

Investor Presentation

February 2023





Executive Summary

Key Facts

- Despite the energy crisis real GDP growth in 2022 remained positive (+1.7%).
- 2023 growth is expected to be around +1.5%.
- Public debt is expected to increase to 24% of GDP in 2023, thus Luxembourg continues to respect its own ceiling of 30% of GDP.
- Support and energy measures decided so far (Solidaritéitspak 1.0 et 2.0, Energiedësch, Guarantees) to cushion inflationary effects for companies and households due to the energy crisis amount to 3.4% of GDP.
- Unemployment rate followed a downward trend, reaching its lowest level since 2009 in March 2022. In December 2022 the unemployment rate was at 4.8%.
- Despite the war context, total employment remained dynamic and is estimated to grow by +3.4% in 2022. For 2023, employment is expected to grow by +2.3%.

Focus on Contemplated Transaction

Key Features of contemplated transaction:

Issuer	Grand Duchy of Luxembourg			
Туре	Luxembourg Government Bond RegS Bearer, Senior, Unsecured			
Ratings	Aaa/AAA/AAA (all stable) (Moody's/S&P/Fitch)			
Expected Size	EUR Benchmark			
Maturity	Medium to long term			
Documentation	Standalone LGB			



- 1. Luxembourg at a Glance
- 2. Focus on Luxembourg's Public Finances
- 3. Focus on Luxembourg's Credit Rating and Debt Management





1. Luxembourg at a Glance



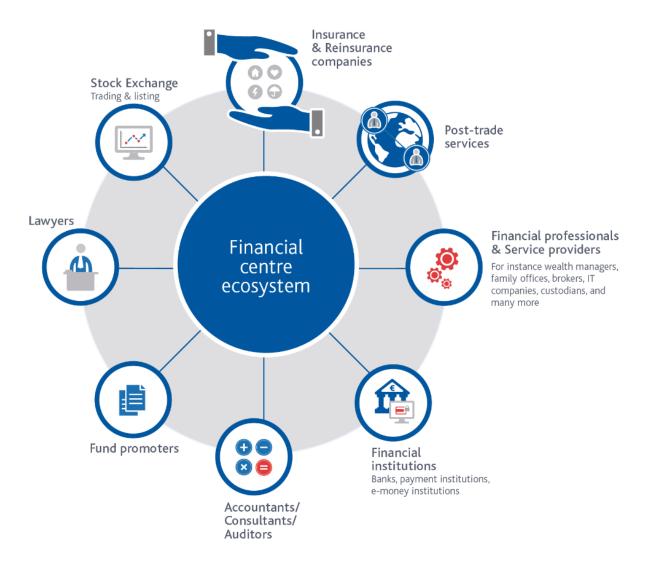
Luxembourg in a Nutshell





Luxembourg as International Financial Centre

- Luxembourg is a crossborder hub and centre of excellence facilitating multi-jurisdictional and international financial services.
- Luxembourg hosts the world's 2nd largest investment fund centre.
- Total net fund assets under management exceeded EUR 5000bn in 2022





Open and Diversified Economy

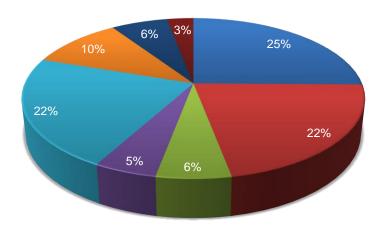
Luxembourg: snapshot of an open...

- Total exports exceeded 200% of GDP in 2021, of which EUR 26bn in goods and EUR 129bn in services.
- Luxembourg ranked #2 in the world for trade openess.1

...and growth-oriented economy, beyond the financial sector

- European corporate headquarter of global companies such as Amazon, Ferrero, Paypal, eBay, Skype, SES, ArcelorMittal and many others.
- Home base of all-freight carrier Cargolux, with Luxembourg Airport being the 6th largest freight airport in Europe.
- Strong focus on innovation, in sectors such as FinTech, Space Resources, CleanTech, Health- & BioTech and Cybersecurity.

Sectoral Share of Gross Value Added in 2021*



■ Financial Services

■ Real Estate and Administrative Services

■ Public administration

■ Manufacturing

■Trade, Transportation & Communication

■ Health / Education

■ Construction

■ Other

Source : National Statistical Office.
*Latest data available

¹ The World Bank, 2021.





2. Focus on Luxembourg's Public Finances

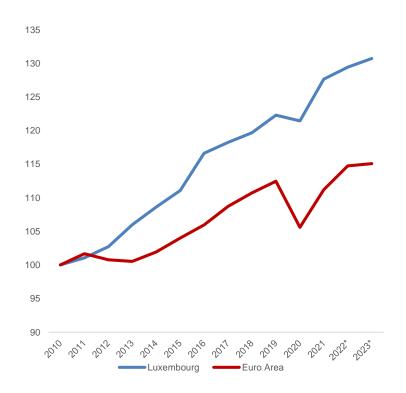


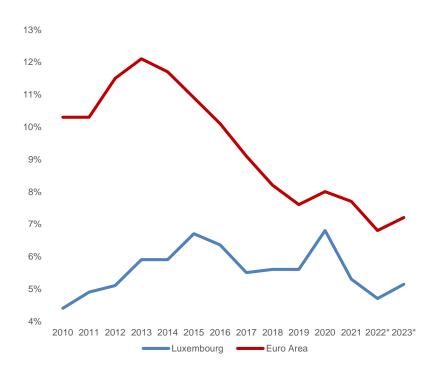
Macroeconomic Context

Real GDP (Index 100 = 2010)

Continued overperformance vs. Euro Area







Sources: European Commission, AMECO.



Public Finances (1/2)

- Despite the support measures in 2022, debt ratio decreased by 0.7 percentage point, from 24.5% of GDP in 2021 to 23.8% of GDP in 2022 and is expected to increase to 24% in 2023.
- Levels of public debt continue to remain low, notwithstanding the uncertainties surrounding the geopolitical conflicts.
- Debt ratio is forecast to remain below the 30% of GDP ceiling as enshrined in the Government Coalition Agreement 2018-2023.
- Luxembourg also holds financial assets worth 45% of GDP, of which 37% of GDP are invested through the pension reserve fund.



Sources:

Luxembourg: Ministry of Finance (National Budget 2023).

Euro Area: European Commission, AMECO (Autumn 2022 Economic Forecast).

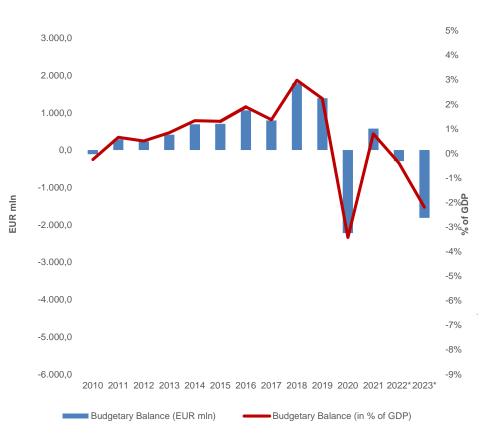


Public Finances (2/2)

Luxembourg has a track record of budget surpluses in normal times, being the only EU Member State to have complied consistently with Stability and Growth Pact rules since their inception.

- Public finances: a general government balance of -0.4% of GDP in 2022. Most recent budget numbers are encouraging and point towards a possible more balanced situation for 2022.
- Given the uncertainties surrounding the economic outlook, general government is expected to run a deficit for 2023 (-2.2%), but is expected to decrease gradually until 2026.
- Measures decided by Luxembourg to cushion the inflationary pressure caused by the energy crisis on companies and households in the context of the current events amount to 3.4% of GDP.
- Package includes among others: postponement of automatic wage indexation, introduction of an energy tax credit, temporary reduction in fuel prices, price caps on electricity & gas.

Budgetary Balance



Sources: National Statistical Office, Ministry of Finance (National Budget 2023).





3. Focus on Luxembourg's Credit Rating and Debt Management



Credit Ratings

S&P	AAA	Stable
Moody's	Aaa	Stable
Fitch	AAA	Stable
DBRS	AAA	Stable

Rationale behind the AAA rating:

- √ "The measures taken by the government in the context of the pandemic have made it possible to support the Luxembourg economy without compromising the soundness of public finances"
- √ "Public finances are a key strength for Luxembourg's rating"
- √ "Luxembourg's strong fiscal position is a key rating strength"
- ✓ "Luxembourg has a history of budget surpluses, which supports its low level of debt"
- ✓ "Flexible economic policies, very high wealth levels provide shock absorption capacity"



Debt Management (1/2)

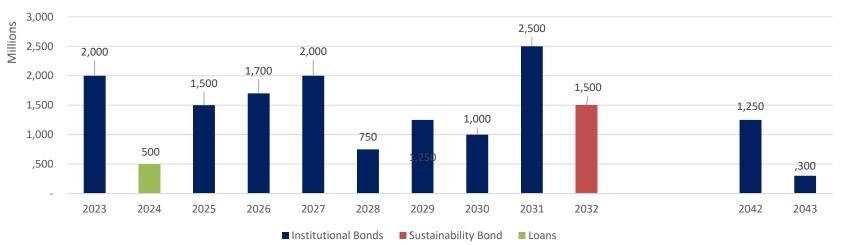
Syndicated Luxembourg Government Bonds (LGB) are the cornerstone of the Treasury's long-term funding strategy.

- Short-term liquidity needs are met via bank loans (actual outstanding EUR 500 mil.) or Treasury Notes (currently none outstanding).
- Luxembourg has 11 LGBs outstanding for a total amount of EUR 15.75 bn.

Optimizing refinancing and interest rate risk, zero FX exposure.

Outstanding LGBs (fixed-rate and issued in EUR only) have an average maturity of 6.46 years with the next redemption scheduled for July 2023.





Debt Management (2/2)

Outstanding Luxembourg Government Bonds (LGB)

	Issue Date	Notional	Maturity	Maturity date	Coupon	Currency
LGB 2.125% 2023	10/07/2013	2,000,000,000	10y	10/07/2023	2.125%	EUR
LGB 0.00% 2025	28/04/2020	1,500,000,000	5y	28/04/2025	0.000%	EUR
LGB 0.00% 2026	13/11/2019	1,700,000,000	7y	13/11/2026	0.000%	EUR
LGB 0,625% 2027	01/02/2017	2,000,000,000	10y	01/02/2027	0.625%	EUR
LGB 2.25% 2028	19/03/2013	750,000,000	15y	19/03/2028	2.250%	EUR
LGB 1.375% 2029	25/05/2022	1,250,000,000	7 y	25/05/2029	1.375%	EUR
LGB 0.00% 2030	28/04/2020	1,000,000,000	10y	28/04/2030	0.000%	EUR
LGB 0.00% 2031	24/03/2021	2,500,000,000	10y	24/03/2031	0.0000%	EUR
LGB 0.00% 2032	14/09/2020	1,500,000,000	12y	14/09/2032	0.000%	EUR
LGB 1.75% 2042	25/05/2022	1,250,000,000	20y	25/05/2042	1.75%	EUR
LGB 2.75% 2043 (PP)	20/08/2013	300,000,000	30y	20/08/2043	2.75%	EUR

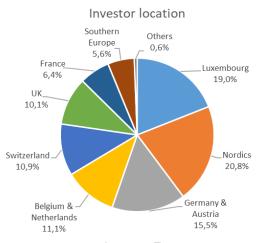
In addition, bank loans amounting to 500mil EUR are outstanding at the end of February 2023

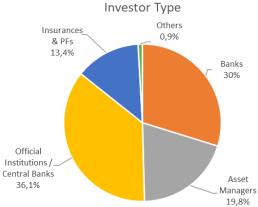
Source: Luxembourg State Treasury



Varied Investor base for LGBs

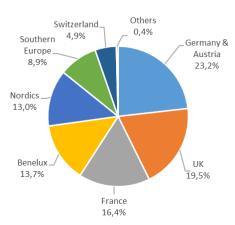
1.25 bn EUR LGB 2029 May 2022



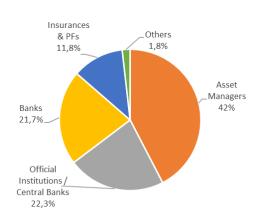


1.25 bn EUR LGB 2042 May 2022

Investor location



Investor Type





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THE GOVERNMENT OF THE GRAND-DUCHY OF LUXEMBOURG Ministry of Finance

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