The financial centre: a multi-specialist seeking leadership

A series of three analyses
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A more competitive, more diversified, and more European financial centre

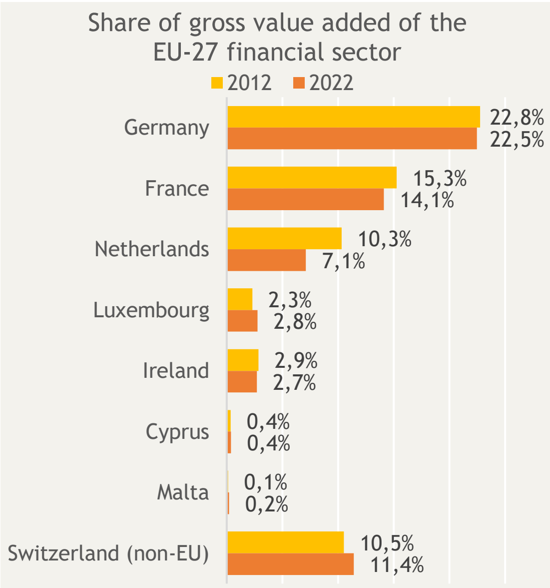
With nearly 25% of the gross value added produced, the financial sector is Luxembourg's economic specialization. Therefore, any gain or loss in the competitiveness of the financial centre compared to its competitors potentially affects its economic prosperity. Luxembourg's financial sector draws its resilience from diversification across different markets, which has strengthened over the past ten years. This is partly illustrated by this analysis, the first part of a trilogy forming a complete portrait of the Luxembourg financial centre.

David J. Porteous defines a financial centre as "an area, usually a city [...] in which high-level financial functions are concentrated[1]." It is a location characterized by the significant presence of banking, asset management, insurance, and financial markets entities, supported by support services (legal, accounting, marketing, HR, etc.). Some prominent centres may not encompass all these activities but are particularly competitive in specific domains, such as Chicago in derivatives markets.

This is partly the case for Luxembourg's financial centre, which has specialized in multiple markets which, combined, make it both strong and resilient. The concentration effects[2] (workforce, support services, knowledge, public sector expertise, etc.) have enabled Luxembourg to sustain a European scale financial centre over time, which was initially developed through proactive regulatory policies focused on specific areas of sovereignty. Today, the financial centre is the main asset of the Luxembourg economy and its sole genuine cluster[3]. The goal of this trilogy of analyses is to provide an overview of the competitive position of the financial centre, both as a whole and in its main specializations.

Gains in European market share

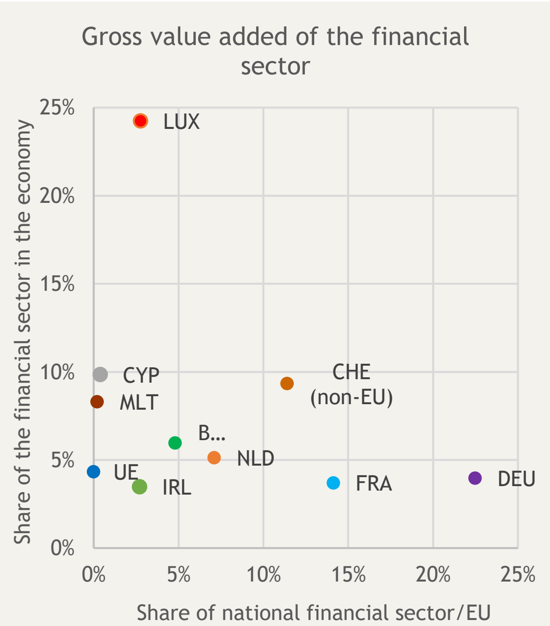
Value added is a first indicator for assessing the overall performance of countries' financial sectors, over time and in international comparison, while neutralizing their differences in specialization.[4]



Source: Eurostat, author's calculations[5]

[1] *The geography of finance: spatial dimensions of intermediary behaviour*, Porteous, D.J, 1995.
[2] According to the new economic geography, particularly in Paul Krugman's seminal work "Geography and Trade" dating back to 1991, because of economic globalization, agglomeration economies lie at the heart of international trade dynamics.
[3] Given that we add to the concepts of geographic concentration of interdependent firms from related sectors and cooperation with various types of actors including competitors, which traditionally define an economic cluster, the necessity of being a major international hub, the most prominent example of a cluster being Silicon Valley, which is an undisputed global leader in various high-tech activities.
[4] In this regard, value added is more efficient than the number of jobs, which may depend in particular on the degree of digitization of each activity and the productivity of the different financial activities.
[5] The United Kingdom is not included in these figures, neither in 2012 nor in 2022, due to the lack of recent statistics. The ratio of Swiss value added to that of the EU-27 is provided as an indicator. Switzerland is not included in the calculation of the total gross value added of the EU-27 financial sector.

According to national accounts, Luxembourg's share of the gross value added in the EU's financial sector is relatively small (2.8% in 2022), due to the weakness of its domestic market. This share increased significantly between 2012 and 2022, as Luxembourg's financial centre gained market shares in the European financial sector.



Source: Eurostat, author's calculations

Luxembourg stands out due to the significant importance of the financial sector in its economy (24.3% of the total gross value added in 2022). It is followed, among the Member States, by Cyprus (9.9%) and Malta (8.3%), where the financial sector's weight remains marginal at the European level. In Switzerland, the financial sector accounted for 9.3% of the economy that same year. Finance played a smaller role in the European economy in 2022 (4.3%) compared to 2012 (5.1%)[6]. This trend is mirrored, albeit to a lesser extent, in Luxembourg, where this indicator stood at 28.7% in 2012.

Thus, finance has been a less dynamic sector over the past decade, with Luxembourg taking advantage of its strengths and proactivity to reinforce its position as a major European financial centre. Brexit has reinforced these two trends by the exit of a highly financialized economy - the financial sector accounted for 6.8% of the UK economy in 2018 - and the transfer of certain activities from the City to Luxembourg's financial centre[7].

Luxembourg, a global specialist

The "*Global Financial Centres Index*" (GFCI)[8] is a reference among international rankings of financial centres. Its 35th edition, dated March 2024, ranks Luxembourg as the 17th financial centre in the world, 6th in Western Europe and 3rd in the EU, behind Frankfurt and Paris and ahead of Amsterdam, Dublin and Berlin.

The GFCI also considers Luxembourg to be one of the “Global specialist” financial centres, alongside cities such as Hong Kong and Dubai. According to the criteria of connectivity, diversity, and specialization, Luxembourg is not ranked as one of the 11 "Global leaders" due primarily to its insufficient diversification. Among its close competitors, Paris, Frankfurt, and Amsterdam are granted the status of "Global leader" by the GFCI, while Dublin and Berlin are only considered "Established International"[9] financial centres.

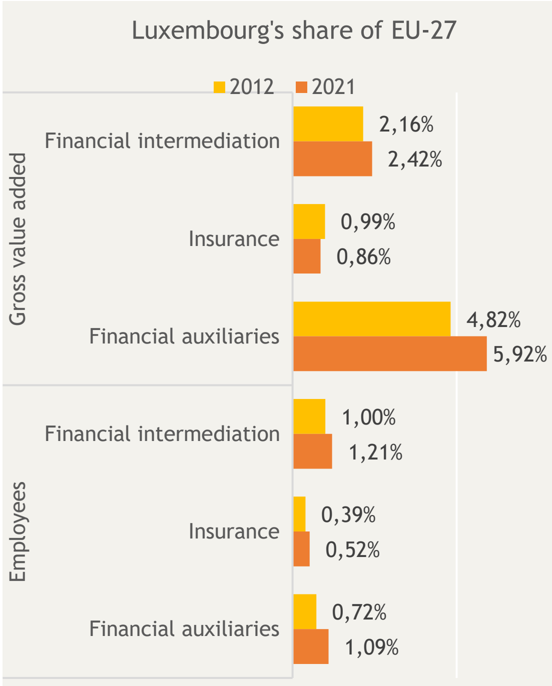
This (multi)specialist profile is confirmed by the *New Financial Global Financial Centres Index* (NFGFCI)[10], a ranking of countries whose latest edition dates from 2021. The index, based on indicators of financial activity, shows that Luxembourg ranked 3rd in the world and 1st in the European Union for international financial activity, well ahead of Germany, France and the Netherlands. Its internationalization rate of 60% exceeded that of Singapore (58%), Hong Kong (51%), the United Kingdom (45%), and Ireland (37%). At the time, Luxembourg's financial centre was the 2nd biggest hub for investment funds, the 2nd biggest recipient of foreign direct investment (FDI) in the financial sector and the 3rd largest exporter of financial services in the world. Luxembourg was the global leader for the issuance of corporate bonds and the

[6] According to a longer-term perspective, the average annual growth rate of gross value added in the financial sector was 1.8% in the European Union-27 between 1995 and 2012, and 0.8% between 2012 and 2022.
[7] According to the Ministry of Finance, more than 60 entities chose to establish or strengthen their presence in Luxembourg following Brexit in June 2021.
[8] Published since 2015 by the London-based think tank Z/Yen and Shenzhen-based "the China Development Institute", this ranking is based on objective data and evaluations of financial centres by industry professionals.
[9] The GFCI ranks financial centres according to three levels of connectivity: *Global*, *International* et *Local*.
[10] *Driving growth: the new financial global financial centres index - Analysis of the size & growth of financial centres in 65 markets around the world*, New Financial, 2021

issuance of green, social, and sustainable bonds by foreign companies. The Grand Duchy's ranking varied significantly depending on the sub-sectors considered by the New Financial publication, from 3rd position for Asset management to 26th and 27th ranks for Equity markets and Pools of capital.

A more diversified centre...

The financial sector is disaggregated, according to national accounts, into three major sectors: financial intermediation, insurance, and activities auxiliary to financial services and insurance activities[11]. As STATEC pointed out in 2016[12], "the structure of wealth creation within the financial sector itself has diversified considerably" both in Luxembourg and in the European Union, to the detriment of financial intermediation and in favour of financial auxiliaries. In Luxembourg, this shift is particularly due to the development of fund management activities. In 2022, financial intermediation still represented 60.8% of the gross value added of the financial sector in Luxembourg, compared to 4.0% for insurance, which has fallen sharply over the last two years, and 35.1% for the activities of financial auxiliaries. After Luxembourg, the Member States whose financial sectors are most specialized in financial auxiliary activities are Cyprus, France, and Malta.



Source: Eurostat, author's calculations

In 2021, Luxembourg accounted for nearly 6% of the financial auxiliary activities within the European Union, an increase of more than 1 percentage point compared to 2012. Market share gains were also notable, though less pronounced, in financial intermediation. As for insurance, the rising share of jobs indicates a trend towards Luxembourg's increasing weight in this subsector, beyond its cyclical variations.

Luxembourg for Finance (LFF) and Deloitte[13] published a breakdown of the financial industry in 2023, bringing together multiple sources of national data dating from 2021. The estimated 63,900 jobs in the financial centre were distributed as follows: 26,000 in banking (40.7%), 19,300 in audit, consulting, and legal services[14] (30.2%), 14,400 in fund activities[15] (22.5%), and 4,200 in the insurance sector (6.6%). The number of jobs in the financial centre grew by 13,900 over the ten-year period covered by this study, driven mainly by audit, advisory and legal services (+8,400) and fund activities (+5,600), confirming the rise of

[11] More specifically, these components include:
- Financial intermediation: banking institutions, holding companies (1929 holding companies, financial participation companies), investment funds, etc.
- Insurance: insurance (life and non-life) and reinsurance services.
- Financial auxiliaries: financial services auxiliaries (administration of financial markets, brokerage, financial transaction advisers) and insurance auxiliaries (risk and damage assessment, insurance agents and brokers) and fund management.

[12] Regards sur la résilience et la mutation du secteur financier, STATEC, Bastien Larue, 2016.

[13] *The state of the financial sector in Luxembourg - Key figures 2011-2021, LFF/Deloitte, février 2023.*

[14] Those activities are not categorized within the financial sector for national accounting purposes and therefore are not included in the previous statistics.

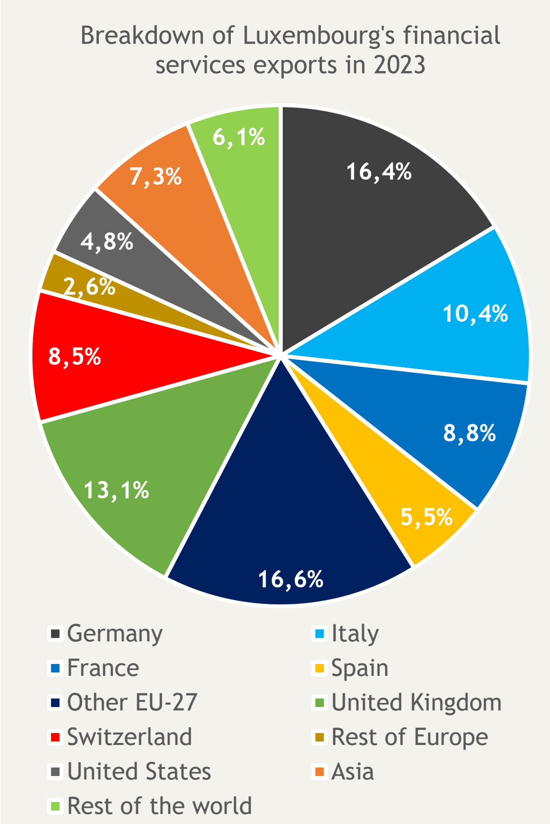
[15] Excluding those carried out by banks.

certain specializations and the diversification of the centre[16]. The growth in audit, consulting, and legal services may partly stem from increased regulatory constraints on the sector.

Numerous sub-activities exist within these categories, where Luxembourg may strengthen, develop, or see declines in its competitive positions. Additionally, alongside horizontal segmentation, there is a vertical disintegration of financial activities (front office, middle office, back office, support functions...), which is crucial to the characteristics of the Luxembourg financial centre and its evolution. Financial engineering activities (holdings, domiciliation, reinsurance, securitization...) represent a significant specialization of Luxembourg.

…with greater exposure to the European market

Diversification of the financial centre also involves targeting diverse markets. Luxembourg's exports of financial services reached 72.7 billion euros in 2023, accounting for 91.7% of GDP. In comparison, Luxembourg's imports of financial services amounted to 62.6% of GDP for the same year, resulting in a significantly positive balance of trade in financial services. According to data from the United Nations Conference on Trade and Development (UNCTAD), Luxembourg's financial centre accounted for 11.1% of global financial services exports in 2022. This percentage fluctuated between 10.8% and 12.3% over the past decade, without a clear trend emerging.[17]



Source: STATEC, author's calculations

At first glance, exports of financial services appear relatively diversified, with Germany as the top destination country accounting for 16.4%. However, the share of the top five destination countries (Germany, the UK, Italy, France, and Switzerland) has increased from 52.9% to 57.2% of total financial services exports between 2012 and 2023. This increase comes against the backdrop of a strengthening of exports to Europe, whose share rises from 77.5% to 81.9% over this 11-year period, and a consequent reduction in the weight of the rest of the world, including the United States and Asia. Financial services exports to Spain have risen sharply, from a share of 1.8% in 2012 to 5.5% in 2023, while Brexit had minimal impact on total financial services exports to the UK. STATEC lists 40 offshore financial centres that together accounted for 9.3% of Luxembourg's financial services exports in 2023, up from 7.9% in 2012. The Cayman Islands received 1.7% of financial services exports, and Jersey, Bermuda, and Guernsey are among Luxembourg's major partners in offshore financial centres. Furthermore, some

[16] To obtain more data on the number of direct and indirect jobs in the financial sector in Luxembourg: Place financière : combien d'emplois ?, Décryptage n°26, Muriel Bouchet, IDEA, 2023.

[17] In contrast to Singapore, for example, whose share of global exports of financial services increased from 3.9% in 2012 to 6.4% in 2022.

countries are more important in Luxembourg's imports of financial services than in its exports, such as Singapore (12.4% of total imports), the United States (11.4%), and Ireland (4.5%).

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A changing banking sector and a champion challenged in investment funds

This is the second part of a trilogy providing a comprehensive portrait of Luxembourg's financial centre, focusing on two of its most important pillars: the banking sector and investment funds. Banks, whose establishment was at the root of the financial centre's growth, have seen their businesses evolve over the last decade, while Luxembourg is looking to Ireland to maintain its leadership in investment funds.

A banking sector driven by corporate banking

The weight of banks in employment is atypical in Luxembourg compared to Europe, with, according to the European Banking Federation (EBF)[18], 25 inhabitants per banking sector job in the Grand Duchy in 2021, compared with 208 in the European Union. The number of banks in the country has decreased, from 141 in 2012 to 118 in 2023 according to the Luxembourg Central Bank (BCL), in a European context of a sharp decline in the number of banking sector players (-41% in 20 years within the EU-27 according to the EBF). According to LFF, banks based in Luxembourg come from 25 different countries, confirming their international profile. Despite relatively significant domestic activity, the banking sector is primarily an actor within the financial centre integrated into European and international markets. The number of banking sector jobs has slightly decreased, according to LFF and the ABBL, from 26,500 in 2012 to 26,300 in 2023. This is far from the hemorrhage experienced by the sector at the European level, where employment fell by 18% over the same period (-459,000 jobs).

The total of banking assets is the commonly used indicator to measure the size of the sector. EBF estimates that 3.39% of total banking assets in the EU-27 were held by Luxembourg in 2021. This share was 2.68% in 2012[19], showing a significant increase in Luxembourg's weight over the decade[20]. Extending this data, focusing only on the eurozone and based on statistics from the European Central Bank (ECB), shows the stability of Luxembourg's share of total banking assets between the end of 2021 and April 2024. Two trends have strongly affected banks' economic results in recent years. The level of interest rates negatively impacted the performance of the entire banking sector from 2017 to 2020[21], and then positively following the rate increases initiated in mid-2022. Increasing regulatory constraints have had a significant impact on the sector's expenditure and, by extension, its profitability, to which can be added the investment required for digital transformation.

LFF distributed, for 2021, the overall added value of the banking sector amounting to 8.6 billion euros as follows: 1.1 billion euros for retail banking, 1 billion euros for private banking, 6 billion euros for corporate banking services, representing a 460% increase over 10 years, and 500 million euros for banks' fund activities. The workforce in retail banking, which primarily targets a domestic market, has slightly decreased over the past decade.

This is also the case for the private banking sub-sector, which focuses on wealth management for individuals. LFF and Deloitte attribute this, among other reasons, to the decline in the number of affluent clients. Value added in private banking has fallen by almost 50% between 2011 and 2021. This is not the case for assets under management, which

[18] *Banking in Europe: EBF Facts & Figures 2022, EBF*.

[19] Excluding Croatia, whose total banking assets are marginal at the European level (<0.2%).

[20] If the UK is added to the denominator, Luxembourg's share of total banking assets rises similarly, from 2.11% in 2012 to 2.72% in 2021.

[21] *The state of the financial sector in Luxembourg - Key figures 2011-2021, LFF/Deloitte, février 2023*.

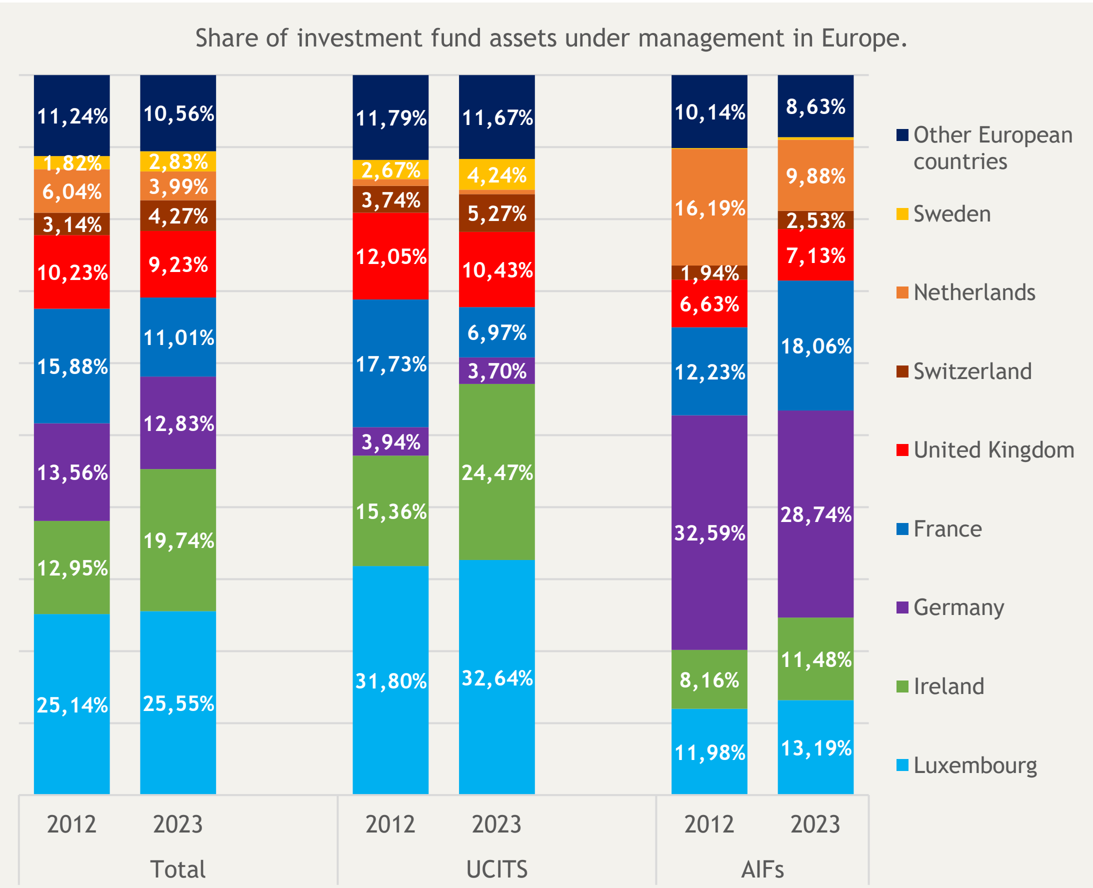
have risen from 303 billion euros to 586 billion euros between 2012 and 2022[22].

Corporate banking more than made up for the poor performance of other banking activities. LFF and Deloitte cite international trade finance, cash management, deal structuring (structured/syndicated loans), services to private equity and real estate funds, and head office functions as part of the range of corporate banking activities generating high added value and experiencing constant growth in recent years. According to the ABBL's activity report, in 2022, revenue for Luxembourgish corporate banking actors came from 58% non-financial institutions, 22% funds, which saw a significant increase compared to 2021, 10% other banks, 6% non-bank financial institutions, and 4% the public sector.

In addition to banks, the payment sector comprises other actors, such as payment institutions (PIs) and electronic money institutions (EMIs), which have recently developed with digitalization. These organizations are growing in number, from 10 in 2012 to 25 in 2023[23], driven by new technologies. They employed 740 people in 2021[24].

Diversification into alternative investment funds and the rise of the Irish competitor

The investment fund sector is one of the pillars of the Luxembourg financial centre, which has positioned itself as a global leader in cross-border fund distribution. Between 2012 and 2023, the number of funds registered in Luxembourg fell from 3,840 to 3,270[25], although their average number of employees and activity increased. In fact, according to LFF and Deloitte, employment in the sector increased between 2011 and 2021, rising from 16,800 to 21,100. The same trend is observed in the sector's gross value added, which has grown by an average of 1.5% per year over this 10-year period, albeit with significant cyclical fluctuations.



Source: EFAMA, author's calculations

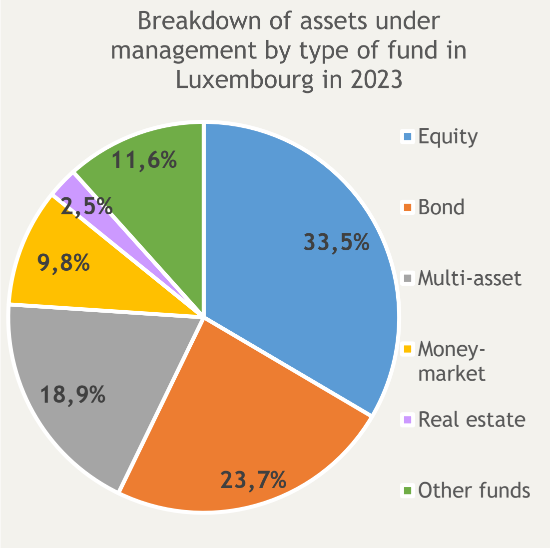
[22] *ABBL Annual Report 2023, April 2024.*
[23] *ABBL Annual Report 2023, April 2024.*
[24] *The state of the financial sector in Luxembourg - Key figures 2011-2021, LFF/Deloitte, février 2023.*
[25] Statistics from the Banque centrale du Luxembourg.

Luxembourg's share of total assets under management (AUM) in Europe, the benchmark indicator for fund tracking, slightly increased between 2012 (25.14%) and 2023 (25.55%).

Additionally, the eight countries detailed in the chart above manage nearly 90% of fund assets in Europe, and their overall market share has increased between 2012 and 2023. The main reason for this is the sharp rise in AUM in Ireland, which by the end of 2023 accounted for almost 20% of the total fund market, and almost 25% of the UCITS market. Ireland has been particularly competitive from a tax point of view in the ETF (exchange-traded fund) market for US investors since the introduction of the Irish Collective Asset-management Vehicle in 2015. The development of ETFs has also been helped by the economic situation in 2023[26]. In contrast, the major European economies of Germany, France, United Kingdom, and Netherlands have all declined over the past 10 years.

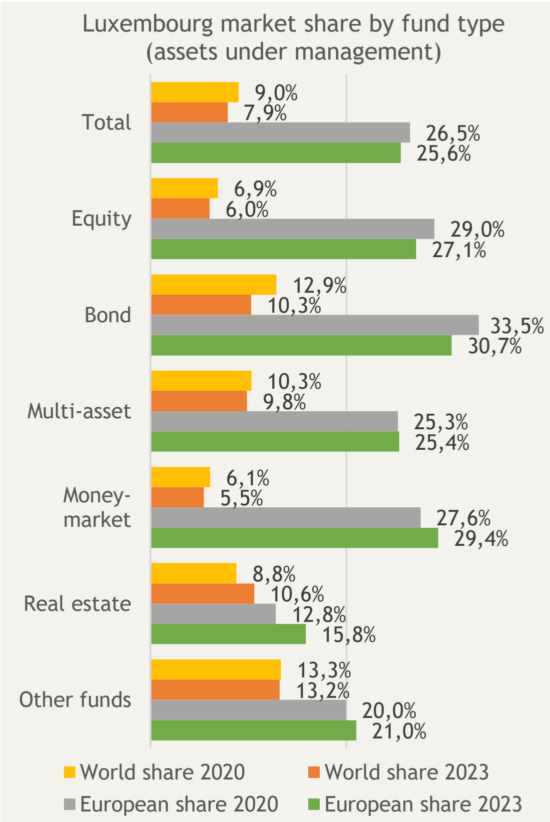
Luxembourg's market of choice remains UCITS, of which it held nearly one-third of assets under management in 2023, compared to 24.5% for Ireland. Luxembourg is more of a challenger when it comes to alternative investment funds (AIFs), with 13.2% of assets under management in this type of fund. However, its share has increased by 1.2 percentage points in 11 years. This helps offset the rise of AIFs in the European fund landscape, from 33.6% of total AUM in 2012 to 36.4% in 2023. Total assets under management have increased significantly over the last decade in Europe, from 9,481 billion euros in 2012 to 20,685 billion euros in 2023, although growth has been slower in recent years. European fund assets exceeded 21 trillion euros in 2021. The share of European fund assets in the total of international funds decreased from 34.0% in 2020 to 30.9% in 2023.

The breakdown of AUM by fund type shows a diversified allocation in Luxembourg, ranging from 33.5% for equity funds to 2.5% for funds invested in real estate. Between 2020 and 2023, the most notable increases concern other fund types (+2.2 percentage points) and money-market funds (+1.4 percentage point), while the share of AUM in bond funds (-4.7 percentage points) and multi-asset funds (-0.5 percentage point) has fallen.



Source: EFAMA, author's calculations

This diversified allocation is reflected in Luxembourg's global and European market shares across different types of funds, ranging internationally from 5.5% for money-market funds to 13.2% for other funds.



Source: EFAMA, author's calculations

[26] STATEC describes in more detail some of the reasons for Ireland's market share gain in investment funds in the study "*Prévisions macroéconomiques : entre risques domestiques et extérieurs*" in the "*Note de conjoncture n°1/2024*", particularly the reasons related to ETFs and US-origin funds.

Luxembourg's share of global fund AUM has decreased over the past four years, dropping from 9% to 7.9%, without the financial centre's 2nd position in the world behind the United States being called into question. The period saw notable gains in market share for real estate funds, while bond funds experienced the largest decline. Luxembourg's prominent role in the fund market stems from its appeal for cross-border funds. According to PwC Global Fund Distribution 2024, Luxembourg maintains its leadership in cross-border fund registrations worldwide within Europe, commanding a share of 54.6%, ahead of Ireland at 36.4%. Luxembourg's share declined by 0.4% compared to 2023.

Another type of vehicle for structuring international investments is a mainstay of the financial centre. The 50,000 Soparfi are Luxembourgish holding companies whose corporate purpose is to hold equity investments. According to Deloitte and LFF, in 2021 they represented the most significant contribution to Luxembourg's overall tax revenues for almost all direct taxes: 27% of total corporate income tax (*impôt sur le revenu des collectivités*: IRC), 24% of total communal business tax (*impôt commercial communal*: ICC) and 74% of total net wealth tax (*impôt sur la fortune*: IF).

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A leading centre for insurance, bonds and sustainable finance facing the rise of new technologies

The comprehensive portrait of the Luxembourg financial centre, presented as a trilogy, concludes with this analysis focusing on the insurance industry, the stock market sector, and the new markets explicitly targeted by Luxembourg: sustainable finance, fintechs, China, and Islamic finance. Pioneering in some of these areas, the Luxembourg financial centre must not overlook the ongoing technological shift, where tech companies are competing with traditional finance players.

Non-life insurance, a rising segment in the insurance industry

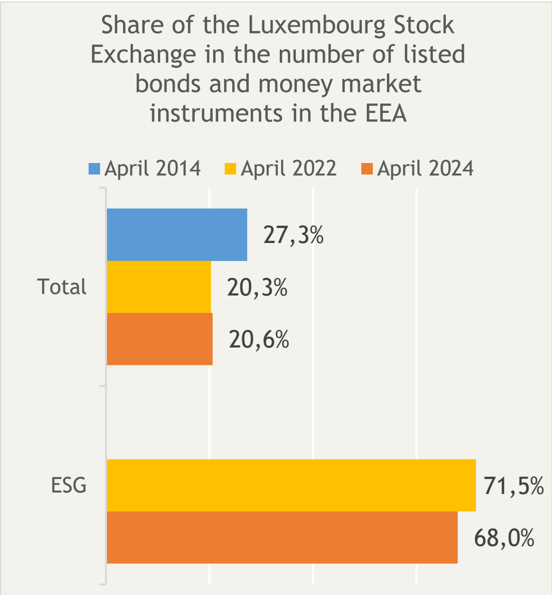
According to the Commissariat aux Assurances (CAA), Luxembourg hosted the headquarters of 70 insurance companies and 194 reinsurance companies in 2022. Full-time equivalent (FTE) employment in this sector significantly increased from 6,150 in 2012 to 14,130[27] in 2022. Also, in 2022[28], life insurance companies employed 2,970 FTEs, non-life insurance companies 8,830, reinsurance companies 1,820 and brokerage firms 520. The insurance sector is dominated by cross-border business, both in terms of employment and premium income. In 2022, international activities accounted for 93.5% of total premium income, specifically 91.6% in non-life insurance, 94.0% in life insurance, and 95.0% in reinsurance[29]. These percentages are similar to those of 2012 for life insurance and reinsurance, but non-life insurance has significantly internationalized over the past decade. The non-life insurance sub-sector experienced substantial growth following Brexit, with premiums increasing from 5 to 13 billion between 2018 and 2019. According to the ACA[30], total insurance premiums fell by 33% between 2019 and 2023 in Luxembourg for life insurance and increased by 51% for non-life insurance over the same period, contributing equally to the sector in 2023. Moreover, Luxembourg heavily depends on France for life insurance, with this market representing 47% of premiums issued by Luxembourgish insurers internationally.

In 2023, life insurance premiums income in Luxembourg amounted to 19 billion euros, representing 3.3% of the total European market, according to the ACA. This market share is consistent with Luxembourg's position in 2012. The Swiss Re Sigma research institute publishes a world ranking of countries according to their share of insurance premiums income. In life insurance, Luxembourg moved up three places between 2012[31] and 2022[32] to reach 19th place globally (8th in Europe, up three spots). For non-life insurance, driven by strong growth post-Brexit, Luxembourg held 4.5% of the European market in 2023, within a sector dominated by major countries like Germany, the United Kingdom, and France. This growth has contributed to a slight overall improvement in Luxembourg's performance in the Swiss Re Sigma rankings, from 23rd in 2012 (12th in Europe) to 21st in 2022 (10th in Europe). Captive reinsurance, a significant activity in the Luxembourg insurance sector, was highlighted by PwC as Europe's leading centre in 2020. This aspect is not included in the previously mentioned indicators. According to the CAA, premiums by reinsurance companies reached 13 billion euros in 2022, constituting 23% of the total insurance sector. This positions Luxembourg to account for approximately 3.3% of global gross reinsurance premium income and 9.2% in Europe[33].

[27] These figures are significantly higher than those published by Deloitte and LFF in the study « *The state of the financial sector in luxembourg - Key figures 2011-2021* ».
[28] Les chiffres clé de 2022, CAA.
[29] Rapport annuel 2022-2023, CAA.
[30] Key figures 2023, ACA.
[31] World insurance in 2012: Progressing on the long and winding road to recovery, n°3/2013, Swiss Re Sigma.
[32] World insurance: stirred, and not shaken, n°3/2023, Swiss Re Sigma.
[33] Based on worldwide and European data from Atlas Reinsurance Reports 2024.

Defending positions in the bond capital markets

Luxembourg is a relatively minor player in the stock markets. As of April 2024, the market capitalization of the 28 national and 88 foreign companies listed on the Luxembourg Stock Exchange reached 45.5 billion euros[34], representing 0.4% of the total capitalization of the European Economic Area (EEA) stock exchanges. On the other hand, the Luxembourg Stock Exchange specializes in the listing of international bond, for which it is a world leader. It is also the world's first green exchange and a pioneer in ESG bonds.



Source: FESE, author's calculations

As a result, 20.6% of bonds and money market instruments listed on EEA markets were listed in Luxembourg in April 2024, a lower proportion than in 2014. However, the total number of bonds and money market instruments listed on the Luxembourg Stock Exchange increased over the period, from 26,340 in 2014 to 39,550 in April 2024. Luxembourg maintains strong leadership in ESG products, despite a slight decline compared to 2022, the first year for which the Federation of European Securities Exchanges (FESE) published this data. The total number of ESG products listed has increased by 39% at European level over the last 24 months. Luxembourg is characterized by the significant amounts of bonds issued, totalling 1.266 trillion euros in 2023 (91 million euros on average per listing) and 185 billion euros for ESG alone (376 million euros on average).

Additionally, Luxembourg has specialized in securitization vehicles[35], for which its positions have significantly advanced over the past decade. The outstanding amount of securitization vehicles registered in Luxembourg reached 18% of the eurozone's total in 2023[36], according to the ECB, compared to just 5.9% in 2012.

Finally, since the creation of the international clearinghouse CEDEL[37] in 1970, the financial centre has been one of the leading providers of post-trade services[38]. According to the European Central Securities Depositories Association (ECSDA), the two Luxembourgish entities in this sector accounted for 22.1% of European turn over[39] in 2022.

The European Union's green centre

The Grand Duchy has, in recent years, made sustainable finance a key focus for the development and diversification of its financial centre, symbolized by the creation of the Luxembourg Sustainable Finance Initiative (LSFI) in 2020. This strategy has shown results in the bond markets, with the creation of the Luxembourg Green Exchange (LGX), the world's first listing platform dedicated exclusively to green bonds. This initiative contributes to Luxembourg's performance in The Global Green Finance Index (GGFI), the counterpart to the GFCI dedicated to green finance. As a result, Luxembourg's financial centre ranks 6th globally and 4th in Europe[40] in the GGFI of April 2024[41].

The investment fund sector is the second major pillar of sustainable finance in Luxembourg, as illustrated by its 1st position in

[34] FESE Monthly Statistics.
[35] Securitization involves transferring financial assets such as receivables (e.g., outstanding invoices or ongoing loans) to investors by transforming them into financial securities issued on the capital markets.
[36] Behind Ireland (26.7%) and Italy (21.7%), but ahead of France (14.7%).
[37] Renamed Clearstream in January 2000.
[38] The role of post-trade services is to ensure the successful completion of transactions initiated on financial markets, to record them in clients' accounts, and to account for all events related to the lifecycle of financial instruments.
[39] Geographically speaking.
[40] Behind London, Geneva, and Zurich, these three financial centres dominate the global podium.
[41] Luxembourg also ranks 2nd when considering only the respondents from the GGFI panel who “work directly in the green finance sector”.

the GGFI investment sub-sector. In 2023, the assets under management of ESG funds in the European Union reached 6.2 trillion euros[42], representing 61.5% of the total assets under management of EU-27 funds. Luxembourg holds a dominant position in this market, both for Article 8[43] funds (45.7% of assets under management in the EU-27) and Article 9[44] funds (60.8%). This success can be partly attributed to the pioneering role of LuxFLAG (Luxembourg Finance Labelling Agency), which has been promoting the responsible investment sector since 2006 by awarding labels to eligible vehicles.

Regarding the social aspect of sustainable finance, Luxembourg has specialized in the field of international microfinance, hosting one-third of the global European microfinance funds in 2020, according to the Directorate for Development Cooperation and Humanitarian Affairs.

A fin(not so)tech centre

Fintechs do not constitute a distinct domain within the financial sector but represent a group of new players aiming to improve the accessibility or functioning of financial activities through technological innovations. The financial centre will not be able to maintain its competitiveness, leadership, and scale without the contribution of fintechs, which act as catalysts for innovation among the centre's actors, today's growth niches and tomorrow's future champions. Luxembourg has a dedicated entity for their development, the Luxembourg House of Financial Technology (LHoFT), which counted more than 250 fintechs established in Luxembourg in 2024.

Luxembourg was considered the 25th fintech hub in the world in 2021 according to Startup Genome's[45] Global Startup Ecosystem Report Fintech Edition. At the European level, the Grand Duchy ranked 4th in a ranking dominated by American[46] and Asian territories. A McKinsey study examined the opportunities for European fintechs in 2022[47]. The study rarely mentions Luxembourg, unlike its European competitors. The financial centre is ranked 4th in five key performance indicators[48] for fintechs, a relatively mediocre result for indicators relating to the population[49], even though no European economy is comparable in terms of the financialization of the economy. This is particularly the case for size of the fintech workforce as a percentage of the total workforce, for which Luxembourg was behind the United Kingdom and Sweden in 2021.

The financial centre is thus more innovative in terms of regulation, one of its main strengths, than in terms of the new technology companies developing there, at least three years ago. This moderate development could partly stem from the centre's business specialization and/or difficult access to IT skills[50].

Winding roads to Chinese and Islamic markets

Finally, in pursuit of diversification and growth, Luxembourg has developed and strengthened its expertise in two major international markets in recent years: China and Islamic finance. Seven Chinese banks have set up their European headquarters in the Grand Duchy, while it occupies a leadership position on the international Chinese market in two major activities: bonds and investment funds. Despite a slowdown post-Covid, the number of new yuan-denominated bonds listed on LuxSE remained steady in 2023 at 81, compared to 105 in 2019. This would allow, as indicated by LFF, the financial centre to remain the world's leading centre for *Dim Sum*[51] bond listings. Regarding investment funds, as of the end of 2021, Luxembourg

[42] EU ESG UCITS - Article 8 as a Middle Ground?, PwC, April 2024.

[43] The term "Article 8 funds" refers to the European regulation (EU) 2019/2088 known as the Sustainable Finance Disclosure Regulation (SFDR), which came into effect on March 10, 2021. Article 8 funds incorporate environmental or social investment criteria.

[44] The more ambitious Article 9 funds must also pursue a sustainable investment objective.

[45] A research and policy consultancy organization specializing in start-up ecosystems.

[46] Silicon Valley came in ahead of New York in 1st place in the Startup Genome rankings.

[47] *Europe's fintech opportunity*, McKinsey&Company, October 2022.

[48] Behind the United Kingdom, Sweden and Malta.

[49] The five indicators chosen are the number of fintechs founded per million capita, the fintech funding per capita in euros, the number of deals per million capita, the number of fintech unicorns per capita and the size of the fintech workforce as a percentage of the total workforce.

[50] Des bourses d'études pour les futurs talents de la diversification économique, Document de travail n°24, Jean-Baptiste Nivet, IDEA, 2024, for more details on technological skills in Luxembourg.

[51] *Dim sum* bonds are bonds issued in Hong Kong and denominated in yuan (or renminbi) rather than the local currency, the Hong Kong dollar. Their name refers to a typical Cantonese dish.

hosted 75% of European funds and 44% of global funds investing in China according to PwC & Lipper. Since then, the crises in China, particularly in the real estate market, have led to a 40% decline in assets under management for these funds between June 2021 and June 2023.

The financial centre also positioned itself, at the turn of the millennium, in the growing Islamic finance market, listing a *sukuk*[52] as early as 2002 and joining the Islamic Financial Services Board (IFSB). Success in Islamic finance has not, however, been as expected, or as good as in the Chinese markets. No Islamic-governed bank has yet established itself in Luxembourg, as specified by Fitch Ratings[53] in December 2021. Despite its leadership in Europe, assets under management of Islamic funds established in Luxembourg represented only 0.11% of the total assets under management of funds in the centre. Initiatives in Islamic funds, however, can contribute to broader development of partnerships with financial players from predominantly Muslim countries. According to data from the PwC Global Fund Distribution 2024, while 54.6% of global cross-border funds registered in Europe were in Luxembourg, this percentage rises to 77.1% for the main distribution markets in the Arab-Muslim world[54].

Outlook

The financial centre's quest for leadership will continue in the years ahead. The main uncertainty regarding the centre's competitiveness will be the impact of greater integration of the common market on the organization of financial players at the European scale, whether leading to fragmentation into multiple regional micro-poles or concentration in large financial centres. The multi-specialisation of Luxembourg's financial centre should enable it to compensate for the decline in some of its activities, and potentially move up a tier in the second case.

The priorities outlined by the current government for diversification policy include fintechs, digital assets, green finance, gender finance, blended finance[55], and social impact investment. Close monitoring of developments in the financial centre, via monthly indicators and/or weak signals, will remain an essential part of Luxembourg's agility, both for its mature sectors such as investment funds and life insurance, as well as these forward-looking sectors.

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[52] A *sukuk*, operating like a bond, refers in Islamic law to an investment certificate compliant with Sharia principles.
[53] European Islamic Funds Industry Led by Luxembourg, Fitch Ratings, December 2021.
[54] United Arab Emirates, Bahrain, Oman, Qatar, Saudi Arabia, Kuwait, Jordan, Iraq and Yemen.
[55] The World Economic Forum defines blended finance as "the strategic use of development finance and philanthropic funds to mobilize private capital flows to emerging and frontier markets".