IMF Country Report No. 25/123

LUXEMBOURG

June 2025

2025 ARTICLE IV CONSULTATION—PRESS RELEASE AND STAFF REPORT

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2025 Article IV Consultation with Luxembourg, the following documents have been released and are included in this package:

- A **Press Release**.
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on lapse of time basis, following discussions that ended on March 22, 2025 with the officials of Luxembourg on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on May 14, 2025.
- An **Informational Annex** prepared by the IMF staff.

The IMF's transparency policy allows for the deletion of market-sensitive information and premature disclosure of the authorities' policy intentions in published staff reports and other documents.

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International Monetary Fund
Washington, D.C.

PRESS RELEASE

PR 25/177

IMF Executive Board Concludes 2025 Article IV Consultation with Luxembourg

FOR IMMEDIATE RELEASE

- Luxembourg's fundamentals remain strong and economic recovery is projected to slowly gain pace amidst external headwinds. Downside risks prevail in the short term.
- Surprising on the upside, the fiscal balance improved to a surplus of 1 percent of GDP in 2024, boosted by one-off revenues. Given structurally high revenue volatility, prudent fiscal policy should be based on a more efficient use of fiscal space.
- The financial sector is resilient, with well-capitalized and liquid banks. While the risks are manageable, the housing market, and other pockets of vulnerabilities should continue to be closely monitored.

Washington, DC – **June 5, 2025:** On May 30, 2025, the Executive Board of the International Monetary Fund (IMF) concluded the 2025 Article IV Consultation[1] with Luxembourg, and considered and endorsed the staff appraisal without a meeting on a lapse-of-time basis.[2]

Luxembourg's fundamentals remain strong, but its economic performance has been lackluster. Public debt is low and the 2024 FSAP found the financial sector sound and well-diversified. After contracting by 0.7 percent in 2023, GDP growth turned positive at 1 percent in 2024, mainly driven by public consumption. Private domestic demand though remained lackluster amidst tight financial conditions and a lack of confidence in the real estate sector. The labor market is cooling, following a sizeable increase in labor costs in past years. While the headline fiscal deficit showed a large improvement from one-off revenues, the underlying structural deficit has widened, reflecting a shift from temporary to permanent support. Financial conditions remain tight, and the financial cycle has not yet decisively turned. Despite some deterioration in asset quality, the financial sector remains resilient overall.

An economic recovery is projected to slowly gain pace amidst external headwinds. Growth is projected to increase to 1.6 percent in 2025 and accelerate in 2026–27 supported by improved confidence and a gradual recovery in external demand. The unwinding of labor hoarding and lingering uncertainty would weigh on job creation and unemployment is likely to

[1] Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepare a report, which forms the basis for discussion by the Executive Board.

[2] Under the IMF's Articles of Agreement, publication of documents that pertain to member countries is voluntary and requires the member consent. The staff report will be shortly published on the www.imf.org/luxembourg page.

700 19th Street NW
Washington, DC 20431
USA

rise in the near term, before slowly declining to its historical average. Inflation is projected to decline to about 2 percent in 2025 and stay at that level over the medium term. Downside risks prevail in the short term, with headwinds from weaker external demand and tighter and/or more volatile financial conditions triggered by trade policy uncertainty, geopolitical tensions, and possibly higher interest rates for longer. Risks to growth are more balanced over the medium term, but fiscal risks are assessed to be high.

Executive Board Assessment[3]

Luxembourg's recent economic performance has been lackluster and a projected recovery faces headwinds. Anchored in strong economic fundamentals, the economy is expected to gradually recover from a protracted slowdown. Yet, the global situation is fluid, and there are risks of setbacks stemming from weaker external demand and higher financial market volatility, alongside domestic challenges in the real estate sector and the labor market. Moreover, productivity has been declining, and Luxembourg faces fiscal pressures and risks. While Luxembourg's current external position is assessed to be substantially stronger than the level implied by medium-term fundamentals, the assessment is subject to several limitations. The country's specific economic features—a small open economy with a global financial center and a large share of cross-border workers —make the external position subject to significant volatility. This, together with the long-term challenges due to aging costs, call for more prudent policies while incentivizing private sector investment.

Prudent fiscal policy calls for a more efficient use of fiscal space. For 2025, a less expansionary fiscal stance would have been welcome, given low fiscal multipliers and the need to make room for more private sector-led growth. There is scope for reviewing the effectiveness and targeting of current measures, while preserving possible savings from revenue overperformance or budget execution. The authorities' medium-term expenditure path is broadly appropriate to accommodate future spending pressures, but should be underpinned by measures, which will require containing the growth of the wage bill, enhancing spending efficiency, and avoiding any further erosion of the tax base.

There is scope for increasing revenue resilience. Luxembourg's revenue performance depends to a large extent on a concentrated and volatile revenue base. Tax reforms should thus aim at diversifying revenue sources. This will help reduce volatility and uncertainty of fiscal receipts.

Fiscal policies should be better anchored in a medium-term perspective. The public consultations on pension reform are welcome, as there is a need for early reforms, including reducing the generosity of benefits—the highest in Europe, increasing both the effective and statutory retirement ages, and a well-calibrated increase in contributions to minimize the negative impact on the labor market. Strengthening the medium-term fiscal framework would enhance policy predictability. The planned implementation of a national fiscal rule is welcome and should combine a debt anchor with a net spending ceiling that consider revenue

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[3] At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: http://www.IMF.org/external/np/sec/misc/qualifiers.htm.

uncertainty and allow appropriate flexibility. Additional reforms of the budgeting framework and strengthening of the fiscal council are necessary to make the new framework more effective.

Risks in the financial sector, while manageable, should continue to be closely monitored. The financial sector appears broadly resilient. However, persistent solvency and liquidity risks in the corporate sector—especially in real estate—and the potential impact of rising financial market volatility warrant close monitoring. The authorities should continue ensuring adequate provisioning, collateral valuation, and loss absorption capacity. At the same time, continued oversight of the large nonbank financial sector—notably pockets of liquidity mismatches and leverage—and a better understanding of the intermediation role of the OFI sector should be prioritized.

Macroprudential policy should remain agile. The current CCyB level is appropriate. Should the recovery firm up, the authorities should strengthen releasable capital buffers and address still elevated household indebtedness by introducing income-based measures in line with FSAP recommendations. In the event of continued credit pressure, some loosening of the CCyB could be envisaged. Capitalizing on the commendable progress in implementing the 2024 FSAP recommendations in the supervision of banks and investment funds, the authorities should strengthen the macroprudential policy framework.

Structural reforms are needed to boost private sector-led growth and sustain living standards. Wage indexation has become a key constraint on competitiveness, and more labor market flexibility is called for. The authorities should also aim at boosting productivity and containing the cost of living by streamlining the regulatory and administrative burden, removing barriers to entry in some sectors, and addressing housing and infrastructure supply bottlenecks. Efforts should continue to capitalize on the country's comparative advantages in AI adoption and financial sector development while minimizing potential costs of the transition. Recent measures to enhance technology diffusion and ongoing upskilling programs are welcome.

Table 1. Luxembourg: Selected Economic Indicators, 2023–26

		Est.	Proj.	
	2023	2024	2025	2026
Real Economy (percent change)				
Gross domestic product	-0.7	1.0	1.6	2.2
Total domestic demand	1.1	0.1	1.7	2.6
Foreign balance 1/	-1.4	1.1	0.0	0.4
Labor Market (thousands, unless indicated)				
Unemployed (average)	16.2	18.0	19.5	20.1
(Percent of total labor force)	5.2	5.7	6.1	6.2
Total employment	512.0	517.8	524.8	533.9
(Percent change)	2.1	1.1	1.4	1.7
Prices and costs (percent change)				
GDP deflator	6.3	5.2	2.6	1.2
CPI (harmonized), p.a.	2.9	2.3	2.2	2.1
CPI core (harmonized), p.a.	3.9	2.5	2.1	2.1
CPI (national definition), p.a.	3.7	2.1	2.1	2.0
Public finances (percent of GDP)				
General government revenues	46.2	47.9	47.4	47.6
General government expenditures	47.0	46.9	48.3	49.0
General government balance	-0.8	1.0	-0.8	-1.3
General government cyclically-adjusted balance	0.0	0.8	-1.0	-1.3
General government structural balance	1.8	0.8	-0.7	-1.3
General government gross debt	25.0	26.3	26.7	27.6
Balance of Payments (percent of GDP)				
Current account	11.2	13.8	8.8	7.8
Balance on goods	0.4	1.7	1.8	1.6
Balance on services	43.5	43.6	42.9	42.0
Net factor income	-31.5	-31.1	-35.5	-35.4
Balance on current transfers	-1.1	-0.4	-0.4	-0.4
Exchange rates, period averages				
U.S. dollar per euro	1.08	1.08	...	...
Nominal effective rate (2010=100)	105.3	106.3	...	...
Real effective rate (CPI based; 2010=100)	98.7	98.5	...	...
Credit growth and interest rates				
Nonfinancial private sector credit (eop, percent change) 2/	-2.9	-4.7	1.6	3.8
Government bond yield, annual average (percent)	3.1	2.7	...	...
Potential output and output gap				
Output gap (percent deviation from potential)	-1.4	-2.0	-2.1	-1.6
Potential output growth	1.6	1.7	1.7	1.7

Sources: Luxembourg authorities; IMF staff estimates and projections.

1/ Contribution to GDP growth.

2/ Including a reclassification of investment companies from financial to non-financial institutions in 2015.

INTERNATIONAL MONETARY FUND

LUXEMBOURG

STAFF REPORT FOR THE 2025 ARTICLE IV CONSULTATION

May 14, 2025

KEY ISSUES

Context. Luxembourg has strong economic fundamentals and policy buffers, including low public debt. The large financial sector has weathered well the recent shocks and the 2024 FSAP found it sound and well diversified. But growth in the past years has been lackluster hampered by a loss in confidence in the housing market, high labor costs, and low productivity growth. Demand-focused fiscal policies helped smooth exogenous shocks but were less effective in creating momentum in the economy.

Outlook and risks. Growth is expected to slowly gain pace, but there are significant headwinds. Continued trade tensions and heightened financial market volatility, alongside persistent challenges in the domestic real estate sector, could affect both short-term and long-term growth, increase financial sector risks, and add to structurally high revenue volatility. At the same time, fiscal risks are elevated amidst high reliance on a concentrated revenue base and growing spending pressures.

Fiscal policy. Prudent fiscal policy should be based on a more efficient use of fiscal space. This requires reviewing the effectiveness and targeting of measures to make room for private sector-led growth. While the authorities' medium-term spending path is broadly appropriate, it should be underpinned by measures, including by containing the wage bill and avoiding any further erosion of the tax base. Diversifying revenue sources is crucial to increase revenue resilience. Strengthening the fiscal framework, alongside expediting pension reform, would ensure long-term sustainability and intergenerational equity. If risks materialize, automatic stabilizers should be allowed to work.

Financial sector. The financial sector is resilient, with well-capitalized and liquid banks. Systemic risks remain moderate, despite some asset quality deterioration in the corporate sector. Risks in the real estate sector warrant close monitoring and, if confidence is not restored soon, the authorities might need to take action. The current CCyB level is broadly appropriate. As the credit cycle recovers, the authorities should strengthen releasable capital buffers and address still elevated household indebtedness by introducing income-based measures in line with FSAP recommendations.

Structural. Labor market rigidities should be tackled, including through greater flexibility in automatic wage indexation; labor supply should adapt to evolving needs; and productivity be boosted through innovation, addressing infrastructure bottlenecks, and streamlining the regulatory burden. For housing, policies should focus on supply-side measures while gradually withdrawing demand-side measures.

Approved By
Kristina Kostial (EUR) and Natalia Tamirisa (SPR)

Discussions took place during March 11–22, 2025. The team comprised A. Shabunina (Head), X. Fang, T. Jardak, M. Jarmuzek, and V. Stepanyan (all EUR), and was assisted by X. Li, Y. Lu, and V. Timonova. Messrs. Clicq and Englaro (both OED) joined some meetings. The mission met with Minister of Finance Roth, Governor Reinesch, other officials, and representatives from the private sector and civil society.

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CONTEXT

1. While Luxembourg's fundamentals remain strong, economic performance in recent years has been lackluster. Public debt is low and Luxembourg has ample—albeit declining—fiscal space. The large financial sector has weathered the shocks of recent years well, and the 2024 FSAP found it sound and well-diversified. Yet, following the ECB monetary policy tightening and the cost-of-living shock, the economy entered a cyclical downturn with GDP and employment growth significantly below pre-Covid averages for now three years, despite supportive fiscal policy.

2. Beyond exogenous shocks, other factors have hampered a stronger recovery. High private sector indebtedness and past house price overvaluation led to a substantial—though orderly— correction in the real estate market and continued low confidence in the construction sector. At the same time, automatic wage indexation, while cushioning the impact of the cost-of-living shock on households, caused labor costs to rise faster than in peer countries. And productivity has been declining, potentially reducing Luxembourg's competitiveness. Demand-focused fiscal policies helped smooth exogenous shocks but were less effective in creating momentum in the economy.

3. The difficult global conjuncture calls for addressing the causes that hold back growth. In the near term, this will require prudent and agile macroeconomic management and addressing confidence issues in the real estate sector. It is also critical to make fiscal policies more effective and better anchored in a medium-term perspective to enhance policy predictability. In parallel, accelerating and broadening the authorities' reforms agenda that aims at lifting productivity, reducing labor and housing supply constraints, and tackling challenges from aging would better position Luxembourg to benefit from opportunities in the ongoing transformation of the global economy and durably sustain living standards.

RECENT DEVELOPMENTS AND OUTLOOK

A. A Fragile and Uneven Recovery

Despite a boost from public consumption, growth was weak as private domestic demand remained lackluster amidst tight financial conditions and a lack of confidence in the real estate sector. The labor market is cooling, following a sizeable increase in labor costs in past years. While the headline fiscal deficit showed a large improvement from one-off revenues, this masks a deterioration in the structural balance, reflecting a shift from temporary to permanent support. Financial conditions remain tight, and the financial cycle has not yet decisively turned. The financial sector remains resilient overall and profitability has increased, despite some deterioration in asset quality.

4. A fragile and uneven recovery is underway. After contracting by 0.7 percent in 2023, GDP growth turned positive at 1 percent in 2024, mainly driven by public consumption and a rebound in net exports. Meanwhile, private consumption was lackluster, weighed down by high real interest rates, uncertainty, and structural factors (e.g., related to remote work). Investment has declined notably amid subdued real estate activity (Figure 1).

5. **The labor market has softened after declining productivity and an increase in unit labor costs in recent years.** Despite robust public sector employment growth, overall employment growth has decelerated, the number of hours worked have declined, and vacancies have returned to pre-COVID levels as firms are adjusting to increased labor costs in a context of real wage rigidity and low demand. Unemployment has increased for the second consecutive year, while labor hoarding remains prevalent in some sectors (Figure 2).

6. **With a decline in global energy prices and low domestic demand, inflationary pressures have largely dissipated.** Headline inflation declined to 2.1 percent in 2024, down from 3.7 percent a year ago with service prices remaining the main driver. Yet, the GDP deflator grew robustly (+5.2 percent), reflecting improved nominal profit margins in the financial sector. Despite an adjustment in electricity prices in January, disinflation has continued in the first three months of 2025.

7. **Surprising on the upside, the fiscal balance improved to a surplus of 1 percent of GDP in 2024, boosted by one-off revenues**. Corporate income tax (CIT) revenues rose sharply (+41 percent year-on-year) driven by receipts related to previous years and large one-off payments. On expenditure, the public wage bill was lower than budgeted as lower-than-expected inflation did not trigger the automatic wage indexation (Figure 3). Part of the revenue overperformance was used for higher current spending, a "retroactive" adjustment of the PIT, and an extension of discretionary support measures (Table 1). The structural surplus thus fell from 1.8 percent in 2023 to 0.8 percent of GDP in 2024. Public debt, though rising, is low, estimated at 26.3 percent of GDP at end-2024.

Table 1. Luxembourg: Discretionary Measures in Place for 2023–28

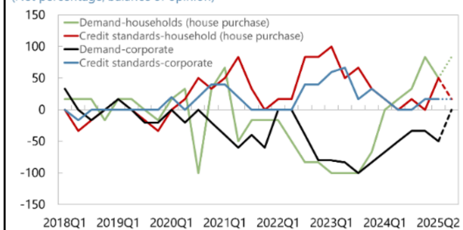
	2023	2024	2025	2026	2027	2028
Entlaaschtungs-Pak (July 2024)			**496**	**523**	**535**	**536**
Additional adjustment of the tax schedule by 2.5 index-basedbrackets			300	300	300	300
Reduction in Corporate Income Tax (CIT)			56	63	70	70
Adjustment to tax class 1a in PIT			55	70	75	75
Other measures			85	90	90	91
Housing Measures (Paquet Logement in February 2024 and others)		**85**	**167**	**85**	**88**	**0**
Temporary reduction of the registration rate		30	70			
Temporary increase in tax credit for residential property purchase and new tax credit for investment in rental housing		40	20			
Increase of mortgage interest deductibility			45	45	45	
A new partial exemption for premiums paid by companies for renting accommodation		15	30	30	30	
Other measures		0	2	10	13	
Solidaritéitspak 3.0 (June 2023)	**292**	**1,061**	**671**	**652**	**646**	**646**
Introduction of an economic tax credit for the 2023	235	40				
Compensation for companies in a third index bracket		314	25	6		
Increase in tax credit for registration fees	45	90	90	90	90	90
Retroactive adaptation of the personal income tax scale		480	480	480	480	480
Other measures	12	137	76	76	76	76
Solidaritéitspak 1.0, Solidaritéitspak 2.0 and Tripartite	**917**	**462**	**96**	**28**	**22**	**23**
Total (millions of euros)	**1,209**	**1,608**	**1,429**	**1,288**	**1,291**	**1,205**
Total (%GDP)	**1.5**	**1.9**	**1.6**	**1.4**	**1.3**	**1.2**
of which: permanent measures	0.1	0.8	1.4	1.4	1.3	1.2
of which: temporary measures	1.4	1.1	0.2			

Source: Authorities' data.

8. The financial cycle has not yet decisively turned, though credit demand has likely bottomed out (Figure 4).

- Credit to the nonfinancial resident private sector continued to drop (-4¾ percent y/y at end-2024). This was mainly driven by loans to corporates falling by 13.1 percent as financing conditions and credit standards remained tight partly due to higher capital requirements, lower asset quality and larger risk perception. There are nonetheless signs that the ongoing easing of monetary policy is gradually passing through to borrowing costs and improving demand for loans. New mortgages have bounced back in 2024H2 and the drop in corporate demand seems to be coming to an end.

Credit Supply and Demand
(Net percentage, balance of opinion)



Source: BCL bank lending survey.
Notes: For credit standards, a positive sign is a net tightening. For demand, a positive sign is a net increase in demand for loans. Discontinued lines refer to forward looking bank opinion.

- With affordability improving, residential real estate (RRE) prices have stabilized (even increased in some segments) following a correction from an overheated position. While transactions on existing homes returned to their pre-crisis levels, new housing activity remained subdued as homebuyers' confidence in developers was dented by rising bankruptcies, significant delays, and cost overruns.[1] On supply, building permits have plummeted as the large real estate developers are in wait-and-see mode, while smaller ones are struggling with financing constraints. Commercial real estate (CRE) activity has also been weak, hindering price discovery.

9. The financial sector remains resilient, despite a recent asset quality deterioration. The NPL ratio has continued to rise, though still are at manageable levels. The increase has been concentrated in domestic banks and was mainly driven by the non-financial corporate sector with SMEs and real estate companies contributing the most (Table 4, Figure 5).[2] Banks have maintained strong capital and liquidity buffers. Profitability, though likely beyond its peak and heterogenous across business models, still exceeds pre-COVID averages, buoyed by high interest margins, increased fees and commissions, lower operating costs (including contributions to the single resolution fund) and a limited increase in the cost of risk so far. Investment funds have benefited from favorable market valuations and positive net investments, with net assets growing by 10 percent in 2024.

10. Luxembourg's external position is assessed to be substantially stronger than the level implied by medium-term fundamentals, but the assessment is subject to several limitations.[3]

[1] The surge in transactions and building permits in 2024Q4 has been partly due to the announced expiration of housing support measures (which were later extended to June 2025) and has somewhat faltered in the first 2 months of 2025.

[2] The increase in the NPL ratio reflected both an increase in the numerator and a decline in the denominator.

[3] Data show a substantial inconsistency between the balance of services in the national accounts and in the BOP, which may suggest future revisions.

The current account surplus has improved to 13.8 percent of GDP in 2024, mainly driven by higher net exports of goods and services—due to lower imports of goods and a valuation-driven increase in assets managed by investment funds (+8 percent y/y) — and increased revenues on foreign direct investment (Figure 6). With the caveat that the EBA-lite model only partially captures Luxembourg's specific economic features (a large financial center and a large share of commuters in the workforce)—generating large residuals— and does not take into account the country's long-term fiscal sustainability challenges due to aging costs, Luxembourg's external position is assessed to be substantially stronger than the level implied by medium-term fundamentals and desirable policies. The current account gap is estimated at 10 percent of GDP; however, the policy gap is smaller at 3.2 percent of GDP, reflecting a fiscal stance looser than the country-specific norm, but not relative to the average world fiscal stance (Annex II).

Figure 1. Luxembourg: Real Sector and Inflation

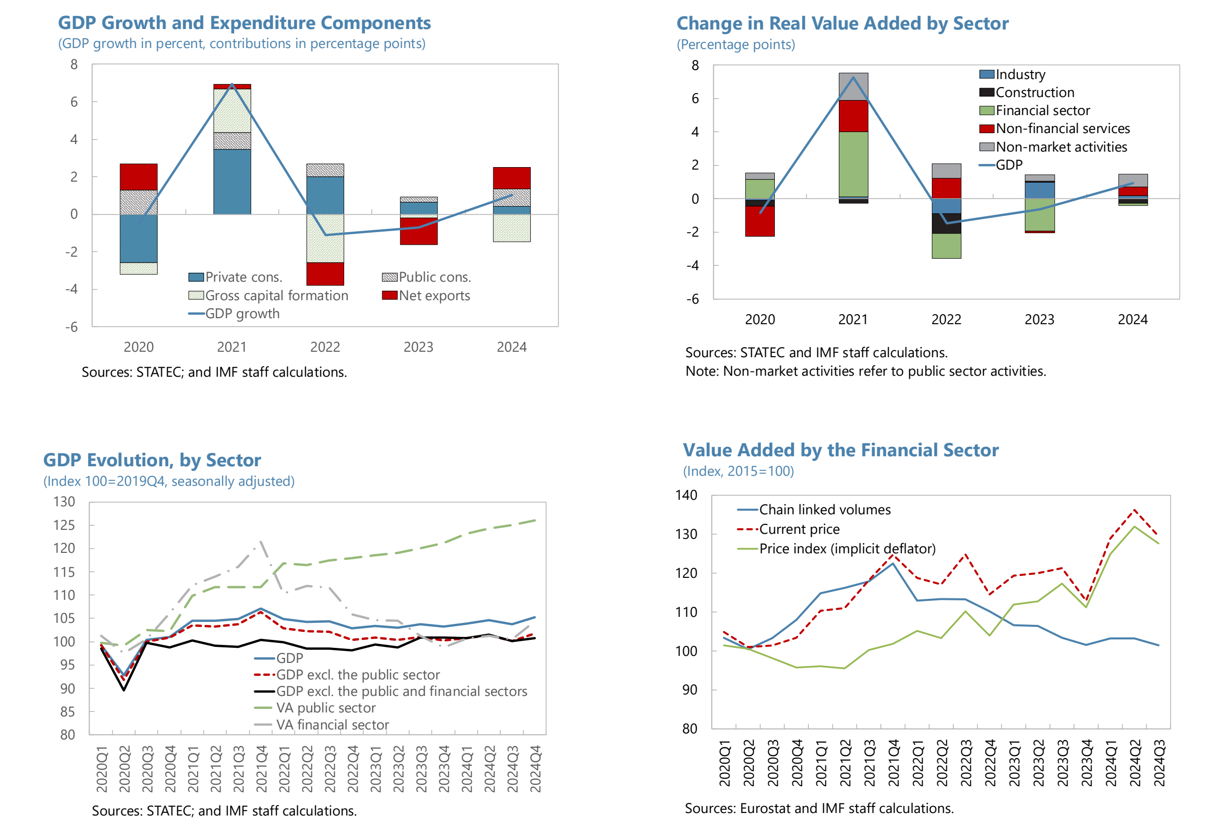
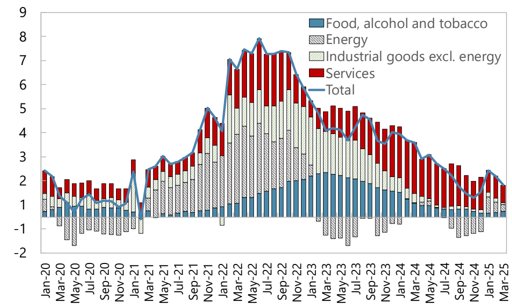


Figure 1. Luxembourg: Real Sector and Inflation (concluded)

Inflation by Component

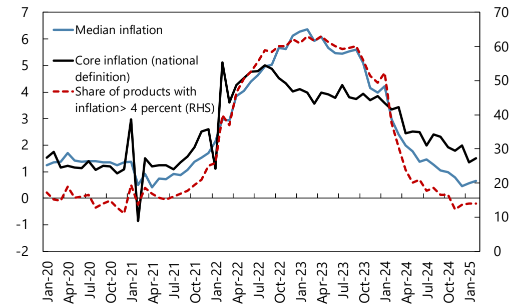
(Inflation in percent, contributions in percentage points)



Source: STATEC.

Inflation Trends

(Percent, year over year, as of February 2025)



Sources: STATEC and IMF staff calculations.

Figure 2. Luxembourg: Labor Market

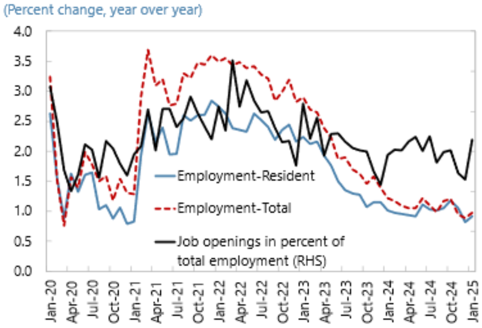
Labor Market Tightness

(Percent, seasonally adjusted)

Sources: STATEC and IMF staff calculations.

Employment and Job Openings

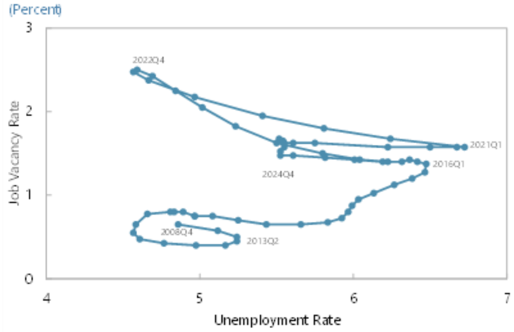
(Percent change, year over year)



Source: STATEC.

Beveridge Curve Movement

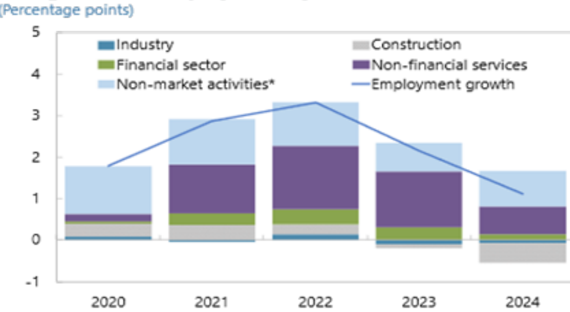
(Percent)



Sources: Eurostat and IMF staff calculations.

Change in Total Employment by Sector

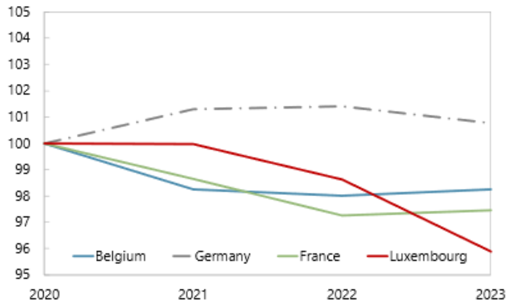
(Percentage points)



Sources: STATEC and IMF staff calculations.
Note: Non-market activities = public sector.

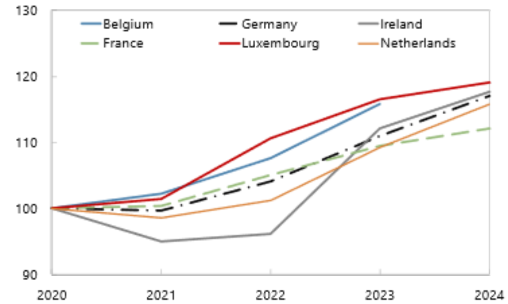
Figure 2. Luxembourg: Labor Market (concluded)

Evolution of Labor Productivity
(Index, 2020=100)



Sources: Eurostat and IMF staff calculations.

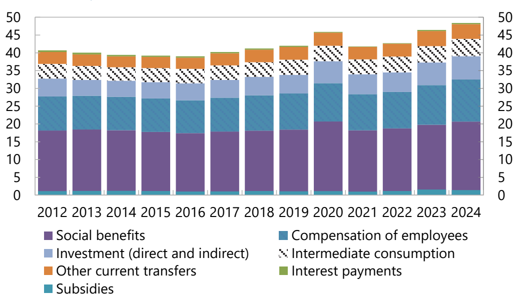
Nominal Unit Labor Costs Based on Hours Worked
(Index 2020=100)



Sources: Eurostat and IMF staff calculations.

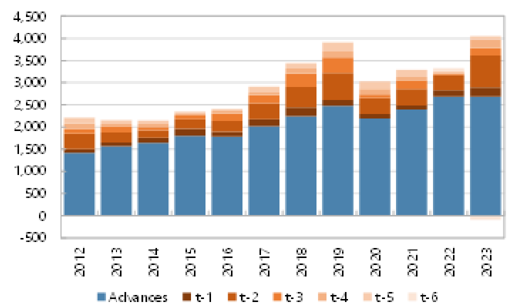
Figure 3. Luxembourg: Fiscal Sector

General Government: Total Expenditure
(Percent of GDP)



Sources: STATEC and IMF staff calculations.

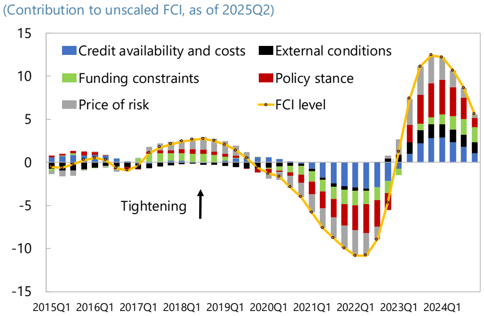
Revenue Corporate Income Taxes, Payment Year
(Millions of euros)



Sources: STATEC and Ministry of Finance.

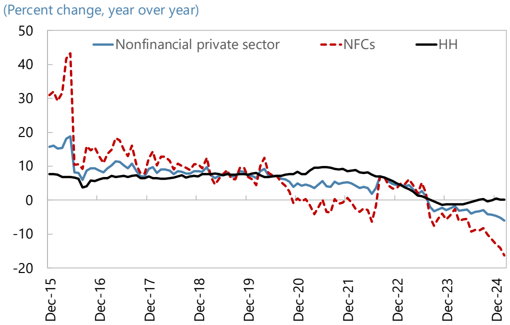
Figure 4. Luxembourg: Financial Cycle

Financial Conditions Index Level
(Contribution to unscaled FCI, as of 2025Q2)



Source: IMF staff calculations.
Note: FCI is not scaled.

Credit to the Resident Nonfinancial Private Sector
(Percent change, year over year)

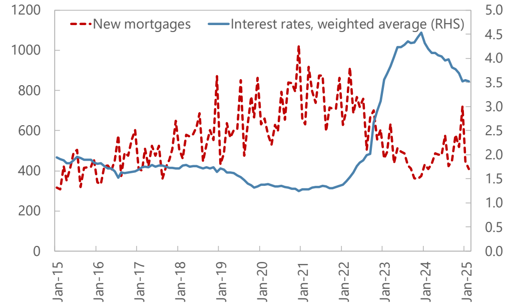


Sources: BCL and IMF staff calculations.

Figure 4. Luxembourg: Financial Cycle (concluded)

Evolution of Mortgages and Interest Rates

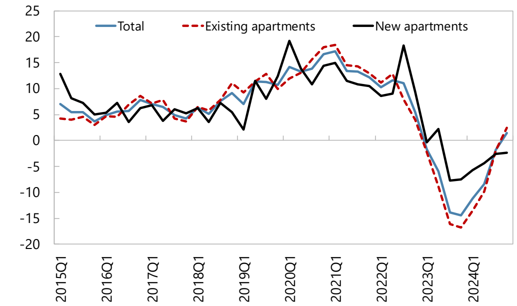
(LHS: millions of euros, RHS: percent)



Sources: BCL and IMF staff calculations.

House Prices

(Percent change, year over year)



Source: STATEC.

Housing Transactions

(Millions of euros)

Source: STATEC.

Building Permits

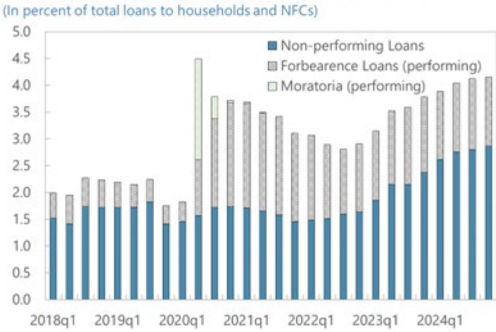
(Index 2015=100)

Sources: STATEC and IMF staff calculations

Figure 5. Luxembourg: Financial Sector

Banks: Asset Quality of Loans to HH and NFCs

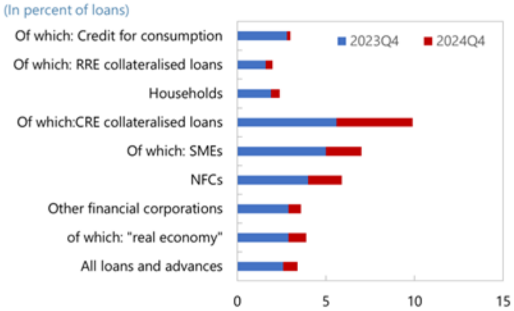
(In percent of total loans to households and NFCs)



Sources: Sources: CSSF; BCL calculations.

Domestic Banks: NPL Ratio

(In percent of loans)

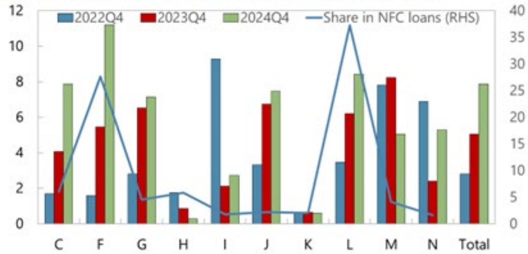


Sources: CSSF
Bank consolidation: level C

Figure 5. Luxembourg: Financial Sector (concluded)

Domestic Banks: NPL Ratio by Sector

(LHS: in percent of sectoral loans, RHS: in percent of total NFC loans)

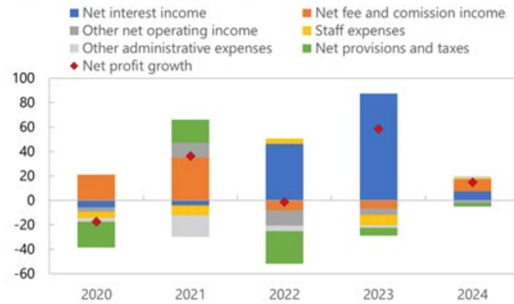


Sources: CSSF

Bank consolidation level: Nace codes - C: Manufacturing, F: Construction, G: Wholesale and retail trade, H: Transport and storage, I: Accomodation and restaurants, J: Information and communication, K: financial and insurance, L: Real estate activities, M: Professional and scientific activities, N: Administrative and support services

Drivers of Profitability

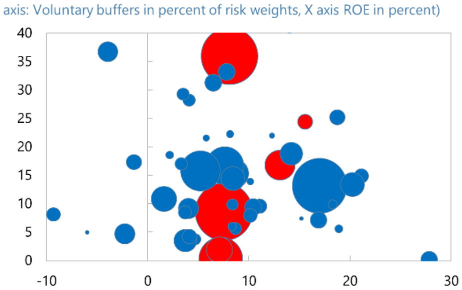
(All banks incl. branches, contributions in percent)



Sources: CSSF and IMF staff calculations.

Banks' Resilience

(Y axis: Voluntary buffers in percent of risk weights, X axis ROE in percent)

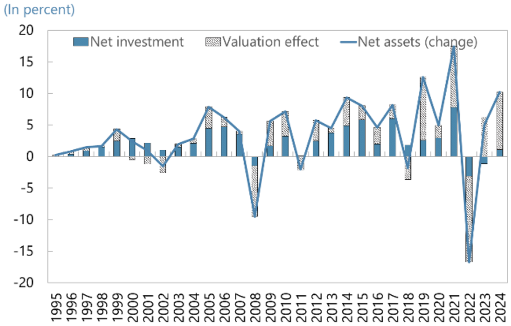


Sources: Sources: CSSF and BCL calculations

Notes: Voluntary capital buffers are definded as CET1 minus minmum capital requirements including P2R. Retail abanks are in red. The size of the bubble is equivalent to total assets. Red bubbles refer to retail banks.

Investment Funds: Breakdown of Net Assets Change

(In percent)

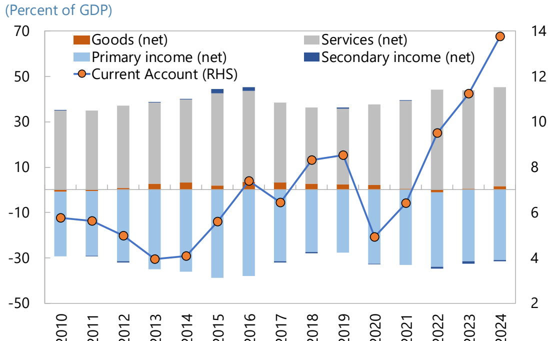


Sources: BCL and IMF staff calculations

Figure 6. Luxembourg: External Sector

Current Account

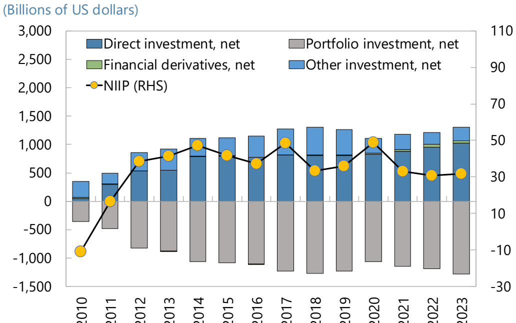
(Percent of GDP)



Sources: Haver Analytics and IMF staff calculations.

Net International Investment Position

(Billions of US dollars)



Sources: Haver Analytics and IMF staff calculations.

B. A Slow Recovery Amidst Heightened Risks

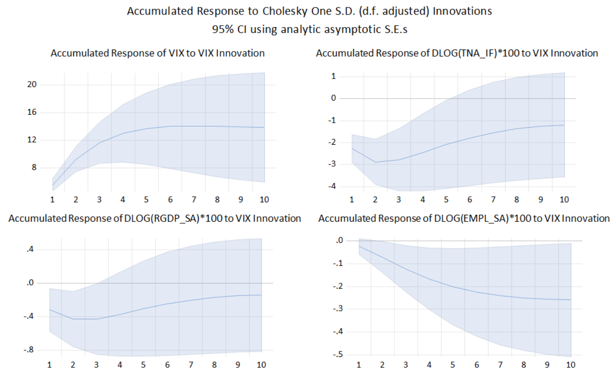
11. Global and regional developments will have a major impact on the outlook. In 2025, the uncertainty about trade policy and the geopolitical situation in Europe is expected to weigh on consumer confidence and business sentiment and lead to tighter financial conditions. Beyond 2025, the adverse impact of trade tensions on growth in the euro area would be partly offset by the boost from Germany's infrastructure stimulus, higher defense spending in Europe, and lower energy prices.

12. Against this background, the recovery would only slowly gain pace. While the direct impact of tariffs is small due to the low share of goods exports to the US, indirect effects through spillovers from other European countries as well as export-oriented services are larger (Figure 8). This together with heightened financial volatility is expected to mute the contribution of net exports. At the same time, lower interest rates and improved confidence would help lift household consumption—especially in interest-sensitive durable goods—and residential investment, albeit from a historically low level. Growth is projected to increase to 1.6 percent in 2025 and accelerate in 2026–27 supported by fading financial volatility and a gradual recovery in external demand, with the output gap closing by 2030. The gradual unwinding of labor hoarding and lingering uncertainty would weigh on job creation, and unemployment is likely to rise in the near term, before slowly declining to its historical average. Average inflation would decline to about 2 percent in 2025 and stay at that level. The CA surplus is expected to narrow as domestic demand increases faster than external, while the services and income balances are projected to deteriorate.

13. Under unchanged policies, the structural fiscal balance is projected to deteriorate. The baseline projections assume an increase in defense spending by 0.5 percent of GDP (0.7 percent of GNI) to be brought forward to reach the 2 percent of GNI target in 2026 (instead of 2030) and financed by a reprioritization of spending, including by postponing some projects. In addition, pressures from aging, climate and digital transitions as well as higher interest payments would lead to a spending increase of 2.1 percent of GDP over the medium term. Meanwhile, the drivers of the recent revenue gains—banks' profitability and a higher labor income share—are expected to wane, with tax buoyancy gradually reverting to historical averages from 2025 onward. Staff project a structural deficit of 0.7 percent of GDP in 2025, widening to over 2 percent of GDP in the medium term. Debt would remain below 30 percent of GDP by 2030 but would be on an upward path.

14. Downside risks prevail in the short term. Headwinds stem from weaker external demand and tighter and/or more volatile financial conditions triggered by trade policy uncertainty, geopolitical tensions, and possibly higher interest rates for longer (Box 1). An increase in the VIX would affect growth and employment while exposing banks and investment funds to a sudden repricing of asset prices and risk premia (Figure 7). Domestically, confidence might not return to the new housing market; this together with supply capacity constraints and competitiveness challenges could weigh on growth. A potential macro-financial feedback loop from higher NPLs to credit supply could also stymy the housing market recovery and exacerbate imbalances.

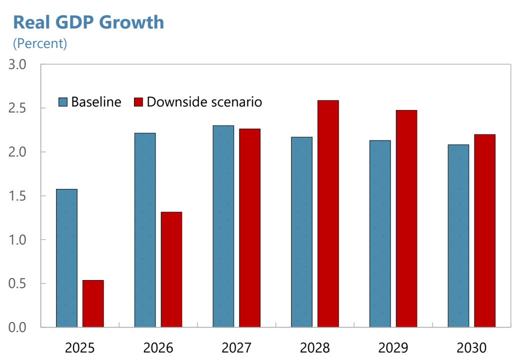
Figure 7. Luxembourg: Impact of Financial Volatility on Selected Economic and Financial Variables



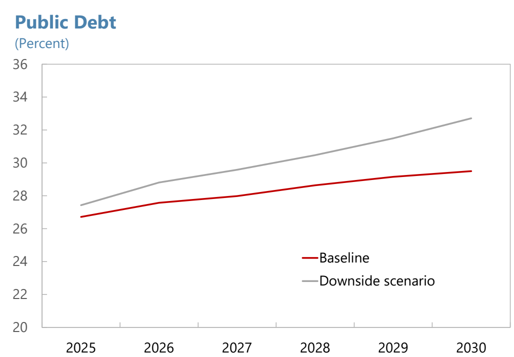
Sources: BCL, STATEC and IMF estimates

Notes: The chart shows impulse responses, adjusted for degree of freedom (d.f.), of different macro financial variables to a one standard deviation (S.D.) unexpected shock of the VIX. CI are confidence intervals and S.E. refers to standard errors. The VAR is estimated over 2006Q4–2024Q4 with 1 lag. TNA refers to total net assets of investment funds, RGDP is real GDP, EMPL is total employment. All variables are seasonally adjusted and in log difference except for VIX.

Box 1. Luxembourg: Impact of External Headwinds



Source: IMF staff estimations.

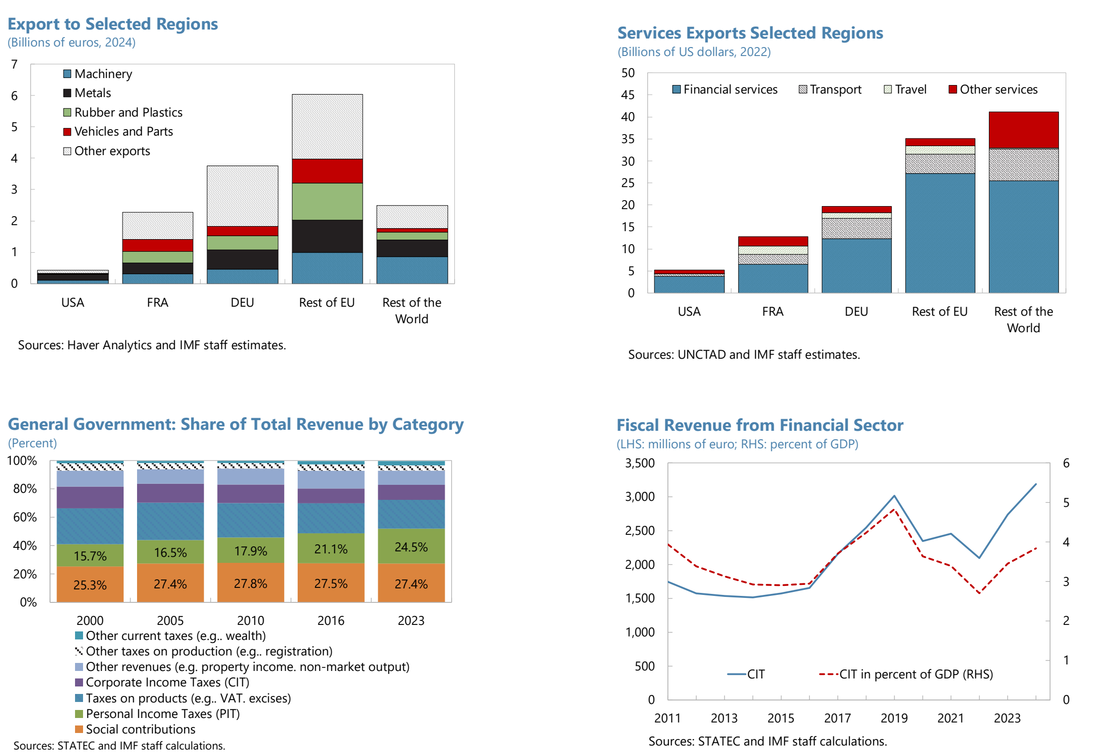


Source: IMF staff estimations.

Under an illustrative sensitivity analysis (based on the April 2025 WEO Box 1.1, Scenario A), the combined effect of global divergences, trade war, global uncertainty and tighter financial conditions would imply a decrease in Luxembourg's growth by about 1 percentage point in 2025 and 2026 relative to the baseline. Demand for Luxembourg's exports of goods and services could weaken. Weak external demand could increase unemployment and weigh on fiscal revenue, while heightened financial market volatility would compress profitability in the financial sector and lead to lower revenues. Allowing automatic stabilizers to work while maintaining the recommended fiscal structural effort is projected to lead to a deficit increase of about 0.5 percent of GDP in 2025–26 annually before gradually improving thereafter. Given ample fiscal space and low debt, the resulting modest increase in public debt (around 3 percent of GDP by 2030) could be accommodated.

15. Over the medium term, risks to growth are more balanced but fiscal risks are high. Growth prospects are clouded by the risk of persistently elevated policy uncertainty, further global economic fragmentation, and divergence in financial regulation between the US and Europe. Upside risks include faster progress on domestic structural reforms and toward the EU capital markets union as well as productivity gains from AI adoption and an acceleration in structural reforms related to competitiveness, housing affordability, and labor supply. On the fiscal front, CIT receipts rely on a concentrated base and international companies, thus being vulnerable to changes in other countries' tax regimes, and the financial sector (Figure 8), which is vulnerable to global shocks and could be a source of implicit contingent liabilities. Additional fiscal pressures could arise from higher defense and age-related spending.

Figure 8. Luxembourg: Outlook and Risks



Authorities' Views

16. The authorities had a more nuanced view on the state of the economy, fiscal outlook, and revenue risks. They agreed that economic performance has been lower than expected but attributed that mainly to exogenous factors and consecutive shocks. They also stressed that dichotomy between real indicators and fiscal revenue performance in recent years suggest that the situation is more nuanced, and that economy is resilient. Going forward, while acknowledging significant uncertainty in the short term, they were more confident about the growth outlook in the medium term, citing potential positive spillovers from Germany's defense and infrastructure plans, CMU and AI. While concurring on fiscal revenue risks, the authorities were more optimistic about the revenue projections, indicating that they have systematically overperformed in recent years and that recent measures will attract companies and talent and help sustain revenue.

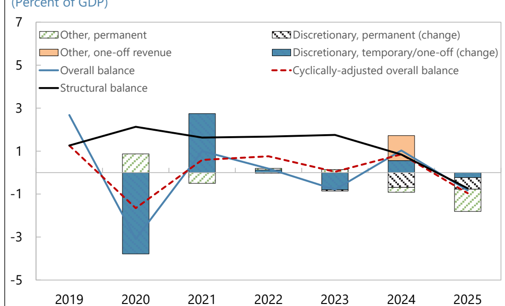
POLICY DISCUSSIONS

With debt low, Luxembourg has ample fiscal space. But there is a need to guard against high revenue uncertainty and future spending pressures, including from ageing. To this end, the authorities should early on identify measures to meet the targets of their medium-term structural plan and strengthen the fiscal framework, including by anchoring fiscal policy in rules. While financial sector risks are manageable, the housing market, household indebtedness, and other pockets of vulnerabilities in banks and nonbanks deserve attention. Building on the good progress in implementing the 2024 FSAP recommendations, the authorities should strengthen the macroprudential framework. Structural reforms focused on the labor and housing markets as well as more generally on improving productivity are key to bolster medium-term growth.

A. Fiscal Policy: Promoting Stability and Improving Equity

17. A less expansionary fiscal stance would have been preferable in 2025. The structural balance is expected to further weaken and turn into to a deficit of 0.7 percent of GDP in 2025, reflecting one-off revenues in 2024, an increase in public wages (above the automatic wage indexation), and additional permanent support measures that replaced temporary discretionary support. Given low fiscal multipliers,[4] staff recommend reviewing the effectiveness of some support measures (e.g., energy subsidies; an increase in mortgage deductibility) and related fiscal cost. Savings from under-executed spending or higher-than-expected revenues should be preserved. This in turn would lower the fiscal impulse and provide more space to the private sector, appropriate given households' strong financial position and expected further monetary easing. In the event of a sharp downturn, the authorities should allow the sizable automatic stabilizers to work and supplement with temporary and targeted discretionary measures to support vulnerable groups.

Fiscal Balance and Contribution of Measures
(Percent of GDP)



Sources: STATEC and IMF staff calculations

18. Staff support the expenditure path under the authorities' medium-term fiscal structural plan (MTFSP), though additional efforts are needed. The MTFSP assumes robust revenue growth (plus 1.4 percent of GDP in 3 years) and an increase in expenditure (plus 1.2 percent of GDP). This would result in a gradual consolidation and a reduction in public debt. The MTFSP revenue projections appear optimistic. But even using staff's revenue projection, debt would stabilize in the medium term provided a cumulative fiscal effort of 0.2 percent of GDP; revenue

[4] STATEC, Note de conjuncture 2–2024 (7.1: The impact of economic policy measures on STATEC's forecasts).

shortfalls could thus be accommodated. Conversely, any revenue overperformance beyond staff's projections should be saved. The expenditure trajectory envisages some increase in capital and interest spending and thus implies a welcome 0.3 percent of GDP medium-term reduction in current expenditure excluding social security spending and interest payments. Further increases in defense spending could be accommodated in the short term, but the authorities should consider compensatory measures in the medium term based on its impact on the debt trajectory.

Table 2. Luxembourg: Comparison of Fiscal Projections

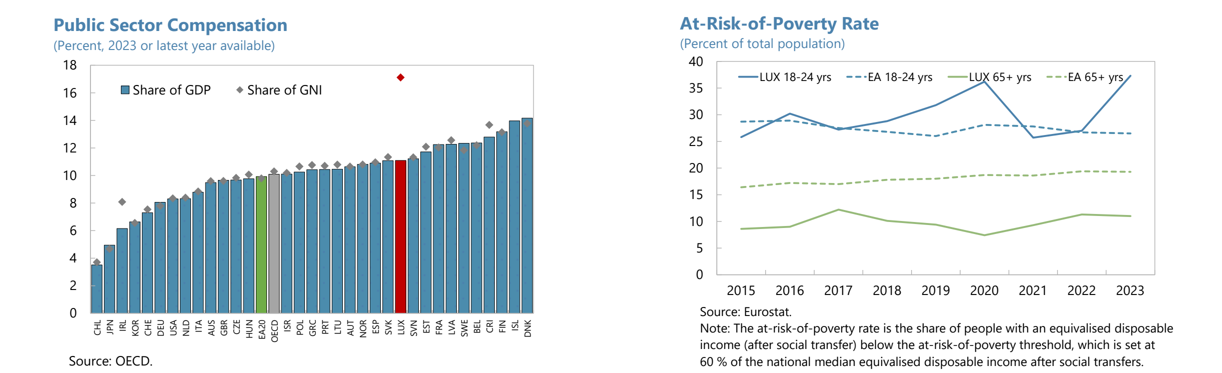
(Percent of GDP Projected by IMF Staff)

	Authorities		IMF		Difference (Authorities-IMF)	
	2025	2028	2025	2028	2025	2028
Total revenue	47.5	48.9	47.4	47.7	0.1	1.1
Total expenditure	48.1	49.3	48.3	49.7	-0.1	-0.4
Current expenditure	42.2	43.0	42.3	43.3	-0.1	-0.4
excl. social benefit & interest	21.8	21.5	21.8	21.7	0.0	-0.2
Capital expenditure	5.9	6.3	5.9	6.3	0.0	0.0
Overall balance	-0.6	-0.4	-0.8	-1.9	0.2	1.5
Public debt	26.5	26.1	26.7	28.6	-0.2	-2.6

Sources: Authorities' 2025 budget and IMF staff projections.

19. The MTFSP expenditure path should be underpinned with measures. To accommodate new spending pressures, this will require containing the wage bill[5] growth, possibly by slowing the recent rapid increase in public sector employment. It will also require rationalizing other current expenditures, being mindful of a rise in the share of population at-risk-of-poverty, especially for the young (Figure 9), further means-testing for social benefits (e.g., family benefits), and greater efficiency in health and education spending. It also calls for regular spending reviews to enhance efficiency, improved cost-benefit analyses of policies, and a better targeted approach rather than universal support.

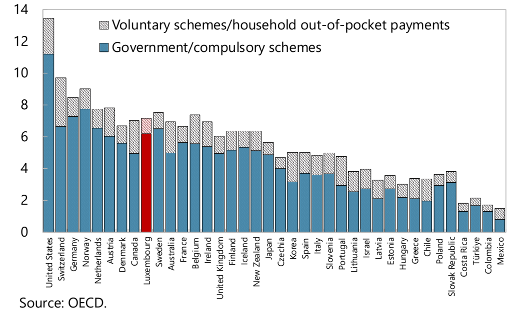
Figure 9. Luxembourg: Fiscal Expenditure



[5] Compensation of public sector workers is above the OECD and EU averages (Figure 9).

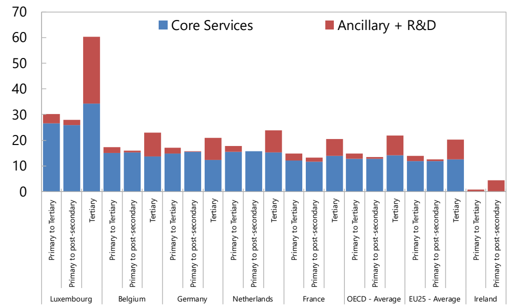
Figure 9. Luxembourg: Fiscal Expenditure (concluded)

Health Expenditures
(US dollars per capita, current prices, current PPPs, 2023)



Source: OECD.
Note: 2022 data is used for France due to missing data in 2023.

Educational Expenditures
(Thousands, US dollars in PPP per full-time equivalent student, 2021)



Source: OECD.

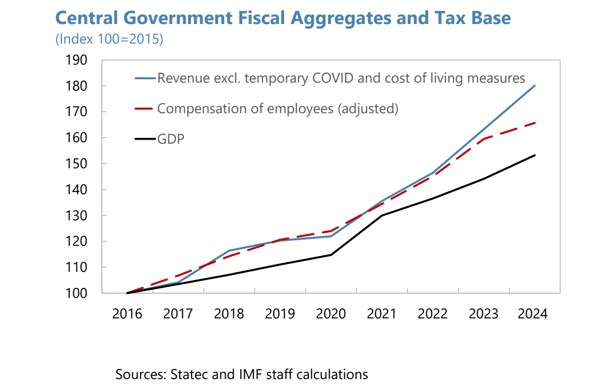
Box 2. Luxembourg: Fiscal Revenue at Risk

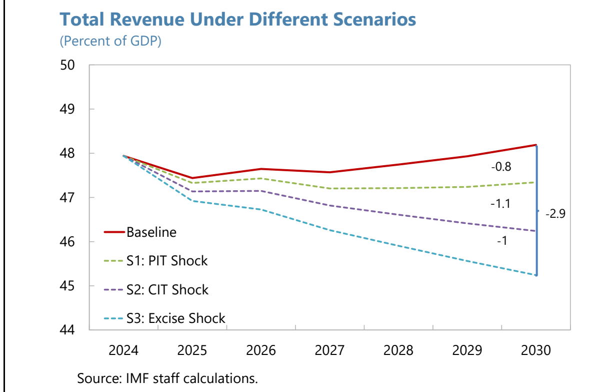
In recent years, fiscal revenues have significantly outpaced GDP growth, driven by strong performance in PIT, CIT, and excise taxes. The sharp increase in tax buoyancy, the volatility of the revenue base and its dependence on changes in the tax regime in other countries constitute important fiscal risks. This Box presents illustrative risk scenarios, in which the recent drivers of exceptional performance wane. The aggregate impact of these risks amounts to a revenue loss of 3 percent of GDP in 2030.

Scenario 1—PIT. The labor income share has been growing rapidly in recent years to around 50 percent in 2024, supported by strong employment and real wage growth, driving the growth in PIT revenues. Assuming the labor income share drops to the historical average of 48 percent would result in a 0.8 percent of GDP decline in annual PIT revenue in 2030.

Scenario 2—CIT. CIT revenues have been decoupling from economic activity and are subject to high volatility. There are two key sources of risk: 1) the high concentration of the tax base with 0.8 percent of taxpayers contributing 75 percent of revenue; and 2) a high reliance on the financial sector, which accounts for one third of CIT revenues. Idiosyncratic adverse shocks to a few large taxpayers together with profitability in the financial sector declining close to pre-COVID levels could reduce annual CIT revenues by 1.1 percent of GDP in 2030.

Scenario 3—Excises. The revenue from the excise tax on petroleum products has declined by about 2 percent of GDP since its peak in 2005, due to narrowing price difference with neighboring countries, and stood at 0.8 percent of GDP at end-2024. This has been partly offset by higher tobacco excises, which contributed 1.4 percent of GDP in revenue in 2024. If excise taxes were to converge to the average level of OECD countries, this would imply a drop in revenues of 1 percent of GDP.



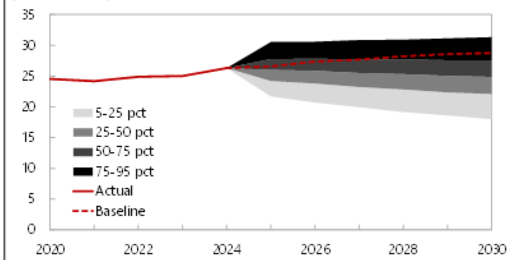


20. Tax reforms should aim at reducing revenue uncertainty. A more diversified tax base and a more efficient tax-benefit system would raise revenue collection while enhancing fairness (Box 2). This could be achieved through higher property taxation (e.g., land mobilization tax), and environmental taxes. The planned individual tax reform should be implemented in a budget neutral manner along with a comprehensive review of the tax credit and benefits systems that aims at enhancing equity and boosting labor supply. More frequent and budget-neutral adjustments of PIT brackets, instead of steep and retroactive changes, would reduce risks of procyclicality and revenue uncertainty. Equally important is to reduce delays in collecting corporate income taxes and improve the estimates of VAT refunds.

21. Early pension reforms should help improve intergenerational equity and ensure long-term sustainability of the pension system. The authorities' public consultation on pension reforms is timely and welcome. While the Luxembourg's pay-as-you-go pension system's reserves are substantial, under current policies pension expenditure is projected to grow significantly, exceeding income from contributions already next year. Pension reserves are expected to be depleted by 2045 amid a large increase in the old-age dependency ratio. Action is needed on several fronts to ensure the long-term sustainability of the system. Reforms need to focus on disincentivizing early retirement, increasing the retirement age, and reducing the generosity of the pension system. Increasing contribution rates will further help with putting the pension system finances on a more sustainable footing, albeit the potential adverse impact on labor market and labor costs should be carefully considered (Annex VI). Enacting pension reforms early on would provide time for a gradual implementation of the needed adjustment and would improve intergenerational equity.

22. As the EU's new economic governance framework is less restrictive for Luxembourg, staff support the authorities' plans for a national fiscal rule to better anchor the fiscal policy. This would provide more policy certainty for investors in a small open economy with a global financial sector, which is subject to large shocks. Staff propose to consider combining a Luxembourg-specific debt anchor with an operational fiscal rule. Given the elevated risks to fiscal revenues, the debt anchor could be calibrated with a sufficient safety margin minimizing the likelihood of exceeding the 60 percent of GDP EU threshold. The operational rule could be based on fiscal balances, multi-year expenditure ceilings, or an expenditure rule. The design of the operational rule should provide sufficient flexibility to manage shocks (e.g., exclude automatic stabilizers) and accommodate public investment needs. Staff recommend making the rule legally binding and incorporating flexibility through its coverage and escape clauses. In parallel, the role of the fiscal council should be strengthened to conduct macro fiscal projections, risk assessment, and debt sustainability analysis.

Public Debt Fan Chart
(Percent of GDP)



Sources: Authorities data and IMF staff projection.
Note: The DSA fan chart presents the forecasting distribution of public debt ratio. For instance, 0-5 pct represents the debt path with 5 percent possibility.

23. There is also a need to strengthen the budgeting framework.[6] First, there is room for improvement in fiscal reporting and the quality of government finance statistics. Second, staff urge the authorities to disentangle one-off and cyclical tax drivers from structural ones as large delays in tax collection make it difficult to project revenue. Third, developing the fiscal risk framework should be a priority given revenue risks as well as aging- and climate-related challenges and contingent liabilities.

Authorities' Views

24. The authorities reiterated their commitment to fiscal discipline, while stressing political and social stability as key pillars of Luxembourg's economic model. The authorities are committed to maintaining prudent fiscal stance amid growing spending pressures and revenue uncertainty. They emphasized that supporting measures, including tax credits and the reduction in CIT rate and subscription tax, could boost demand, maintain attractiveness and limit potential revenue losses. Meanwhile, they are exploring ways to contain expenditure growth and improve spending efficiency, for instance, through the increase of local content of defense spending, while keeping social expenditure intact. The authorities are also committed to gradual fiscal reforms that ensure long-term sustainability. They are considering adopting a national expenditure rule, given its relative simplicity and flexibility of implementation, but are still to decide on the modalities. The authorities concurred with the need of pension reforms and underlined the importance of broad consultations of stakeholders on possible reform measures.

B. Financial Sector: Preserving Resilience Amidst Heightened Uncertainty

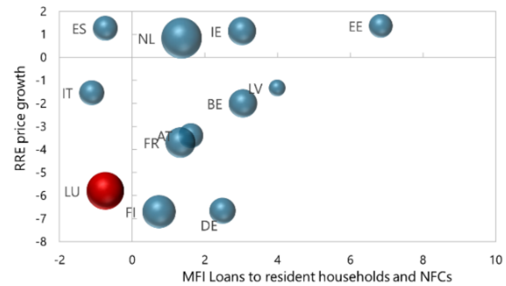
Financial Stability Risks

25. Cyclical domestic systemic risks remain moderate, as at the time of the last Article IV.

[6] This would encompass multi-year and performance-based budgeting, better integration of special funds in the budgeting process, improvements in revenue analysis and projections, and periodic spending reviews.

- *Credit cycle*. There are indications that the credit cycle is slowly entering an expansionary phase. Improving financing conditions, coupled with the expected economic recovery would gradually increase demand for loans. This, though, hinges on a smooth transmission of monetary policy easing, which could be hampered by a repricing of risk premia or more generally tighter credit supply. By contrast, a significant drop in interest rates could lead to excessive risk-taking.

RRE Prices and MFI Lending
(Percent in real terms, average annual change, 2021-24)



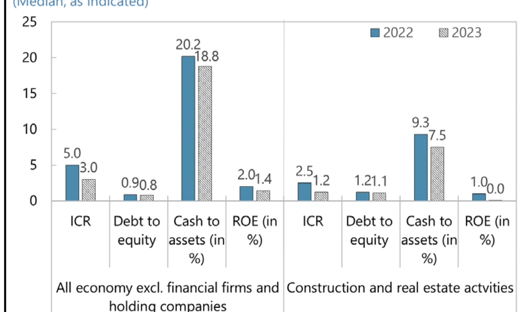
Sources: STATEC, ECB, OECD, and IMF staff calculations.
Notes: Bubble sizes indicate household debt-to-net disposable income ratios (2023).

- *Real estate cycle*. Notwithstanding recent adjustment, imbalances remain between house prices and fundamentals,[7] especially for newly built properties. BCL estimates the house price-at-risk in 2025Q4 at 16 percent, down from 22 percent a year earlier. Moreover, unless confidence in real estate developers is restored, there remains a risk of a disorderly correction in house prices. Regarding CRE, prices appear to have stabilized, and rents have held up amid relatively low vacancy rates. Structural challenges (telework, e-commerce, green transition) and the anticipated delivery of new projects could increase the vacancy rate and weigh on yields in some segments.

26. Increased credit risk, though manageable so far, warrants monitoring.

- *Corporates*. Since the beginning of the monetary policy tightening, the debt service to EBIT ratio has increased significantly, exceeding 52 percent for the median firm at end-2024, due to increased borrowing costs and compression of profit margins. This has led to liquidity pressures, higher NPLs, and an increase in bankruptcies in 2024. Although recent deleveraging and lower interest rates will soften these pressures, the peak NPLs may not yet have been reached. Moreover, the materialization of downside risks – such as lower growth or higher risk premia could amplify recent trends, as the financial position in several sectors has weakened compared to 2022. With a low interest coverage ratio, low profitability, high refinancing risks (50 percent within one year), and large domestic banks exposures, the real estate sector warrants close monitoring as does the increasing share of NFCs debt vis-à-vis nonbanks.

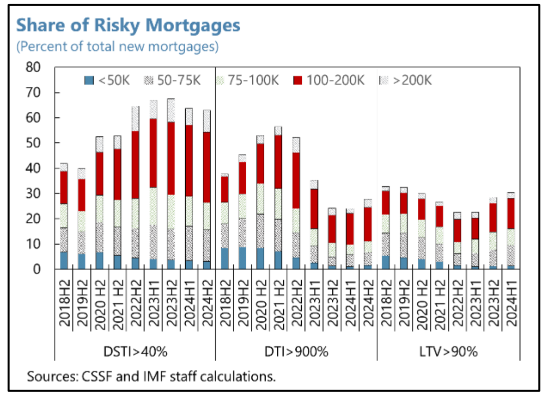
Selected Financial Indicators for NFCs
(Median, as indicated)



Sources: BCL calculations based on Centrale des Bilans (STATEC)

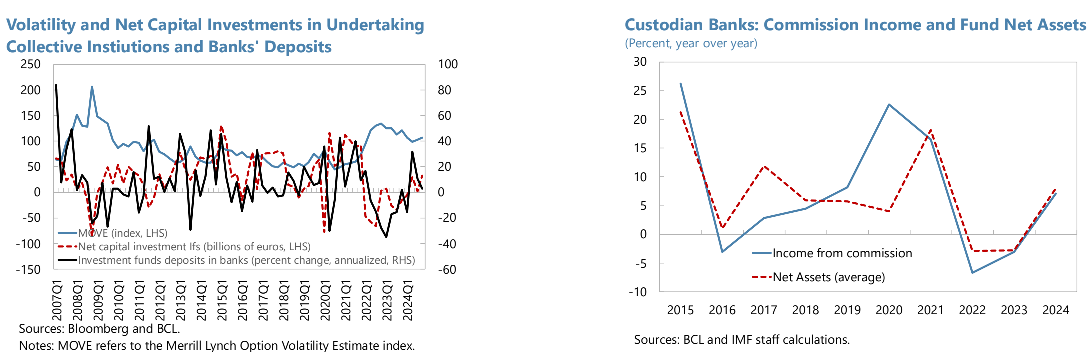
[7] There is significant uncertainty around the magnitude of house price overvaluation. Staff's model-based estimates (based on Igan and Loungani 2011, WP/12/217), show misalignment at around 3 percent, while deviations from historical averages of price-to-income and price-to-rent suggest higher overvaluation, and the ECB model-based estimates suggest an overvaluation of 25 percent.

- *Households*. The recent decline in stage 2 loans suggests that pressure on households' debt service capacity has somewhat abated. However, households' indebtedness is still elevated despite a decline in the debt-to-income ratio, and the debt service-to-income on new mortgages has remained high at 44 percent, even as maturities lengthened. Credit risk could resurface should unemployment rise more than expected, although automatic stabilizers would buffer against adverse income shocks. Assets could also mitigate potential shocks, but they remain predominantly illiquid and susceptible to valuation effects.



27. Heightened global financial market volatility may have ripple effects on the outward-oriented and highly interconnected financial sector. While interest rates are expected to further ease, rising trade tensions could lead to abrupt repricing of assets, including commercial real estate, as well as more volatile and tighter financial conditions. A sharp increase in corporate risk premia from historically low levels could impair asset quality. Abrupt changes to risk appetite and the associated rebalancing of portfolios expose open-ended funds to large net redemptions and procyclical fire sales of illiquid assets. While investment funds have tended to increase their cash holdings during severe stress periods, a moderate and more protracted increase in volatility could trigger a substantial drop in their deposits and reduced profitability in custodian banks, warranting close monitoring. A drop in asset prices has also historically impaired profits for private banks.

Figure 10. Luxembourg: Financial Sector Vulnerability to Asset Repricing



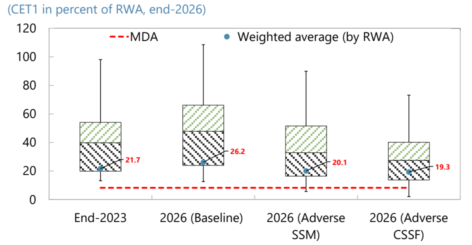
Financial Sector Resilience

28. The financial sector is overall well positioned to weather shocks with some pockets of vulnerability.

- *Banks*. Banks have large liquidity and capital buffers and high—though declining—coverage ratios. The CSSF's most recent stress test (ST) finds that the banking system generally appears adequately capitalized and liquid, but points to vulnerabilities in some banks under adverse scenarios. Under both the higher interest rates (SSM adverse, which is broadly in line with the 2024 FSAP downside scenario) and lower interest rates (CSSF adverse) scenarios, the weighted average CET1 by asset size would remain well above required levels at 19–20 percent, even after a capital depletion of 6.1–6.9 percentage points compared to the baseline. However, five banks representing 7.7 percent of total banking assets would fall under their total CET1 capital requirement in the SSM scenario (eight banks representing 10.4 percent of banks assets in CSSF scenario). By business model, the highest capital depletion from the baseline is for custodian banks while the lowest CET1 average level is for retail and commercial banks, both still above minimum requirements. Using a novel approach of integrating solvency-liquidity interactions (Box 3), the additional capital depletion due to liquidity stress/the activation of counterbalancing capacity is estimated to be 2.4 percentage points in the SSM scenario and 1.2 percentage points in the CSSF scenario. A few banks would face a funding gap.

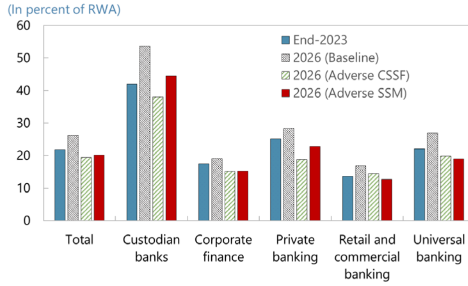
Figure 11. Luxembourg: CSSF 2024 Solvency Stress Test Results

Banks: Stress Test Results
(CET1 in percent of RWA, end-2026)



Sources: CSSF solvency stress test and IMF staff estimates.
Note: CCB=capital conservation buffer, CET1=common equity Tier 1, MDA=maximum distributable amount (weighted average). The grey shaded area of the boxplots shows the inter-quartile range (25th to 75th percentile), with whiskers at the 5th and 95th percentile of the distribution. The sample includes 68 banks.

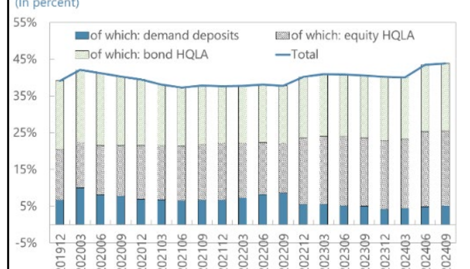
Banks: Solvency Stress Test Results by Business Model
(In percent of RWA)



Sources: CSSF solvency stress test

- *Investment funds.* Liquidity indicators have overall improved, although the share of cash in high-quality liquid assets has somewhat declined, making the liquidity position more market sensitive. The CSSF's liquidity stress test (LST) shows that under a severe scenario with a 20 percent redemption shock, only 4 percent of bond funds would need more than 5 days to liquidate their assets. However, larger high-yield bond funds are less liquid and more likely to need extra time for liquidation. Additionally, money market funds' (MMFs) sensitivities to interest rates have increased in 2023, driven by rising weighted-average maturity (WAM) in a peaking interest rate environment. Leverage remains moderate, except for hedge funds and, to a lesser extent, real estate funds, which have low exposure to the domestic economy (EUR 5 billion) and longer notice periods.

Ratio of HQLA to Liquid Liabilities Non-MMF Funds
(In percent)



Sources: BCL

- *Interconnectedness between banks and investment funds.* Banks' liabilities exposures to funds have declined in recent years (though remain high at about 17 percent). These exposures are concentrated in custodian banks, which have limited connections with other banks, thereby reducing potential contagion.

Box 3. Luxembourg: CSSF's New Stress Testing Methodology

Following recommendations in the FSAP 2024, the CSSF developed a Stress Test (SoLiST) incorporating liquidity-solvency interactions. The SoLiST is designed to identify those banks with solvency issues under a given adverse scenario stress, that feature a bank run and might not be able to recapitalize over time because of additional liquidity problems. These interactions were the root cause of most historic bank defaults including the ones during the banking turmoil in March 2023.

At the first stage of the simulation, all banks experience an adverse solvency shock. In the second stage, those banks with the most prominent solvency issues (i.e., stressed total capital ratio below a certain threshold or relatively low stressed capital ratio coupled with important depletion) are subjected to a subsequent idiosyncratic liquidity shock with conservative deposit outflow rates. Banks must meet these outflows by using their counterbalancing capacity, which has mostly negative effects on the banks' capital ratios (e.g., reducing excess liquidity placed at the central bank, pledging fair-valued and amortized cost bonds to the Eurosystem thereby paying ECB refinancing rates, selling amortized cost bonds in the market with important valuation losses in cases where the bank is not operationally ready to access the Eurosystem). These negative effects could in some cases be partially offset by the reduction in risk-weighted assets due to the sale of bonds. The combined stress informs the level of riskiness of each bank by considering not only the final capital ratio but also the fact whether a bank has a funding gap or not.

Policies

29. Prudential policies should remain agile given heightened uncertainty.

- *Microprudential policy.* The relevant supervisory authorities should continue to ensure sufficient loss absorption capacity, including through adequate and proactive provisioning of expected losses, conservative profit distribution, and scrutiny of credit risk management and collateral valuation practices (one-third of CRE collateral has been revalued upward by banks in 2024). While welcoming progress in liquidity supervision, continuing close monitoring of risks from parent banks, and enhancing banks' operational readiness for central bank liquidity support in line with FSAP recommendations are encouraged. The implementation of the new framework on the transfer of non-performing loans (law of July 2024) would help reduce NPL ratios and their potential impact on credit supply.

- *Macroprudential capital-based measures*. The current level of the countercyclical capital buffer (CCyB) is broadly appropriate, given the expected turn in the credit cycle, alongside the need to maintain releasable buffers to absorb potential losses. If the credit cycle turns decisively, the authorities should consider increasing releasable buffers, preferably through sectoral systemic risk buffers or by gradually increasing the CCyB and formalizing the positive neutral CCyB framework. When calibrating and implementing the PNCCyB, interactions with other instruments, including other capital-based measures, should be assessed. In parallel, there is a need to work with banks and the industry to address the sources of lack of confidence in real estate companies (e.g., by reforming the completion guarantee scheme) and to consider contingency measures in case confidence does not return. The authorities could, for example, consider purchase guarantees of unsold properties from viable projects and firms.[8] Finally, should downside risks materialize, a relaxation of the CCyB could be considered.

30. More action is needed early in the recovery cycle to enhance households' resilience. The risk profile of new mortgages leaves no room for cyclical accommodation. Hence, the loosening of LTV limit expiring in June 2025 should not be renewed.[9] Income-based measures to reduce households' indebtedness should be introduced early in the recovery cycle, and the maximum LTV limit of 100 percent (for first-time homebuyers and owner-occupied properties) gradually reduced. In line with the FSAP, staff suggest a DSTI of 45–50 percent with a speed limit that could be adjusted over the cycle. A second-best option would be for the CSSF to introduce guidance on residual income after the interest rate stress test (50–55 percent of income should remain after stress). These measures would not only reduce consumption at risk but also enhance housing affordability in the medium term through lower prices. The adverse impact on low-income households (already excluded from the market) could be mitigated through higher investment in social housing.[10]

31. Staff commend progress in implementing the 2024 FSAP recommendations on bank and investment funds supervision and encourage strengthening the macroprudential framework. In addition to CSSF's solvency-liquidity stress test, the BCL is developing a system-wide stress test and has stepped up analysis of OFIs interlinkages with investment funds and banks. These efforts would help build a more holistic and integrated assessment of systemic risks. Additional steps include enhancing data collection on housing supply, household's creditworthiness (credit registry) and NFC micro-data (by better identifying special purpose entities). Moreover, the macroprudential governance framework should be strengthened by reducing the Ministry of Finance's role in decision-making, and enhancing communication and coordination with other policies (e.g., housing policy).[11] For investment funds, the MMF framework should be strengthened through the availability of anti-dilution liquidity management tools (LMTs), and a decoupling of regulatory thresholds from mandatory implementation of suspensions, gates, and redemption fees, where applicable.

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[8] The purchase price would have to be sufficiently lower than the market price to reduce moral hazard and the purchased properties would increase the stock of public rental social/affordable housing.

[9] Banks have been allowed to lend up to 10 percent (speed limit) of new mortgages for buy-to-let dwellings with an LTV above the regulatory limit of 80 percent and up to a maximum of 95 percent.

[10] For more detailed analysis, see the 2024 technical note on macroprudential policy framework and calibration in Luxembourg.

[11] The FSAP recommended publishing the records of the CdRS meetings soon after they take place, the risk assessment (note de surveillance) and risk dashboards. Such publications, together with a greater use of soft power (warnings), could enhance the understanding of risks and future policy directions.

32. Resilience to operational risks should be strengthened. An increase in cyber-attacks and AI use exposes the financial sector to operational risks, as highlighted by the CrowdStrike incident. Staff welcome the implementation of the Digital Operational Resilience Act effective January 2025. The readiness of domestic financial entities should continue to be improved.

33. Efforts to further enhance the understanding of money laundering and terrorist financing (ML/TF) risks and the effectiveness of AML/CFT supervision should be maintained. The update of the national risk assessment is continuous and sequenced according to national priorities. The CSSF evaluates risks of sectors and institutions under its purview and allocates supervisory resources accordingly. It compiled data on cross-border flows and is integrating anti-corruption measures into its AML strategy. Further information on the cross-border ML/TF threats should nevertheless be obtained from domestic and foreign authorities to enhance the understanding of ML/TF risks of cross-border flows. The authorities should also ensure that sanctions addressing breaches of AML/CFT regulations sustain effective compliance by financial institutions.

Authorities' Views

34. The authorities broadly concurred with staff's assessment of systemic risks, emphasizing that the financial system remains resilient. They stressed that the cost of risk in domestic banks remains low and that large capital buffers would cushion potential shocks. They will remain vigilant to credit risk and confidence challenges in the real estate sector and have started engaging with stakeholders to address them, signaling readiness for additional action as needed. On macroprudential policy, given uncertainty about the credit cycle's current position, the CdRS considers that maintaining the CCyB rate at 0.5 percent is appropriate. The authorities take note of staff advice on capital-based measures as well as recent analyses by the ECB and the ESRB on positive neutral CCyB, and will continue considering the topic as appropriate. Regarding borrower-based measures, the CdRS indicated that the portfolio allowance applied on "buy-to-let" loans in response to the cyclical downturn had not any significant impact on household debt or financial stability. They also noted that there has been no significant materialization of risks on the mortgage portfolio despite the RRE market contraction. However, the authorities remain prepared to take action should the risk assessment change.

35. The authorities reiterated their support to advancing the savings and investments union. They underlined the importance of reducing undue administrative and regulatory burden and complexity for channeling more investments into the European economy and unleashing the potential of EU capital markets. They moreover emphasized the need to make full use of EU authorities' current powers, and to follow an evidence-based approach for enhancing, where needed, the convergence of supervisory practices. On the other hand, authorities consider that a centralization of powers at EU level would not help to achieve the objectives of the savings and investments union, nor to improve EU competitiveness.

36. Finally, the authorities look forward to participating in the IMF's voluntary assessment of transnational aspects of corruption, highlighting the government's ongoing efforts to prevent the supply and facilitation side of corruption.

C. Structural Policies: Boosting Private Sector-led Growth

37. Labor market reform should be at the forefront. Luxembourg's growth in past decades has been driven by a rapidly expanding labor force, with major contributions from immigrants and cross-border workers. This growth model is becoming less sustainable, given a rapidly ageing population and infrastructure bottlenecks. Meanwhile, Luxembourg faces widespread skills shortages, as demand for certain skills increasingly outpaces supply (OECD, 2023b).

- *Tackling labor market rigidities.* The recent cyclical downturn exposed the negative impact of real wage rigidity on firms' capacity to adapt to shocks, thus making greater flexibility in the automatic wage indexation system more pressing. The ongoing collective bargaining reforms[12] should help labor mobility within and across sectors given that the job-to-job transition is already low (Figure 12). Additionally, reducing the public-private wage premium—one of the highest in Europe—could have positive effects on skills availability and labor costs for the private sector.

- *Widening labor market participation.* The recent law facilitating labor market access for third-country nationals is welcome. Domestically, incentives for early retirement should be reduced to improve the labor market participation of seniors. Financial incentives could be considered to encourage firms to hire and retain senior workers, including through lifelong learning and other age-management practices. Further efforts should focus on reducing the gender gap through enhancing work flexibility and switching to individual taxation.

- *Addressing skill mismatches.* The number of unfilled job vacancies has been trending upward over the past 15 years (Figure 12). This calls for education reforms to better align the fields of study with labor market needs (e.g., STEM). For high-demand occupations that do not require advanced degrees (e.g., specialized technicians), upskilling and reskilling of the workforce is key. The authorities are appropriately focusing on reskilling workers with outdated skills and investing in digital education. There is scope to enhance the effectiveness of these measures, expand access to vocational training, and improve training quality.

38. Enhancing technology adoption and strengthening competition could help revive productivity growth. Despite higher levels of productivity, Luxembourg's productivity growth on average has lagged peers,[13] which could be partly explained by higher barriers to competition than in other OECD countries and a gap in innovation and technology.

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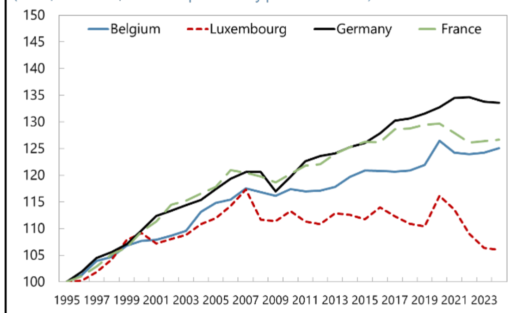
[12] The coalition agreement foresees a reform of the rules governing collective agreements, to promote better working conditions and working time arrangements. In line with EU Directive 2022/2041 on adequate minimum wages in the European Union, a national action plan to promote collective bargaining coverage is expected by the end of the year designed in consultation with social partners.

[13] See Article IV 2024 staff report.

- *Enhancing innovation and technology adoption.* Luxembourg's gross domestic expenditure on R&D as a share of GDP is among the lowest in the OECD (Figure 12). The adoption of digital technologies, including cloud computing, big data analysis and AI usage, is also behind EU peers (European Commission, 2024). The authorities have stepped up the efforts in 2024, including increasing the investment tax credit to better assist companies in their digital and ecological transformation and expanding the support to innovation projects. Future initiatives could focus on further promoting investment in intangible assets, complementing funding to R&D and innovation with more indirect financing (e.g., tax credits to R&D), and facilitating innovation diffusion within sectors.

Evolution of Labor Productivity (1995-2024)
(Index, 1995=100, real labor productivity per hour worked)



Sources: Eurostat and IMF staff calculations.

- *Lowering barriers to competition in services sectors.* Luxembourg has higher barriers to competition in professional services compared to other OECD countries (Figure 12), and the participation of the public sector in several service companies is large. Professional services are important to many business activities, particularly in the financial sector. Reducing entry requirements for professional services while preserving quality would spur competition, lower service cost, incentivize investment and raise labor demand.

- *Reducing the administrative and regulatory burden.* Administrative and regulatory obstacles are higher than the OECD average and should be streamlined. The 2023 insolvency framework reform in line with implementation of the EU Directive is welcome for facilitating firm exit.

Figure 12. Luxembourg: Structural Policies

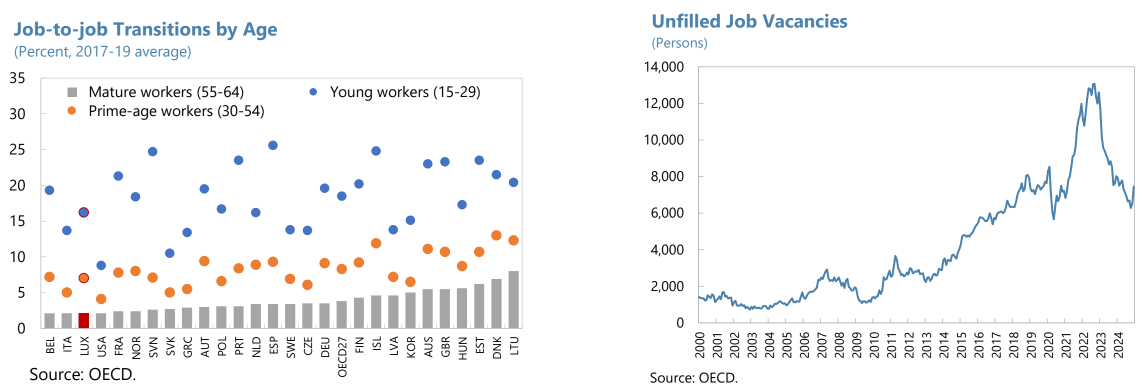
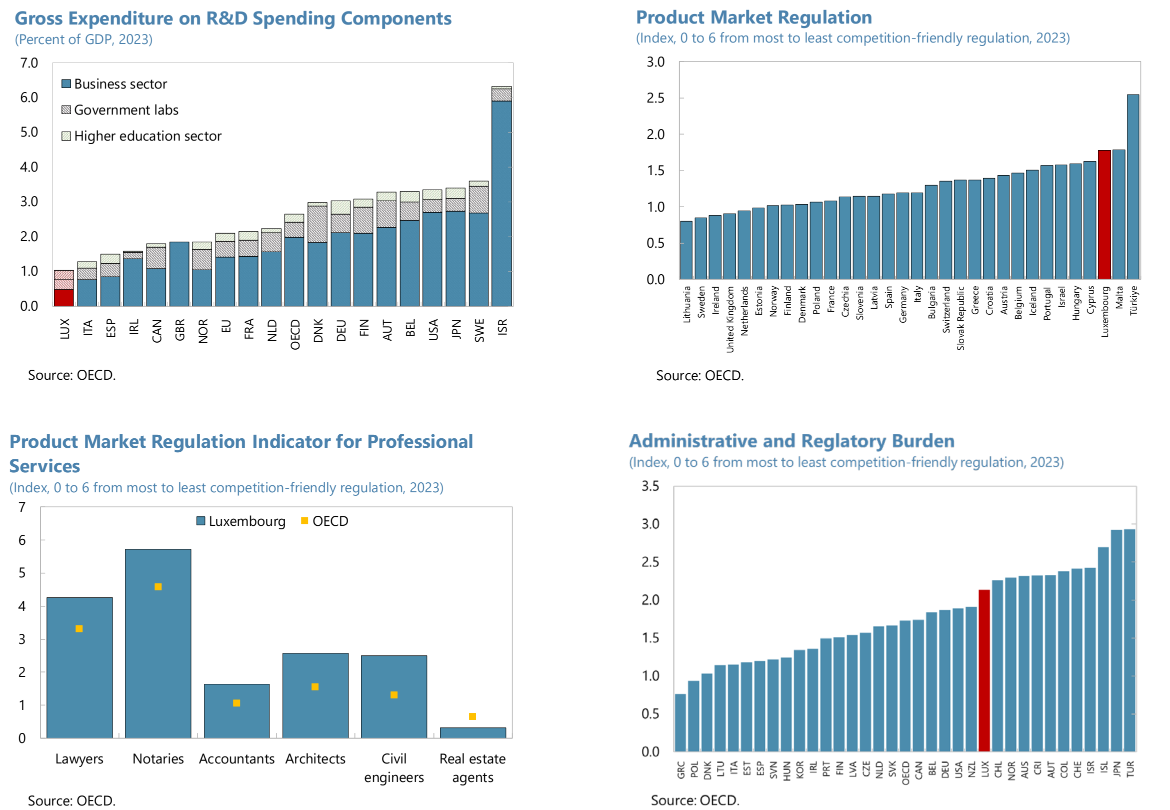
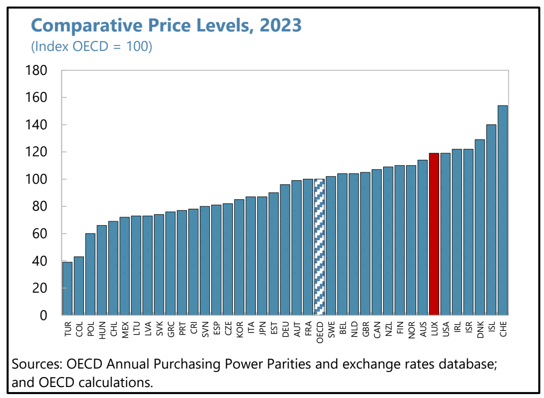


Figure 12. Luxembourg: Structural Policies (concluded)



39. There is a need to address supply bottlenecks to contain high living cost and facilitate cross-border movement.



- *Restoring housing affordability*. Temporary measures to support demand should be gradually withdrawn and help-to-buy policies should be better targeted. On the supply side, the recent streamlining of building permits' regulations is welcome. Reducing supply rigidity in the context of capacity constraint requires increasing the productivity in the construction sector and alleviating bottlenecks. Careful design and implementation of the planned land tax reform to mobilize unused land is also paramount. Staff also recommend using the housing stock more efficiently (by implementing a vacant property tax, tackling under-occupation and repurposing commercial real estate).[14]

[14] For more details, see Selected Issues Paper (2022).

- *Improving cross-border infrastructure*. Cross-border workers play an important role in increasing labor supply without adding pressure to the housing market. Recent data suggest a lower flow of commuters from Germany and Belgium partly due to lengthy commuting time. Improving transportation infrastructure while decentralizing activity to the border areas would help to ease congestion.

Authorities' Views

40. **The authorities broadly concurred with staff's key recommendations.** They noted that simplifying regulation and administrative requirements is a top priority (e.g., building permits, once-only principle, EU omnibus initiative). To enhance technological diffusion, they have recently launched a digital support program for SMEs (promoting a digital tool that establishes better online communication with the customers and improves business management). The free online training to reduce skill mismatches was significantly expanded with high take up by participants. The authorities acknowledged the need of expediting supply-side reforms to improve housing affordability.

STAFF APPRAISAL

41. **Luxembourg's recent economic performance has been lackluster and a projected recovery faces headwinds.** Anchored in strong economic fundamentals, the economy is expected to gradually recover from a protracted slowdown. Yet, the global situation is fluid, and there are risks of setbacks stemming from weaker external demand and higher financial market volatility, alongside domestic challenges in the real estate sector and the labor market. Moreover, productivity has been declining, and Luxembourg faces fiscal pressures and risks. While Luxembourg's current external position is assessed to be substantially stronger than the level implied by medium-term fundamentals, the assessment is subject to several limitations. The country's specific economic features—a small open economy with a global financial center and a large share of cross-border workers —make the external position subject to significant volatility. This, together with the long-term challenges due to aging costs, call for more prudent policies while incentivizing private sector investment.

42. **Prudent fiscal policy calls for a more efficient use of fiscal space.** For 2025, a less expansionary fiscal stance would have been welcome, given low fiscal multipliers and the need to make room for more private sector-led growth. There is scope for reviewing the effectiveness and targeting of current measures, while preserving possible savings from revenue overperformance or budget execution. The authorities' medium-term expenditure path is broadly appropriate to accommodate future spending pressures, but should be underpinned by measures, which will require containing the growth of the wage bill, enhancing spending efficiency, and avoiding any further erosion of the tax base.

43. **There is scope for increasing revenue resilience.** Luxembourg's revenue performance depends to a large extent on a concentrated and volatile revenue base. Tax reforms should thus aim at diversifying revenue sources. This will help reduce volatility and uncertainty of fiscal receipts.

44. Fiscal policies should be better anchored in a medium-term perspective. The public consultations on pension reform are welcome, as there is a need for early reforms, including reducing the generosity of benefits—the highest in Europe, increasing both the effective and statutory retirement ages, and a well-calibrated increase in contributions to minimize the negative impact on the labor market. Strengthening the medium-term fiscal framework would enhance policy predictability. The planned implementation of a national fiscal rule is welcome and should combine a debt anchor with a net spending ceiling that consider revenue uncertainty and allow appropriate flexibility. Additional reforms of the budgeting framework and strengthening of the fiscal council are necessary to make the new framework more effective.

45. Risks in the financial sector, while manageable, should continue to be closely monitored. The financial sector appears broadly resilient. However, persistent solvency and liquidity risks in the corporate sector—especially in real estate—and the potential impact of rising financial market volatility warrant close monitoring. The authorities should continue ensuring adequate provisioning, collateral valuation, and loss absorption capacity. At the same time, continued oversight of the large nonbank financial sector—notably pockets of liquidity mismatches and leverage—and a better understanding of the intermediation role of the OFI sector should be prioritized.

46. Macroprudential policy should remain agile. The current CCyB level is appropriate. Should the recovery firm up, the authorities should strengthen releasable capital buffers and address still elevated household indebtedness by introducing income-based measures in line with FSAP recommendations. In the event of continued credit pressure, some loosening of the CCyB could be envisaged. Capitalizing on the commendable progress in implementing the 2024 FSAP recommendations in the supervision of banks and investment funds, the authorities should strengthen the macroprudential policy framework.

47. Structural reforms are needed to boost private sector-led growth and sustain living standards. Wage indexation has become a key constraint on competitiveness, and more labor market flexibility is called for. The authorities should also aim at boosting productivity and containing the cost of living by streamlining the regulatory and administrative burden, removing barriers to entry in some sectors, and addressing housing and infrastructure supply bottlenecks. Efforts should continue to capitalize on the country's comparative advantages in AI adoption and financial sector development while minimizing potential costs of the transition. Recent measures to enhance technology diffusion and ongoing upskilling programs are welcome.

48. It is proposed that the next Article IV consultation with Luxembourg takes place on the standard 12-month cycle.

Table 3. Luxembourg: Selected Economic Indicators, 2020–30

	2020	2021	2022	2023	2024	Projections 2025	2026	2027	2028	2029	2030
Real Economy (percent change)											
Gross domestic product	-0.5	6.9	-1.1	-0.7	1.0	1.6	2.2	2.3	2.2	2.1	2.1
Total domestic demand	-2.7	10.0	0.3	1.1	0.1	1.7	2.6	2.5	2.3	2.2	2.1
Private consumption	-7.7	11.3	6.6	2.0	1.3	2.4	2.5	2.3	2.2	2.1	2.0
Public consumption	7.6	4.8	4.0	1.5	4.9	3.3	2.3	2.3	2.3	2.3	2.3
Gross investment	-3.3	12.9	-13.9	-1.1	-8.4	-1.8	3.0	3.4	2.7	2.2	2.1
Foreign balance 1/	1.4	0.4	-1.2	-1.4	1.1	0.0	0.4	0.5	0.5	0.6	0.6
Exports of goods and nonfactor services	1.9	11.3	1.5	-0.3	0.3	2.5	2.2	2.1	2.1	2.0	2.0
Imports of goods and nonfactor services	1.4	13.4	2.4	0.4	-0.3	3.0	2.3	2.2	2.1	2.0	2.0
Labor Market (thousands, unless indicated)											
Resident labor force	294.2	298.3	302.8	309.2	314.0	319.3	325.1	330.9	336.9	343.0	349.1
Unemployed (average)	18.7	17.1	14.6	16.2	18.0	19.5	20.1	19.9	19.6	19.6	19.6
(Percent of total labor force)	6.4	5.7	4.8	5.2	5.7	6.1	6.2	6.0	5.8	5.7	5.6
Resident employment	275.5	281.2	288.2	293.0	296.0	299.8	305.0	311.0	317.3	323.4	329.5
(Percent change)	1.5	2.1	2.5	1.7	1.0	1.3	1.7	2.0	2.0	1.9	1.9
Cross-border workers (net)	196.1	203.9	213.0	219.0	221.7	225.0	228.9	233.8	238.9	244.3	249.8
Total employment	471.6	485.1	501.3	512.0	517.8	524.8	533.9	544.8	556.2	567.7	579.3
(Percent change)	1.8	2.9	3.3	2.1	1.1	1.4	1.7	2.0	2.1	2.1	2.0
Prices and costs (percent change)											
GDP deflator	3.9	5.9	6.2	6.3	5.2	2.6	1.2	2.1	2.1	2.1	2.1
CPI (harmonized), p.a.	0.0	3.5	8.1	2.9	2.3	2.2	2.1	2.0	2.0	2.0	2.0
CPI core (harmonized), p.a.	1.2	1.5	4.2	3.9	2.5	2.1	2.1	2.0	2.0	2.0	2.0
CPI (national definition), p.a.	0.8	2.5	6.3	3.7	2.1	2.1	2.0	2.0	2.0	2.0	2.0
Wage growth 2/	1.0	5.3	4.6	7.6	2.2	3.2	2.5	2.3	2.3	2.3	2.3
Nominal unit labor costs 2/	3.4	1.3	9.3	10.7	2.3	3.0	2.0	2.0	2.2	2.2	2.3
Public finances (percent of GDP)											
General government revenues	43.9	43.4	44.5	46.2	47.9	47.4	47.6	47.6	47.7	47.9	48.2
General government expenditures	47.0	42.4	44.3	47.0	46.9	48.3	49.0	49.0	49.7	50.0	50.3
General government balance	-3.1	1.0	0.2	-0.8	1.0	-0.8	-1.3	-1.4	-1.9	-2.0	-2.1
General government cyclically-adjusted balance	-1.7	0.6	0.8	0.0	0.8	-1.0	-1.3	-1.4	-1.9	-2.0	-2.1
General government structural balance	2.1	1.6	1.7	1.8	0.8	-0.7	-1.3	-1.4	-1.9	-2.0	-2.1
General government primary balance	-0.4	1.8	0.7	-0.2	1.2	-0.9	-1.3	-1.4	-1.8	-1.8	-1.7
General government gross debt	24.5	24.2	24.9	25.0	26.3	26.7	27.6	28.0	28.6	29.2	29.5
Balance of Payments (percent of GDP)											
Current account	4.9	6.4	9.5	11.2	13.8	8.8	7.8	7.8	7.8	7.7	7.8
Balance on goods	2.1	0.6	-1.1	0.4	1.7	1.8	1.6	1.7	1.7	1.7	1.8
Balance on services	35.6	38.6	44.3	43.5	43.6	42.9	42.0	41.8	41.8	41.7	41.7
Net factor income	-32.7	-33.0	-32.8	-31.5	-31.1	-35.5	-35.4	-35.3	-35.2	-35.3	-35.2
Balance on current transfers	-0.1	0.1	-0.9	-1.1	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4
Exchange rates, period averages											
U.S. dollar per euro	1.14	1.18	1.05	1.08	1.08	...	...	...	...	...	...
(Percent change)	1.9	3.7	-11.0	2.6	0.0	...	...	...	...	...	...
Nominal effective rate (2010=100)	103.4	104.0	102.7	105.3	106.3	...	...	...	...	...	...
(Percent change)	1.7	0.6	-1.3	2.5	1.0	...	...	...	...	...	...
Real effective rate (CPI based; 2010=100)	101.0	101.2	98.3	98.7	98.5	...	...	...	...	...	...
(Percent change)	1.4	0.2	-2.9	0.4	-0.2	...	...	...	...	...	...
Credit growth and interest rates											
Nonfinancial private sector credit (eop, percent change) 3/	5.0	5.3	4.4	-2.9	-4.7	1.6	3.8	4.8	4.7	4.6	4.6
10-year government bond yield, annual average (percent)	-0.4	-0.4	1.5	3.1	2.7	...	...	...	...	...	...
Memorandum items: Land area = 2,586 sq. km; population in 2023 = 672,050; GDP per capita = €118,012											
GDP (billions of euro)	64.5	73.0	76.7	81.0	86.1	89.7	92.8	96.9	101.0	105.3	109.7
Output gap (percent deviation from potential)	-0.9	3.8	1.0	-1.4	-2.0	-2.1	-1.6	-1.1	-0.7	-0.3	0.0
Potential output growth	1.7	2.1	1.6	1.6	1.7	1.7	1.7	1.8	1.7	1.8	1.8

Sources: Luxembourg authorities; IMF staff estimates and projections.
1/ Contribution to GDP growth.
2/ Overall economy.
3/ Including a reclassification of investment companies from financial to non-financial institutions in 2015.

Table 4. Luxembourg: Balance of Payments, 2020–30
(Percent of GDP)

	2020	2021	2022	2023	Projections 2024	2025	2026	2027	2028	2029	2030
Current account	4.9	6.4	9.5	11.2	13.8	8.8	7.8	7.8	7.8	7.7	7.8
Balance on goods and services	37.7	39.3	43.2	43.9	45.3	44.6	43.6	43.5	43.4	43.4	43.4
Trade balance 1/	2.1	0.6	-1.1	0.4	1.7	1.8	1.6	1.7	1.7	1.7	1.8
Goods exports	33.1	33.3	35.9	34.3	33.2	34.1	35.4	36.4	37.5	38.5	39.6
Goods imports	31.0	32.7	36.9	33.8	31.5	32.3	33.8	34.8	35.8	36.8	37.8
Balance on services	35.6	38.6	44.3	43.5	43.6	42.9	42.0	41.8	41.8	41.7	41.7
Services exports	169.7	183.2	192.8	188.7	183.8	178.7	175.2	174.8	174.6	174.4	174.2
Services imports	134.1	144.5	148.5	145.2	140.2	135.8	133.2	133.0	132.9	132.7	132.6
Net factor income	-32.7	-33.0	-32.8	-31.5	-31.1	-35.5	-35.4	-35.3	-35.2	-35.3	-35.2
Compensation of employees, net	-16.0	-16.3	-17.0	-16.8	-16.2	-17.4	-17.5	-17.5	-17.5	-17.5	-17.5
Compensation of employees, credit	3.0	2.7	2.6	2.5	2.4	2.5	2.5	2.5	2.5	2.5	2.5
Compensation of employees, debit	19.0	19.0	19.6	19.4	18.7	19.9	20.0	20.0	20.0	20.0	20.1
Investment income, net	-16.7	-16.7	-15.8	-14.7	-14.8	-18.0	-17.9	-17.8	-17.7	-17.7	-17.7
Investment income, credit	370.0	325.0	348.8	401.7	397.5	387.1	380.9	372.6	365.1	358.1	351.4
Investment income, debit	386.7	341.7	364.5	416.4	412.3	405.1	398.8	390.4	382.8	375.9	369.1
Balance on current transfers	-0.1	0.1	-0.9	-1.1	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4
Capital and financial account	-6.1	-6.6	-10.7	-11.8	-14.3	-8.8	-7.8	-7.8	-7.8	-7.7	-7.8
Capital account	-0.3	-0.8	-1.2	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
Financial account	5.8	5.8	9.4	11.7	14.0	8.5	7.6	7.5	7.6	7.5	7.6
Direct investment, net	-32.9	166.8	74.6	76.3	26.7	24.0	21.6	19.4	17.5	15.8	14.2
Abroad	-126.0	87.7	-282.2	-234.5	143.7	131.8	119.1	107.2	96.5	86.9	78.2
In reporting economy	-93.1	-79.1	-356.8	-310.8	117.0	107.8	97.5	87.8	79.0	71.1	64.0
Portfolio investment, net	4.6	-238.5	-144.2	-60.1	-50.0	-50.0	-50.0	-50.0	-50.0	-50.0	-50.0
Portfolio investment, assets	320.8	532.3	-138.7	91.9	184.6	216.7	227.4	230.9	232.1	232.5	232.6
Portfolio investment, liabilities	316.2	770.8	5.6	152.0	234.6	266.7	277.4	281.0	282.2	282.6	282.7
Financial derivatives, net	9.3	18.6	15.4	-3.6	7.8	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
Other investment, net	24.8	56.8	63.6	-1.0	29.8	35.3	36.7	38.8	40.8	42.4	44.0
Other investment, assets	179.7	261.2	-31.1	14.5	19.6	19.6	19.6	19.6	19.6	19.6	19.6
Other investment, liabilities	154.9	204.4	-94.7	15.5	-10.3	-15.7	-17.1	-19.2	-21.2	-22.9	-24.5
Reserve assets	0.0	2.1	0.1	0.1	-0.2	-0.1	-0.1	0.0	0.0	0.0	0.0
Errors and omissions	1.2	0.2	1.2	0.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0

Sources: STATEC and IMF Staff calculations.
1/ Includes merchanting trade operations.

Table 5. Luxembourg: General Government Operations, 2020–30
(Percent of GDP)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
						Projections					
Revenue	43.9	43.4	44.5	46.2	47.9	47.4	47.6	47.6	47.7	47.9	48.2
Taxes	27.2	27.3	27.9	28.7	30.7	30.1	30.2	30.2	30.3	30.4	30.6
of which, corporate income taxes	4.8	4.5	4.5	4.9	6.5	6.3	6.0	5.8	5.6	5.5	5.4
of which, personal income taxes	11.1	11.2	11.7	12.8	12.7	12.2	12.4	12.6	12.8	13.1	13.4
of which, taxes on international trade &	2.2	2.3	2.2	2.3	2.5	2.6	2.6	2.6	2.6	2.6	2.6
of which others	9.1	9.4	9.5	8.7	9.1	9.0	9.2	9.2	9.2	9.2	9.2
Social contributions	12.6	11.8	12.1	12.7	12.1	12.6	12.8	12.8	12.9	12.9	13.0
Grants	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other revenue	4.1	4.3	4.4	4.8	5.1	4.7	4.6	4.6	4.6	4.5	4.5
Expenditure	47.0	42.4	44.3	47.0	46.9	48.3	49.0	49.0	49.7	50.0	50.3
Expense	44.6	40.6	42.6	44.9	44.9	46.3	46.9	47.0	47.5	47.8	48.2
Compensation of employees	10.8	10.1	10.3	10.9	11.2	11.7	11.7	11.7	11.7	11.7	11.7
Use of goods and services	4.3	4.1	4.5	4.5	4.6	4.8	4.8	4.8	4.8	4.8	4.8
Interest	0.2	0.1	0.2	0.3	0.3	0.4	0.5	0.6	0.6	0.7	0.8
Subsidies	1.1	1.0	1.2	1.6	1.3	1.2	1.2	1.1	1.1	1.1	1.1
Social benefits	20.7	18.0	19.0	19.4	19.5	20.1	20.7	20.8	21.0	21.3	21.5
Other expense	8.6	8.2	8.6	9.8	9.4	9.3	9.4	9.2	9.4	9.4	9.4
Gross public investment	4.7	4.1	4.3	4.7	4.5	4.6	4.8	4.7	5.0	5.0	5.0
O/W Net acquisition of nonfinancial assets	2.4	1.8	1.8	2.1	2.0	1.9	2.0	2.0	2.1	2.1	2.1
Gross operating balance	1.8	5.2	4.6	4.1	5.9	3.8	3.5	3.2	3.1	3.0	2.9
Net operating balance	-0.7	2.8	1.9	1.3	3.1	1.1	0.7	0.5	0.2	0.1	0.0
Net lending / borrowing	-3.1	1.0	0.2	-0.8	1.0	-0.8	-1.3	-1.4	-1.9	-2.0	-2.1
Net acquisition of financial assets	-0.1	3.7	3.4	0.9	…	…	…	…	…	…	
Monetary gold and SDRs	...	...	...	...	…	…	…	…	…	…	
Currency and deposits	-1.8	2.3	1.2	-1.4	…	…	…	…	…	…	
Securities other than shares	1.1	2.0	0.2	1.7	…	…	…	…	…	…	
Loans	0.0	0.2	0.0	0.0	…	…	…	…	…	…	
Shares and other equity	0.5	-1.1	1.0	-0.8	…	…	…	…	…	…	
Insurance technical reserves	...	...	...	...	…	…	…	…	…	…	
Financial derivatives	-0.3	0.3	0.2	-0.2	…	…	…	…	…	…	
Other accounts receivable	0.2	0.1	0.7	1.5	…	…	…	…	…	…	
Net incurrence of liabilities	2.9	2.6	3.0	1.8	…	…	…	…	…	…	
Special Drawing Rights (SDRs)	...	...	...	...	…	…	…	…	…	…	
Currency and deposits	0.0	0.0	0.0	0.0	…	…	…	…	…	…	
Securities other than shares	3.1	3.4	1.9	1.3	…	…	…	…	…	…	
Loans	-0.2	-0.9	-0.1	0.2	…	…	…	…	…	…	
Shares and other equity	0.0	0.0	0.0	0.0	…	…	…	…	…	…	
Insurance technical reserves	0.0	0.0	0.0	0.0	…	…	…	…	…	…	
Financial derivatives	0.0	0.0	0.0	0.0	…	…	…	…	…	…	
Other accounts payable	0.0	0.1	1.2	0.3	…	…	…	…	…	…	
Memorandum items:											
GDP (in billions of euro)	64.5	73.0	76.7	81.0	86.1	89.7	92.8	96.9	101.0	105.3	109.7
Structural balance (in percent of GDP)	2.1	1.6	1.7	1.8	0.8	-0.7	-1.3	-1.4	-1.9	-2.0	-2.1
Output gap (in percent of potential GDP)	-0.9	3.8	1.0	-1.4	-2.0	-2.1	-1.6	-1.1	-0.7	-0.3	0.0
Public gross debt (Maastricht definition)	24.5	24.2	24.9	25.0	26.3	26.7	27.6	28.0	28.6	29.2	29.5
10-year sovereign bond yield (annual average in %)	-0.4	-0.4	1.5	3.1	2.7						

Sources: Luxembourg authorities; and IMF staff estimates.

Table 6. Luxembourg: Financial Soundness Indicators, 2017–24
(Percent)

	2017	2018	2019	2020	2021	2022	2023	2024
All Banks								
Capital adequacy								
Regulatory capital to risk-weighted assets	25.9	24.8	22.6	24.8	23.9	23.0	24.0	23.0
Regulatory tier 1 capital to risk-weighted assets	25.1	24.0	22.1	22.8	21.9	22.0	22.0	22.0
Common equity tier 1 to risk-weighted assets								
Capital to assets	8.4	8.0	7.4	8.6	7.9	8.0	9.0	9.0
Profitability and efficiency								
Return on assets	0.7	0.6	0.5	0.5	0.6	0.6	1.1	1.2
Return on equity	8.1	7.4	7.4	6.2	5.5	5.0	9.0	9.0
Interest margin to gross income	27.9	27.1	26.7	24.9	21.3	26.0	34.0	36.0
Trading income to total income	1.3	3.5	2.9	1.5	1.5	2.0	1.0	-1.0
Noninterest expenses to gross income	73.6	77.5	78.8	79.5	81.1	77.0	72.0	70.0
Personnel expenses to noninterest expenses	25.9	24.9	25.1	24.2	22.4	22.0	22.0	22.0
Asset quality and structure								
Residential real estate loans to total loans	6.2	6.8	6.9	8.5	13.0 [1/]	15.0	15.0	15.0
Household debt to GDP	59.5	59.8	64.3	69.7	71.0	72.0	72.0	72.0
Nonperforming loans to total gross loans	0.8	0.9	0.7	1.0	1.3 [1/]	1.6	1.9	2.3
Nonperforming loans net of provisions to capital	4.5	6.4	5.4	6.2	3.7	3.9	5.4	5.4
Provisions to total non perfoming loans	36.9	27.6	32.8	30.0	51.4	59.8	50.3	50.3
Sectoral distribution of loans (in percent of total loans)								
Residents	33.4	33.7	32.0	36.9	40.4	37.0	37.0	33.0
Nonresidents	66.6	66.3	68.0	63.1	59.6	63.0	63.0	67.0
Liquidity								
Liquid assets to total assets	22.9	24.9	24.7	29.8	32.0 [1/]	33.0	32.0	34.0
Liquid assets to short-term liabilities	31.7	34.6	33.2	38.8	35.0 [1/]	37.0	36.0	38.0
Customer deposits to total (non interbank) loans	102.9	106.2	107.7	109.0	76.0 [1/]	72.0	73.0	74.0
Liquidity Coverage Ratio					167.6	155.0	165.9	165.9
Net Stable Funding Ratio					139.2	136.3	135.1	135.1
Domestically Oriented Banks								
Capital adequacy								
Regulatory capital to risk weighted assets	23.0	22.9	22.5	22.9	23.1	23.0	23.0	24.0
Regulatory tier 1 capital to risk weighted assets	22.1	22.1	21.8	22.2	22.4	22.0	23.0	23.0
Capital to assets	8.2	8.8	8.7	8.9	8.7	9.0	9.0	9.0
Profitability and efficiency								
Return on assets	0.8	0.8	0.7	0.7	0.8	0.8	1.2	1.2
Return on equity	9.7	8.8	8.6	7.6	9.0	10.0	8.0	8.0
Interest margin to gross income	54.8	52.8	51.5	52.2	47.6	52.0	57.0	58.0
Asset quality and structure								
Residential real estate loans to total loans	26.7	24.9	25.6	28.0	36.7	37.0	37.0	36.0
Sectoral distribution of loans (in percent of total loans)								
Residents	69.5	67.5	71.0	76.4	80.9	82.0	82.0	82.0
Nonresidents	30.5	32.5	29.0	23.6	19.1	18.0	18.0	18.0
Liquidity								
Liquid assets to total assets	20.3	20.9	23.4	24.0	29.1	28.0	29.0	30.0
Liquid assets to short-term liabilities	27.2	28.0	30.7	32.3	32.9	32.0	33.0	34.0
Customer deposits to total (non interbank) loans	128.0	112.0	108.1	99.0	87.5	89.0	88.0	90.0

Sources: BCL, and CSSF.

1/ Change in underlying data source and calculation methodology (EBA 3).

Annex I. Implementation of Past IMF Advice

IMF Advice	Progress/Comments
Fiscal	
Short term. Adopt a contractionary fiscal stance in 2025. Adapt the size of the adjustment to the growth/inflation dynamics. Phase out all temporary measures, while cushioning the impact on the most vulnerable, if needed, through targeted transfers. Avoid measures that distort price signals in a prolonged manner to allow for demand to adjust.	The fiscal stance in 2025 is expansionary. Several discretionary measures have been extended or made permanent, including housing packages. The phasing out of electricity subsidies has been only partial.
Medium term. Implement a gradual fiscal consolidation, including by increasing spending efficiency, to stabilize debt and preserve the country's AAA rating. An early pension reform would ensure intergenerational equity. Tax reforms should avoid revenue losses, diversify revenue sources, and enhance equity. Better anchor fiscal policy through operational targets (spending rules) and strengthen the fiscal council and medium-term budgeting framework (MTBF).	The authorities' medium-term structural fiscal plan envisages a gradual reduction of the deficit based on contained expenditure growth, but it lacks specific measures. The authorities launched a consultation on pension reform. Permanent tax cuts on CIT and PIT were implemented. The authorities are considering a national fiscal rule to complement the EU EGF. They have requested a study from the OECD on the MTBF.
Financial Sector	
Risks. Continue close monitoring of potential pockets of vulnerabilities, especially in real estate. *Macroprudential*. Maintain the countercyclical capital buffer (CCyB) unchanged. Consider introducing income-based limits to avoid further buildup of vulnerabilities. Increase banks' resilience to a severe downturn in the real estate preferably through sectoral systemic risk buffer, increase minimum risk weights, and link them to LTV).	The authorities have stepped the monitoring of real estate vulnerabilities. The CCyB is unchanged. No other capital-based measures have been undertaken. Income-based measures have not been implemented given the downturn in housing demand. Instead, the systemic risk committee has temporarily increased the flexibility on LTV for buy-to-let loans. Commission de Surveillance du Systeme Financier (CSSF) has temporarily reduced the interest rate stress test for new mortgages to 100 bps.
Follow up on FSAP recommendations.	Overall good progress on banks and investment funds supervision, including better integrated solvency-liquidity stress tests.

IMF Advice	Progress/Comments
Structural	
Housing affordability. Focus on boosting supply by frontloading public construction projects, reducing bottlenecks, and increasing density. Expedite the land tax reform. Avoid measures that boost housing demand and impede the adjustment of housing prices to more affordable levels and phase out interest payment deductibility.	The authorities have extended temporary measures to support housing demand in the face of the sharp downturn. Efforts to simplify procedures and increase densification in line with staff advice are underway. The land tax reform is expected to be submitted to parliament in 2025H1.
Wage indexation. Consider indexing to core inflation (complemented as needed with targeted support for the poorest). Consider introducing progressive wage indexation and switching to a rule-based suspension of the system (e.g., based on competitiveness indicators that would encourage greater decentralization of wage bargaining).	The authorities have no plans to change the wage indexation system. To enhance competitiveness, the authorities have reduced the CIT rate and exempted active ETFs from the subscription tax.
Boost productivity. Increase investments in intangible assets and promote AI use. Reduce the productivity dispersion between frontier and laggard firms by ensuring innovation diffusion within sectors and reducing skill mismatches.	The authorities have recently launched a digital support program for SMEs (promoting a digital tool that establishes better online communication with customers and improves business management). The authorities have also expanded online training courses to mitigate skill mismatches.

Annex II. External Sector Assessment

Overall Assessment: *The external position of Luxembourg in 2024 is assessed to be substantially stronger than the level implied by medium-term fundamentals and desirable policies.* This assessment is based on EBA-lite quantitative models, a review of developments in the balance of payments and net foreign asset positions, with the caveat that the methodology captures only partially Luxembourg's role as a financial hub and center for intra-corporation cash pooling.

Potential Policy Responses: In 2025, the government's recently announced measures will keep fiscal policies expansionary and contribute to narrowing of the current account surplus (CA). In the medium term, public-sector investment in areas such as affordable housing, infrastructure, digitization, and green transition as well structural reforms to boost private investment will contribute to lower the misalignment. Pension reforms should be frontloaded and would reduce fiscal pressures in the long term.

Foreign Assets and Liabilities: Position and Trajectory

Background. Luxembourg's net international investment position (NIIP) is estimated to have increased from 36.1 percent of GDP in 2022 to 37.6 percent in 2023. As a share of GDP, the increases in direct investment (43.9 percentage points) and other investment (15.8 percentage points) were offset by a decline net portfolio investment (27.8) and financial derivatives of 30.2 percentage points.

Assessment. Projections of continued CA surpluses over the medium term suggest that the NIIP will recover gradually to its pre-pandemic level. The large and positive NIIP and its trajectory do not raise sustainability concerns.

2024 (% GDP)	NIIP: 37.6	Gross Assets: 14917.7	Debt Assets: 3346	Gross Liabilities: 14880.1	Debt Liabilities: 1111.6

Current Account

Background. The CA surplus is estimated to have improved to 13.8 percent of GDP in 2024 from 11.2 percent in 2023.[1] This development was driven primarily by an improvement in the trade balance (+1.3 percent of GDP)—mainly due to lower imports (domestic demand)—, net remittances (+0.6 percent of GDP) and current transfers (+0.7 percent of GDP). In recent years, the negative correlation between the balance of services and net income has decreased mainly because of higher income from MNEs' FDI that are very volatile.

Assessment. The cyclically-adjusted CA balance is estimated to be 13.6 percent of GDP in 2023. This assessment is based on the quantitative External Balance Assessment (EBA-lite), supplemented by staff judgment. The EBA-lite model only partially captures Luxembourg's specific circumstances as a financial center, including a large investment fund industry and a very small open economy with a large share of non-resident workers (commuters). Exports and imports of financial services which drive Luxembourg's current account are less sensitive to relative prices changes and are mainly driven by large and volatile income from FDI, and the large number of non-resident workers affects net factor income and population-based variables in the models. As in previous years, the EBA-lite explanatory variable "output per worker" is adjusted to reflect that close to 42 percent of Luxembourg's labor force is non-resident. Even after this adjustment, the CA norm estimated using EBA-estimated coefficients should be viewed with caution since Luxembourg, being an outlier along many dimensions, is not in the EBA sample. The BOP statistics are subject to large revisions, which add uncertainty to the assessment. Finally, the EBA is a medium-term assessment tool and does not take into account the country's long-term fiscal sustainability challenges due to aging costs, which require higher savings (more prudent fiscal policy in the near-term). With these caveats in mind, the EBA CA gap is 10 percent of GDP, which includes a policy gap of 3.2 percent of GDP. The identified policy gap reflects a fiscal stance looser than the country-specific norm, but not relative to the average world fiscal stance. It should be noted however that over the longer term the CA surplus will narrow because of rising aging costs (+2 ½ percent of GDP and +5 percent of GDP, respectively by 2040 and 2050) that are not accounted for by the CA norm calculated at the desired medium-term policy levels. Pension reforms should therefore be frontloaded to reduce fiscal pressures in the long term.

Luxembourg: EBA-lite Model Results, 2024

	CA model 1/	**REER model** 1/
	(in percent of GDP)	
CA-Actual	**13.8**	
Cyclical contributions (from model) (-)	0.2	
Adjusted CA	**13.6**	
CA Norm (from model) 2/	**8.9**	
Adjustments to the norm (+) 3/	-5.3	
Adjusted CA Norm	**3.6**	
CA Gap	**10.0**	**9.6**
o/w Relative policy gap	3.2	
Elasticity	-1.4	
REER Gap (in percent)	**-7.2**	**-7.0**

1/ Based on the EBA-lite 3.0 methodology
2/ Cyclically adjusted, including multilateral consistency adjustments.
3/ Additional adjustment to account for the high share of commuters that impact the output per worker.

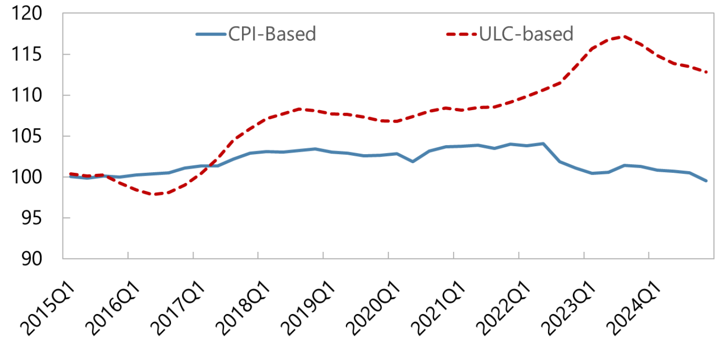
1/ BOP data are subject to large revisions. There is also increasing inconsistency in the balance of goods and services between the BOP and national accounts starting in 2020.

Real Exchange Rate

Background. The average real effective exchange rates (REER) based on CPI remained broadly stable in 2024, while the ULC-based REER depreciated by 2.3 percent following two years of appreciation.

Assessment. The staff-assessed CA gap implies a REER undervaluation of 7.2 percent. The REER index model suggests an undervaluation of 7 percent, which includes a policy gap of 2.3 percent.

Real Effective Exchange Rate
(Index 100=2015)



Sources: IMF, European commission
Notes: The ULC-based REER is estimated by the EC based on 37 trade partners (EU27, Australia, Canada, Japan, Mexico, New Zealand, Norway, Switzerland, Turkey, United Kingdom, USA). 2024Q4 is a forecast.

Capital and Financial Accounts: Flows and Policy Measures

Background. The financial account deficit is estimated to have widened from 11.7 percent of GDP in 2023 to 14 percent of GDP in 2024. The capital account deficit remained broadly stable at 0.2 percent of GDP.

Assessment. Risks are limited, given the strength of Luxembourg's external position.

FX Intervention and Reserves Level

Background. The euro has the status of global reserve currency.

Assessment. Reserves held by euro area countries are typically low relative to standard metrics. The currency is free floating.

Annex III. Risk Assessment Matrix[1]

Sources of Risks	Relative Likelihood	Impact if Realized	Policy Response
Global Risks			
Trade policy and investment shocks. Higher trade barriers or sanctions reduce external trade, disrupt FDI and supply chains, and trigger U.S. dollar appreciation, tighter financial conditions, and higher inflation.	**High**	**High/Medium.** Demand for Luxembourg's exports of goods and services could weaken. This could reduce growth, increase unemployment, and weigh on fiscal revenue.	• Allow automatic stabilizers to work and supplement with temporary and targeted discretionary measures in the event of a sharp downturn to supplement demand. • Accelerate supply side reforms to strengthen competitiveness.
Sovereign debt distress. Higher interest rates, stronger U.S. dollar, and shrinking development aid amplified by sovereign-bank feedback result in capital outflows, rising risk premia, loss of market access, abrupt expenditure cuts, and lower growth in highly indebted countries.	**High**	**Low.** Banks' exposures to sovereign debt is limited and concentrated in advanced economies. **Medium.** High yield, emerging market and corporate bond funds could face higher redemptions and liquidity pressure.	• Lock in capital buffers through targeted capital-based measures. Continue to closely monitor credit, liquidity, and market risks. Further strengthen the liquidity management framework for investment funds and continue to closely monitor interconnectedness. • Allow automatic stabilizers to work and supplement with temporary and targeted discretionary measures in the event of a sharp downturn to supplement demand.
Tighter financial conditions and systemic instability. Higher-for-longer interest rates and term premia amid looser financial regulation, rising investments in cryptocurrencies, and higher trade barriers trigger asset repricing, market dislocations, weak bank and NBFI distress, and U.S. dollar appreciation, which widens global imbalances, worsens debt affordability, and increases capital outflow from EMDEs.	**Medium**	**High.** The impact on banks and investment funds is likely to be high but overall, the system would remain resilient due to strong fundamentals. Tighter financial conditions could heighten credit risk, reduce lending growth, which still has not recovered. Higher-for-longer interest rates could adversely affect the performance of non-banks through asset repricing, reduce credit and GDP growth, increase unemployment, and lower fiscal revenue.	
Regional conflicts. Intensification of conflicts (e.g., in the Middle East, Ukraine, Sahel, and East Africa) or terrorism disrupt trade in energy and food, tourism, supply chains, remittances, FDI and financial flows, payment systems, and increase refugee flows.	**Medium**	**Low/Medium.** Energy prices may increase weighing on competitiveness of energy-intensive manufacturing. Inflation could rise, putting pressure on wages (because of automatic wage indexation) and weighing on other sectors' competitiveness.	• Allow pass-through to domestic prices while offering targeted support to vulnerable households and firms. • Suspend and/or reform the automatic wage indexation

[1] The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path. The relative likelihood is the staff's subjective assessment of the risks surrounding the baseline ("low" is meant to indicate a probability below 10 percent, "medium" a probability between 10 and 30 percent, and "high" a probability between 30 and 50 percent). The RAM reflects staff views on the source of risks and overall level of concern as of the time of discussions with the authorities. Non-mutually exclusive risks may interact and materialize jointly. The conjunctural shocks and scenarios highlight risks that may materialize over a shorter horizon (between 12 to 18 months) given the current baseline. Structural risks are those that are likely to remain salient over a longer horizon.

Sources of Risks	Relative Likelihood	Impact if Realized	Policy Response
Commodity price volatility. Supply and demand volatility (due to conflicts, trade restrictions, OPEC+ decisions, AE energy policies, or green transition) increases commodity price volatility, external and fiscal pressures, social discontent, and economic instability.	Medium	Medium. Energy price and/or supply shocks may exacerbate inflation, which will feed into wages through automatic wage indexation. This could hamper competitiveness, dampen production in certain sectors, or lead to a widening of the fiscal deficit.	mechanism to break the wage-price spiral. • Continue investments in renewable energy and defense to increase resilience. • Accelerate supply side reforms to bolster competitiveness.
Structural Risks			
Cyberthreats. Cyberattacks on physical or digital infrastructure (including digital currency and crypto assets), technical failures, or misuse of AI technologies trigger financial and economic instability.	High	Low/Medium. Payment and financial systems are disrupted with potentially reputational risks.	• Continue efforts to strengthen the cybersecurity framework. Ensure robust contingency planning for operational risks.
Luxembourg Specific Risks			
Slower-than-expected recovery in real estate market. Confidence in real estate developers might not return to the new housing market segment, weighing on activity and employment on construction sector.	Medium	**Medium.** Slow recovery in the real estate market would weigh on growth, dampen confidence in real estate developers and raise unemployment. It also poses risks to the financial sector through higher NPLs and lower collateral value.	• These risks are mitigated by high capital buffers, households' high level of income and financial wealth, as well as automatic stabilizers. • Continue vigilance and close monitoring of risks in the residential and commercial real estate sector, ensure adequate provisioning and collateral valuation. Maintain sufficient level of loss-absorption capacity. • Consider providing purchase guarantees to viable projects and firms at a sufficiently low price to reduce moral hazard. • Allow automatic stabilizers to operate to support growth as sector-specific short-term schemes.
Changes in international corporate taxation and other risks to fiscal revenue.	Medium	Medium. This could weaken fiscal revenue and reduce Luxembourg's attractiveness for businesses.	• Engage in tax reform to diversify revenue and reduce its volatility, enhance spending efficiency. • Adopt a prudent fiscal policy a national fiscal rule that considers fiscal risks. Strengthen the medium-term budgeting framework, including the fiscal risk assessment.

Annex IV. Sovereign Risk and Debt Sustainability Analysis

Figure 1. Luxembourg: Risk of Sovereign Stress

Horizon	Mechanical signal	Final assessment	Comments
Overall	...	**Low**	The overall risk of sovereign stress is low in the near term. In the medium term, debt is expected to continue to increase under current policy. Some idiosyncratic risks related for example to changes in international taxation and spending pressures on defense and digital and climate transformation may be higher than expected, which calls for prudent spending. Notwithstanding the automatic assessment of the pension system, an early reform could create space for much-needed public investment and targeted social spending while achieving intergenerational equity.
Near term 1/			
Medium term	**Low**	**Low**	Medium-term risks are assessed as low against a mechanical low signal as well as the strength of institutions, the depth of the investor pool, and adequate fiscal resources.
Fanchart	**Low**	...	
GFN	**Low**	...	
Stress test		...	
Long term	...	**Moderate**	The authorities actuarial assessment shows that pension expenditure is expected to exceed social contributions by 2026. The general pension scheme's reserves are projected to be depleted by 2045.
Sustainability assessment 2/	Not required for surveillance countries	Not required for surveillance countries	Not applicable.
Debt stabilization in the baseline			No

DSA Summary Assessment

Commentary: Luxembourg is at a low overall risk of sovereign stress and debt is sustainable. While the fiscal consolidation has been delayed by the fiscal packages to tackle the energy shock and support the economic recovery, most indicators will normalize as the stimulus is rolled-back. Debt is projected to stay at 28-29 percent of GDP over the medium-term. Medium-term liquidity risks as analyzed by the GFN Financeability Module are low. Over the longer run, Luxembourg should continue with prudent fiscal policy measures and structural reforms to continue supporting growth.

Source: Fund staff.

Note: The risk of sovereign stress is a broader concept than debt sustainability. Unsustainable debt can only be resolved through exceptional measures (such as debt restructuring). In contrast, a sovereign can face stress without its debt necessarily being unsustainable, and there can be various measures—that do not involve a debt restructuring—to remedy such a situation, such as fiscal adjustment and new financing.

1/ The near-term assessment is not applicable in cases where there is a disbursing IMF arrangement. In surveillance-only cases or in cases with precautionary IMF arrangements, the near-term assessment is performed but not published.

2/ A debt sustainability assessment is optional for surveillance-only cases and mandatory in cases where there is a Fund arrangement. The mechanical signal of the debt sustainability assessment is deleted before publication. In surveillance-only cases or cases with IMF arrangements with normal access, the qualifier indicating probability of sustainable debt ("with high probability" or "but not with high probability") is deleted before publication.

Figure 2. Luxembourg: Debt Coverage and Disclosures

	CG	GG	NFPS	CPS	Other	Comments
1. Debt coverage in the DSA: 1/	CG	GG	NFPS	CPS	Other	
1a. If central government, are non-central government entities insignificant?					n.a.	

2. Subsectors included in the chosen coverage in (1) above:

Coverage		Subsectors captured in the baseline	Inclusion	Comments
CPS / NFPS / GG: expected / CG	1	Budgetary central government	Yes	
CPS / NFPS / GG: expected / CG	2	Extra budgetary funds (EBFs)	No	Not applicable
CPS / NFPS / GG: expected / CG	3	Social security funds (SSFs)	Yes	
CPS / NFPS / GG: expected	4	State governments	Yes	
CPS / NFPS / GG: expected	5	Local governments	Yes	
CPS / NFPS	6	Public nonfinancial corporations	Yes	
CPS	7	Central bank	Yes	
CPS	8	Other public financial corporations	Yes	

3. Instrument coverage:

Currency & deposits	Loans	Debt securities	Oth acct. payable 2/	IPSGSs 3/

4. Accounting principles:

Basis of recording		Valuation of debt stock		
Non-cash basis 4/	Cash basis	Nominal value 5/	Face value 6/	Market value 7/

5. Debt consolidation across sectors:

Consolidated	Non-consolidated

Color code: chosen coverage | Missing from recommended coverage | Not applicable

Reporting on Intra-Government Debt Holdings

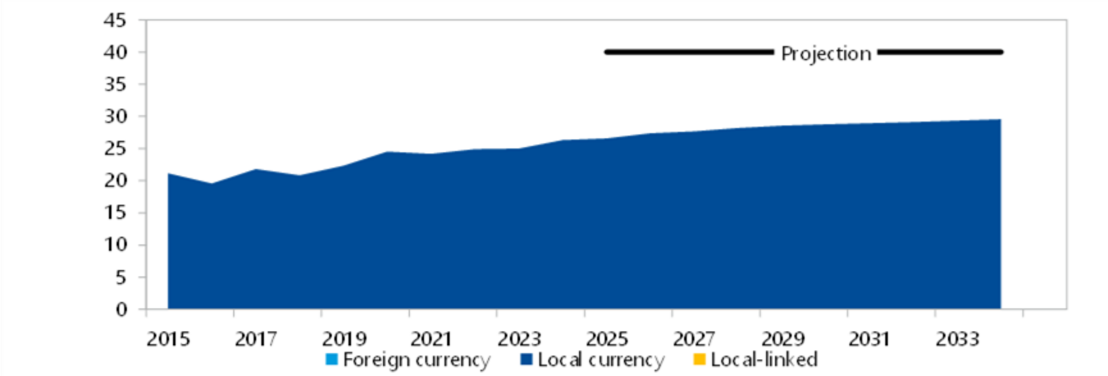
Issuer \ Holder		Budget. central govt	Extra-budget. funds (EBFs)	Social security funds (SSFs)	State govt.	Local govt.	Nonfin. pub. corp.	Central bank	Oth. pub. fin corp	Total
1	Budget. central govt									0
2	Extra-budget. funds									0
3	Social security funds									0
4	State govt.									0
5	Local govt.									0
6	Nonfin pub. corp.									0
7	Central bank									0
8	Oth. pub. fin. corp									0
	Total	0	0	0	0	0	0	0	0	0

1/ CG=Central government; GG=General government; NFPS=Nonfinancial public sector; PS=Public sector.
2/ Stock of arrears could be used as a proxy in the absence of accrual data on other accounts payable.
3/ Insurance, Pension, and Standardized Guarantee Schemes, typically including government employee pension liabilities.
4/ Includes accrual recording, commitment basis, due for payment, etc.
5/ Nominal value at any moment in time is the amount the debtor owes to the creditor. It reflects the value of the instrument at creation and subsequent economic flows (such as transactions, exchange rate, and other valuation changes other than market price changes, and other volume changes).
6/ The face value of a debt instrument is the undiscounted amount of principal to be paid at (or before) maturity.
7/ Market value of debt instruments is the value as if they were acquired in market transactions on the balance sheet reporting date (reference date). Only traded debt securities have observed market values.

Commentary: Debt/GDP for the DSA is projected based on the stock of General Government debt in 2024, but evolves from 2025 according to Central Government flows, given the social security surplus.

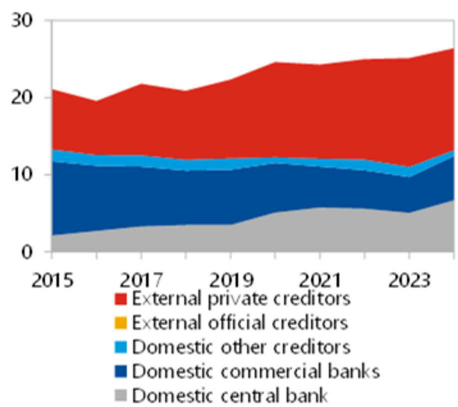
Figure 3. Luxembourg: Public Debt Structure Indicators

Debt by Currency (Percent of GDP)



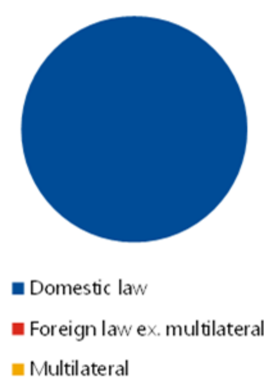
Note: The perimeter shown is general government.

Public Debt by Holder (Percent of GDP)



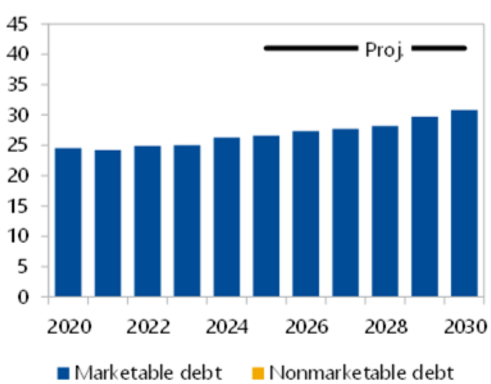
Note: The perimeter shown is general government.

Public Debt by Governing Law, 2024 (Percent)



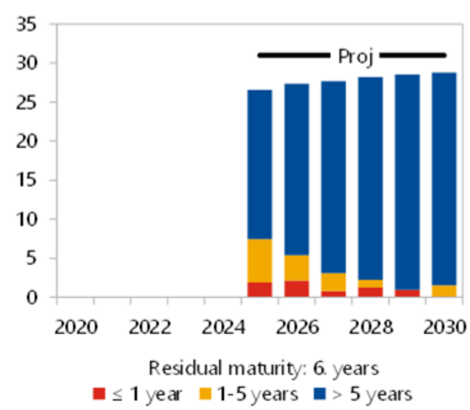
Note: The perimeter shown is general government.

Debt by Instruments (Percent of GDP)



Note: The perimeter shown is general government.

Public Debt by Maturity (Percent of GDP)



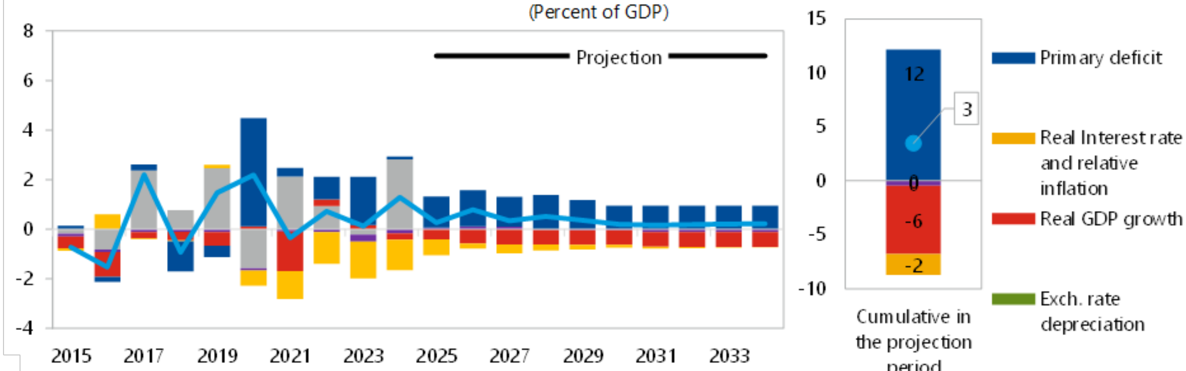
Note: The perimeter shown is general government.

Commentary: The debt is held exclusively by external private creditors and is held in domestic currency limiting exchange rate risk. With the bulk of the debt having a maturity > 5 years, the impact of the current increase in interest rates will only be felt gradually.

Figure 4. Luxembourg: Baseline Scenario
(Percent of GDP unless indicated otherwise)

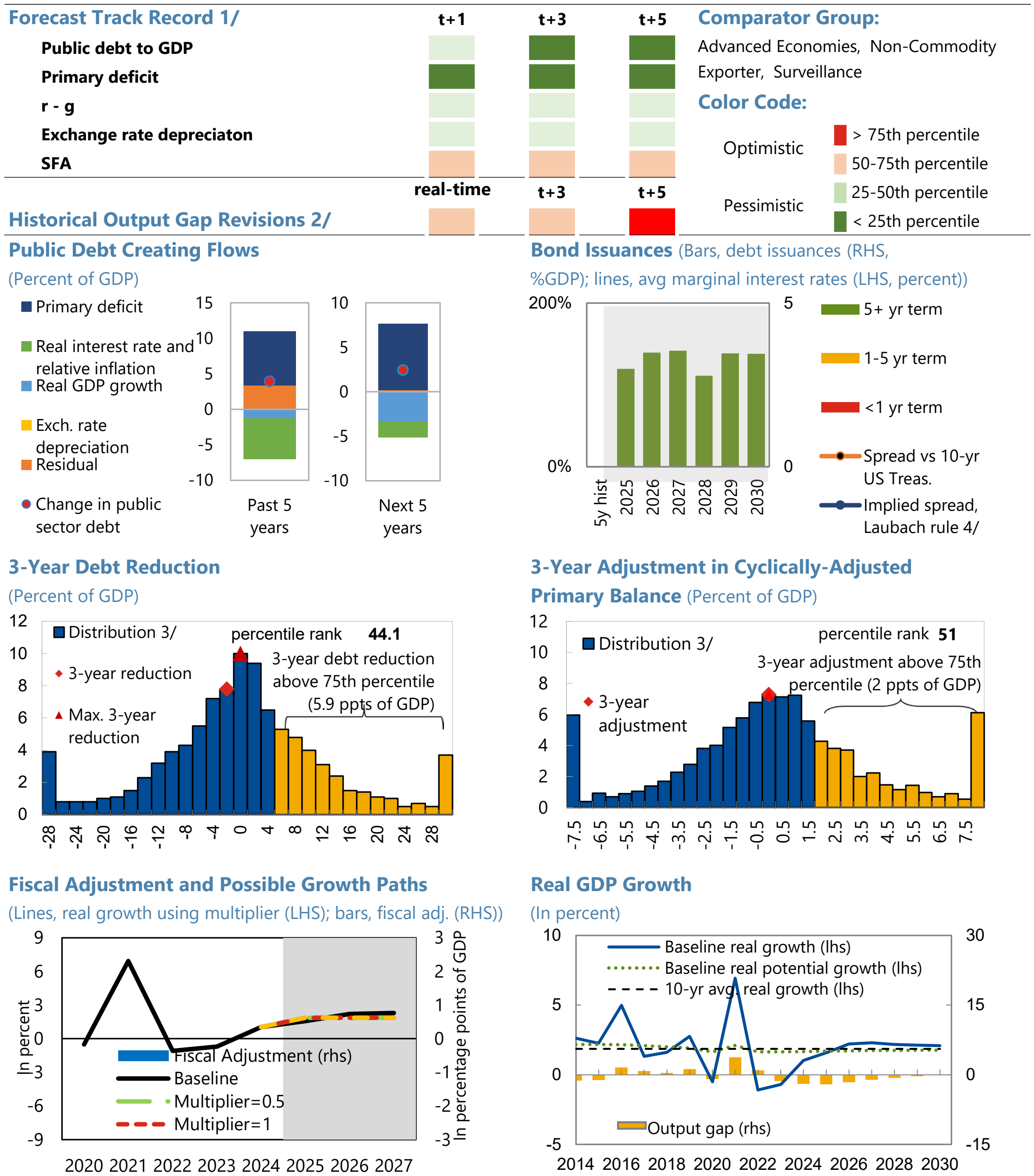
	Actual	Medium-term projection						Extended projection			
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Public debt	26.3	26.6	27.4	27.7	28.2	28.6	28.8	28.9	29.1	29.3	29.6
Change in public debt	1.3	0.3	0.8	0.3	0.5	0.4	0.2	0.2	0.2	0.2	0.2
Contribution of identified flows	-1.5	0.3	0.8	0.3	0.5	0.4	0.2	0.2	0.2	0.2	0.2
Primary deficit	0.1	1.3	1.5	1.2	1.4	1.2	0.9	0.9	0.9	0.9	0.9
Noninterest revenues	33.3	33.1	33.2	33.2	33.5	33.8	34.2	34.2	34.2	34.2	34.2
Noninterest expenditures	33.5	34.4	34.7	34.5	34.9	35.0	35.2	35.2	35.2	35.2	35.2
Automatic debt dynamics	-1.5	-1.1	-0.8	-1.0	-0.8	-0.8	-0.7	-0.7	-0.6	-0.6	-0.6
Real interest rate and relative inflation	-1.2	-0.7	-0.2	-0.4	-0.3	-0.2	-0.1	-0.1	0.0	0.0	0.0
Real interest rate	-1.2	-0.7	-0.2	-0.4	-0.3	-0.2	-0.1	-0.1	0.0	0.0	0.0
Relative inflation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Real growth rate	-0.3	-0.4	-0.6	-0.6	-0.6	-0.6	-0.6 .	-0.6	-0.6	-0.6	-0.6
Real exchange rate	0.0	...	...	...	...	...	... .	...	...	...	...
Other identified flows	-0.2	0.1	0.1	0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(minus) Interest Revenues	-0.3	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Other transactions	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Contribution of residual	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross financing needs	0.4	2.8	3.2	3.3	2.7	3.4	3.4	2.8	3.2	3.4	3.7
of which: debt service	0.6	1.7	1.9	2.2	1.4	2.3	2.5	2.0	2.4	2.6	2.9
Local currency	0.6	1.7	1.9	2.2	1.4	2.3	2.5	2.0	2.4	2.6	2.9
Foreign currency	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Memo:											
Real GDP growth (percent)	1.0	1.6	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1
Inflation (GDP deflator; percent)	5.2	2.6	1.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Nominal GDP growth (percent)	6.3	4.2	3.4	4.4	4.3	4.3	4.2	4.2	4.2	4.2	4.2
Effective interest rate (percent)	0.0	0.0	0.3	0.7	1.1	1.3	1.6	1.8	1.9	2.0	2.1

Contribution to Change in Public Debt
(Percent of GDP)



Commentary: Public debt will gradually rise but is sustainable, reflecting expectations of a narrowing of primary deficits and stable economic conditions.

Figure 5. Luxembourg: Realism of Baseline Assumptions



Commentary: The realism analysis does not point to major concerns: past forecast errors do not reveal any systematic biases and the projected fiscal adjustment and debt evolution are well within norms.

Source : IMF Staff.

1/ Projections made in the October and April WEO vintage.

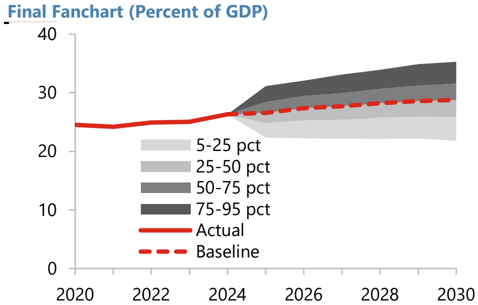
2/ Calculated as the percentile rank of the country's output gap revisions (defined as the difference between real time/period ahead estimates

3/ Data cover annual obervations from 1990 to 2019 for MAC advanced and emerging economies. Percent of sample on vertical axis.

4/ The Laubach (2009) rule is a linear rule assuming bond spreads increase by about 4 bps in response to a 1 ppt increase in the projected debt-to-GDP ratio.

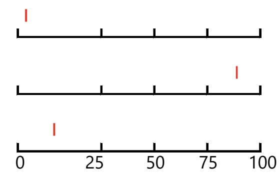
Figure 6. Luxembourg: Medium-term Risk Analysis

Final Fanchart (Percent of GDP)

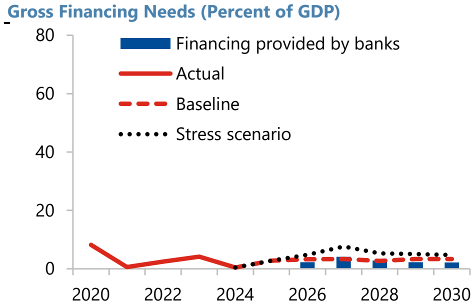


Debt fanchart module

	Value	Contrib 1/	Percentile in peer group 2/
Fanchart width *(percent of GDP)*	13.5	0.2	
Probability of debt non-stabilizaiton *(percent)*	74.6	0.6	
Terminal debt-to-GDP x institutions index	3.4	0.1	
Debt fanchart index (DFI)		0.9	
Risk signal: 3/		Low	

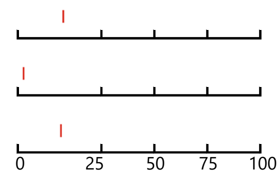


Gross Financing Needs (Percent of GDP)



Gross financing needs (GFN) module

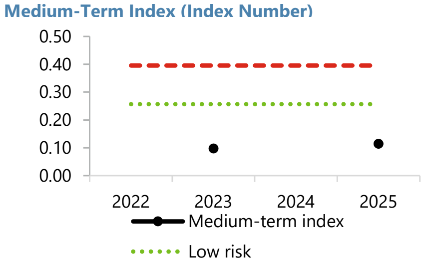
	Value	Contrib 1/	Percentile in peer group 2/
Average baseline GFN *(percent of GDP)*	3.1	1.1	
Initial Banks' claims on the gen. govt *(pct bank assets)*	0.4	0.1	
Chg. In banks' claims in stress *(pct banks' assets)*	1.1	0.4	
GFN financeability index (GFI)		1.6	
Risk signal: 4/		Low	



Triggered stress tests (stress tests not activated in gray)

Banking crisis Commodity prices Exchange rate Contingent liab. Natural disaster

Medium-Term Index (Index Number)



Medium-term risk analysis

	Value	Value (normalized)	Weight	Contribution
Debt fanchart index	0.9	0.2	0.5	0.1
GFN finaceability index	1.6	0.0	0.5	0.0
Medium-term index		0.1		
Risk signal: 5/		Low		
Final assessment:		Low		

Prob. of missed crisis, 2025-2030, if stress not predicted: 0.0 pct.
Prob. of false alarms, 2025-2030, if stress predicted: 87.5 pct.

Commentary: Of the two medium-term tools, the Debt Fanchart Module is pointing to higher levels of risk, while the GFN Financeability Module suggests lower level of risk. In both cases, risks of debt distress are low.

Source: IMF staff estimates and projections.

1/ See Annex IV of IMF, 2022, Staff Guidance Note on the Sovereign Risk and Debt Sustainability Framework for details on index calculation.
2/ The comparison group is advanced economies, non-commodity exporter, surveillance.
3/ The signal is low risk if the DFI is below 1.13; high risk if the DFI is above 2.08; and otherwise, it is moderate risk.
4/ The signal is low risk if the GFI is below 7.6; high risk if the DFI is above 17.9; and otherwise, it is moderate risk.
5/ The signal is low risk if the GFI is below 0.26; high risk if the DFI is above 0.40; and otherwise, it is moderate risk.

Annex V. Data Issues Annex

Table 1. Luxembourg: Data Adequacy Assessment for Surveillance

Data Adequacy Assessment Rating 1/

A

Questionnaire Results 2/

Assessment	National Accounts	Prices	Government Finance Statistics	External Sector Statistics	Monetary and Financial Statistics	Inter-sectoral Consistency	Median Rating
	A	A	A	A	B	B	A

Detailed Questionnaire Results

Data Quality Characteristics	National Accounts	Prices	Government Finance Statistics	External Sector Statistics	Monetary and Financial Statistics	Inter-sectoral Consistency
Coverage	A	A	A	A	B	
Granularity 3/	B		B	B	B	
			A		A	
Consistency			A	A		B
Frequency and Timeliness	A	A	A	A	A	

Note: When the questionnaire does not include a question on a specific dimension of data quality for a sector, the corresponding cell is blank.

1/ The overall data adequacy assessment is based on staff's assessment of the adequacy of the country's data for conducting analysis and formulating policy advice, and takes into consideration country-specific characteristics.

2/ The overall questionnaire assessment and the assessments for individual sectors reported in the heatmap are based on a standardized questionnaire and scoring system (see IMF *Review of the Framework for Data Adequacy Assessment for Surveillance* , January 2024, Appendix I).

3/ The top cell for "Granularity" of Government Finance Statistics shows staff's assessment of the granularity of the reported government operations data, while the bottom cell shows that of public debt statistics. The top cell for "Granularity" of Monetary and Financial Statistics shows staff's assessment of the granularity of the reported Monetary and Financial Statistics data, while the bottom cell shows that of the Financial Soundness indicators.

A	The data provided to the Fund is adequate for surveillance.
B	The data provided to the Fund has some shortcomings but is broadly adequate for surveillance.
C	The data provided to the Fund has some shortcomings that somewhat hamper surveillance.
D	The data provided to the Fund has serious shortcomings that significantly hamper surveillance.

Rationale for staff assessment. Data provision to the Fund is adequate for surveillance. Luxembourg publishes timely economic statistics and most of the underlying metadata. National accounts and balance of payments data are subject to large revisions, and recently inter sectoral inconsistencies have widened. Fiscal revenue are available but more granularity is needed to disentangle one-off, cyclical and structural developments. As identified by the FSAP, areas of improvement for monetary and financial statistics include identification of SPEs in the corporate micro data to improve vulnerability assessments.

Changes since the last Article IV consultation. Balance of payments and national accounts data have been revised significantly starting 2020. More efforts have been taken to collect data and reducing data gaps on OFIs, in line with the 2024 FSAP recommendation+B8. In particular, the BCL has collected data on the interconnectedness between investment funds and OFIs, in particular granular data on direct borrowing and lending activities, as well as investment exposures between counterparties.

Corrective actions and capacity development priorities. Fiscal statistics could be improved by moving fully to accrual accounting to better assess the fiscal stance (cyclically adjusted balance) and imporving the granularity of reporting about one-off revenues. Monetary and financial statistics could be improved by including identification of special purpose entities in the corporate micro data to improve vulnerability assessments.

Use of data and/or estimates different from official statistics in the Article IV consultation. In the absence of CRE price index, staff have used private sector estimates (Cushman and Wakefield).

Other data gaps.

Table 2. Luxembourg: Data Standards Initiative

Luxembourg adheres to the Special Data Dissemination Standard (SDDS) Plus since November 2019 and publishes the data on its National Summary Data Page. The latest SDDS Plus Annual Observance Report is available on the Dissemination Standards Bulletin Board (https://dsbb.imf.org/).

Table 3. Luxembourg: Table of Common Indicators Requires for Surveillance

As of April 28, 2025

	Data Provision to the Fund				Publication under the Data Standards Initiatives through the National Summary Data Page			
	Date of Latest Observation	Date Received	Frequency of Data[6]	Frequency of Reporting[6]	Expected Frequency[6,7]	Luxembourg[8]	Expected Timeliness[6,7]	Luxembourg[8]
Exchange Rates	28-Apr-25	28-Apr-25	D	D	D	D	...	...
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	Mar-25	Apr-25	M	M	M	M	1W	1W
Reserve/Base Money	Mar-25	Apr-25	M	M	M	M	2W	2W
Broad Money	Mar-25	Apr-25	M	M	M	M	1M	1M
Central Bank Balance Sheet	Mar-25	Apr-25	M	M	M	M	2W	1M
Consolidated Balance Sheet of the Banking System	Mar-25	Apr-25	M	M	M	M	1M	1M
Interest Rates[2]	28-Apr-25	28-Apr-25	D	D	D	D	NA	...
Consumer Price Index	Mar-25	Apr-25	M	M	M	M	1M	1M
Revenue, Expenditure, Balance and Composition of Financing[3]–General Government[4]	Dec-24	Apr-25	A	A	A/Q	A	2Q/12M	2Q
Revenue, Expenditure, Balance and Composition of Financing[3]–Central Government	Mar-24	Apr-25	M	M	M	M	1M	1M
Stocks of Central Government and Central Government-Guaranteed Debt[5]	Dec-24	Apr-25	Q	Q	Q	Q	1Q	1Q
External Current Account Balance	Dec-24	Mar-25	Q	Q	Q	Q	1Q	82D
Exports and Imports of Goods and Services	Feb-24	Apr-25	M	2M	M	M	8W	56D
GDP/GNP	Dec-24	Apr-25	Q	Q	Q	Q	1Q	85D
Gross External Debt	Dec-24	Apr-25	Q	Q	Q	Q	1Q	1Q
International Investment Position	Dec-24	Apr-25	Q	Q	Q	Q	1Q	1Q

[1] Includes reserve assets pledged or otherwise encumbered, as well as net derivative positions.

[2] Both market-based and officially determined, including discount rates, money market rates, rates on treasury bills, notes and bonds.

[3] Foreign, domestic bank, and domestic nonbank financing.

[4] The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.

[5] Including currency and maturity composition.

[6] Frequency and timeliness: ("D") daily; ("W") weekly or with a lag of no more than one week after the reference date; ("M") monthly or with lag of no more than one month after the reference date; ("Q") quarterly or with lag of no more than one quarter after the reference date; ("A") annual.; ("I") irregular; and ("NA") not available.

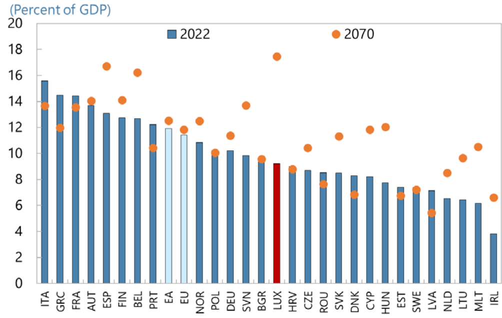
[7] Encouraged frequency of data and timeliness of reporting under the e-GDDS and required frequency of data and timeliness of reporting under the SDDS and SDDS Plus. Any flexibility options or transition plans used under the SDDS or SDDS Plus are not reflected. For those countries that do not participate in the IMF Data Standards Initiatives, the required frequency and timeliness under the SDDS are shown for New Zealand, and the encouraged frequency and timeliness under the e-GDDS are shown for Eritrea, Nauru, South Sudan, and Turkmenistan.

[8] Based on the information from the Summary of Observance for SDDS and SDDS Plus participants, and the Summary of Dissemination Practices for e-GDDS participants, available from the IMF Dissemination Standards Bulletin Board (https://dsbb.imf.org/). For those countries that do not participate in the Data Standards Initiatives, as well as those that do have have a National Data Summary Page, the entries are shown as "..."

Annex VI. Luxembourg's Pension System Faces Challenges in the Longer Term

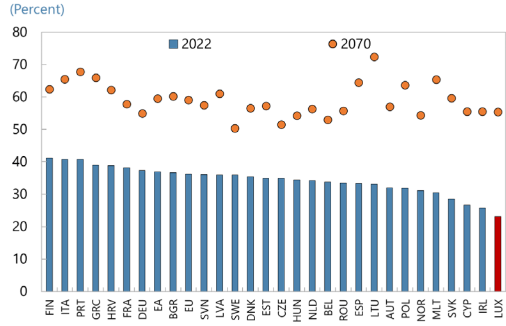
1. Luxembourg's pension system is financially sound in the near term, but further reforms are needed to ensure its long-term sustainability. The pension system reserves are substantial (above 30 percent of GDP), but its long-term sustainability may be at risk. The 2012 pension reform created some incentives to increase low elderly labor market participation and limited average duration of retirement. Nonetheless, options for early retirement, generous benefits, and adverse demographics will translate into rapidly increasing ageing costs over the longer term. Under current policies pension expenditure is projected to grow significantly, exceeding income from contributions already in 2026, and pension reserves are expected to be depleted by 2045 amid a large increase in the old-age dependency ratio. Pension spending is expected to rise by almost 3 percentage points of GDP by 2040, while contributions are expected to plateau due to slower net migration flows. Under current policies pension expenditures are expected to double as a share of GDP by 2070. Within one generation (40 years), this would lead to substantially higher fiscal deficits and an accumulation of public debt above 70 percent of GDP by 2070.

Gross Public Pension Expenditures
(Percent of GDP)



Source: European Commission 2024 Ageing Report.

Old-Age Dependency Ratio
(Percent)

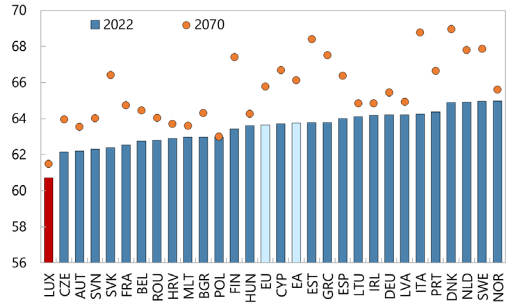


Source: European Commission 2024 Ageing Report.

2. While there are several reform options that could help ensure long-term sustainability of pensions, there are also important macroeconomic trade-offs between them. Options include: an increase in the retirement age, a reduction of benefits, and an increase in the contribution rate, which staff analyzed in the 2019 Luxembourg Selected Issues Paper. Even though an increase in the contribution rates can be implemented immediately, it introduces distortions in the labor market which would lead to a decline in GDP in addition to a decline in consumption. A reduction of benefits would also lead to a reduction in consumption as disposable income falls, but it does not introduce distortions that negatively affect GDP. Furthermore, if a reduction in benefits is implemented via a reduction of accrual rates, it reduces the pension income of high-income households by more, protecting the income of the most vulnerable. On the other hand, an increase in the retirement age (or increase in the effective retirement age) increases labor supply and consequently GDP, in addition to increasing consumption due to a higher lifetime income. As action is needed on several fronts to ensure the long-term sustainability of the system, the reform package could include different combinations of reform measures and of changes to key parameters.

Average Effective Exit Age from Labor Market

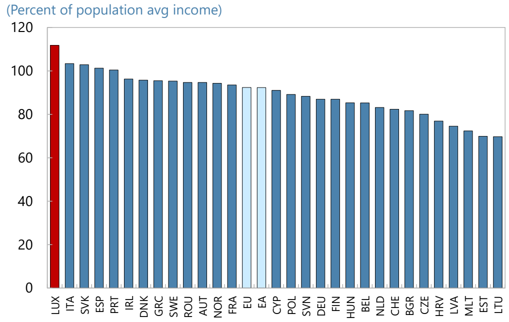
(Years)



Source: European Commission 2024 Ageing Report.

Income of 65+ Population, 2023

(Percent of population avg income)



Sources: Eurostat and IMF staff calculations.

3. **Given the important tradeoffs of different pension reforms, an early engagement of key stakeholders is crucial to allow for a gradual transition.** The start of such engagement with the first phase of public consultations in October 2024 is welcome. The second phase started in early 2025 and involves discussions of reforms by expert panels. When simulating and discussing scenarios for pension reform, it will be important to consider the macroeconomic impact of measures in a general equilibrium setting, including potential impact of higher contributions on labor supply and demand as well as distributional aspects of the proposed reform measures.

Annex VII. Implementation of FSAP Recommendations

Table 1. Luxembourg: FSAP 2024—Main Recommendations				
	Recommendations	**Authorities**	**Priority[1/]**	**Progress/Observations**
		Systemic Risk Analysis		
1.	Improve bank liquidity stress tests by using cash-flow data for key currencies; incorporating liquidity-solvency interactions; and integrating depository-fund manager group links.	CSSF, BCL	ST	With regard to stress tests using cash-flow data for key currencies, work will be conducted on BCL side in the course of 2025 to incorporate such scenarios into the existing liquidity stress-testing framework. The CSSF is considering improving its bank liquidity stress testing by the integration of liquidity stress tests in significant currencies after the new liquidity reporting European will be available. Stress-testing with integrated Group Manager Depositary and Fund links as well as Liquidity Solvency Interactions have been implemented by the macroprudential division.
2.	Identify Special Purpose Entities in the corporate micro data to improve vulnerability assessments.	STATEC	ST	Not implemented.
3.	Analyze investment funds' interlinkages with OFIs and with other funds, to quantify redemption patterns and potential amplification mechanisms.	CSSF, BCL	MT	The BCL has enhanced the risk-based monitoring of the interconnections between investment funds and other financial intermediaries (OFIs). Since 2017, the BCL is represented in the Non-Bank Monitoring Expert Group (NMEG) of the Financial Stability Board (FSB) and participates actively contributes to the FSB's annual global monitoring exercise,[2/] notably by sharing data, compiling vulnerability metrics, and improving its monitoring of systemic risk of non-banks operating in Luxembourg. The 2024 exercise included reduction of data gaps, including (i) non-bank fintech lending data collected on a best-efforts basis in light of the G20 Data Gaps Initiative;[3/] and (ii) the distribution of the vulnerability metrics at jurisdiction level, including additional details for Economic Function (EF2) and Economic Function (EF3) entities in the narrow NBFI measure.[4/]

Table 1. Luxembourg: FSAP 2024—Main Recommendations (continued)				
	Recommendations	Authorities	Priority1/	Progress/Observations
				Interconnectedness is assessed through direct borrowing and lending activities, as well as investment exposures between counterparties. This approach helps identifying the balance sheet assets and liabilities that are shared among investment funds and OFIs, which can arise from credit provision or investment exposures. Notably, this measure of interconnectedness is categorized by OFI entity type, including money market funds, hedge funds, other investment funds (OIFs), financial companies, broker-dealers, and structured financial vehicles. Alongside OFIs, it also accounts for interconnectedness between non-financial corporations (NFCs), government and households. This comprehensive perspective provides a clearer understanding of the relationships between investment funds, OFIs, and the broader economy. With regard to vulnerability metrics in the FSB annual monitoring exercise, the BCL reports indicators on credit intermediation, maturity transformation and leverage, as well as various disaggregated balance sheet items for several types of investment funds. Such items include total financial assets, credit assets, long-term assets with maturity over 12 months, liquid assets, long-term liabilities, short-term liabilities, net asset value and shareholder equity. The BCL is exploring all data available in order to conduct an analysis of the interactions among various categories of investment funds, considering exposures to credit and debt securities including bonds and fund shares. This analysis would examine how these exposures contribute to the concentration of risks within investment funds. By identifying also overlapping portfolios, shared holdings, and common exposures, the analysis aims to uncover vulnerabilities where excessive concentration could amplify liquidity systemic risks, particularly during periods of market stress.

Table 1. Luxembourg: FSAP 2024—Main Recommendations (continued)				
	Recommendations	**Authorities**	**Priority[1/]**	**Progress/Observations**
				In addition to the FSB work, and using financial account data, the BCL continued to closely monitor interlinkages between investment funds and OFIs as outlined in the technical note of the Luxembourg FSAP on stress testing and systemic risk analysis published in June 2024. [5/] In this context, the BCL continues examining the interconnections within Luxembourg's financial sector, with a particular emphasis on investment funds, captives and banks. The analysis uses quarterly financial accounts data to offer a detailed breakdown of the assets and liabilities of domestic and international institutional sectors, categorized by financial instruments. Furthermore, the BCL's monitoring framework also utilizes network analysis tools to evaluate the structural relationships between investment funds, captives and banks, based on their respective balance sheets. This approach provides insights into asset and liability classes, as well as the types of counterparties involved. In addition to existing network analysis, the BCL is developing a framework for System-wide Stress Testing (SWST) for Luxembourg covering investment funds and banks. More specifically, we are developing a structural framework for system-wide financial stress-testing with multiple interacting contagion and amplification effects, which act through a dual channel of liquidity and solvency risk. The framework allows us to identify vulnerabilities arising from the increasingly intricate and complex financial system of banks and investment funds in Luxembourg.
4.	Enhance supervisory reporting, especially on investments and derivatives, and conduct regular insurance sector top-down stress tests and sensitivity analysis.	CAA	ST	In terms of Solvency II reporting CAA regularly does thematic reviews to enhance the reporting data quality. As an example, just recently, CAA reviewed the data quality of the depository banks in the Solvency II line by line reporting. Concerning the stress tests, besides the stress tests of the "statutory" actuarial report and the recent EIOPA stress test, the CAA did not conduct any new stress tests. This is however work in progress.

Table 1. Luxembourg: FSAP 2024—Main Recommendations (continued)

	Recommendations	Authorities	Priority[1/]	Progress/Observations
5.	Further monitor liquidity mismatches in newly emerging investment strategies of large AIF funds, including semi-liquid structures, liability-driven investments, and those promoting "retailization".	CSSF	MT	During the authorization process**,** the CSSF looks into the liquidity profile of authorized funds. In this context, for illustrating, a dedicated authorization questionnaire has been set up for ELTIFs in the context of the ELTIF2 regulation. The CSSF continues to enhance the ongoing risk-based data-driven supervision (e.g. UCI Risk Dashboard, Outlier analyses) by adding a focus on specific fund cohorts (e.g. further integrate the information of investor types to monitor retailization trends, focus on cohorts of newly emerging investment strategies such as loan funds).
Macroprudential Policy				
6.	Enhance accountability and transparency to the general public, by publishing the factors underpinning macroprudential policy decisions, including where no action is taken.	CdRS	I	The CdRS is committed to maintaining a high level of transparency and accountability. In addition to the publication of its annual report, the CdRS is currently exploring further options to better explain macroprudential policy to the general public, e.g., via enhanced communication.
7.	Uphold the primacy of the financial stability objective of the CdRS by reducing the MoF's role in macroprudential decision-taking.	MoF, CdRS	ST	In the view of CdRS members, the primacy of the financial stability objective is well established. Members do currently not perceive the need for changes to the governance of the committee.
8.	Reassess whether the legal framework for borrower-based limits preserves the ability of the CdRS to act in a risk-sensitive manner.	CdRS, MoF	MT	Article 59–14a of the Law of 5 April 1993 establishes the legal framework for borrow-based measures (BBMs) in Luxembourg. In autumn 2024, the CdRS has assessed the adequacy of the corridors provided by the law for setting limits to borrower-based indicators. The CdRS concluded that the current framework remains appropriate and that the corridors do not currently limit the CdRS in setting adequate limits. The CdRS will re-assess the adequacy of corridors on a regular basis.
9.	Activate income-based macroprudential measures—such as stressed debt-service-to-income limit—early in the recovery cycle and consider gradually reducing the maximum-LTV ratio from 100 percent.	CdRS, CSSF	ST	Discussions to activate income-based macroprudential measures early in the recovery process have taken place in the CdRS. While the current macroprudential stance is considered to be appropriate, the CdRS will remain vigilant to the developments in the RRE market in Luxembourg.

Table 1. Luxembourg: FSAP 2024—Main Recommendations (continued)

	Recommendations	Authorities	Priority[1/]	Progress/Observations
				In addition, the CSSF regularly assesses bank lending practices including borrower credit standards and the compliance with the 200-basis-point interest rate stress test on variable-rate mortgages. Combined with the bank practices to require a minimum residual income, this measure ensures that borrowers can manage potential interest rate increases while maintaining a sufficient standard of living and a loss absorption capacity to potential shocks. This measure is considered prudent in mitigating household indebtedness and interest rate risks for borrowers. Regarding the upper limit of the LTV-ratio of 100 percent, the CdRS views the current arrangements as appropriate.
10.	Fortify banks' resilience on stock vulnerabilities, by raising capital buffer requirements, preferably through targeted capital-based measures on real estate exposures.	CdRS, CSSF	I	Discussions on this topic are currently ongoing at the CdRS. The national authorities continue to assess the need for action based on thorough analyses of risks and vulnerabilities, also in view of existing capital buffers and stock of provisions on performing loans.
11.	Improve coordination with housing and other government policies with financial stability implications and establish a consultation mechanism with the CdRS.	MoF, CdRS	I	The CdRS has strengthened its internal discussions on government policies.
Financial Sector Oversight and Supervision				
12.	Future-proof CSSF and CAA independence by changes to the law. Where legal amendments are not feasible, issue subsidiary legislation to establish procedural safeguards within the constraints provided by the law.	MoF, CSSF, CAA	MT	Regarding the independence of CSSF and CAA, the authorities consider the current governance structure to be adequate, and that the presence of government and industry representatives on the oversight boards do not introduce a potential for external interference. The CSSF and CAA boards' role is merely limited to deciding general policies and the respective budgets. Subsidiary legislation (Grand-ducal regulation of 23 December 2022, Article 2; Grand-ducal regulation of 28 April 2014 (as modified)) sets out procedural safeguards establishing modalities limiting any potential lack of CSSF/CAA budgetary autonomy. Any

Table 1. Luxembourg: FSAP 2024—Main Recommendations (continued)

	Recommendations	Authorities	Priority[1/]	Progress/Observations
				budget deficit is hence to be recouped from industry participants. [6/]
13.	Promote EU-level depositary independence reforms; and meanwhile, include supervision of depositary-fund manager group links as risk factors in the risk-based approach (RBA).	MoF, CSSF	MT/ST	Promotion of depositary independence reforms at EU Level: To ensure convergence between EU national competent authorities, the authorities consider that this recommendation should be addressed to EC & ESMA.
				Inclusion of a group links factor in the RBA: The RBA prioritization tool is in continuous development. CSSF envisages to incorporate the group link in a future version.
14.	Finalize BCL/CSSF MoU on bank liquidity supervision and specify the criteria used for selecting the LSIs for which the BCL assesses LSREP.	BCL, CSSF	ST	The MoU on bank liquidity between BCL and CSSF was signed on 5 July 2024. With regard to the selection criteria for LSI to be supervised, reference is made in the MoU to the systemic importance of the respective institutions (based on a methodology developed by BCL).
15.	Continue discussions on initiating an on-site inspection framework of investment fund delegates outside Luxembourg, with a risk-based approach.	CSSF	MT	Two portfolio managers based in the US underwent an inspection in 2024Q4. However, further inspections will only be carried out once the conduct of inspections in third-country jurisdictions is harmonized at a European level. The CSSF considers such harmonization crucial in order to ensure a level playing field within the EU.
16,	Strengthen the enforcement framework for the investment fund sector in terms of harmonization of powers, increasing administrative fines, and accountability of individuals.	CSSF	MT	The review of the enforcement framework does not fall within the competence of the CSSF but rather of the Ministry of Finance. The CSSF contacted the Ministry of Finance to initiate discussions on this topic, in particular on the harmonization of supervisory and sanction powers and the individual accountability regime. Where the enforcement framework is aligned with the EU framework, the CSSF is of the view that the current frameworks is adequate. The enforcement power over individuals is limited to cases where the CSSF is able to demonstrate that such individuals are directly responsible for the alleged breach. In order to ensure convergence within the EU, ESMA and the EC should develop an AIFM enforcement framework similar

Table 1. Luxembourg: FSAP 2024—Main Recommendations (continued)				
	Recommendations	Authorities	Priority[1/]	Progress/Observations
				to the UCITS one. EC and ESMA should also be at the initiative of an individual accountability regime for the same reason.
17.	Set up an internal audit function to evaluate and enhance CAA risk management, control, and governance.	CAA	MT	CAA did not yet setup an internal audit function as the modalities of this function are still discussed at the level of our Executive Committee.
18.	Use macroeconomic data in the authorities' analysis of cross-border payments for a more effective management of ML/TF risks.	CSSF, FIU	MT	The CSSF continuously improves its understanding of ML/TF risks related to cross-border flows and has since the last visit of the FMI in January 2024 taken additional measures in this regard. To be able to better detect and analyze payment patterns that stand out and that might warrant additional supervision, meetings have been organized with the BCL to obtain the necessary cross-border payments data. The CSSF has also put in place a software service that enables to turn the data obtained from the BCL into coherent, visually immersive exploitable data. CSSF's analysis has started to take into account macro-economic data to foster the understanding of ML/TF risks and to identify potential red flags. This information on cross-border flows is also reinforcing the micro-economic supervision performed by the CSSF at the entity level. As regards cooperation with foreign AML authorities, the AML colleges serve as the forum where potential red flags as to cross-border payment data may be discussed.
Financial Safety Net and Crisis Management				
19.	Improve operational readiness of the Luxembourg Deposit insurance fund (FGDL) for timely and reliable payouts; reassess staffing and asymmetry in time gaps for claims recovery.	CSSF, FGDL	MT	Improvements in the IT system's quality and reliability are currently under discussion to better automatize the payout process and ensure the 7-working-day payout period is met. Based on past working cases, dedicated areas of improvement points have been listed in parallel as well. Staffing at the PDI department (in charge of the operational aspects of the Luxembourg Deposit Guarantee Scheme) is sized to accommodate day-to-day operations undergoing conditions only.

Table 1. Luxembourg: FSAP 2024—Main Recommendations (concluded)

	Recommendations	Authorities	Priority[1/]	Progress/Observations
20.	Continue the work on the operationalization of the resolution tools, expanding its national resolution handbook and by participating in simulation exercises.	CSSF	MT	The resolvability is re-assessed within the resolution plans of LSI banks earmarked for liquidation (not subject to simplified obligations) on a yearly basis. For LSI banks earmarked for liquidation and subject to simplified obligations, said re-assessment is performed every two years. The CSSF will continue such re-assessment for each resolution plan. For the preparation of tail-risk scenarios where actual losses exceed loss absorption buffers and available resolution financing, the CSSF will continue to ensure that LSI banks respect the MREL and the respective single resolution board MREL policy. The CSSF has reviewed the Memorandum of Understanding (MoU) between the CSSF and the FDIC. An update, with minor changes, was proposed in September 2024 to the FDIC. The CSSF is also reviewing the existing network of cooperation agreements on recovery and resolution planning with non-EU countries. The preliminary review of the cooperation agreements with non-EU-countries by the CSSF indicates that no other MOU should be updated because all the respective Luxembourg LSIs are earmarked for liquidation.
21.	Undertake liquidity assistance simulation exercises to test banks' capabilities in mobilizing enough collateral.	BCL	ST	While recognizing the merit of testing the bank's ability to mobilize collateral in a timely manner, the BCL does not plan to perform such tests in the short run because of the signaling effect.

1/ I: Immediate, less than a year; ST: short term, between 1-3 years; MT: medium term, in 5 years.
2/ See the Global Monitoring report on Non-Bank Financial Intermediation 2024: https://www.fsb.org/2024/12/global-monitoring-report-on-non-bank-financial-intermediation-2024/
3/ However, due to data limitations, the BCL is not able to assess the magnitude of fintech lending in Luxembourg and, therefore, quantitative fintech data was not reported in the exercise.
4/ The narrow measure used by the FSB includes the subset of the NBFI sector that is involved in credit intermediation and may pose risks to financial stability through liquidity/maturity transformation and/or leverage, and falls into one of five economic functions (EF). However, Luxembourg does not report risk metrics for EF2, EF3 and EF4 entities. To be more specific, Luxembourg does not allocate any entities into EF2 (lending dependent on short-term funding – finance companies, leasing companies etc.). Due to the small size of entities classified in EF3 (market intermediation dependent on short-term funding – broker dealers), Luxembourg is also not required to report risk metrics for EF3. Similarly, EF4 (facilitation of credit creation – credit insurance companies) is also not material and not reported. To recall, data provision on risk metrics depends on a threshold set by the FSB. Over the past years, Luxembourg was required to provide risk metrics for EF1 (collective investment vehicles with features that make them susceptible to runs) and EF5 (securitisation-based credit intermediation) entities.
5/ See Luxembourg: FSAP—Technical Note on Stress Testing and Systemic Risk Analysis: https://www.elibrary.imf.org/view/journals/002/2024/185/article-A001-en.xml#A001ref09
6/ The Grand-ducal regulation is available under: https://legilux.public.lu/eli/etat/leg/rgd/2022/12/23/a662/jo and https://www.caa.lu/uploads/documents/files/Reglm_Taxes_2014-04-28_coord_2021-01-01.pdf

INTERNATIONAL MONETARY FUND

LUXEMBOURG

STAFF REPORT FOR THE 2025 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

May 14, 2025

Prepared By	European Department

CONTENTS

FUND RELATIONS

(As of March 31, 2025)

Membership Status: Joined December 27, 1945; Article VIII.

General Resources Account:

	SDR million	Percent of quota
Quota	1,321.80	100.00
Fund holding of currency	989.35	74.85
Reserve Tranche Position	332.46	25.15
Lending to the Fund		
New Arrangements to Borrow		

SDR Department:

	SDR million	Percent of allocation
Net cumulative allocation	1,513.51	100.00
Holdings	1,545.19	102.09

Outstanding Purchases and Loans: None

Latest Financial Arrangements: None

Projected Payments to Fund (SDR Million); based on existing use of resources and present holdings of SDRs):

			Forthcoming		
	2025	2026	2027	2028	2029
Principal	0.01	0.01	0.01	0.01	0.01
Charges/Interest	0.01	0.01	0.01	0.01	0.01

Implementation of HIPC Initiative: Not applicable

Safeguards Assessments: Not applicable

Exchange Rate Arrangement: The exchange rate arrangement of the euro area is free floating. Luxembourg's participates in a currency union (EMU) with 19 other members of the EU and has no separate legal tender. The euro, the common currency, floats freely and independently against other currencies. Luxembourg has accepted the obligations of Article VIII, Sections 2, 3, and 4, and maintains an exchange system free of multiple currency practices and restrictions on the making of payments and transfers for current international transactions, other than restrictions maintained solely for security reasons, which have been notified to the Fund pursuant to the Executive Board Decision No. 144 (52/51).

Last Article IV Consultation: The last Article IV consultation was concluded on June 7, 2024. The associated Executive Board assessment is available at IMF Executive Board Concludes 2024 Article IV Consultation with Luxembourg and the staff report (IMF Country Report No. 2023/176) at 1LUXEA2024001.pdf. Luxembourg is on the standard 12-month consultation cycle.

Financial Sector Assessment Program (FSAP) Participation and ROSC: The Financial System Stability Assessment (FSSA) for the last mandatory FSA was discussed by the Board on June 7, 2024. The FSSA and accompanying Reports on the Observation of Standards and Codes (ROSCs) are available at https://www.imf.org/en/Publications/CR/Issues/2024/06/07/Luxembourg-Financial-Sector-Assessment-Program-Financial-System-Stability-Assessment-549936

Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT): In September 2023, the Financial Action Task Force (FATF) recognized the quality of the existing AML/CFT framework of Luxembourg and placed it under regular monitoring, which corresponds to the best possible result following a mutual evaluation. The FATF report is available at https://www.fatf-gafi.org/en/publications/Mutualevaluations/MER-Luxembourg-2023.html.