



HELLENIC REPUBLIC
PUBLIC DEBT MANAGEMENT AGENCY

FUNDING STRATEGY FOR 2024

December 2023

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I. Public Debt Management of the Hellenic Republic

Key Achievements in 2023

Looking back at the 2023 debt management execution: main achievements

Flexible and proactive debt management in the run-up to investment grade in a challenging international environment

- Against a backdrop of rising government bond yields worldwide, in response to the aggressive monetary policy tightening, Greece's PDMA adopted a flexible debt management strategy in 2023, raising debt through syndications and auctions
- The funding strategy has aimed at seizing favorable market windows and capitalizing on improving confidence as regards the return of the Hellenic Republic to investment grade, which was eventually achieved in 3Q.23
- More than €11 bn have been raised through GGB issuance at competitive terms, sufficient to meet 2023 financing needs by a comfortable margin, and finance new initiatives aiming at improving further the debt structure
- Furthermore, PDMA's debt management remained proactive, going ahead with early repayments of official debt to further reduce short-term debt service terms and smoothen the redemption profile. In this context €5.3 bn of GLF loans, have been repaid on December 15
- Finally a LME took place in July 2023 via which PDMA exchanged €1.5 bn GGBs maturing in 2024 & 2025, with €1.5 bn new 15-year GGBs

Targeted issuances increased liquidity across the yield curve supporting the gradual repricing of Greek government bonds to investment grade status

- Market operations in 2023 have injected new GGBs across the yield curve with key maturity points in 2028 (5y), 2033 (10y) & 2038 (15y)
- New issuance targeted the most competitively priced areas of the yield curve increasing market liquidity
- All the relevant maturity points of the Greek yield curve now entail benchmark-size GGBs. This targeted issuance strategy has allowed to increase market activity along the yield curve, securing an even smoother redemption profile
- An impressive drop in the debt-to-GDP ratio of almost 50 pps between 2020 and 2023, on the back of robust macroeconomic performance and exceptional debt characteristics bolstered credibility
- The repricing of GGBs to investment grade status brought the Greek curve below the respective yield curve of Italy and closer to Spain's

The investor base for this year's syndicated bond issuances has remained diversified and was characterized by:

- **A strong presence of real money investors**, still representing the bulk of the investor base
- **A sustained presence of long-term investors**, in line with 2022 for comparable maturities

The return to investment grade after 13 years has been the culmination of remarkable macroeconomic adjustment and innovative debt management strategy

- **Fitch, S&P, DBRS, R&I and Scope upgraded the Hellenic Republic to Investment Grade status** in the second semester of 2023, whereas the rating by Moody's is only 1 notch away from Investment Grade following a two-notch upgrade in September
- **The rating outlook has been confirmed at stable** by all major rating agencies

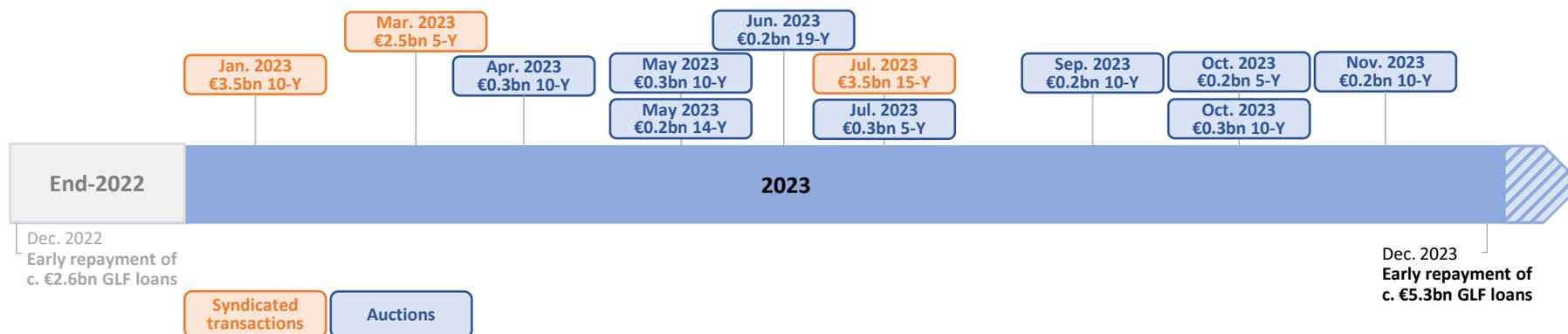
Flexible and proactive debt management in the run-up to investment grade in a challenging international environment

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Overview of 2023 Greece Government Bond Issues

ISINs	Issue/ Reopen. Date	Maturity Date	Tenor	Demand Amount	Issued Amount	Subscr. Rate	Yield	Spread vs Bund
Syndicated issuances								
GR0128017747	11/07/2023	18/07/2038	15Y	€13.6bn	€3.5bn	4.0x	4.46	171
GR0114033583	29/03/2023	15/06/2028	5Y	€19.1bn	€2.5bn	-	3.92	161
GR0124039737	17/01/2023	15/06/2033	10Y	€17.5bn	€3.5bn	6.2x	4.28	220
Auctions								
GR0124039737	15/11/2023	15/06/2033	10Y	€933mn	€200mn	4.7x ⁽¹⁾	3.76	
GR0124039737	18/10/2023	15/06/2033	10Y	€947mn	€250mn	3.8x ⁽¹⁾	4.34	
GR0114033583	18/10/2023	15/06/2028	5Y	€542mn	€150mn	3.6x ⁽¹⁾	3.85	
GR0124039737	20/09/2023	15/06/2033	10Y	€1bnn	€200mn	5.1x ⁽¹⁾	4.01	
GR0114033583	19/07/2023	15/06/2028	5Y	€1bnn	€250mn	4.2x ⁽¹⁾	3.30	
GR0138015814	21/06/2023	30/01/2042	19Y	€1.2bnn	€200mn	6.2x ⁽¹⁾	4.14	
GR0133011248	17/05/2023	30/01/2037	14Y	€866mn	€150mn	5.8x ⁽¹⁾	4.14	
GR0124039737	17/05/2023	15/06/2033	10Y	€1.3bn	€250mn	5.3x ⁽¹⁾	3.97	
GR0124039737	19/04/2023	15/06/2033	10Y	€1.7bn	€300mn	5.7x ⁽¹⁾	4.31	
				Total:	€11.5bn			

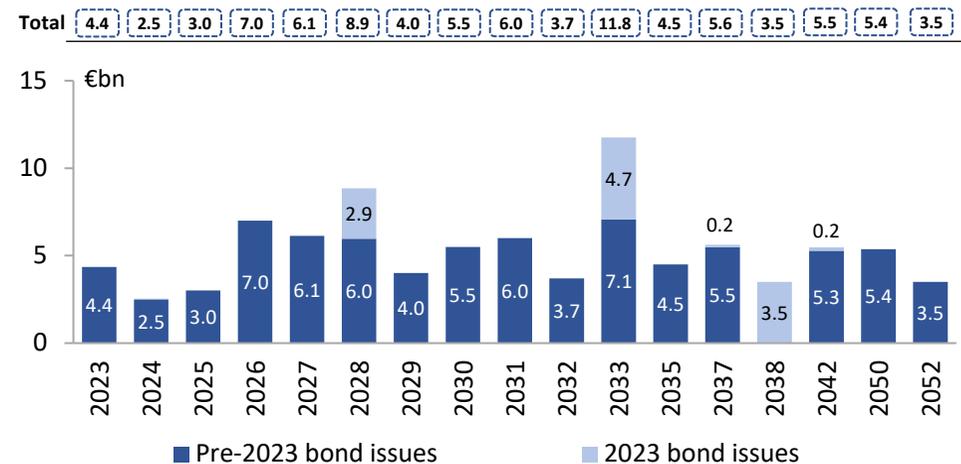
Overview of recent debt issuance and liability management operations



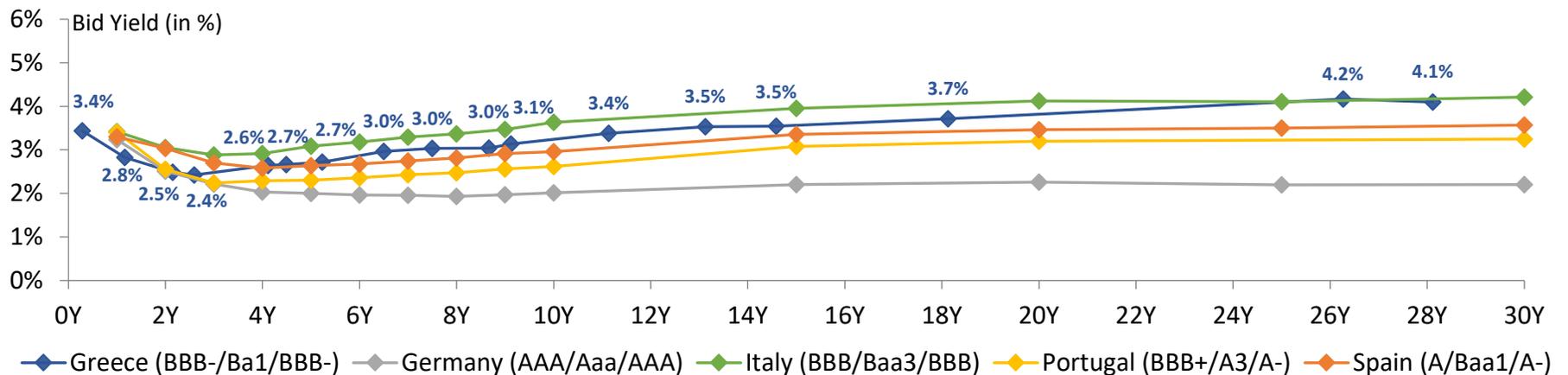
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- New issuance targeted the most competitively priced areas of the yield curve increasing market liquidity and attracting new investors
- All the relevant maturity points of the Greek yield curve now entail benchmark-size GGBs
- This targeted issuance strategy has allowed to increase market activity along the yield curve, securing an even smoother redemption profile
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Outstanding amount of GGBs per maturity (€bn) ⁽¹⁾

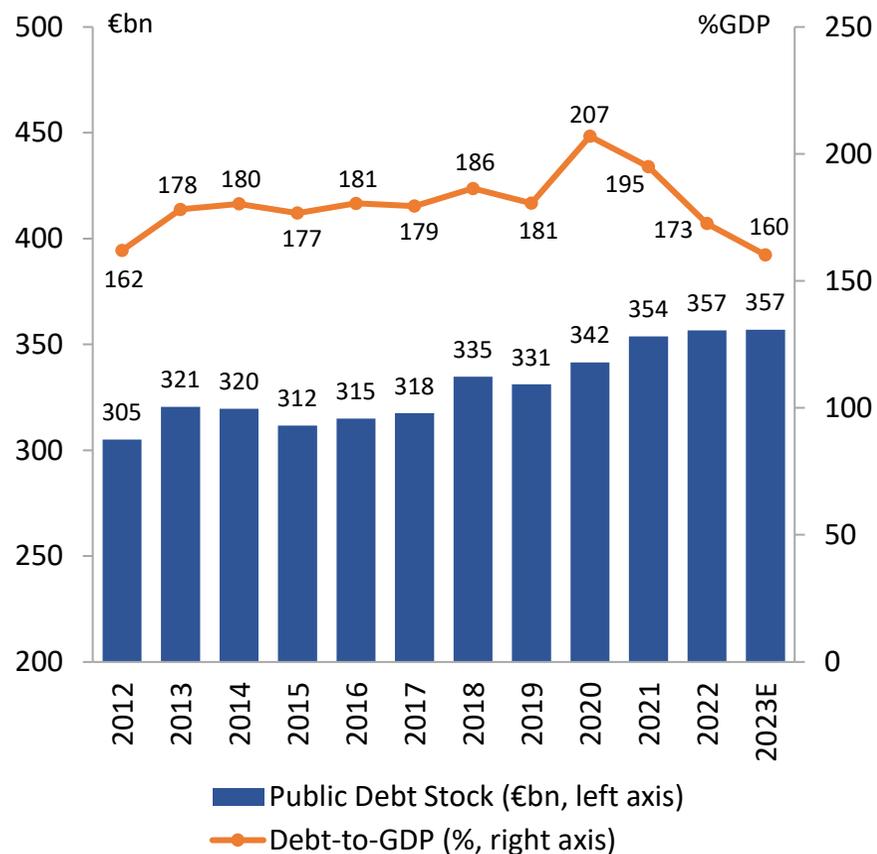


Selected European sovereign yield curves (as of 19 December 2023) ⁽²⁾

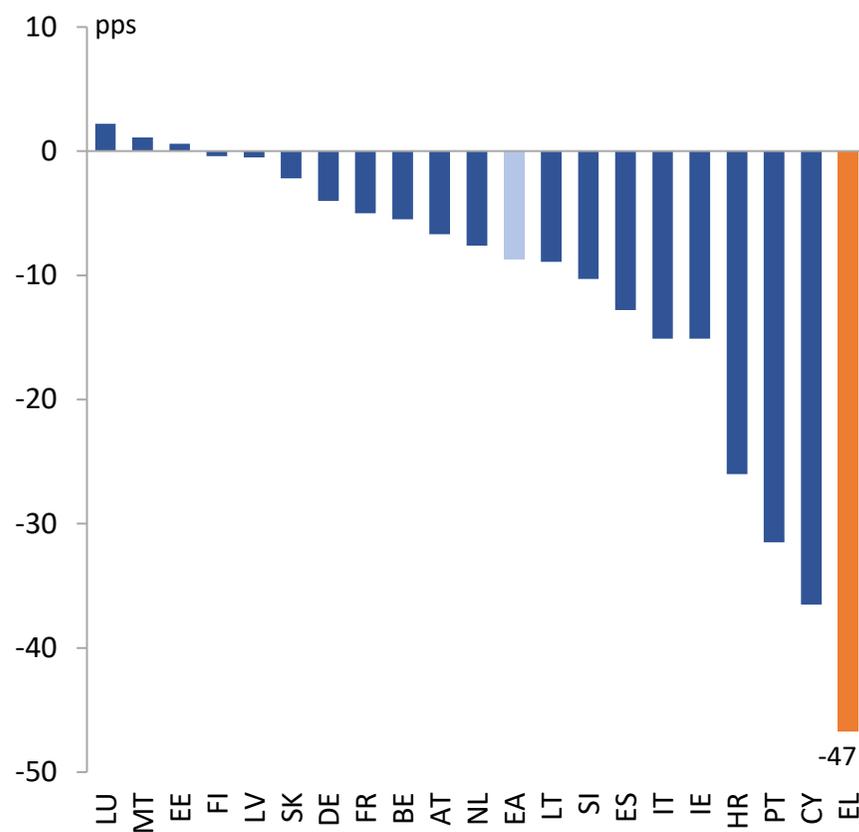


An impressive drop in the debt-to-GDP ratio of nearly 50 pps between 2020 and 2023 on the back of robust macroeconomic performance and exceptional debt characteristics

Evolution of Greece's General Government Debt (€bn and %GDP)



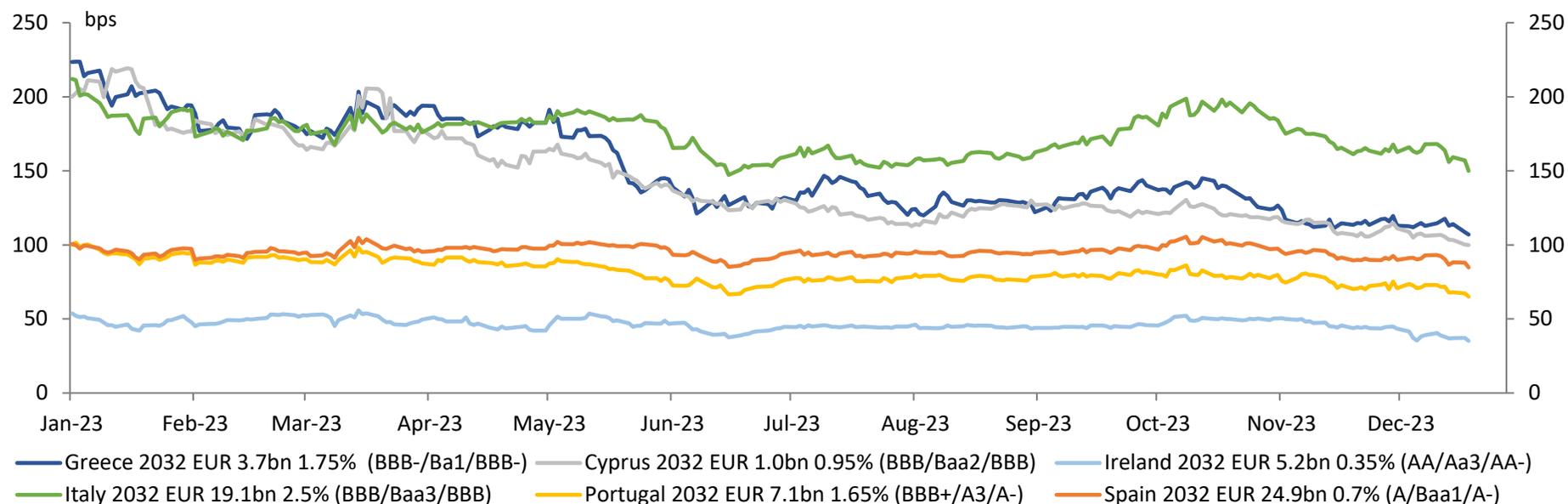
Cumulative change in Gen. Government Debt ratio (%GDP, 2020-2023E)



Greek Government Bonds have strongly outperformed the euro area average

- **Significant decline in GGB yields and overperformance against all other euro area countries** as fixed income markets are gradually pricing in improving economic fundamentals and the unique characteristics of Greek debt, with the upgrade acting as a positive catalyst against a backdrop of monetary policy-induced pressure, until October 2023, on government bond valuations worldwide
- **10-year GGB spread over the German bund declined** to a 26-month low of c. 115 bps, in mid December 2023, with the spread over the 10-year bond of Spain narrowing to c. 20 bps, whereas a negative spread against the respective Italian bond is recorded on a sustained basis since May 2023 (c. -50 bps in mid December 2023)

Evolution of 10-year bond spread to German bund (bps, as of 19 December 2023)



The investor base has remained diversified and stable despite turbulent market conditions worldwide and further monetary tightening to combat inflation

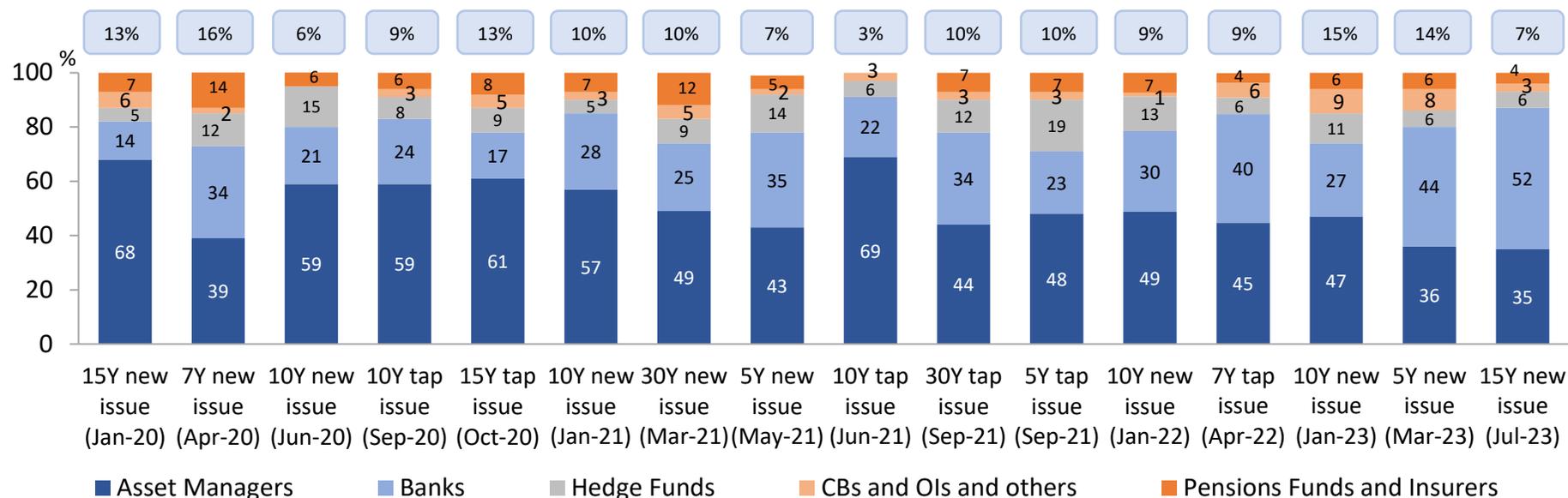
The share of long-term investors in internationally syndicated bond issuances was stabilized at high levels in 2023

The participation of Central Banks, pension funds and insurance companies in the GGB market increased in 2023, to 12% on average compared with 9% in 2022

The bulk of the investor base comprised asset managers and banks, which represented on average 80% of the total allocation of GGBs in 2023, in line with previous years (82% in 2022 and 80% in 2021)

Banks increased their share in 2023 to 41%, in comparison with 35% in 2022 and 28% in 2021

Allocation of recent Greek government bond syndicated issuances by investor type

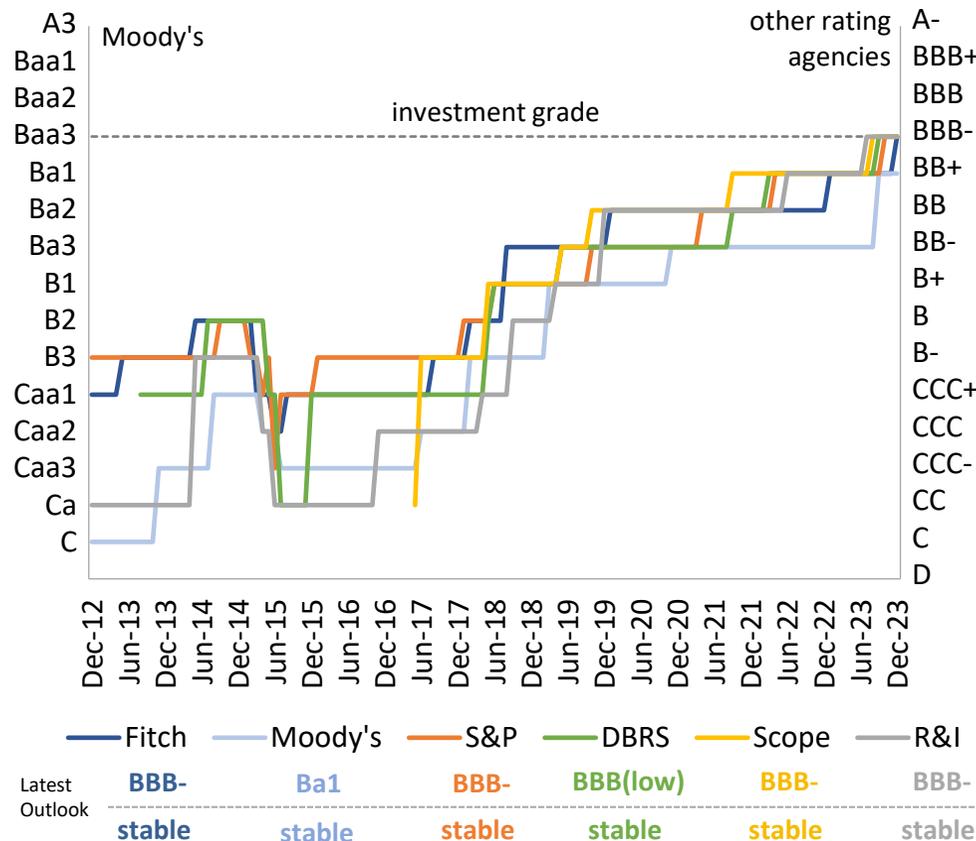


The return to investment grade after 13 years has been the culmination of remarkable macroeconomic adjustment and innovative debt management strategy

Greece's credit rating was upgraded to investment grade by five rating agencies (R&I, Scope, DBRS, S&P and Fitch) between July 31 and December 1 with rating by Moody's remaining only one notch below investment grade (following a 2-notch upgrade in September)

Strong fiscal credibility, unique characteristics of public debt, solid economic growth and remarkable improvements in banking system performance are reported as the key drivers of the decisions of rating agencies, as well as, catalysts for future upgrades

Evolution of Greece's credit rating since 2012



Several risk mitigating factors are in place related to Greece's favourable debt structure, as the official sector holds more than 70% of government debt with very long weighted-average maturity of 20 years at end-2022, and with 100% of debt at fixed rates. In addition, the PDMA has in place a proactive debt management strategy using interest rate hedges to mitigate the risk of funding cost increases over the medium term. In 2023, the average effective interest rate on medium to long term debt is expected to stand at 1.2%

SOURCE: DBRS / 8 SEPTEMBER 2023

We estimate the Greek net government debt stock will fall to about 146% of GDP by year-end, which would represent a marked improvement from the peak of 189% of GDP in 2020 [...] While the stock of debt remains high, its profile is one of the most favorable of all sovereigns we rate [...] An extensive interest-rate swap program materially eases the government's gross financing needs--a situation that also benefits from Greece's very large liquid assets (estimated at about €37.2 billion, or 17% of GDP, in October 2023)

SOURCE: S&P / 20 OCTOBER 2023

Fitch expects general government debt/GDP to remain on a sharp downward trend, thanks to solid nominal growth, budget over-execution and a favourable debt-servicing structure. We also assess policy risks as relatively low, with a stable political backdrop and well-anchored fiscal prudence. We forecast the debt ratio will fall to 160.8% this year and 141.2% in 2027 from 171.4% in 2022. The projected 65pp decline in debt ratio from the pandemic high of 205% of GDP is among the best performances of any Fitch-rated sovereigns

SOURCE: FITCH / 1 DECEMBER 2023



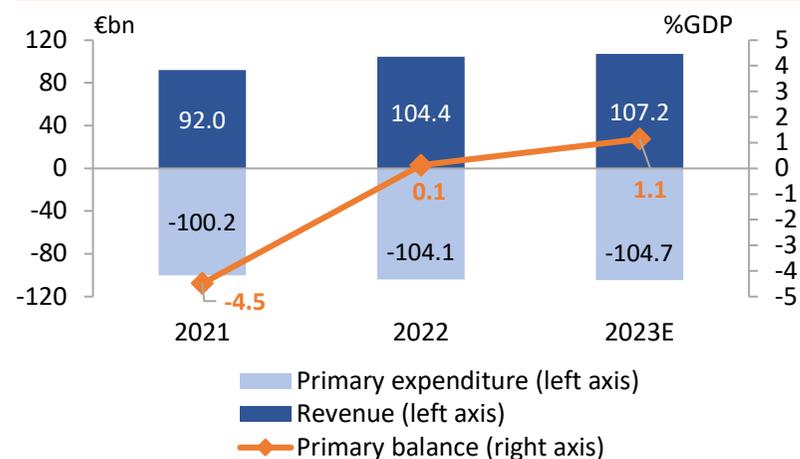
II. Fiscal, Macroeconomic and Banking Developments and Targets for 2024

Key highlights

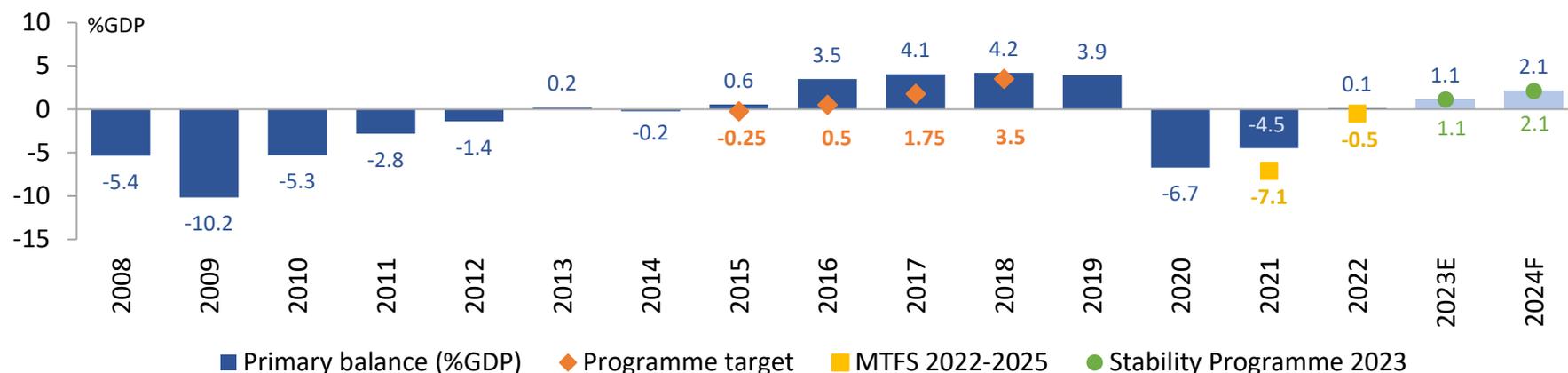
High credibility based on a strong track record of fiscal overperformance

- Sustained improvements in fiscal efficiency permitted to restore a General Government primary surplus, after a transitory spike in primary expenditure due to Covid-19 and the energy/inflation crisis
- The primary surplus of General Government is estimated at 1.1% of GDP in 2023 and 2.1% in 2024 according to the State Budget 2024, on the back of solid revenue growth and lower expenditure, as percent of GDP, due to the unwinding of energy-related support measures
- Greece is expected to outperform its initial Budget targets for a 3rd consecutive year, and despite the sharp Covid-related fiscal expansion in 2020-21 continues to exhibit a cumulative primary surplus of 5.6% of GDP in 2016-2023
- Declining needs for exceptional support measures, increased elasticity of tax revenue to economic activity, and rising inflows of EU funding (NGEU and European Structural and Investment Funds) bode well for the achievement of a primary surplus of 2.1% of GDP, or higher, in 2024 and 2.4%, on average, in 2025-26, according to the latest National Stability Program

Revenue, primary expenditure & primary balance ⁽¹⁾

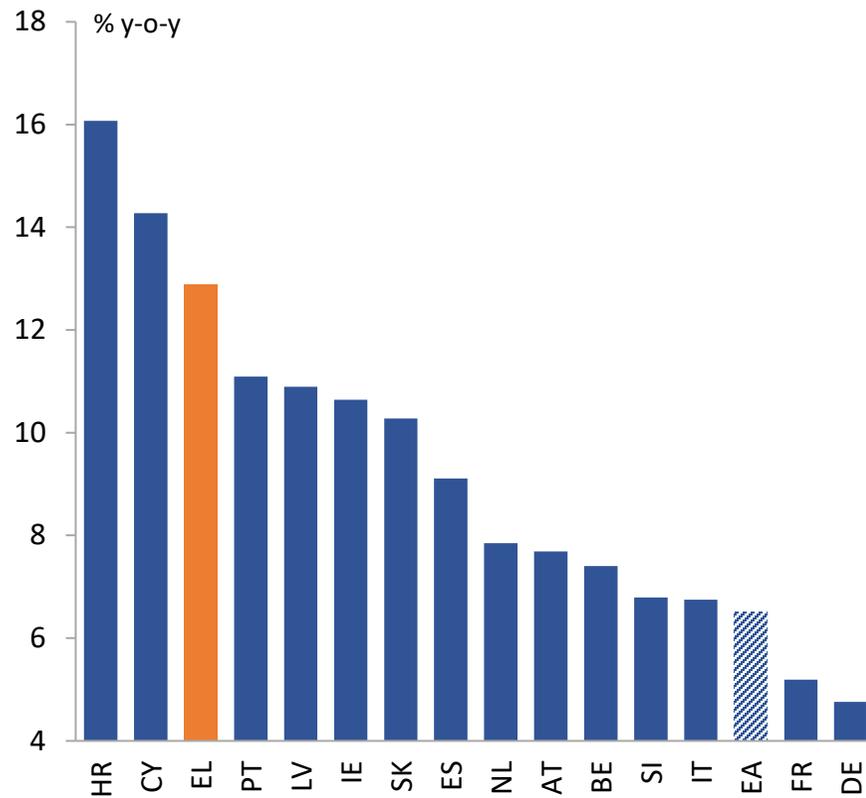


General Government primary balance: actual outcome vs target (%GDP) ⁽²⁾

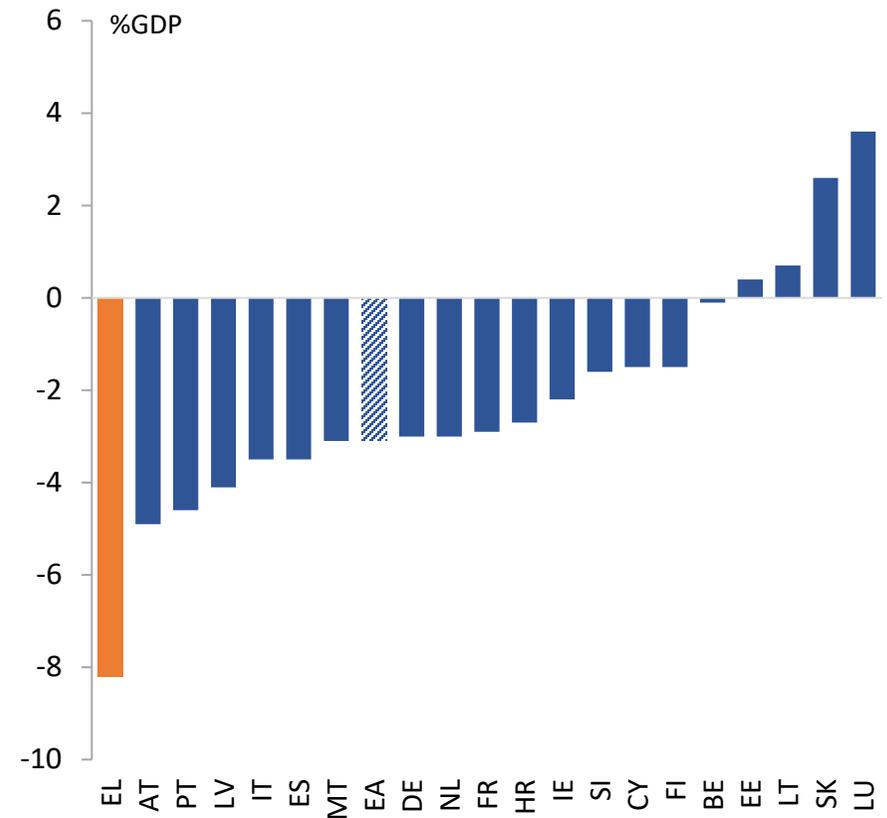


Strong macroeconomic tailwinds, solid efficiency gains and credible expenditure control, bring Greece among the top performers in terms of fiscal rebalancing

General Government total tax revenue
(average annual growth 2022-2023E)

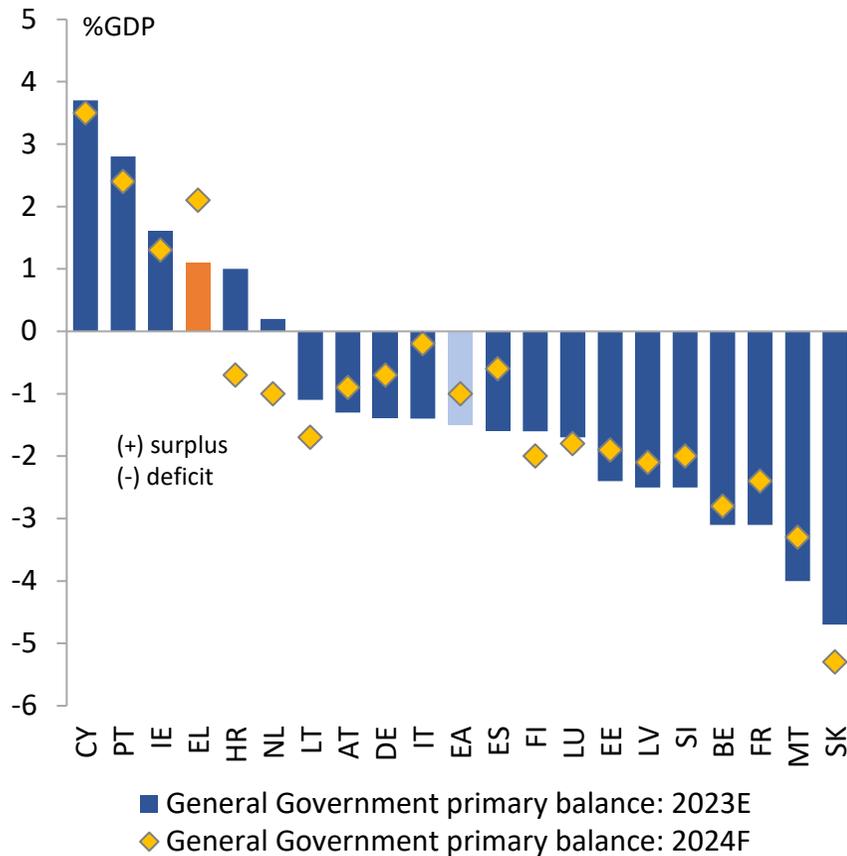


General Government primary expenditure – annual change
(cumulative %GDP, 2021-2023E)

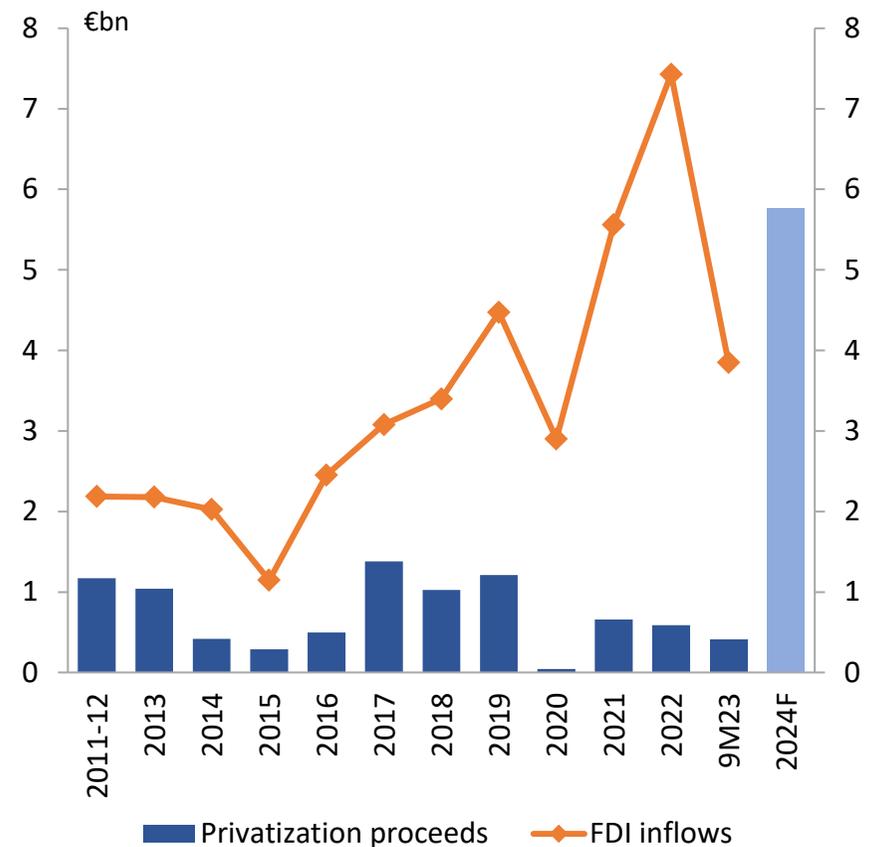


Return to primary surpluses and increasing foreign capital inflows – with growth enhancing FDI at all-time highs in 2021-22 – will be combined with strong privatization revenue in 2024

General Government primary balance (%GDP)



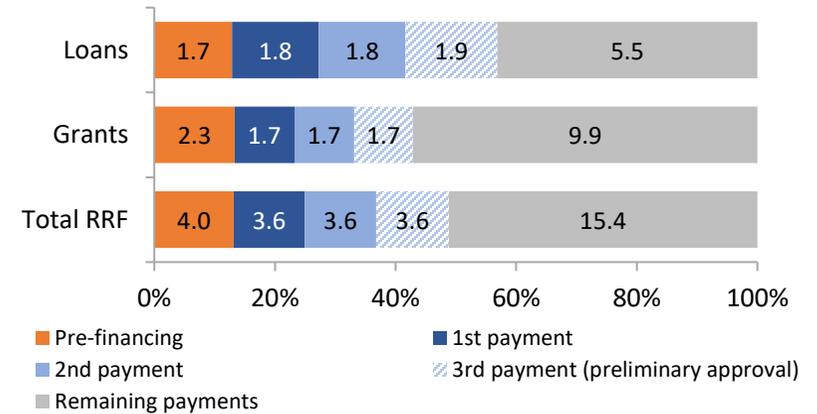
Privatization proceeds and FDI inflows (€bn)



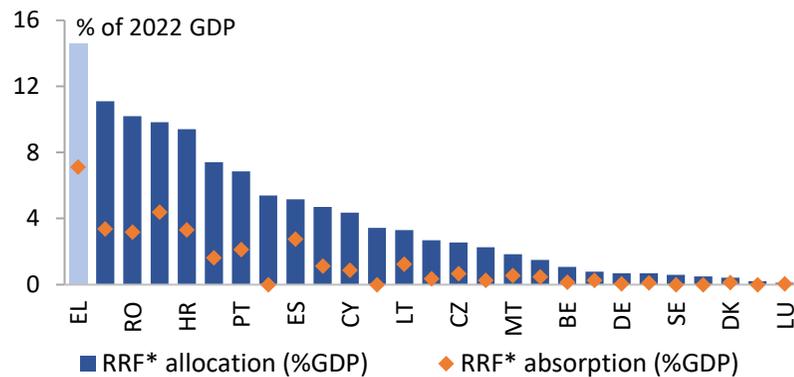
NGEU is a game-changer for moving towards a sustainable growth model, providing substantial, frontloaded funding and lowering fiscal risks

- Greece is the top recipient of NGEU funds, amounting to €30.2 bn in the period 2021-26 (14.6% of 2022 GDP compared with 4.1% for the EU average). Total funding increases to €35.9 bn (17.4% of GDP) including loans and grants from REPowerEU
- RRF fund absorption stood at 37% of total allocated funds to Greece (excluding REPowerEU) in mid-December 2023, corresponding to €5.7 bn of grants and €5.3 bn of loans – following the accomplishment of related milestones and targets, as well as, the progress made in the absorption and allocation of NGEU loans by the banking sector
- The European Commission granted, on 28 November, a preliminary approval to Greece’s request for the disbursement of another €3.64 bn under the RRF (€1.69 bn in grants and €1.94 bn in loans)
- Fixed capital investment financed through the RRF is expected to bolster private and public investment in 2024-2026, with the latter increasing to all-time highs
- NGEU funding minimizes fiscal costs related to the frontloading of Greece’s climate and digital transition and contributes to the narrowing of the economy’s investment gap

RRF disbursements to Greece (in €bn, as of 22 December 2023)

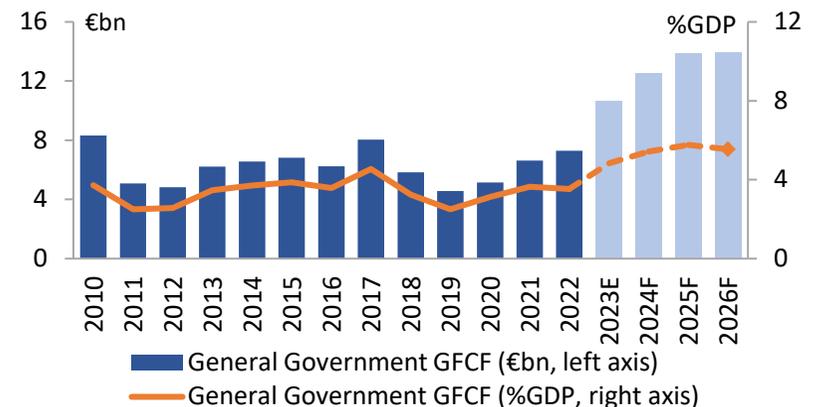


Cross-country RRF funds allocation & absorption ⁽¹⁾



*excluding funding related to "REPowerEU"

Gross Fixed Capital Formation of General Government



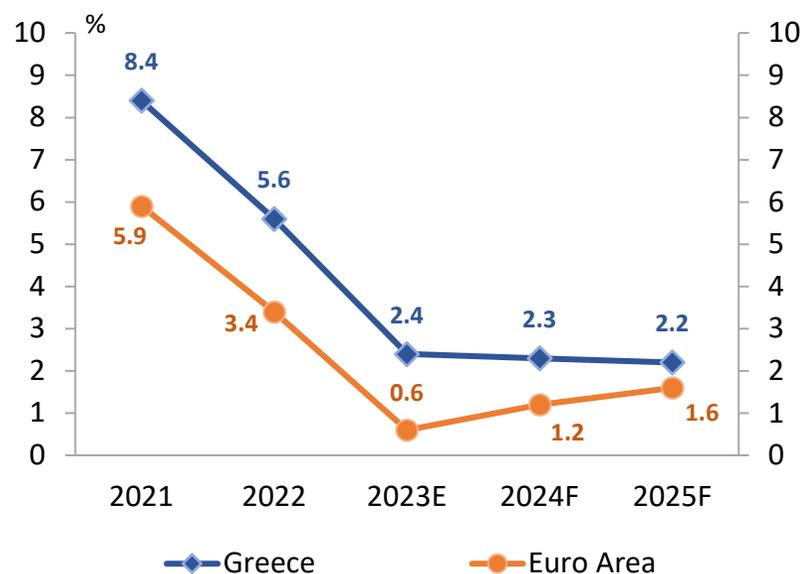
Greece is expected to continue outperforming the euro area average in the coming years

Greece's economic recovery showed resilience to a sequence of economic shocks, on the back of a broad-based strengthening in key GDP components which was combined with reviving tourism and supportive fiscal conditions

Economic performance will be supported by a strong pipeline of private investment projects and RRP-related capital spending, as well as by a substantial restructuring of the export-oriented corporate sector

Official sector estimates point to a sustainable increase in real GDP from RRP projects and reforms, which are combined with a higher inflation trajectory worldwide, entailing a higher-than-previously expected trend growth for Greece's nominal GDP

Real GDP growth: Greece vs EA (EU Commission forecasts)

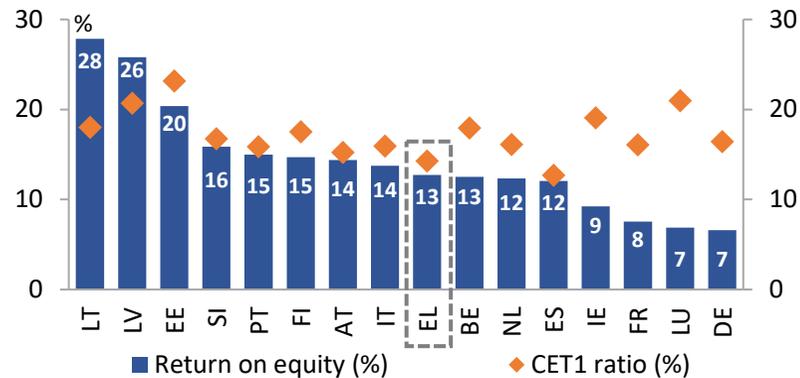


Key indicators of economic activity

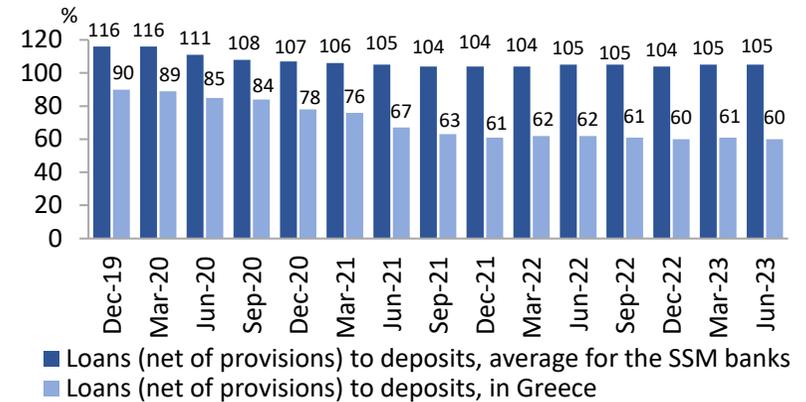
Economic Indicators					
Greece (Gov. Budget 2024)	2020	2021	2022	2023E	2024F
Real GDP growth (%)	-9.3	8.4	5.6	2.4	2.9
HICP (% YoY)	-1.3	0.6	9.3	4.1	2.6
Unemployment rate (%)	16.3	14.8	12.4	11.2	10.6
Gen. Gov. Debt (% GDP)	207.0	195.0	172.6	160.3	152.3
Gen. Gov. Primary balance (% GDP)	-6.7	-4.5	0.1	1.1	2.1
Euro area (EU Commission)	2020	2021	2022	2023E	2024F
Real GDP growth (%)	-6.2	5.9	3.4	0.6	1.2
HICP (% YoY)	0.3	2.6	8.4	5.6	3.2
Unemployment rate (%)	8.0	7.7	6.8	6.6	6.6
Gen. Gov. Debt (% GDP)	99.1	96.5	92.5	90.4	89.7
Gen. Gov. Primary balance (% GDP)	-5.5	-3.8	-1.9	-1.5	-1.0

Drastic drop in NPLs – despite the sequential shocks – combined with increasing profitability and significant strengthening of liquidity and capital position of Greek banks

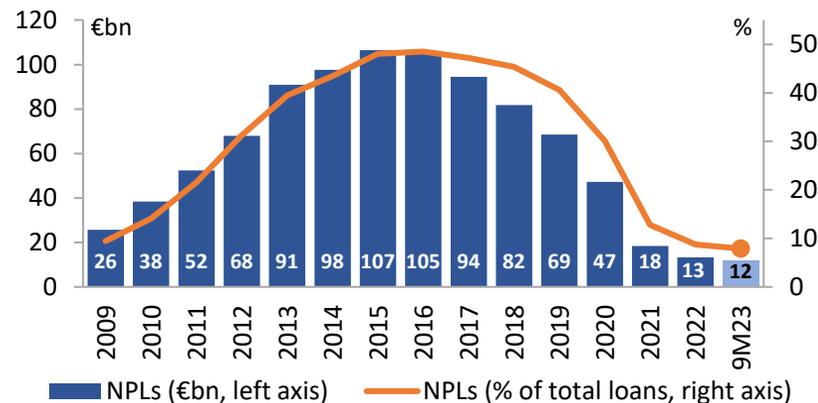
Return-on-equity and core tier 1 ratio ⁽¹⁾



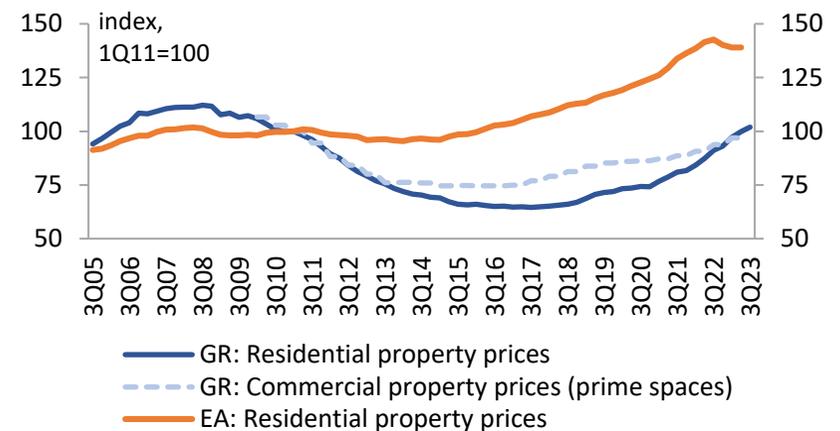
Greece: Loan-to-deposit ratio



Evolution of non-performing loans in Greece (NPLs)



Residential & commercial real estate prices: GR & EA



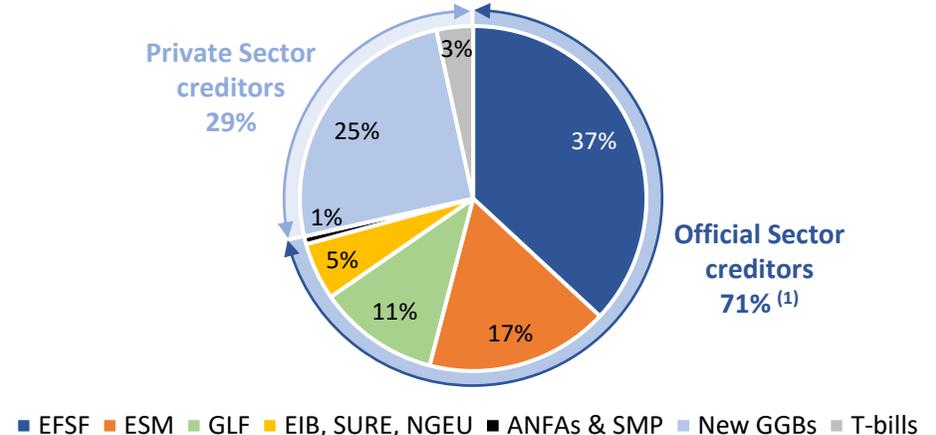


III. Overview of Greek Public Debt Sustainability

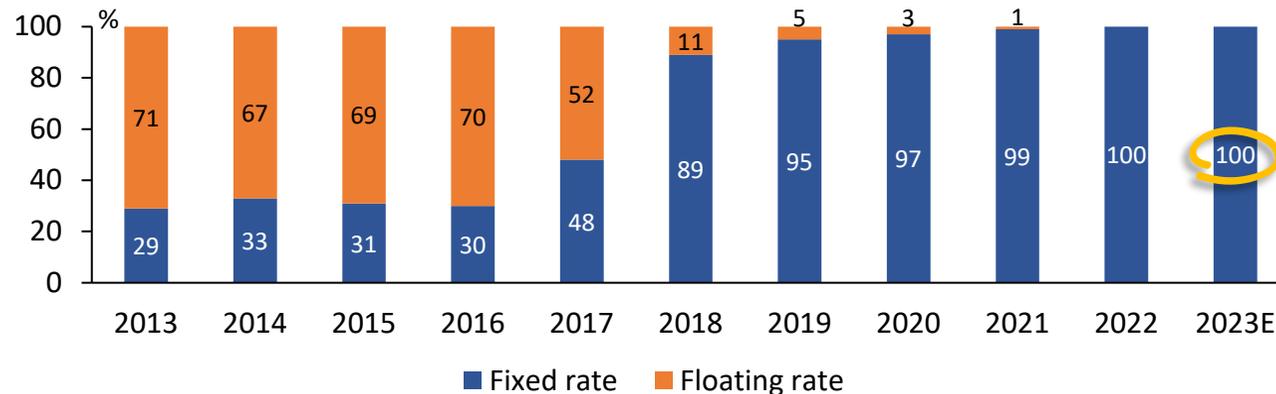
Greece benefits from a unique debt structure which diminishes refinancing uncertainty

- Greece benefits from a favorable debt structure
- More than 70% of the debt stock is held by official sector creditors⁽¹⁾. The debt exhibits long-term maturity profile and low interest rates
- 100% of debt is at fixed rate⁽²⁾, limiting interest rate risks
- Furthermore, PDMA's active debt management has allowed Greece's debt portfolio to be temporarily over-hedged against interest rate risk, which will contribute to further contain funding costs going forward

Debt breakdown by type of instrument (as of November 2023)



Debt breakdown by coupon rate ⁽²⁾

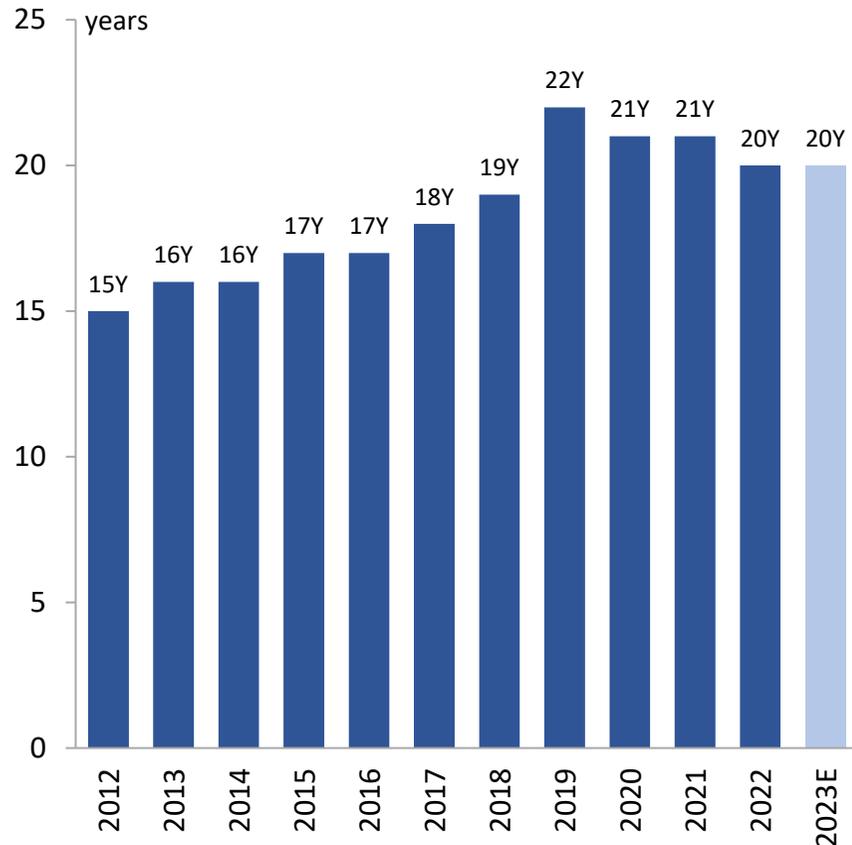


✓ Greece's public debt portfolio is in fact temporarily over-hedged against interest rate risk (c. 104% hedged)

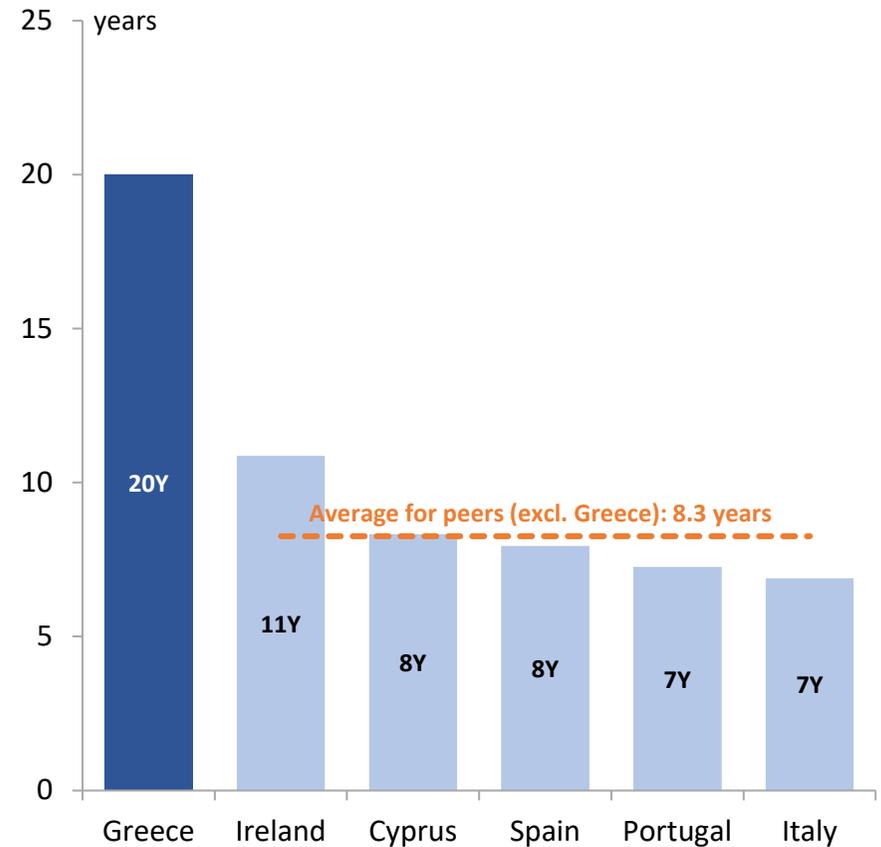
✓ The corresponding (locked-in) fixed interest rates are expected to remain well below market rates, which will reduce Greece's net funding costs for the coming years

Exceptionally high, average debt maturity on the back of the dominant share of official sector loans in Greece's public debt

Weighted average maturity of Gen. Government debt



Greece & EA peers' debt weighted average maturity (2023E)



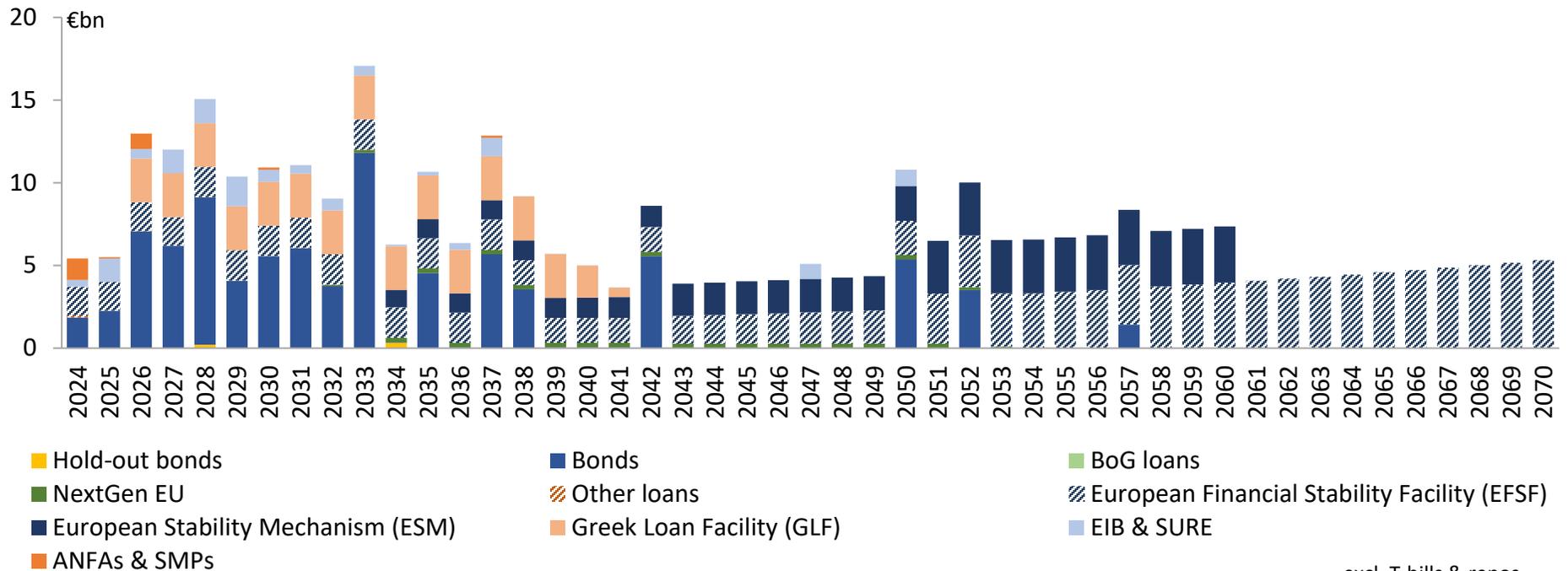
Ultra-long debt maturity and well targeted issuance strategy entail low and stable financing needs

Greece's favourable debt repayment profile diminishes public debt refinancing risks even under very conservative scenarios

Debt amortization is evenly distributed over the medium-term with average annual redemptions at below €10 bn

At c. €30 bn in end-2023, the cash buffer is also a strong mitigant to any refinancing risks

Maturity profile of Greece public debt (as of November 2023, €bn)



excl. T-bills & repos

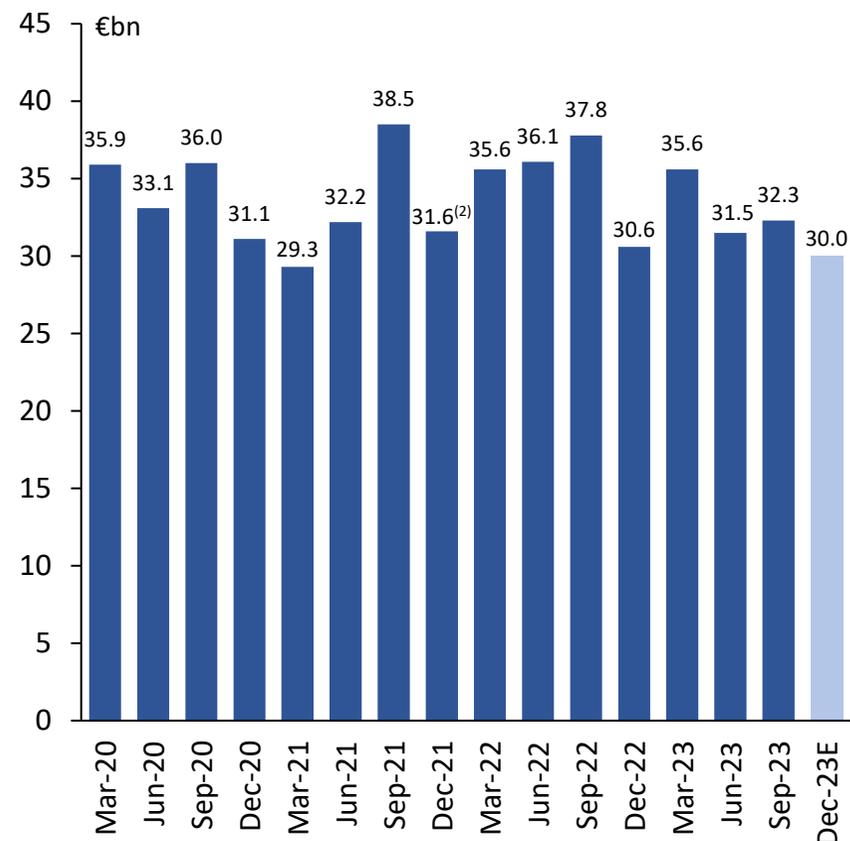
The substantial cash reserves are another backstop against refinancing risk

Greece's cash reserves amount to €30 bn⁽¹⁾, i.e. 3 years of financing needs

Key considerations

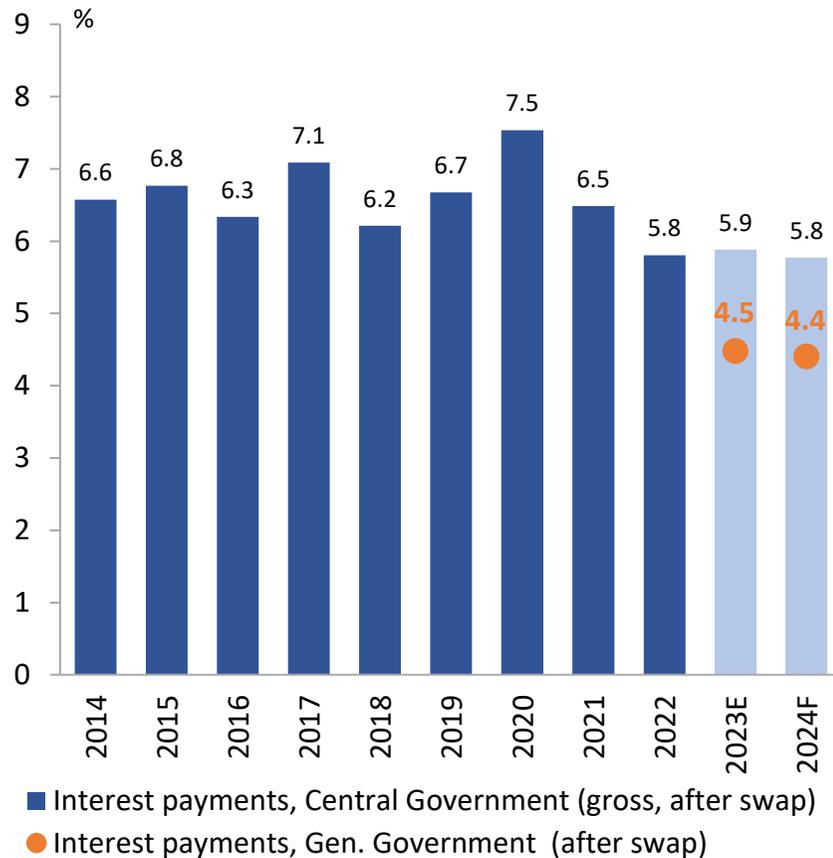
- **Greece benefits from important cash reserves, which have been progressively accumulated over the past years thanks to:**
 - New GGB issuances over 2017-23
 - Fiscal surpluses accumulated prior to the pandemic , as well as in 2023
 - A very favourable debt amortization profile
- **Revenue collection overperformance in 2023 and proactive debt management allowed to maintain cash reserves of c. €30bn as of the end of 2023 despite the volatile global financial environment**
- **These sizeable cash reserves cover around 3 years of gross financing needs of the Hellenic Republic and continue to provide a significant buffer against any refinancing and interest rate risks over the medium-term**

Greece's cash reserves (€bn) ⁽¹⁾

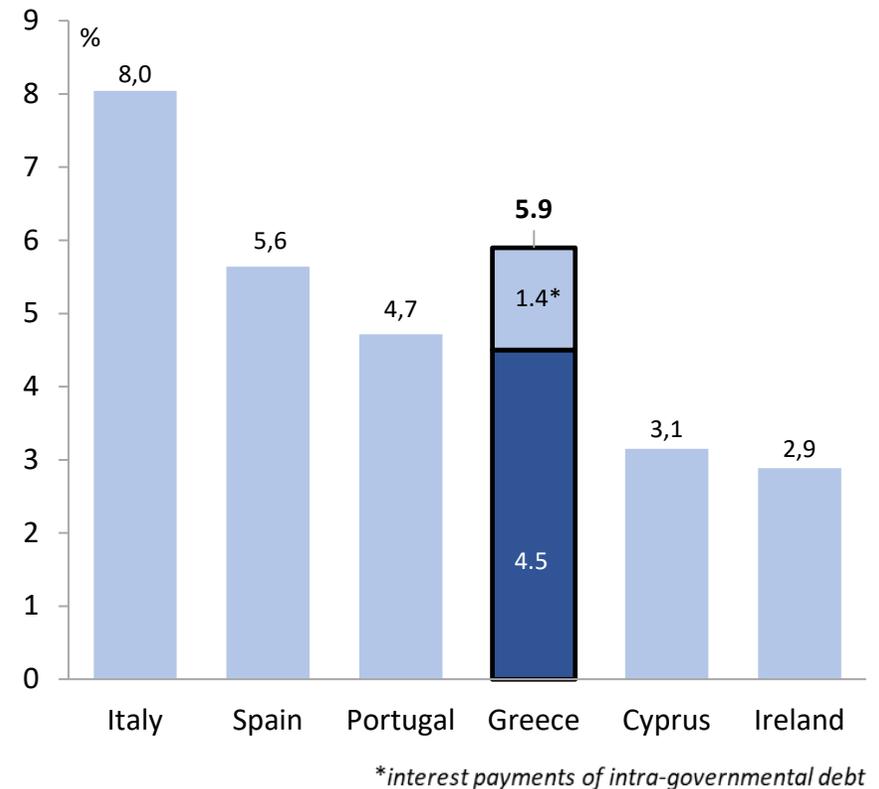


Interest payments and comparison vs EA peers: Remarkable stability on the back of a successful and proactive funding and portfolio-management strategy

Greece: Evolution of interest payments as % of Government revenues



Greece & EA peers' interest payments as % of General Government revenues (2023E)

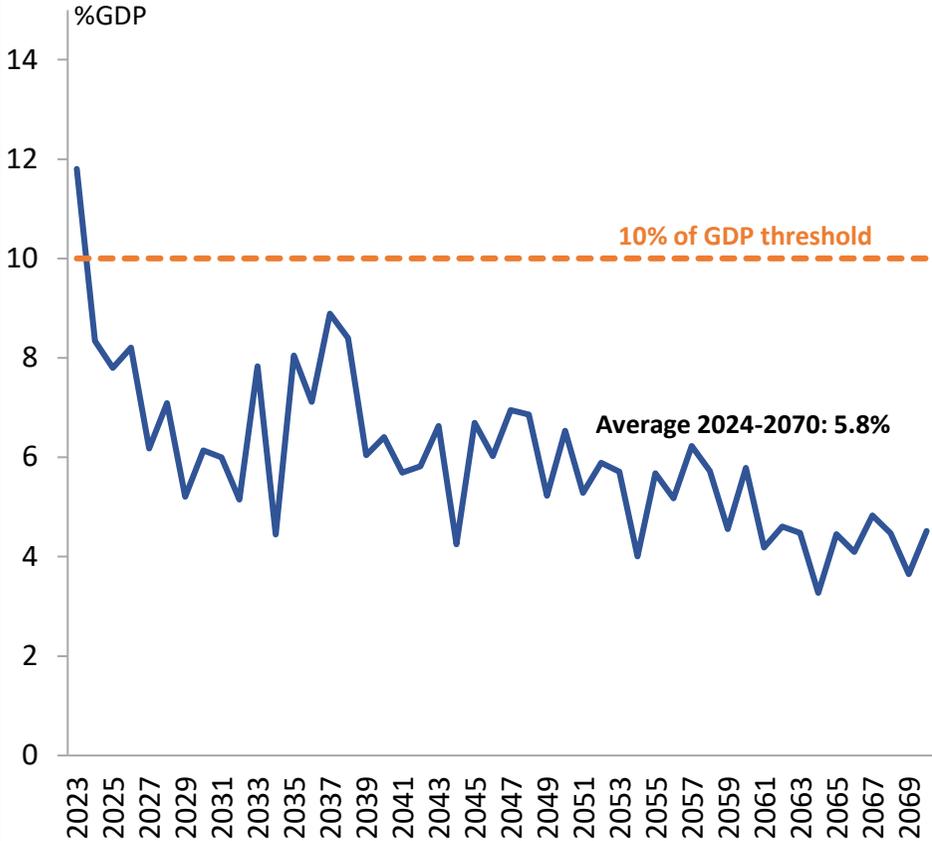




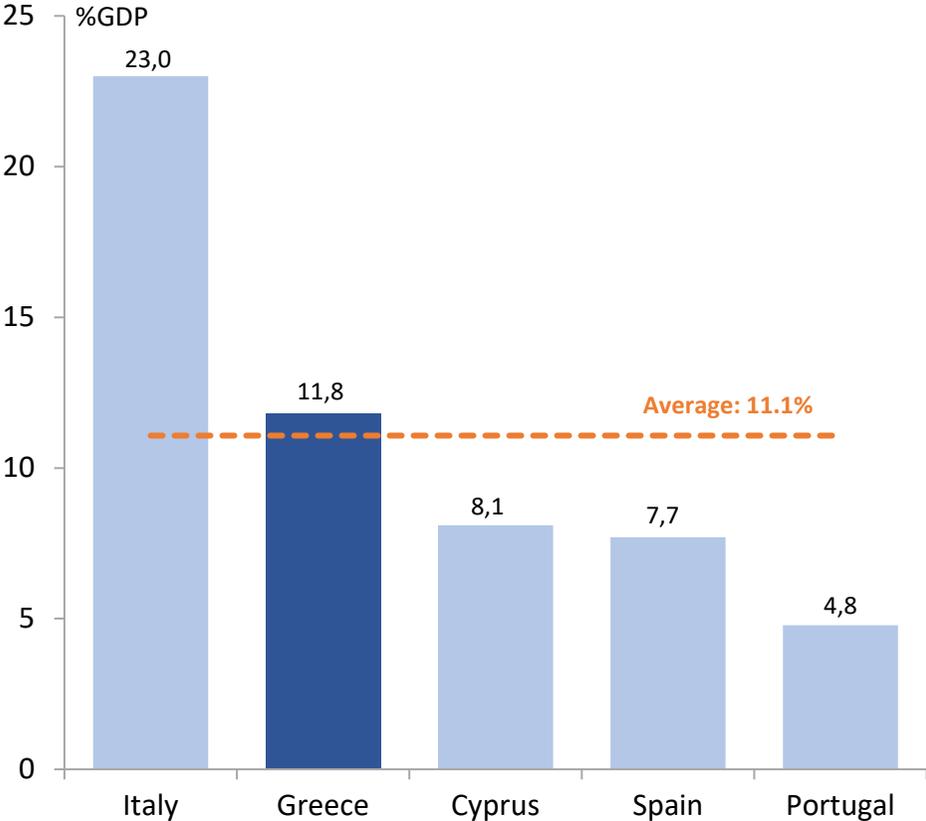
IV. Focus on Financing Needs & Sources for 2024

Gross financing needs clearly below the 10% of GDP threshold, over the forecasting horizon, even under very conservative assumptions

Evolution of Greece's gross financing needs (% GDP) ⁽¹⁾



Greece and EA peers' gross financing needs (2023E, % GDP)



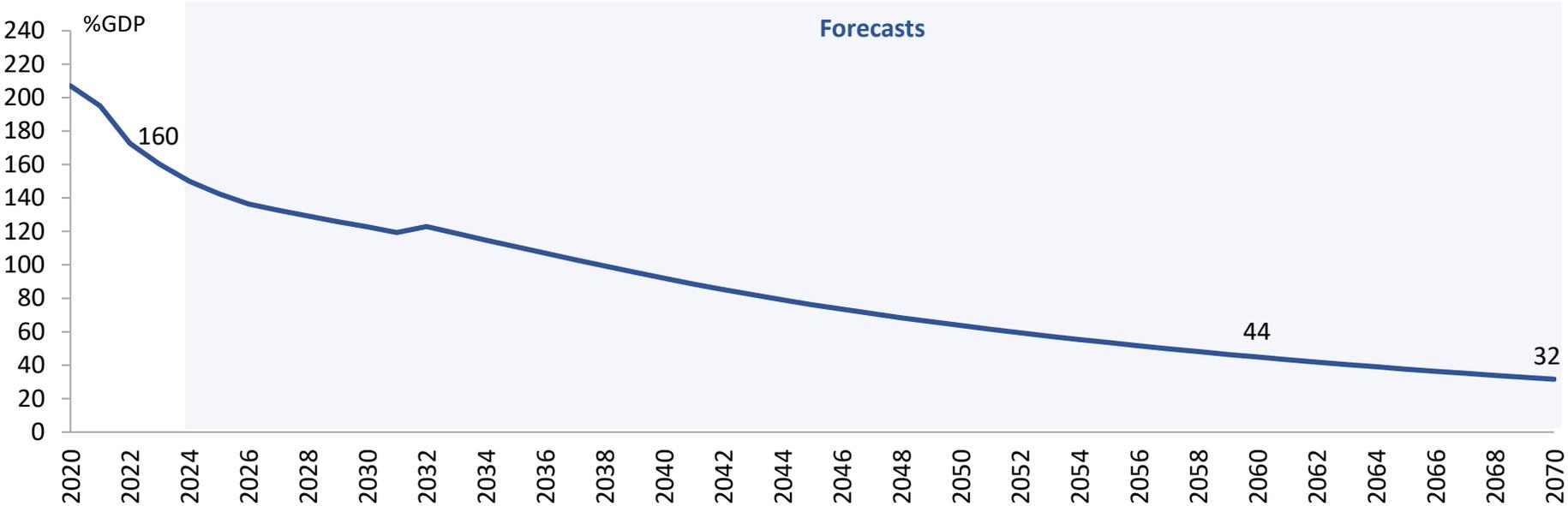
Greek public debt-to-GDP is set to remain on a firm downward trajectory even under a “very conservative” scenario

- Strong nominal growth, sustained primary surpluses and low debt-servicing costs are projected to lead to a steady decline in the government debt-to-GDP ratio
- The real implicit cost of debt is expected to remain negative in the medium-term. As a result, the interest rate - GDP growth differential (“snowball” effect) will be debt-reducing over the forecasting horizon

	2023	2024	2025	2026	2027 onwards
Real GDP (y-o-y, %)	2.4	2.9	3.0	2.1	1.1 to 1.5 ⁽¹⁾
GDP deflator (y-o-y, %)	5.4	1.9	2.0	2.0	2.4 to 2.1 ⁽²⁾
Average effective interest rate (medium & long-term debt, %)	1.2	1.3	1.2	1.3	2.8 on average ⁽³⁾
Primary surplus ⁽⁴⁾ (%GDP)	1.1	2.1	2.3	2.5	1.9 on average

Notes: The present analysis is mainly based on the baseline assumptions of the European Institutions, a €15 bn use of cash reserves for debt reduction and also includes conservative assumptions with respect to contingent liabilities (assumed crystallization of c. 44% of the total stock of contingent liabilities over 2024-2031, on average); (1) Real GDP growth decreasing from 1.1% in 2027 to 0.7% in 2030, then increasing to 1.7% in 2040 and finally converging to 1.5% in 2070; (2) GDP deflator decreasing from 2.4% in 2027 to 2.0% in 2050, and then remaining broadly constant from 2050 onwards; (3) Average effective interest rate for the period 2027-2070 assuming borrowing from the market at an average maturity of 10 years and an average spread vs 10-y bund of 200 bps over the projection period; (4) From 2024 onwards, each year’s primary surplus is calibrated so as to compensate the current year’s interest bill, i.e. achieving overall fiscal balance and (5) Recovery and Resilience Facility (RRF) loans are included in the DSA only as liabilities whereas, their asset counterpart is, conservatively, not taken into consideration

Public debt-to-GDP forecast (% GDP)



Overview of PDMA debt and funding strategy

PDMA current debt and funding strategy is focused on reaching the following main objectives:

- 1 Enhance market access**
 - Improve a tradable and liquid yield curve
 - Enhance the investor base towards more real money players
 - Maintain regular market operations
- 2 Contain funding costs**
 - Bring the credit spread of the GGB curve in line with peers
- 3 Contain debt-associated risks**
 - Limit interest rate and FX risks
 - Limit refinancing risks
- 4 Manage liquidity (cash reserves of both the Greek State and General Government Entities)**

Focus on Greece's 2024 Financing Needs and Sources

- ✓ Funding strategy for year 2024 will focus on the continuous presence in the international debt markets, accompanied by the reduction in the level of public debt, proactive management of the debt portfolio and the preservation of a significant cash buffer
- ✓ The funding strategy aims at further improving GGB secondary market operation and further reducing rollover risk
- ✓ A limited and targeted use of cash reserves is mainly driven by respective increase of assets (RRF loans, capital inc., etc.)

2024 Financing Needs (in €mn)

(on a cash basis)

Financing Needs	
Medium and long-term debt amortization	5,463
Interests on debt (incl. interest rate swaps)	4,850
Primary deficit / (surplus) to finance	(6,903)
Early repayments (T-bill stock reduction, Official sector debt, LMEs etc.)	12,000
Other cash requirements (RRF loans, capital increases, etc.)	3,589
Total	18,999
Financing Sources	
Medium and long-term debt issuance (GGB issuances)	10,000 ⁽¹⁾
Other financing sources (NGEU, EIB, CEB, etc.)	4,195
Proceeds from equity and investment fund shares	1,161
Change in cash reserves, decrease / (increase)	3,643
Total	18,999
Change in public debt, increase / (decrease)	(3,268)

FUNDING STRATEGY FOR 2024

December 2023

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