool of liquidity through links to agent banks, trading platforms, clearing houses and other market infrastructures, helping to streamline and optimise post-trade processes.

LuxCSD

Alongside the ICSD, Clearstream also runs the central securities depository in Luxembourg, LuxCSD, which is co-owned by the Central Bank. LuxCSD offers direct access to the European Central Bank's (ECB) TARGET2-Securities facility, thus allowing participants to perform their transactions in central bank money with a de facto guarantee on the cash side. LuxCSD also acts as a provider of Local Entity Identifier (LEI) codes – a requirement for all EU counterparties entering into derivative trades under the European Market Infrastructure Regulation (EMIR).

REGIS-TR

Luxembourg is also home of one major Trade Repository, REGIS-TR, which reports trades and transactions across multiple product classes and jurisdictions. The Trade Repository is open to financial and non- financial institutions, and services all major regulatory reporting obligations in Europe.

REGIS-TR collects and administers details of trades and transactions reported by its clients in order to give market participants and regulators an aggregated view of their positions in compliance with relevant regulations. In addition to its core services, REGIS-TR is already progressing towards its goal of becoming a one-stop-shop for regulatory reporting requirements.

Entities such as REGIS-TR are moving to centre stage of the financial architecture because they allow markets and authorities to shed light on financial transactions, particularly derivatives (in the context of EMIR) and securities financing transactions (in the context of SFTR). That activity makes Luxembourg a cornerstone of EU financial services.

A NEW ASSOCIATION FOR CAPITAL MARKETS

The Luxembourg Capital Markets Association (LuxCMA) was founded in March 2019, with membership from the market infrastructure, banking and service provider community in the Grand Duchy.

The main goal of the association is to bring all players in the primary capital markets around the table and materialize their common interests. In particular, LuxCMA focuses on facilitating the access to a wide network of capital market professionals; exchanging views about the future of the industry; sharing best practices with peers; sharing the latest information concerning legal and regulatory developments; setting market standards and providing input for capital markets sector proposals in cooperation with other industry associations, thereby influencing future policy-making.

REGULATION AND POST-TRADE SERVICES

Although the European Union's Single Market and currency have delivered many advantages, its financial infrastructure remains largely fragmented. This is particularly noticeable within the post-trade arena of securities settlement, safekeeping and asset servicing. Regulation has made the use of post-trade service providers a necessity for many market participants that would never have considered using them before. In this context, Luxembourg CSDs assist their international clients and continuously look for smart ways of making cross-border investment easier.

In Europe, these regulations are primarily manifested in the Markets in Financial Instruments Directive II and Regulation (MiFID II/MiFIR), the European Market Infrastructure Regulation (EMIR), which demands greater market transparency through reporting requirements and standardisation rules on regulated trading venues, and the Central Securities Depository Regulation (CSDR), which governs the operation of CSDs in the EU.

Luxembourg's CSDs and their clients benefit from growth in the capital markets, not only when it comes to their settlement volume but also with regard to their collateral management services. EMIR and the Capital Requirements Directive 4 are increasing the need for collateral in the market.

TARGET2-SECURITIES

TARGET2-Securities (T2S) started operations in 2015, revolutionising securities settlement by providing a single mechanism for cross-border settlement within 20 participating countries in Europe.

Banks pay for securities on the platform using the account they have with their central bank, so the money used to settle transactions is central bank money. As a result, transaction risk is greatly reduced.

For each transaction, settlement instructions from the CSD and the central bank are matched by T2S when they enter the system. T2S then settles the transaction on a delivery-versus-payment (DvP) basis, i.e. the money and securities change hands simultaneously.

T2S also offers a set of sophisticated technical features, including optimisation algorithms to enhance settlement efficiency and advanced auto-collateralisation mechanisms.

Market participants usually communicate with T2S via the technical interface of their CSD or central bank, but banks can also choose to instruct T2S directly. Directly connected participants still need an account with their central bank and a CSD to be able to settle the securities transactions, with the CSDs continuing to provide custody and asset servicing for securities.

CMU: MAKING CAPITAL MARKETS MORE EFFICIENT

The Capital Markets Union (CMU) proposal is aimed at integrating markets across Europe. The project recognises the fact that, despite the single market, the European Union is also made up of 27 different jurisdictions with different rules and regulations as well as tax laws.

This has created hurdles for companies and investors working across these different jurisdictions. Luxembourg has specialised in helping clients to manage this complexity notably by having developed an unrivalled expertise in "translating" financial products and services into a European context, without sacrificing the legal certainty that goes with it. Financial institutions and service providers in Luxembourg are familiar with the technical, legal and fiscal requirements in other EU Member States.

Given this unique cross-border expertise, Luxembourg is taking part in all future efforts to further integrate the EU financial markets. The largest industry of the financial centre, the fund industry, already benefits from longstanding European legislation ensuring an open EU market.

In 2015, the European Commission put forward an action plan to strengthen Europe's financial markets and relevant cross-border capital flows in the wake of the international financial and euro area sovereign debt crises.

Completing the banking and capital markets union was a priority. Deep and liquid capital markets are essential to give businesses access to the finance they need to grow and invest in recovery and in the future.

Under the Von der Leyen presidency, the European Commission launched its "Capital markets union new action plan: A capital markets union for people and businesses".

The new CMU action plan proposes 16 legislative and non-legislative actions with 3 key objectives:

1. support a green, digital, inclusive and resilient economic recovery by making financing more accessible to European companies;
2. make the EU an even safer place for individuals to save and invest long-term;
3. integrate national capital markets into a genuine single market.

EUROPEAN COMMISSION ISSUES FIRST EU SURE SOCIAL BOND

In October 2020, the European Commission issued a €17 bn inaugural social bond under the EU SURE instrument. This landmark bond is listed on the Luxembourg Stock Exchange and displayed on the Luxembourg Green Exchange.

The SURE programme was established by the European Union earlier this year to help protect jobs and workers across Europe, and has a mandate of borrowing up to €100 bn on capital markets to support Member States in their efforts to safeguard jobs heavily impacted by the COVID-19 pandemic.

The funds raised will be transferred to the beneficiary Member States in the form of loans to help them cover the costs directly related to the financing of national short-time work schemes and similar measures as a response to the pandemic.

"For the first time in history, the Commission is issuing social bonds on the market, to raise money that will help keep people in jobs. This unprecedented step matches the extraordinary times we are living in. We are sparing no efforts to safeguard livelihoods in Europe. I'm glad that countries hit badly by the crisis will receive support under SURE rapidly."

Ursula von der Leyen,
President of the European Commission

INTERNATIONAL PIONEER IN DEBT CAPITAL MARKETS

02

INTERNATIONAL PIONEER IN DEBT CAPITAL MARKETS

Over the past few decades, the Luxembourg financial centre has developed a comprehensive range of services to meet the growing demands of debt capital markets and connect international investors and borrowers.

Luxembourg is home to Europe's leading stock exchange for the listing of international bonds. In 2019, approximately €1.18 tn of debt was issued in the country through a range of different instruments. These include corporate bonds, high-yield bonds, Eurobonds, indexed bonds, green bonds, sukuk and dim sum bonds.

HIGHWAY TO SUCCESS

To trace the roots of debt capital markets in Luxembourg, one would need to go back to 1963, when Autostrade, the builder and operator of the Italian motorway network, launched a €15 m, 15-year, 5.5% bond deal through SG Warburg, Banque de Bruxelles, Deutsche Bank and Rotterdamsche Bank. This was guaranteed by the Italian State Holding Company.

This transaction, which was issued by an Italian company, denominated in US dollars and based on English law, became the first ever Eurobond issuance. Both the London and the Luxembourg Stock Exchanges had been considered to host the historic bond listing, but in the end, Luxembourg was chosen because of its wide-ranging experience of dealing with foreign currencies and its reputation for innovation.

The Eurobond market was an instant success, growing to an estimated €830 m in the 18 months that followed. It has also been instrumental in establishing Luxembourg as the go-to centre for investors and borrowers in the debt capital markets – a position it still holds today.

A VITAL SOURCE OF FINANCE FOR BUSINESSES AND GOVERNMENTS

Governments across the EU funded 76% of their debt finance through bonds in 2019[1], many of them choosing Luxembourg as their centre of choice.

Both financial and non-financial corporations issue bonds, and these groups together account for 53% of long-term debt outstanding in Europe.[2] For financial institutions, bonds provide an important source of funding, which can also be used as regulatory capital. In turn, this enables banks to loan money to businesses, organisations and households in the wider economy.

Low interest rates across the world have also created market opportunities with corporates becoming more interested in debt issuance as it provides low-cost external financing. At the same time, investors are increasingly interested in corporate bonds as they provide an avenue for capturing higher yields and access to more finance pools via diversified instruments.

[1] ECB Statistical Data Warehouse – key GFS.A.N.B6.W0.S13.S1.C.L.LE.F3.L._Z.XDC_R_GD._T.F.V.N._T

[2] ECB Statistical Data Warehouse – keys SEC.A.V3.1000.F33200.N.1.Z01.E.Z, SEC.A.V3.12A0.F33200.N.1.Z01.E.Z, SEC.A.V3.1300.F33200.N.1.Z01.E.Z and SEC.A.V3.1610.F33200.N.1.Z01.E.Z

HIGH-YIELD BONDS

The Luxembourg Stock Exchange is one of the most popular places for listing high-yield bonds. Luxembourg vehicles are regularly used because of Luxembourg's attractive corporate law and the legal certainty and robustness offered by Luxembourg financial collateral arrangements.

High-yield bonds are issued by operators for financing, refinancing and are also commonly seen in the context of acquisition financing transactions in combination with more traditional bank funding.

"Luxembourg's collateral laws are efficient and robust, which is of particular importance in complex, multi-tier financing structures where high-yield bonds are used."

Philippe Prussen,
Partner, Elvinger Hoss Prussen

LISTING

LuxSE is the leading European exchange for the listing of high-yield bonds.

- LuxSE became the first exchange in Europe to offer a regulated market listing high-yield bonds in 2006, publishing the first EU guidance and rules for high-yield bond listing in cooperation with European High Yield Association in 2006.
- LuxSE offers maximum transparency and access to high-yield bond security data online, including daily closing prices.
- The creation of the Euro Multilateral Trading Facility in 2005 was another important step for LuxSE as it provided issuers with a competitive and flexible alternative to regulated markets (within the framework of MiFID). The Euro MTF has seen a double-digit growth since 2013.

The open-minded attitude of the regulator and the international, service-oriented approach of LuxSE to new issuers are just some of the factors contributing to the growth of the high-yield bond market in Luxembourg. As a result, numerous multinational groups have chosen Luxembourg as their issuing and listing location for high-yield bonds.

High-yield bond listings on LuxSE include

swissport · Continental · altice · ASTON MARTIN · TUI · PUMA · iglo · JAGUAR · LAND ROVER · SCHAEFFLER

COLLATERAL ARRANGEMENTS

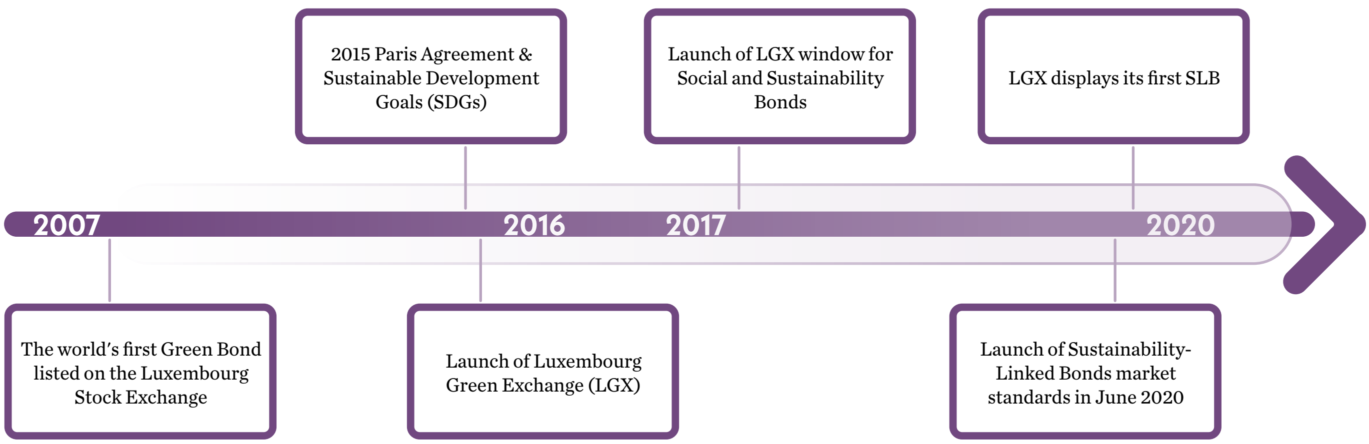
High-yield bonds generally benefit from a security package, which will be determined in each specific case and will include guarantees and collateral over the issuing group's assets. Since investors in the bonds take a financial risk on the guarantors, such entities must be adequately disclosed in any offering or listing documentation. The general rule under the Prospectus Regulation and the internal rules of the Luxembourg Stock Exchange is that a guarantor needs to be described as if it were the issuer itself.

This can be unduly burdensome in some circumstances, mainly in the context of the disclosure of financial information. Here both the CSSF and the Luxembourg Stock Exchange may provide certain exemptions: for instance, they may (under certain specific conditions) permit that only the consolidated financial statements of the parent company are presented. Considering that otherwise the financial statements of the last two or three years of the issuer and each guarantor would need to be provided, this approach has often helped issuers in the past.

SUSTAINABLE BONDS

Following the Paris COP 21 Agreement in 2015, which set a framework for tackling climate change across the world, greater focus has been placed on the role of Climate Finance; a form of finance that is likely to require trillions of dollars of investment every year ($4.5 trillion by 2030, according to the International Energy Agency). Although some of this volume will come from the public sector and traditional bank loans, sustainable bonds (a broad category that includes all green, social and sustainability bonds) are expected to become a dominant source or funding and make up a larger share of the $100 trillion global debt market.

The market first started to develop primarily through green bonds, which focus on green projects, before extending to social and sustainability bonds that contribute to social projects or a mix of green and social projects. Green, social and sustainability bonds are use-of-proceeds bonds. Sustainability-linked bonds (SLBs), on the other hand, look at the sustainability strategy of the issuer, as their financial characteristics vary depending on pre-defined sustainable targets set at entity level. Globally recognised standards provide a framework for the development of these products: the Luxembourg Stock Exchange relies on such standards for the categorisation of bonds on its platform.



GREEN BONDS

Green Bonds are debt instruments that have been issued to fund projects that have positive environmental or climate impact.

In 2007 the Luxembourg Stock Exchange was the first stock exchange in the world to list a Green Bond, it was issued by the Luxembourg-based European Investment Bank. In 2016, it launched the Luxembourg Green Exchange (LGX), the first platform dedicated exclusively to green and sustainable securities. It provides issuers and investors an environment where they can come together and fulfill their sustainability objectives.

LGX now displays over 1,800 sustainable securities, valued at over EUR960 bn.

LGX is the first exchange to translate industry best practices for sustainable securities into mandatory requirements. Its entry requirements are in line with industry standards for sustainable securities and recognise several broad categories of eligibility for sustainability projects.

"There is no doubt that new issuance of green securities has taken off since COP21 and there now seems to be a real desire for change. The green market has enormous potential but this needs to be matched by interest from investors. By setting strict standards for 'green' securities, LGX aims to create an environment that will allow the market to prosper in a secure and transparent way."

Julie Becker,
CEO, LuxSE

IMPORTANT DRIVERS FOR ISSUING GREEN, SOCIAL AND SUSTAINABILITY BONDS:

- They attract sustainability-conscious investors who may not otherwise invest in a company.
- They satisfy stakeholder demands for responsible business practice.
- They help project companies as sustainability-conscious organisations, thereby enhancing their brands.
- They are an accessible and powerful instrument for financing a sustainable, low-carbon economy.
- They are an economical and convenient financing model for project developers.
- Almost all green, social and sustainability bonds issued in the past have been oversubscribed.

AN ECOSYSTEM FOR SUSTAINABLE FINANCE

Luxembourg has an impressive track record in developing Sustainable Finance tools.

- 67% of AuM in European impact funds are domiciled in Luxembourg, as well as 37% of funds with environment strategies, representing Europe's largest market share.[3]
- Over 60% of assets in microfinance investment vehicles (MIVs) worldwide are in Luxembourg domiciled funds.[4]

Luxembourg funds account for:

- 69% of AUM in renewable energy funds in Europe
- 69% of AUM in water funds in Europe
- 63% of AUM in remaining ecological investment strategies in Europe

FIRST EUROPEAN SOVEREIGN SUSTAINABILITY BOND

In September 2020, the Luxembourg Stock Exchange celebrated the listing of Europe's first sovereign sustainability bond issued by the Grand Duchy of Luxembourg. LuxCSD handled the issuance process for the bond, which has an outstanding of €1.5 bn, carries a AAA rating, and is displayed on the Luxembourg Green Exchange.

The sustainability bond was issued under the new Sustainability Bond Framework established by the Luxembourg government in September 2020. The Sustainability Bond Framework is the strategy structure established by a European country and aligned with the highest international standards and best market practice in the field of sustainable finance.

By providing the local infrastructure for this ESG bond issuance, LuxCSD supported Luxembourg's commitment to sustainable finance and its leading role in the transition towards a low-carbon and more inclusive economy.

DIM SUM BONDS

Dim sum bonds, which are also known as offshore renminbi (RMB) bonds or CNH bonds, are fixed income instruments denominated in offshore RMB that trade and settle outside of mainland China.

The dim sum bond market is attractive to both issuers and investors as it helps diversify their sources of funding and portfolio of investments.

The first issue was made by the China Development Bank in July 2007. Since then the dim sum bond market has become more international following a decision by the Chinese authorities in 2010 to relax the rules for issuance. This opened the door for other foreign financial institutions and corporates to raise renminbi on the offshore markets and created momentum for international stock exchanges to list dim sum bonds.

[3-4] Symbiotics – CGAP

EUROPE'S PREMIER DIM SUM BONDS LISTING VENUE

LuxSE ranks first globally in terms of number of dim sum bond listings. Today, many established international companies issue dim sum bonds as part of their global funding programmes, diversifying their base of investors. Many of these institutions already list debt securities in other currencies on LuxSE and continue to use its quick and efficient processes for RMB denominated listings.

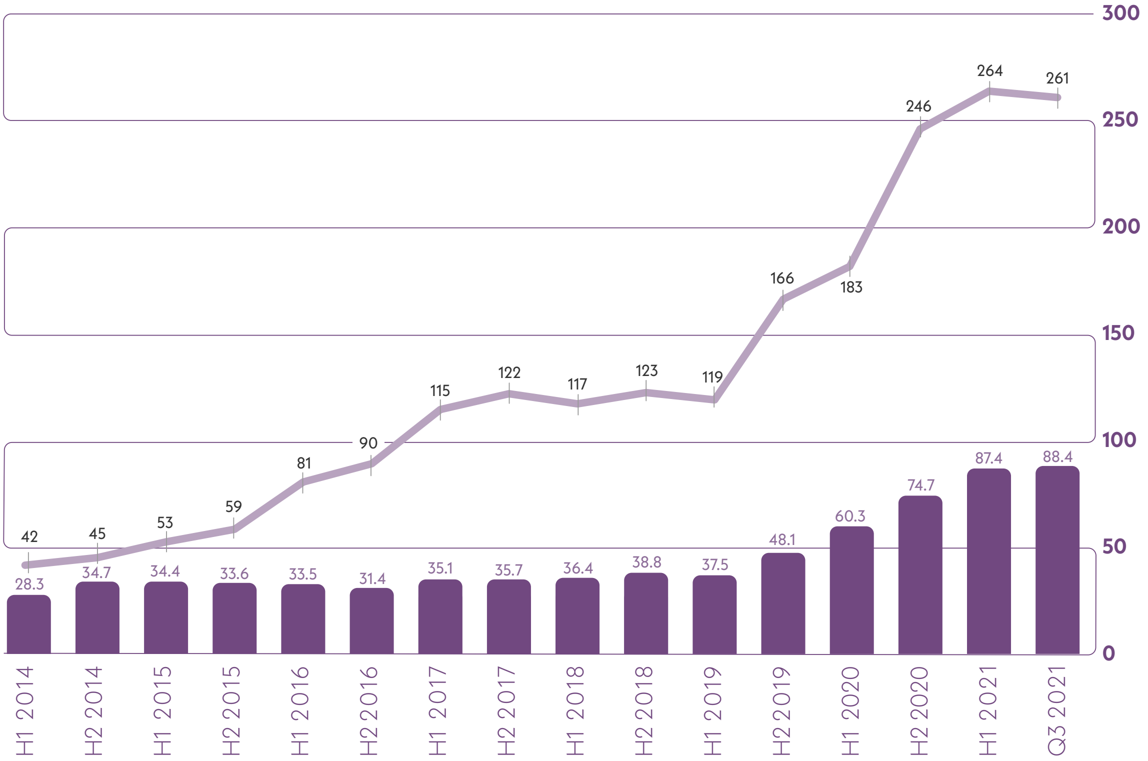
The first RMB denominated fixed income security to be listed in Europe was issued by Volkswagen in May 2011; it was listed on LuxSE. Since then, business volumes have grown substantially. Today, more than 180 dim sum bonds have been listed in Luxembourg raising a total amount of CNY60.3 bn.

STRENGTHENING TIES WITH GREATER CHINA

In order to sustain close collaboration with its partners, LuxSE has signed memoranda of understanding with a number of exchanges, banks and CSDs, including:

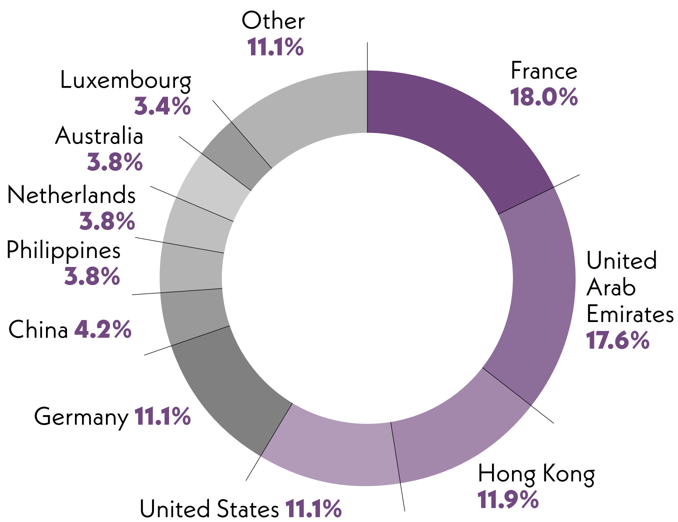
- Shanghai Stock Exchange
- Bank of China
- Industrial and Commercial Bank of China
- Bank of Communications
- China Merchants Bank
- China Construction Bank
- Shenzhen Stock Exchange
- Shanghai Clearing House

Evolution of RMB listed bonds in Luxembourg (as of September 30, 2021)

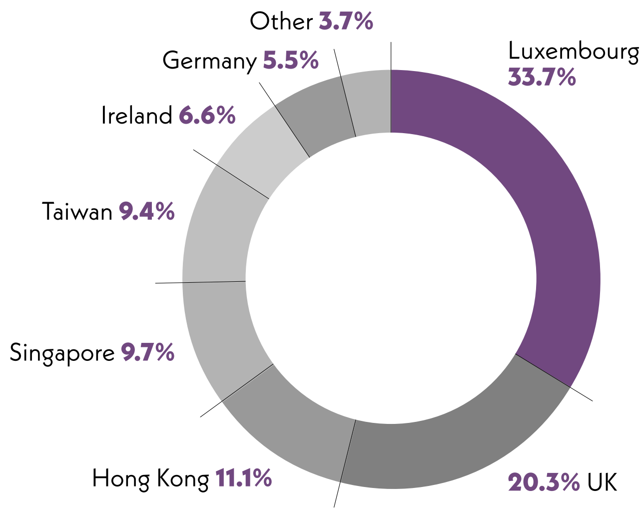


Source: Luxembourg Stock Exchange

Origin of RMB bond issuers in Luxembourg (% by number of bonds)



Luxembourg's market share in Dim Sum bonds* (% by number of bonds)



Date of Data: September 30, 2021

PRIVATE LOAN FUNDS

Corporate finance in Europe is currently undergoing a significant transformation. With banks in the process of deleveraging and burdened by additional capital requirements, debt funds have stepped in and are increasingly providing funding to small- to medium-sized enterprises, either through direct lending or through loan acquisition/ participation.

In response to this, the Commission de Surveillance du Secteur Financier (CSSF) published an update of its AIFM Law FAQ in June 2016, where it officially confirmed that Luxembourg-based AIFs may engage in loan origination, loan acquisition or loan participation activities, subject to specific organisational and operational requirements.

CORNERSTONES OF A HARMONISED EUROPEAN FRAMEWORK

In order to keep pace with this market development from a regulatory perspective, the European Securities and Markets Authority (ESMA) published its opinion on ‘Key principles for a European framework on loan origination by funds’ at the European Commission’s request. In doing so, ESMA took stock of national practices with regard to loan origination by investment funds and proposed the cornerstones around which a harmonised European framework on loan origination could centre.

LUXEMBOURG MARKET READINESS

Luxembourg has hosted loan (origination and participation) funds for many years, leveraging on the legal and regulatory framework while developing operational tools and expertise.

Among the most commonly used vehicles, the Luxembourg specialised investment fund (SIF) has shown a great deal of flexibility to accommodate loan fund structuring. Since its inception in 2007, new types of vehicles have been added to the Luxembourg toolbox, some of them such as the EuVECA and the ELTIF, being driven by European legislative initiatives. Others, such as the reserved alternative investment fund (RAIF) were added to the Luxembourg toolbox to facilitate a quicker time to market.

Market players have also adapted to this growing trend, developing expertise and know-how specific to the PE debt asset class in terms of operations (e.g. cashflow reporting, trade processing), valuation or risk management.

With a number of loan fund managers already operating Luxembourg AIF and some of them transferring their middle office in the Grand Duchy, the financial centre has successfully positioned itself in a new industry and provides a well-regulated environment for this growing segment.

LISTING OF FUNDS

The Luxembourg Stock Exchange is the listing venue of many investment funds. The Luxembourg Stock Exchange has a deep understanding of the characteristics of investment funds and has helped to design a set of procedures for promoters listing an investment fund, whether it be a domestic fund or incorporated abroad, as part of an IPO or at a later stage.

One of the main reasons why a fund may wish to be listed is to broaden the scope of its potential investors. Institutional investors, such as pension funds, insurance companies and UCITS funds, have to include a percentage of listed securities in their securities portfolio. At a time when regulators and investors are requesting more transparency, listing on a stock exchange is considered as a way of improving access to financial information, liquidity and valuation of the securities.
Luxembourg's leading position in the investment fund industry also gives listings a competitive advantage and more visibility.

A wide range of investment funds are accepted on both markets:

- Foreign and domestic funds
- Exchange traded funds, UCITS and alternative funds
- Open and closed-ended
- Multi-class or multi sub-fund

Trading:

- Continuous trading in real time without delays
- Fund prices are calculated on a continuous basis
- Investors can trade their funds at actual market prices

Transparency:

- Possibility to find in real time all pre-trade and post-trade information
- No minimum investment
- A regulated and monitored market place
- Principle of independence
- Prices are set by specialists who are not in contact with managers
- Optimized post-trade processes
- Guaranteed execution

SECURITISATION

03

SECURITISATION

BRIDGING THE GAP

Securitisation plays an important role in the functioning of financial markets and the modern global economy. It can lower funding costs, benefiting businesses and citizens, and can help issuers and investors diversify and transfer risk across different asset classes, geographies, industries, instruments, and credit risks.

According to the EU Commission, securitisation also remains a significant source of company financing as it plays a key role bridging the gap between deleveraging banks and investors seeking to diversify their portfolios in Europe's bank-dominated financial system. Securitisation is also key in this respect with regards to the EU's Capital Markets Union project, where it serves as a tool to complement bank financing, improve efficiency of capital markets, and support the real economy.

Things have not always been so smooth for the industry, however. Following the US sub-prime mortgage crisis, securitisation issuance in Europe dropped from €594 bn in 2007 to €216 bn in 2014. SME securitisation issuance dropped from €77 bn to €36 bn over the same period. As a direct consequence of this, various laws and regulations were passed to make the securitisation industry safer and simpler.

NEW REGULATORY FRAMEWORK FOR SECURITISATION

EU Securitisation Regulation and the amendment of the Capital Requirements Regulation (CRR) concerning securitisation became effective as of 1 January 2019, and as such securitisation transactions are now directly subject to EU regulation.

As part of this new regulatory environment, a "Simple, Transparent, and Standardised" Label (STS) was introduced for securitisation vehicles, with a notification requirement to ESMA.

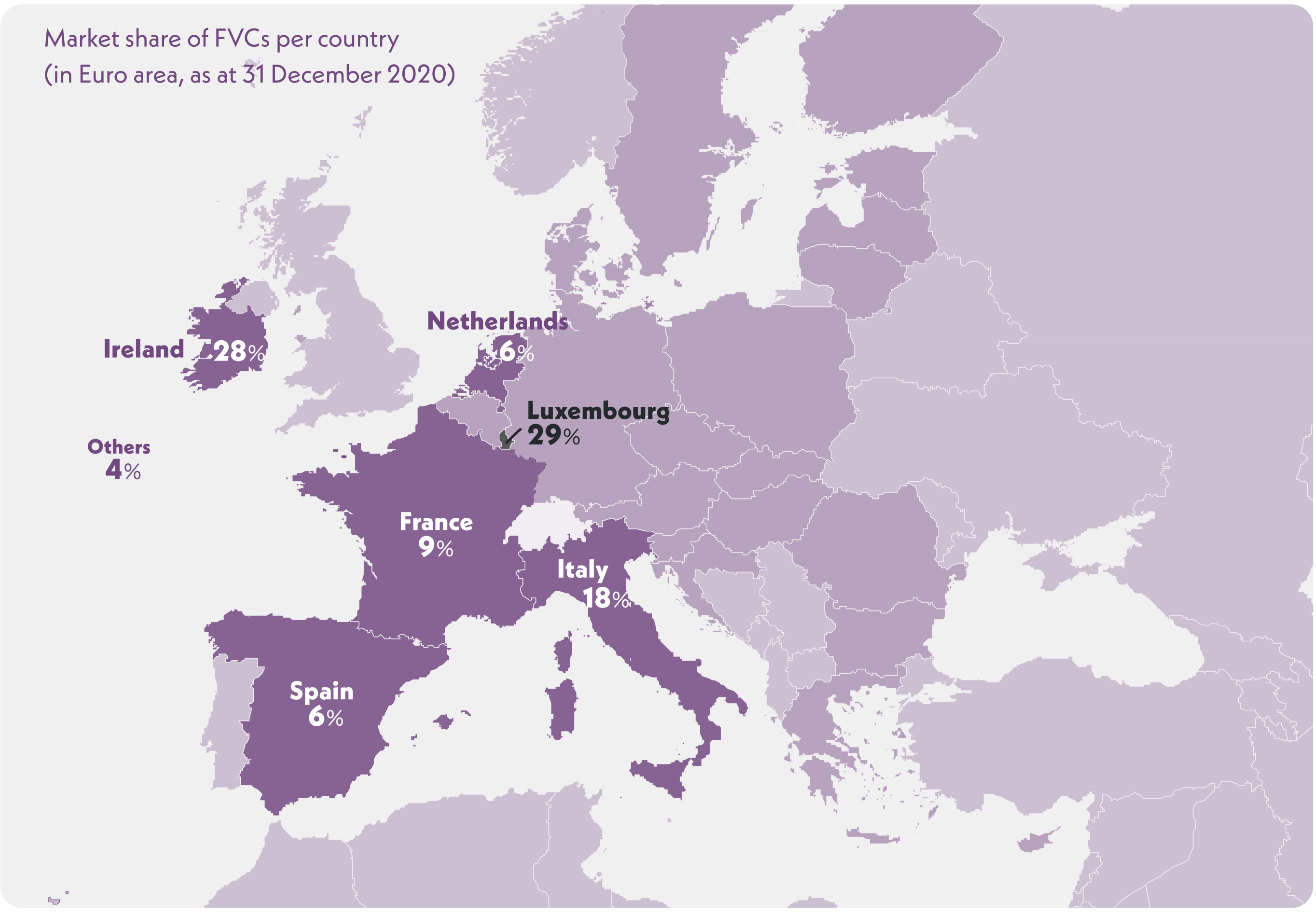
In Luxembourg, the first two STS securitisation vehicles were issued in March 2019, and as of mid May 2020 there were already 250 STS structures published on the ESMA website. This clearly shows a positive development for the European securitisation market and thus a positive impact on the European Capital Markets.

Throughout the years, Luxembourg has maintained its position as one of the leading centres for securitisation and structured finance vehicles. One of the main reasons for this position is the existence of a dedicated securitisation law which ensures innovation and legal certainty in securitisation structures, and is robust and flexible at the same time.

Another key aspect of Luxembourg is the legal possibility to create compartments and having key concepts like segregation of assets and limited recourse provided in law and applicable on compartment level. In mid-May 2020, 1,288 vehicles were in existence in Luxembourg representing 7,000 compartments.

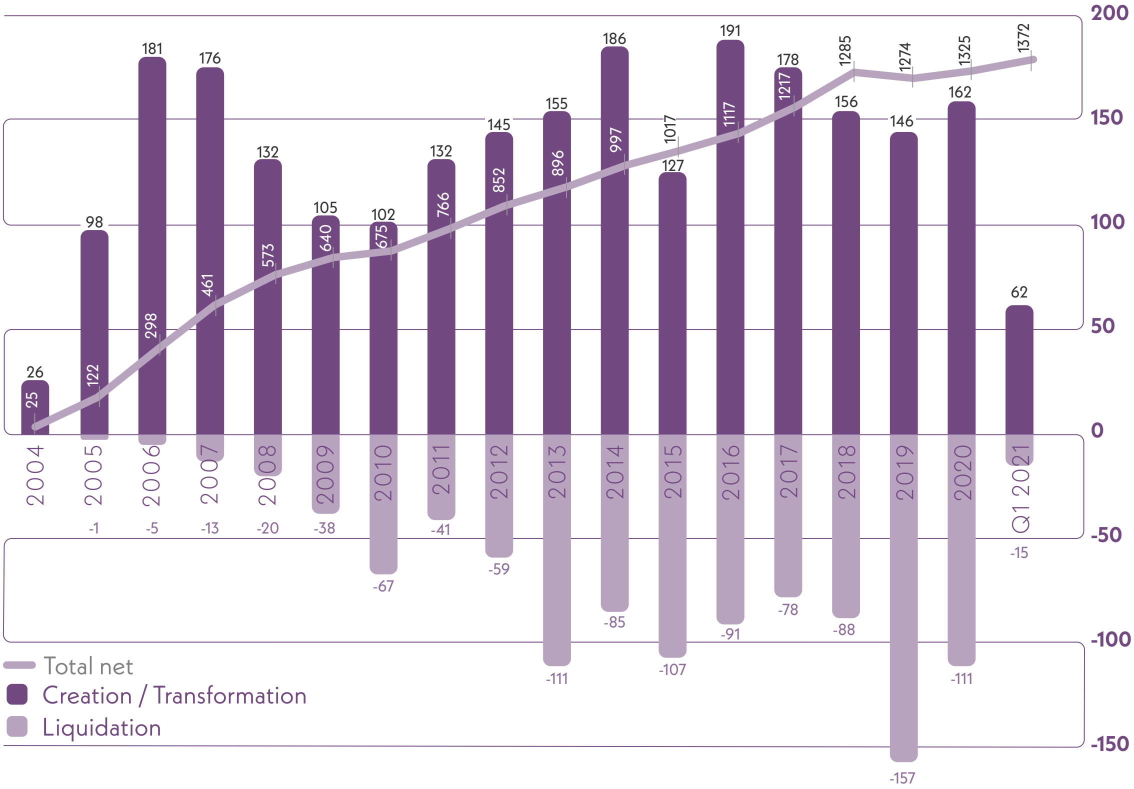
Overall, the outlook for Luxembourg's securitisation industry is strong, particularly in context of the Capital Markets Union and the on-going redevelopment of the European securitisation market, which Luxembourg is expected to make an important contribution to over the coming years.

Country market share in securitisation



Source: ECB Database

Comparison by year creation/transformation, liquidation and total net

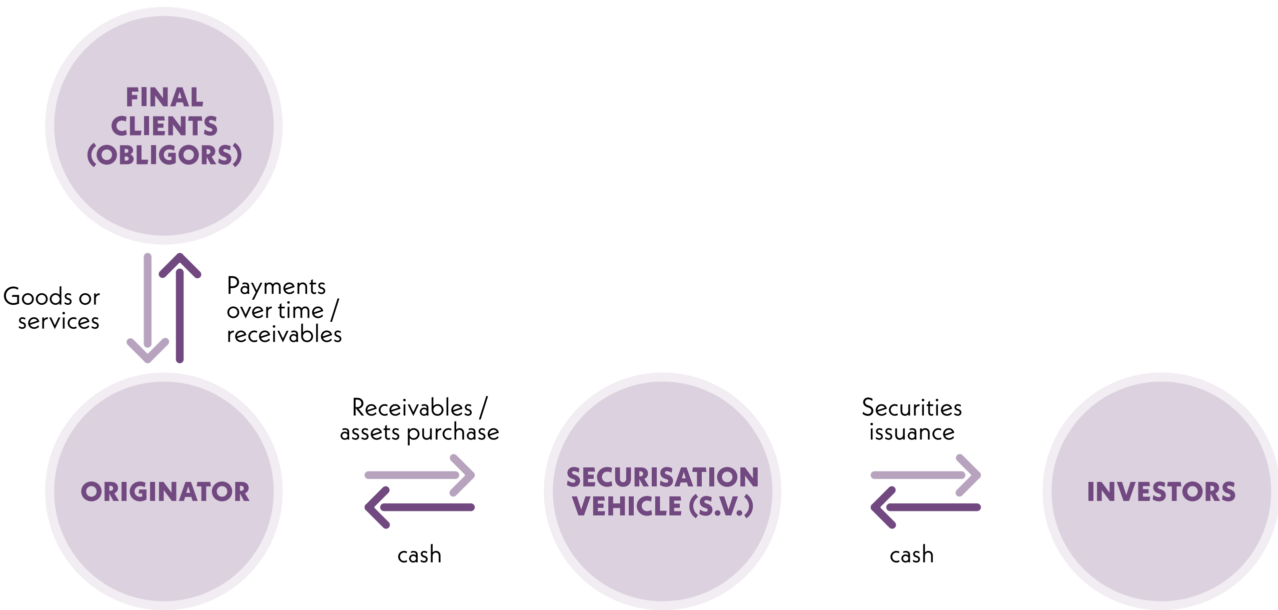


Source: PwC Analysis based on Luxembourg trade register, ECB st atistics and CSSF figures

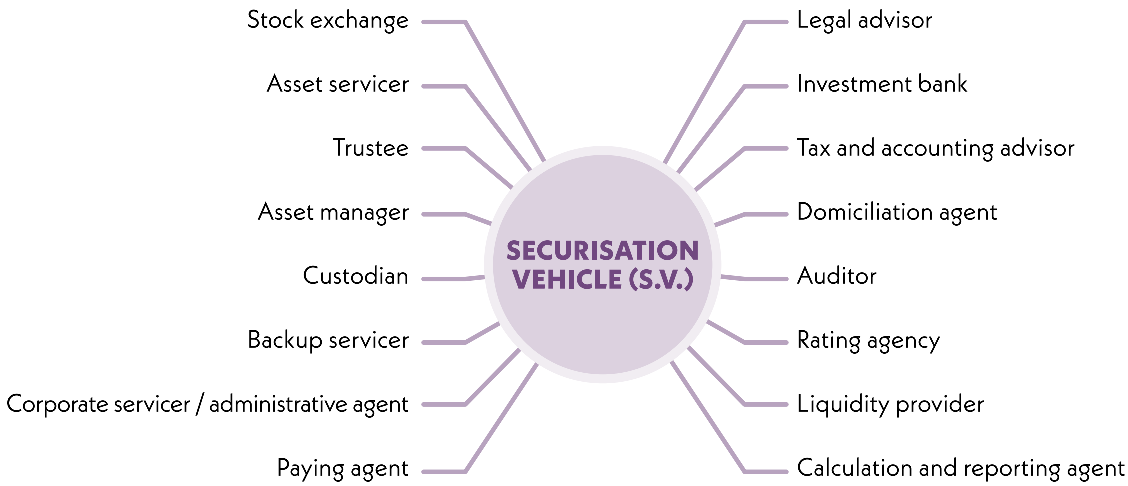
WHAT IS SECURITISATION?

Securitisation refers to the pooling of different assets and financing the acquisition of these by issuing securities. Various types of assets are used as collateral - auto loans, credit card receivables, residential mortgages, trains and wagons, consumer loans and so on.

How securisation works



The securitisation service providers



Main asset classes securitised through Luxembourg

Securitisation vehicles are also used within Islamic finance, private equity structures and hedge fund transactions.

TYPES OF TRANSACTIONS

STRUCTURING CDOS (COLLATERALISED DEBT OBLIGATIONS) THROUGH LUXEMBOURG PLATFORMS

A CDO is a repackaging of a portfolio of financial assets. CDOs are issued (either on a stand-alone basis or under repackaging programmes or specially tailored CDO programmes) by SPVs investing in a portfolio of assets or entering into multiple credit default swaps. To fund the investment in the assets, the SPV borrows money by issuing notes to investors, who will be repaid from the cashflows received from the portfolio of assets.

When CDOs were first developed in the mid-1990s, they could be split into two main types:

- CBOs (or Collateralised Bond Obligations)
- CLOs (or Collateralised Loan Obligations)

In CBOs, the underlying portfolio of assets consists of bonds and the primary purpose of a CBO is to make a profit out of the difference between the returns received by the SPV on the assets in the portfolio and the SPV's funding costs.

In CLOs, the underlying portfolio of assets consists of loans, and the primary purpose (as with a traditional securitisation) is to raise finance for the originator (which was usually a bank) whilst at the same time removing the loans from its balance sheet (in order to improve its capital adequacy ratios).

Current terminology to describe the type of deal focuses instead on a number of features, including the purpose for which the CDO is set up, how the SPV's liabilities are funded, and the nature of assets. Consequently, CDOs can be either cash or synthetic, balance sheet or arbitrage, static or managed, and cashflow or market value.

CDOs can be issued by Luxembourg SPVs organised (either as regulated or unregulated entities) under the Luxembourg securitisation law and benefit from the unique features of that legislation.

The Luxembourg law on securitisation recognises "segregation and ring fencing", "limited recourse", "non-petition", "non seizure of assets" and "subordination" provisions, which are key to structure a robust, insolvency remote transaction. It also allows for compartmentalisation where each compartment forms an independent part of the issue. These features are particularly important for rating agencies when rating these types of transactions.

CROSS-BORDER SECURITISATIONS

According to Luxembourg law, a securitisation vehicle can be constituted either as a company or a fund. The law also distinguishes between regulated and unregulated securitisation undertakings. A securitisation undertaking must be authorised by the CSSF and must obtain a licence if it issues securities to the public on a continuous basis.

Securitisation company

A securitisation company takes the form of a public limited company, a joint stock company, a private limited company or a cooperative with limited liability. Nearly all securitisation vehicles are set up in the form of securitisation companies. They can benefit from EU directives and double tax treaties.

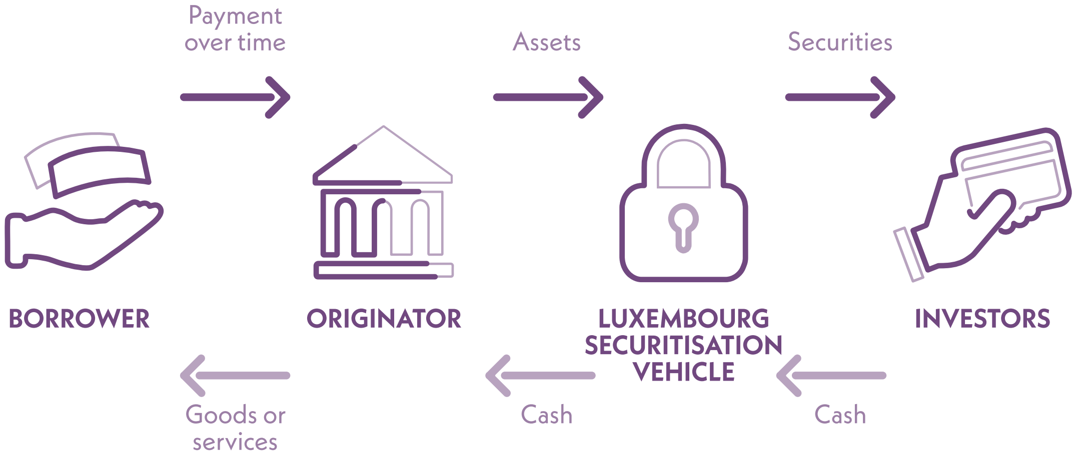
A securitisation transaction consists of 2 parts:

- 1. the acquisition or assumption of assets and risks
- 2. the issuance of securities

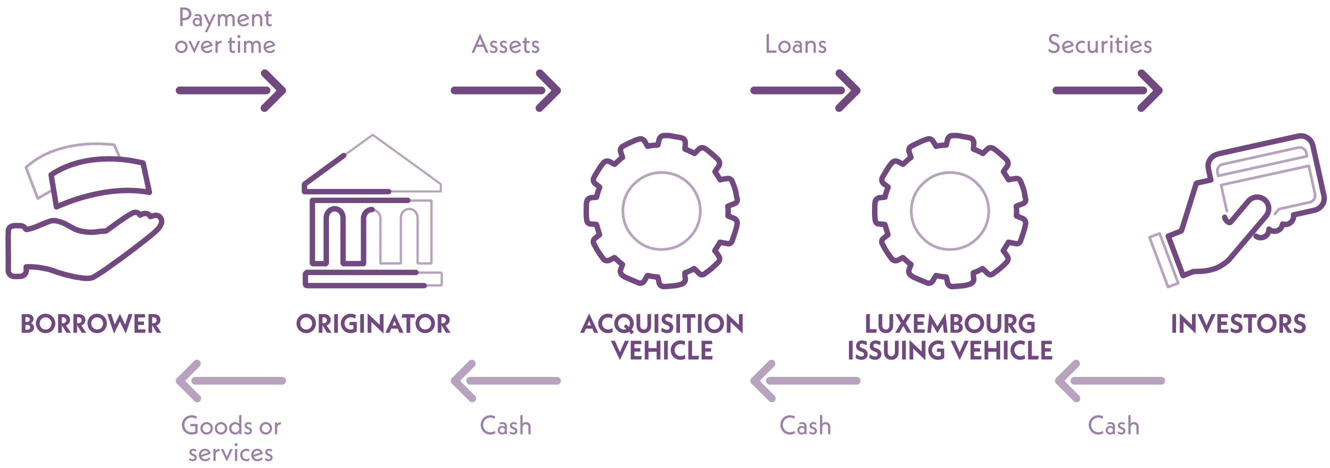
The securitisation does not have to be carried out through one securitisation undertaking only. Luxembourg allows that assets or risks might be acquired or assumed by one undertaking (the acquisition vehicle) which is separate from the undertaking in charge of issuing securities (the issuing vehicle). The advantage of a dual structure is that the acquisition vehicle is not required to have its registered seat in Luxembourg. Only the issuing vehicle needs to qualify as a Luxembourg securitisation undertaking.

This is particularly useful in supporting the set-up of cross-border securitisations where the country of origin restricts the sale of assets to entities in the same country and sales to foreign entities are not possible.

Single structure



Double structure



Securitisation fund

A securitisation fund has no legal personality and must be managed by a management company, which itself has to be a commercial company. It is formed from one or several joint ownership organisations or one or several fiduciary estates. In the former case, the fund is under a co-ownership regime and with the latter is governed by trust and fiduciary contract legislation.

ASSET BACKED SECURITIES LISTING

With more than 30 years of expertise in handling asset-backed securities (ABS), the Luxembourg Stock Exchange is a prime venue for the listings of these instruments.

All listed ABS are automatically admitted to trading. The listing process is fast (a maximum three business day commitment for prospectus comments on the Euro MTF market), cost-efficient, and provides issuers with one of the most competitive fee structures for standard ABS listing in Europe.

The Luxembourg Stock Exchange has a leading position in terms of listing ABS, which are eligible as collateral at the European Central Bank. The ECB-eligibility process is automatically initiated by LuxSE for all listed securities.

More recently, LuxSE has developed a highly competitive framework for international Collateralized Loan Obligations (CLO) vehicles.

Benefits of securitisation

FOR ORIGINATORS	FOR INVESTORS
Diversification of funding source, investor base, structure types	Portfolio Diversification
Efficient access to capital	Various combinations of yield, risk and maturity
Create liquidity (illiquid assets > cash)	Tailored investment structures
Raise capital without prospectus (subject to certain conditions)	Higher returns due to underlying risk-return-maturity combination
Efficiency in M&A activity	
Transfer of risks to third parties	
Lower capital requirements for banks and insurance companies	

Flexibility and protection

FLEXIBILITY

- Securitisation law
- Eligibility of all asset classes, all investors and all types of instruments to be issued.
- Multi-compartment structures: assets and liabilities can be split, each of the compartments can be liquidated separately without any negative impact on the other compartments.
- Multi-level structures:
  - In a dual structure, the acquisition vehicles can be established in the country of the originator or in the country where the transferred assets are located
  - No requirement for arrangers, managers or agents to be based in Luxembourg.
- No requirement for risk diversification.

INVESTOR PROTECTION

- Segregation between compartments.
- Investors and creditors may:
  - Subordinate their rights to payment to the prior payment of other creditors or investors (subordination provision), which gives strong legal basis to tranching in securitisation transactions, when required.
  - Waive their rights to request enforcement (non-recourse provision) or to initiate a bankruptcy proceeding against the securitisation vehicle (non-petition provision).

ALTERNATIVE FUNDING STRUCTURES

FIDUCIARY ISSUES AND NOTES

A fiduciary contract is an agreement whereby the principal (that is, the investor or fiduciant) confers ownership rights over specific assets (the fiduciary assets) to a fiduciary, subject to the obligations set out in the fiduciary contract. The fiduciary obtains legal title over the assets designated in the fiduciary contract. Upon the termination of the agreement, the fiduciary assets are transferred back to the fiduciant or to a third party beneficiary.

Fiduciaries can be credit institutions, investment firms, insurance/ re-insurance undertakings, pension funds, or fund management companies. Through the law of July 2003, securitisation vehicles can also act as a fiduciary and issue notes.

Typically, fiduciary transactions are structured either through fiduciary deposits or by way of the issue by the fiduciary of fiduciary notes (in this case the fiduciary contract takes the form of transferable securities – a note or certificate – issued by the fiduciary to the fiduciant).

One of the key features of a fiduciary structure is that the fiduciary assets entrusted with the fiduciary are held by the fiduciary in segregated fiduciary estates.

As a consequence:

- the fiduciary estates are recorded off balance sheet by the fiduciary
- the fiduciary estates do not form part of the fiduciary’s own estate
- the fiduciary estates do not have a separate legal personality
- a fiduciary may create several independent fiduciary estates

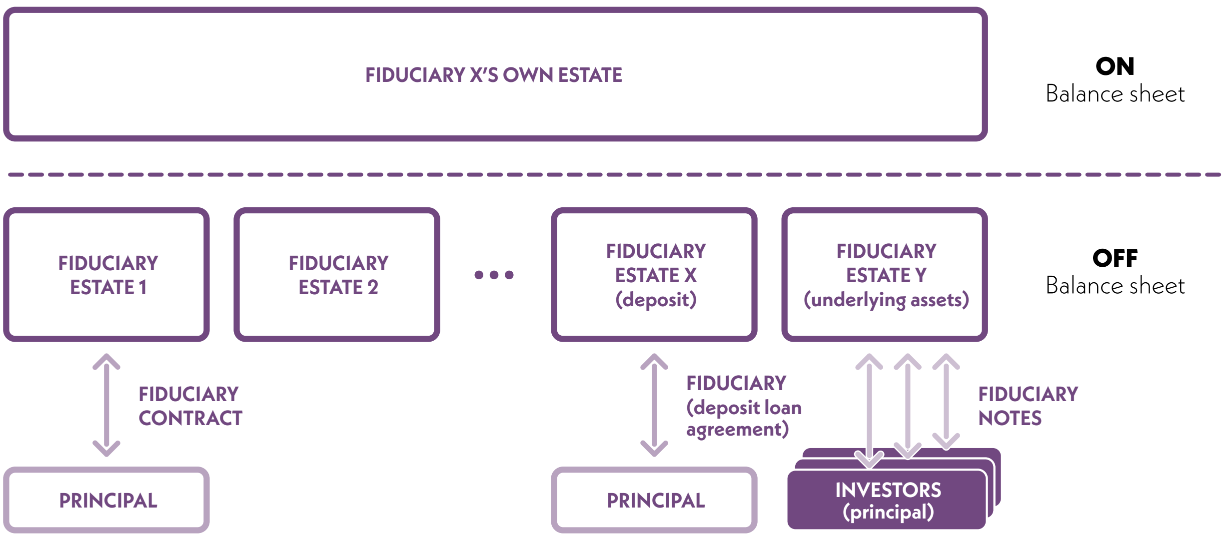
In addition, the fiduciary assets may only be seized by creditors holding rights deriving from the fiduciary assets and the fiduciary estates are not affected by insolvency proceedings opened against the fiduciary. It is therefore possible to isolate the fiduciary assets from the credit risk linked to the issuer, which is not possible under a classical bond issue (where the credit risk of the issuer cannot be isolated).

There is no restriction on the way payments should be made to the fiduciant in relation to the underlying fiduciary assets: for instance, this could either be a fixed or floating interest or a pass through instrument where the fiduciant has a direct interest in the performance of the underlying fiduciary assets.

As regards fiduciary notes, they could be issued in a private placement or through a public offering, on a stand-alone basis or by way of issuance programme by the fiduciary. Such fiduciary notes can be publicly offered and admitted to trading, for instance, on the Euro MTF market or on the Luxembourg Stock Exchange's regulated market. A public offer and admission to trading of fiduciary notes is subject to the same prospectus and ongoing disclosure requirements as those applicable to ordinary transferable securities. Fiduciary structures being commonly used in Luxembourg, the financial sector supervisory authority, the CSSF, as well as the Luxembourg Stock Exchange are both experienced in approving prospectuses for issuances of fiduciary notes.

Fiduciary contracts can be structured in multiple ways, for instance as a fiduciary deposit, where the fiduciant deposits assets (e.g. cash) with the fiduciary and the fiduciary is obliged under the fiduciary contract to return the deposit at a specified date.

Fiduciary X (e.g a Luxembourg credit institution)



Source: Allen & Overy

COVERED BONDS

Covered bonds – called Lettres de Gage or Pfandbriefe – are debt instruments secured by a cover pool of mortgage loans (property as collateral) or public-sector debt to which investors have a preferential claim in the event of default.

Governed by specific legislation and issued by dedicated specialised banks, Luxembourg covered bonds offer impressive flexibility to issuers and a high level of protection to investors. Covered bonds are increasingly used in the marketplace as a funding instrument and play an important role in the financial system. The issuance of covered bonds enables credit institutions to obtain a lower cost of funding in order to grant mortgage loans for housing and non-residential property as well as to finance public debt and other types of assets.

Five different types of covered bonds can be issued in Luxembourg:

- **1**. The mortgage bond, covered by mortgage loans secured on industrial, commercial, professional or residential property;
- **2**. The public covered bond, covered by loans to public sector entities;
- **3**. The movable asset covered bond covered by mortgage loans on movable assets such as aeroplanes, ships, trains, etc.;
- **4**. The mutual covered bond, covered by claims on other credit and financial institutions qualified by law;
- **5**. Renewable energy covered bonds were introduced to the Luxembourg law in June 2018. Banks issuing renewable energy covered bonds under the Law refinance loans that are secured by rights in assets or securities linked to renewable energy, i.e. all energy produced from non-fossil renewable sources, such as wind, solar, thermal, geothermal, hydrothermal and marine energy.

These cover assets have to be held on the balance sheet of the covered bond issuer in separate registers.

These assets may be located in any Member State of the European Union, the European Economic Area (EEA) and the OECD as well as in any other country with a high quality rating by recognised rating agencies.

Both the Luxembourg financial regulator, the CSSF, and a trustee, closely monitor the issuer's activities in order to ensure that there are always sufficient assets in the cover pool to service the obligations resulting from an outstanding covered bond.

A loan-to-value limit for immovable and movable assets of 60% (80% for residential property) of the estimated realisation value and a mandatory permanent minimum over-collateralisation level of 2% on both a nominal basis and a net present value basis further enhance the safety of Luxembourg covered bonds.

In case of an insolvency of the covered bond issuing bank, holders of covered bonds enjoy preferential treatment. The cover assets in the various cover pools are then separated from the bank's other assets and liabilities, so that they do not participate in the insolvency proceedings with respect to the bank's assets.

"Luxembourg covered bond banks may not only lend to states and regional entities but also to public undertakings where a state or regional or local authorities exercise a direct or indirect influence. This is important, because it means that the Luxembourg covered bond banks can reach a different segment in the world of public finance. As a result, a Luxembourg covered bond bank may practise an international diversification policy, meaning that Luxembourg covered bonds are less vulnerable to the risk of downgrading of sovereign ratings. Cover pools in Luxembourg are therefore extremely dynamic and can be directed to target risk minimisation."

Henri Wagner,
Partner, Allen & Overy

SAFETY PILLARS OF LUXEMBOURG COVERED BONDS

- Safety pillars of luxembourg covered bonds
- Specific covered bond legislation
- Specialised banking principle – the credit institution has a specialist banking licence
- Supervision and control by regulator and independent trustee
- Preferential claims of covered bond holders guaranteed by law
- Dynamic and transparent cover pools

INITIAL PUBLIC OFFERINGS (IPOS)

04

INITIAL PUBLIC OFFERINGS (IPOS)

Going public is a transformational event. To do so successfully, a company or its sponsors must navigate a long, complex process involving, inter alia, aspects relating to strategy, tax, accounting, reporting standards, treasury and financial risk management and governance. In the course of this process the company or its sponsors will be confronted with a number of choices and will have to take decisions.

Some of these choices relate to the targeted markets for flotation or the jurisdiction where the company will be established upon completion of its IPO. One of the key decisions to be made when going public consists in identifying the market or the markets on which to launch the IPO.

Another decision, which often relates to the precious choice, is to select the venue, or venues, where the shares (or other securities) are to be traded subsequently. In this respect, the choice may vary between a domestic trading venue or a listing abroad, an admission to trading on a regulated market or a multilateral trading facility, an admission to trading in an EU Member State or a listing on a third country exchange, a single listing or a dual listing, knowing that each trading venue or exchange may have its own distinctive regulatory regime and its own rules and regulations.

The Luxembourg Stock Exchange offers a regulated market, Bourse de Luxembourg (BdL), and a multilateral trading facility, the Euro MTF. The regulated market is eligible for the European passport. Rules and regulations apply to both markets and they both operate on the OPTIQ platform hosted by Euronext's European cash markets. The system is capable of handling exceptionally large volumes rapidly.

Major multinational companies such as ArcelorMittal, RTL Group and SES have chosen to list on the Luxembourg Stock Exchange. In the course of the preparation of an IPO, the establishment of a newly formed holding company over an existing operational group may often be observed. This entails another key decision to be made in the process of an IPO as regards the choice of the jurisdiction in which to establish the IPO vehicle. Particular care should be brought to choose the right jurisdiction as the jurisdiction of incorporation determines the law governing the issuer's articles of incorporation, including matters such as its governance, its share capital and the rights attaching to the shares, and, more generally, the rights of the shareholders. Choosing Luxembourg as the jurisdiction of incorporation for the IPO vehicle does not limit the subsequent choice of listing venue.

LUXEMBOURG LAW INCORPORATED IPO VEHICLES

Over the past 10 years, there has been a steady interest in Luxembourg-based vehicles for carrying out an international IPO. Luxembourg corporate law offers a wide range of modern, flexible solutions that enable the sponsor to shape the articles of association and corporate governance of an IPO vehicle to the specific needs of the transaction, combined with a high degree of legal certainty.

The société anonyme (joint stock corporation) is probably the legal form which is most frequently used in an IPO. However, Luxembourg corporate law provides for alternative legal forms that are suitable for a public company, in particular the societas europaea and the société en commandite par actions (partnership limited by shares). In line with international market practice, shares can be issued in bearer (under certain conditions), registered or dematerialised form. A company may issue different categories of shares with specific rights attaching to each category of shares.

Luxembourg corporate law also allows for the issuance of shares having different nominal values, thus offering additional structuring options. In addition to shares, a Luxembourg company may issue preference shares and various other equity-like instruments, with or without voting rights.

An IPO can be conducted by way of the placement of shares or the placement of certificates over shares or depository receipts, depending on the requirements of the transaction.

A Luxembourg company may have an authorised share capital with the possibility for the management to increase the issued share capital on one or more occasions up to an amount as specified in the company's articles of association. The articles of association may also authorise the board to withdraw or restrict the existing shareholders' preferential subscription rights in relation to an increase of capital made under the authorised capital. No consultation or approval of the current shareholders will be required for the implementation of a share capital increase under the authorised share capital and no specific restrictions apply as regards the amount of the authorised share capital.

Luxembourg law provides for a one-tier (board of directors) or two-tier (management board and supervisory board) management structure. Daily management can be delegated to a single executive or an executive committee. Moreover, the administrative and management bodies of a Luxembourg company may appoint special committees with advisory or decision making powers.

Equally, it is possible in the articles of association, to provide for decisions on pre-defined reserved matters, management would have to obtain the prior approval or seek directions from the general meeting of the shareholders.

There are no specific requirements according to which the members of the management bodies must be Luxembourg nationals . There is also no quota requirement for independent directors.

Luxembourg corporate law also offers numerous possibilities to implement efficient take-over defenses.

This vast range of structuring options and the flexibility that derived from them have proven to be particularly attractive to private equity sponsors in IPOs as a means of exiting an investment, and to public companies when performing a corporate spin-off.

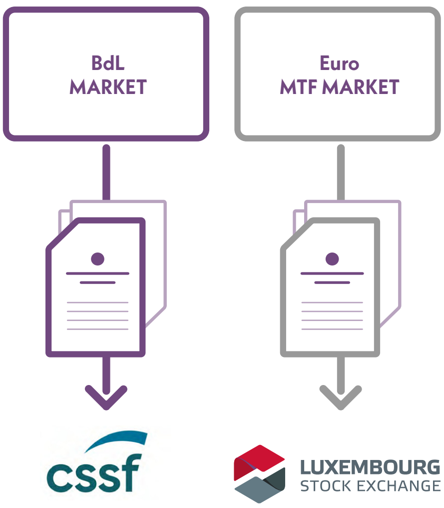
WIDE ACCEPTANCE BY MAJOR INTERNATIONAL EXCHANGES

The use of a Luxembourg incorporated company to conduct an IPO has been widely accepted by the market, wherever the market for the placement of the shares or other securities being the subject of the IPO may be located.

Luxembourg companies are not only suitable for preparing a domestic IPO but such companies have also been widely used in international IPOs or related capital markets transactions. As such, it is worthwhile mentioning that one can find Luxembourg incorporated issuers listed on all the major international stock exchanges within the EU or the EEA, such as on Euronext Amsterdam, Euronext Paris, the Frankfurt Stock Exchange or the London Stock Exchange. Other Luxembourg issuers have chosen to be listed on the Madrid Stock Exchange, the Oslo Stock Exchange, Euronext Dublin, or the Warsaw Stock Exchange. In third countries, Luxembourg companies have been listed inter alia on the New York Stock Exchange or the NASDAQ in the United States, the Buenos Aires Stock Exchange, the Hong Kong Stock Exchange and the Toronto Stock Exchange, following their successful IPO.

This is evidence that Luxembourg corporate law not only offers a vast choice of innovative options for structuring an IPO vehicle or putting in place bespoke corporate governance models but that, in addition, they are fully compatible with the requirements of any major international stock exchange.

A PRIME LOCATION FOR LISTING IN THE EU



As a founding Member State of the European Union, Luxembourg adheres to the EU regulatory framework. It offers a legal environment that supports growth and innovation – especially in terms of corporate law. EU directives are implemented quickly and in a business-oriented way.

Any listing and admission to trading require the approval of the prospectus by the relevant competent authority.

The CSSF is the competent authority for the approval of an IPO for admission to trading on the regulated market. The regulation- compliant prospectus is approved by the CSSF if the issuer is a Luxembourg company and for third-country issuers if certain conditions are met. If the issuer is incorporated in an EEA country other than Luxembourg it would have the prospectus approved in its jurisdiction of incorporation (the home Member State) and then passported into Luxembourg via the EU passport for an admission to trading on the BdL. For admission to trading on the Euro MTF, the competent entity for prospectus approval will be the LuxSE.

In principle, admission to listing on the LuxSE's official list goes hand in hand with the admission to trading on one of the LuxSE's markets. However, since 2018 the LuxSE offers the possibility for issuers to have securities admitted on its official list without being admitted to trading on the LuxSE-regulated market or Euro MTF. This, thanks to the creation of a dedicated section of the LuxSE's official list, namely the LuxSE Securities Official List (the LuxSE SOL). LuxSE SOL is designed for issuers looking for visibility and for whom admission to trading is not a prerequisite.

The application file including the draft prospectus can be submitted in English, German or French and the CSSF will correspond in any of these three languages as chosen by the applicant.

The review process of the IPO prospectus is rapid and efficient and the first full set of comments is usually given within less than 10 working days. Where the prospectus is approved by the LuxSE, the review time is generally quicker. Comments on subsequent reviews are given within a few days.

'Same-day' passporting notifications can also be sent from Luxembourg to 3rd party public offer and listing jurisdictions.

THE FUTURE OF CAPITAL MARKETS

05

With the advent of Fintech, capital markets are going through a transformative phase. New opportunities abound, both in terms of increasing efficiency of currently operating markets, but also in terms of bringing liquidity into new markets and asset classes. Luxembourg's expertise in this sector makes it home to a wide range of up and coming innovations that will shape Europe's capital markets of tomorrow.

EXPANDING EUROPE'S INVESTMENT HORIZONS

In 2015, CrossLend set up a regulated securitisation company in Luxembourg under the supervision of the Commission de Surveillance du secteur financier (CSSF). Unlike traditional companies in this area, the company takes an innovative approach to securitisation; converting single loans and splitting them up into notes that are then made accessible to retail and institutional investors across Europe.

As Europe's investment horizons have expanded, investors have discovered the potential of a whole new asset class – one that was almost exclusively accessible to banks and institutional investors until now: consumer loans.

Seizing on this trend, CrossLend developed a cross-border marketplace lending platform that enables people to invest in consumer loans from different European countries through the purchase of Borrower Payment Contingent Notes. CrossLend's idea was to be more than an ordinary peer-to-peer lending platform and to create a cross-border capital market product that is more liquid than a direct investment into loans.

Rather than funding an entire loan directly, all loans are converted and split up into Notes allowing investors to diversify their investments across multiple loans and jurisdictions. Prorated investments starting from €25 are possible via CrossLend's platform.

The structure of the Notes not only offers investors more security, but also provides a convenient way for them to diversify their investments.

CrossLend GmbH has a subsidiary, CrossLend Securities SA, which operates under the laws of the Grand Duchy of Luxembourg and is a regulated securitisation vehicle licensed and supervised by the CSSF. It is the Luxembourg-subsidiary that issues the Notes. The Notes receive an ISIN number and are issued and deposited by Clearstream Banking Frankfurt, Germany. The company decided to be regulated in Luxembourg because of Luxembourg's expertise in securitisation as well as the accessibility and responsiveness of the CSSF.

CrossLend's securitisation structure enables an investor from Germany to invest easily in Spanish, German and Dutch loans via one structure. This way investors can benefit from a diverse portfolio of consumer loans and a cross-border capital market product that is available Europe-wide.

BLOCKCHAIN AND TOKENISATION

Blockchain and DLT have impacts both in terms of defining new operating models or improving business models for existing capital markets, or bringing the benefits of market liquidity to new asset classes via a process known as tokenisation.

With regards to established capital markets, Luxembourg has been innovative in terms of providing legal clarity on the use of blockchain and DLT technologies. Luxembourg passed a new law in 2019, permitting the use of distributed ledger technology for the registration of securities. The new law provides greater transparency and legal certainty on the use of distributed ledgers and blockchain technology by deeming it equivalent to other secured electronic recording mechanisms for the transmission of securities. In 2020 Luxembourg started work building on this foundation to expand the legal basis for using new technologies such as DLT in the issuance of securities, and the Grand Duchy also set up a new regime for the registration and supervision of Virtual Asset Service Providers (VASPs) for the purposes of AML and CFT supervision.

BLOCKCHAIN FOR MARKET INFRASTRUCTURE

Market infrastructure is a very active field of development of DLT use cases worldwide, and Luxembourg is no exception.

A new Luxembourg based fintech, HQLAx, working together with a major European exchange group, has developed a blockchain-based solution for collateral swaps in the securities lending market. The objective is to help market participants redistribute collateral liquidity more efficiently – by improving the interoperability for different pools of securities and tackling the problem of fragmentation in the market. In December 2019, the solution was launched successfully with the first live transactions executed by Commerzbank, Credit Suisse and UBS.

Another use case currently being developed is FundsDLT, a blockchain based technology platform that enables the reengineering of the fund distribution value chain, from front to back, covering the entire fund lifecycle. The platform allows asset managers, distributors, asset servicers, and the entire supply chain to reduce costs by removing redundant activities, while providing the opportunity to achieve necessary transparency on end investors and creating the foundation for digital fund distribution. In 2020 the project received Series A funding from major Luxembourg market infrastructure providers, and Luxembourg based asset managers.

Tokenisation is another emerging use case for distributed ledger technology is the introduction of liquidity into secondary market trading in assets that were previously impossible to trade or highly illiquid. In such cases, coins on a given blockchain network are used as tokens representing an underlying “real” asset.

Potential underlying assets for such tokenisation are wide ranging and include traditional financial assets, such as securities or other financial instruments, as well as tangible goods, such as real estate, fine art, or even forestry assets. Luxembourg's strong history in the development of international capital markets is also reflected in the vibrant ecosystem of companies developing such tokenisation services.

Tokeny provides solutions enabling firms to leverage tokenisation technology, allowing for fast onboarding, cost-efficient management and rapid transferability of private market securities.

A Europe-wide approach to tokenisation is in the offing. The upcoming Markets in Crypto Assets bill proposed in September 2020 by the European Commission will add further impetus to this sector.[5]

"Luxembourg has been an extremely fertile ground for us to develop our services. The legislation around tokenisation is very forward thinking, and the FinTech community here is super innovative."

Luc Falempin,
CEO Tokeny

[5] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593

TIMELINE OF DEVELOPMENTS IN LUXEMBOURG CAPITAL MARKETS SERVICES

06

TIMELINE OF DEVELOPMENTS IN LUXEMBOURG CAPITAL MARKETS SERVICES

1953	First listing in USD – World Bank
1963	First Eurobond – Autostrade
1964	First Japanese corporate bond – World BankTakeda
1966	First listing of an EIB Bond
1981	First listing of a bond denominated in ECU – SOFTE
1987	First listing of a US dollar Euro Medium term Note – Pepsico
1988	First listing of a global bond – World Bank
1990	Listing of the first Global Depositary Receipt in Europe – Samsung
1993	First listing of a Luxembourg Government Linear Bond Programme
1997	First listing of a bond denominated in euro – EIB
1999	Location for first organisation to offer continuous settlement
2002	First listing of a sukuk in Europe – Malaysia Global sukuk
2007	First climate awareness bond – European Investment Bank
2008	First green bond – World Bank
2011	First dim sum bond in Europe – Volkswagen
2016	Founding of LGX
2016	First Chinese green bond in Europe – Bank of China
2016	First sovereign green bond – Poland
2019	First ESM Eurobond listed under Luxembourg law - ESM
2020	Issuance and listing of first sovereign sustainability bond in Europe – Luxembourg
2020	First European Union SURE social bond – European Commission
2022	First admission in Blockchain at LuxSE

ABOUT LUXEMBOURG FOR FINANCE

Luxembourg for Finance (LFF) is the Agency for the Development of the Financial Centre. It is a public-private partnership between the Luxembourg Government and the Luxembourg Financial Industry Federation (PROFIL). Founded in 2008, its objective is to develop Luxembourg's financial services industry and identify new business opportunities.

LFF connects international investors to the range of financial services provided in Luxembourg, such as investment funds, wealth management, capital market operations or advisory services. In addition to being the first port of call for foreign journalists, LFF cooperates with the various professional associations and monitors global trends in finance, providing the necessary material on products and services available in Luxembourg. Furthermore, LFF manages multiple communication channels, organises seminars in international business locations, and takes part in selected world-class trade fairs and congresses.

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