

HELLENIC REPUBLIC

FUNDING STRATEGY FOR 2022

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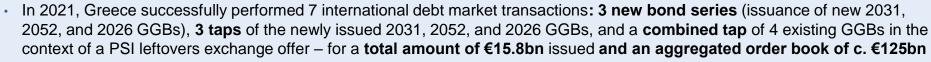


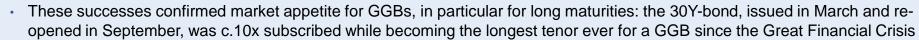
I PUBLIC DEBT MANAGEMENT OF THE HELLENIC REPUBLIC: MAIN ACHIEVEMENTS IN 2021

LOOKING BACK AT THE 2021 DEBT MANAGEMENT EXECUTION: MAIN ACHIEVEMENTS

In 2021, the Hellenic Republic confirmed its successful management of the crisis, reinforcing market presence at attractive terms throughout the year and re-affirming its regular issuer status

Market presence was further enhanced, despite a context of persistent market uncertainty





• This allowed to further contain refinancing risks through the stabilization of the stock of T-Bills at €11.8bn and of the level of the cash reserves at €31.6bn, and the prepayment of €1.1bn of debt in net terms in the context of the PSI exchange offer

Cost of funding has reached historical lows and liquidity has been maintained

- Greece's cost of funding reached an historical low at 0.02% on September's 5Y-bond reopening the lowest yield ever achieved on a Greek sovereign bond issuance
- Bid-ask spreads have remained contained since H2-2020, reflecting satisfactory liquidity on the GGB market
- December's PSI leftovers exchange offer further enhanced Greece's market debt liquidity by removing €2.9bn of highly illiquid PSI bonds and issuing an additional €1.8bn of benchmark GGBs

The investor base has remained adequately diversified – it has been characterized by:

- A strong presence of real money players investors throughout the year, still representing the bulk of the investor base
- An increased presence of long-term investors as compared to 2019 and in line with 2020
- · A sustained participation of continental European investors throughout the year

Solid credit fundamentals, supported by a strong economic recovery, have translated into 3 rating upgrades in 2021

- · S&P, Scope and DBRS upgraded Greece in 2021, respectively from BB- to BB, BB to BB+ and BB(low) to BB
- The rating outlook is positive for S&P and DBRS, on top of their recent upgrades, and has been confirmed at stable by four agencies (Moody's, Fitch, Scope, R&I)









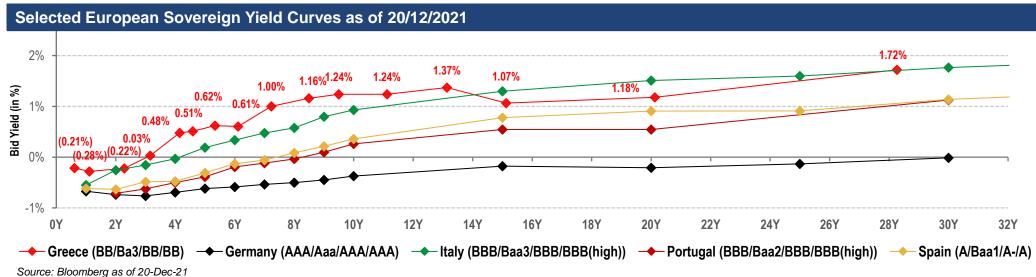
GREECE SUSTAINED ITS PRESENCE ON INTERNATIONAL DEBT MARKETS THROUGHOUT 2021

- In 2021, seven new market transactions further developped the Greek yield curve (through the issuance of three new bonds, with maturity up to 30-Y) and improved the liquidity of GGBs (through three taps, on the new 5-Y, 10-Y and 30-Y bonds, and a combined tap on 4 existing GGBs)
- This was achieved despite a context of upward pressures on interest rates in H2

Note: Sovereign credit rating by (S&P/Moody's/Fitch/DBRS)

 GGBs' market performance has remained supported by their eligibility to the ECB's Pandemic Emergency Purchase Programme (PEPP), and (as collateral) to the Eurosystem's repurchase operations

-	Overview of 20	U21 Greece	Governme	ent Boi	na issues	5			
	ISINs	Issue/ Reopening Date	Maturity Date	Tenor	Demand Amount	Issued Amount	Subscr. Rate	Yield	Spread vs Bund
	GR0138015814	17/12/2021	30/01/2042	21-Y	€0.5bn	€0.5bn			
(GR0133011248	17/12/2021	30/01/2037	16-Y	€0.4bn	€0.4bn	Existing GGBs tapped in the context of December's PSI bond exchange offer		
(GR0128015725	17/12/2021	30/01/2033	12-Y	€0.5bn	€0.5bn			
(GR0118020685	17/12/2021	22/04/2027	6-Y	€0.4bn	€0.4bn			
(GR0114032577	01/09/2021	12/02/2026	5-Y	€9.3bn	€1.5bn	6.2x	0.02%	155 bps
(GR0138017836	01/09/2021	24/01/2052	30-Y	€9.6bn	€1.0bn	9.6x	1.68%	76 bps
(GR0124037715	08/06/2021	18/06/2031	10-Y	€30.0bn	€2.5bn	12.0x	0.89%	113 bps
(GR0114032577	05/05/2021	12/02/2026	5-Y	€20.0bn	€3.0bn	6.7x	0.17%	78 bps
(GR0138017836	17/03/2021	24/01/2052	30-Y	€25.0bn	€2.5bn	10.0x	1.96%	171 bps
(GR0124037715	27/01/2021	18/06/2031	10-Y	€29.0bn	€3.5bn	8.3x	0.81%	135 bps
	Key highlights issuance pe		j	Total:	€124.7bn	€15.8bn			



I PUBLIC DEBT MANAGEMENT OF THE HELLENIC REPUBLIC: MAIN ACHIEVEMENTS IN 2021

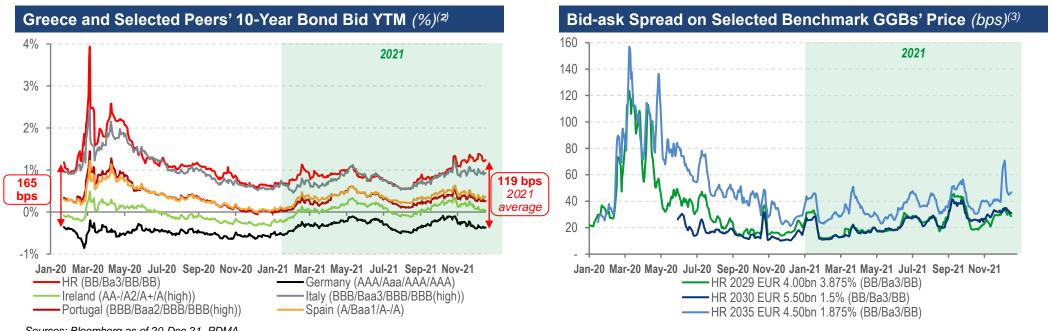
GREECE FUNDING COSTS REACHED RECORD LOWS AND LIQUIDITY WAS MAINTAINED THROUGHOUT 2021

Funding costs remained below their early 2020 level (i.e. pre-COVID), by c. 59bps on average over the year on the 10-Y benchmark

- Besides, in relative terms, the 10-Y spread to Germany remained below its pre-crisis level at 119bps on average in 2021, c. 46bps below its value at the beginning of 2020
- T-bills yields were also reduced, with the average T-bills issuance pricing at negative yield (-0.35%)(1)

Bid-ask-spreads on benchmark GGB prices have remained contained since H2-2020, reflecting satisfactory liquidity on the GGB market

• December's PSI leftovers exchange offer precisely aims at further improving Greece's market debt liquidity by removing €2.9bn of highly illiquid PSI bonds from the market and issuing an additional €1.8bn of GGBs out of existing benchmarks



Sources: Bloomberg as of 20-Dec-21, PDMA

Notes: (1) Based non-weighted average T-bills auctions until 08 December; (2) Sovereign credit rating by (S&P/Moody's/Fitch/DBRS); (3) 7-day rolling average

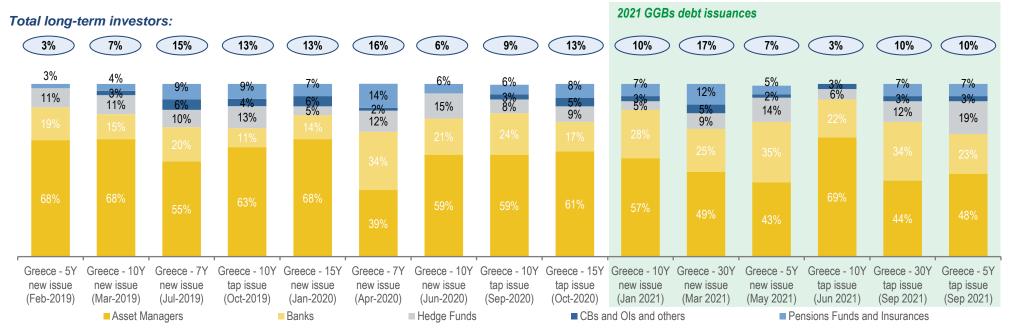
THE INVESTOR BASE REMAINED DIVERSIFIED AND STABLE DESPITE A CONTEXT OF MARKET UNCERTAINTY

The share of long-term investors (notably insurances and pension funds) was maintained in 2021

Investor Type Breakdown of 2021 Greek Government Bond Allocations

- The participation of Central Banks, pensions funds and insurances to the GGB market was maintained, representing 10% on average over the year against 11% in 2020 and 9% in 2019
- The bulk of the investor base remained composed of asset managers and banks, which represented on average 80% of the total allocation of GGBs in 2021, in line with previous years (79% in 2020 and 80% in 2019)

Allocation of recent Greece government bond issues by investor types⁽¹⁾



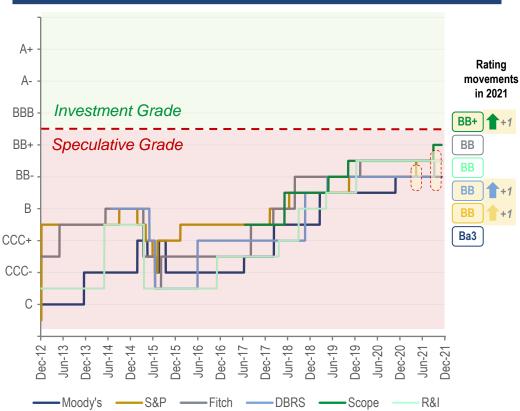
Source: PDMA

Note: (1) Excluding December's tap of 2027, 2033, 2037 and 2042 GGBs in the context of December's PSI leftovers exchange offer

GREECE CREDIT RATING REMAINS ON A FIRM UPWARD TRAJECTORY

Three agencies upgraded Greece credit rating in 2021 (S&P by one notch from BB- to BB; Scope by one notch from BB to BB+; DBRS by one notch from BB(low) to BB), firmly anchoring Greece re-rating path. S&P and DBRS maintained a positive outlook. Greece credit rating now stands one notch below Investment Grade for Scope, two notches below for S&P, Fitch, DBRS, R&I, and three notches below for Moody's

Evolution of Greece Credit Rating since 2012



Selected Comments of the Rating Agencies

The upgrade reflects our expectation of a rapid improvement in Greece's economic and budgetary performance as the adverse impacts of the COVID-19 pandemic subside. The government's policies should enable progress on budgetary consolidation and structural reforms. These developments, together with the expected deployment of the Next Generation EU (NGEU) funds, will result in an improved economic performance.

SOURCE: S&P / 23 APRIL 2021

The second driver for upgrade of Greece's ratings to BB+ reflects the government's **very strong debt profile** resulting from the supportive measures of euro-area creditors, low global interest-rate conditions and **proactive public debt management**.

SOURCE: SCOPE / 10 SEPTEMBER 2021

The ratings upgrade reflects DBRS Morningstar's positive view of fiscal and economic developments before the pandemic that positioned the country with more resilience to work through the ongoing challenges. [...] The Positive trends reflect DBRS Morningstar's view that **Greece's future economic prospects appear to be considerably strengthened**. Despite the health crisis, the Greek government **continued to implement its structural reform agenda** in co-operation with the European institutions, thereby **improving growth potential**.

SOURCE: DBRS / 17 SEPTEMBER 2021

Sources: DBRS, Fitch, Moody's, S&P, Scope

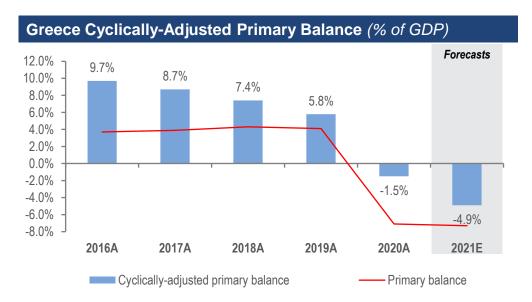
Note: DBRS and Scope credit ratings are available since 2014 and 2017 respectively



II 2022 BUDGET: KEY HIGHLIGHTS

STRONG FISCAL PERFORMANCE CREATED THE NECESSARY FISCAL SPACE TO HELP GREECE WEATHER THE IMPACT OF THE PANDEMIC

- Greece sustained a strong fiscal performance prior to the crisis
 - Since 2015, Greece had repeatedly overperformed its fiscal targets and run significant fiscal primary surpluses
- This fiscal performance allowed for a strong fiscal response to the pandemic in 2020 and 2021, in support of the economy
 - The policy response in 2020 was extended in 2021 to continue shielding Greece from the impact of the pandemic
 - This prevents long-lasting impact on the Greek economy and paves the way for a smooth exit from the Covid crisis
- Greece remains strongly committed to fiscal discipline, and targets a reduction in the fiscal primary balance to -1.2% of GDP in 2022 from -7.3% of GDP estimated in 2021



Sources: European Commission (Autumn 2020 and Autumn 2021 forecasts); 2022 Draft Budgetary Plan for 2021E Primary balance

Greek Primary Balance: Historical Figures and Targets (% of GDP) **Forecasts** 4.2% 4.3% 4.1% 3.7% 0.7% 0.4% (0.2%)0.50% 3.50% 3.50% 1.75% (0.25%)(1.5%)(1.2%)(2.2%)(3.0%)(5.4%)(5.3%)(7.1%)(7.3%)(10.1%)2007A 2009A 2010A 2015A 2017A 2018A 2019A 2020A 2021E 2022F 2008A 2011A 2012A 2013A 2014A 2016A ■ Primary balance (% GDP) Target

Sources: IMF WEO for historical figures (2007-2017); European Commission for data for 2018-2020 (Autumn 2021 forecasts); 2022 Draft Budgetary Plan for 2021E-2022F

THE 2022 BUDGET PAVES THE WAY FOR FISCAL NORMALIZATION

Greece's 2022 budget forecasts an ambitious decline in primary deficit, supported by an improving economic outlook and the progressive withdrawal of emergency measures

- Despite lasting uncertainty,
 Greece's economic prospects are
 expected to significantly improve
 in 2022 on the back of a progressive
 return to normal sanitarian conditions,
 the rollout of the RRP⁽¹⁾, a rebound in
 domestic demand and continued
 institutional support
- As the economy rebounds, the Government aims to gradually phase out targeted support measures in 2022
 - This would include the scaling down of discretionary measures between 2021 and 2022, by
 c. 7.2 pp of GDP, to 1.6 pp of GDP in 2022
 - On the flipside, investment would be sustained, at 6.2 pp of GDP in 2022, to support recovery
- The primary deficit is expected to amount to 1.2% of GDP in 2022, from 7.3% of GDP in 2021

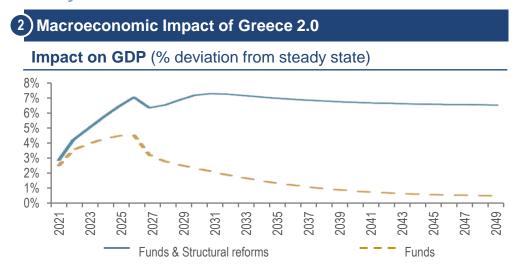
Source: 2022 Draft Budgetary Plan Note: (1) Recovery and Resilience Plan

	2022 Draft Bu	udgetary Plan
	2021	2022
General Government Revenue	48.4	48.6
Taxes on production and imports	16.9	17.0
Current taxes on income, wealth	8.3	8.9
Capital taxes	0.1	0.1
Social contributions	14.6	14.0
Other	8.5	8.6
of which, discretionary measures to address COVID-19	9 pandemic:	
Interventions on revenue	(2.0)	(1.1)
General Government Expenditures	58.3	52.4
Compensation of employees	12.8	12.1
Intermediate consumption	5.9	5.5
Social payments	22.9	22.0
Interest expenditures	2.7	2.5
Subsidies	4.7	1.2
Gross fixed capital formation	4.5	6.2
Capital transfers	2.7	0.7
Other	2.1	2.1
of which, discretionary measures to address COVID-19	9 pandemic:	
Interventions on expenditures	6.9	0.5
General Government Balance	(9.9)*	(3.7)
General Government Primary Balance	(7.3)*	(1.2)
of which Discretionary component	(8.8)	(1.6)

GREECE'S GROWTH STRATEGY WILL BE SUPPORTED BY THE IMPLEMENTATION OF THE RECOVERY AND RESILIENCE PLAN (RRP)

Greece's growth strategy, outlined in the "Greece 2.0" plan, will take advantage of NGEU funds to enhance long-term growth potential and support the economic recovery

- 1 Greece's RRP, Greece 2.0, aims to make the most of the funds available to Greece under the RRF, allocating more than c. €31bn over the next 6 years (c. €60bn incl. expected private sector involvement) across key growth-enhancing sectors
- 2 Combined with the continued implementation of structural reforms, this will participate to structurally and durably improving Greece's growth trajectory (c. +7% of GDP by 2026)
- 3 Following the pre-financing of €4bn of grants in 2021 ahead of schedule, disbursements under the RRF will accelerate in 2022 (2.8% of GDP in loans and grants), further advancing Greece 2.0 and its positive impact on the economy



1)0	1) Greece 2.0 Allocation of Funds <i>(€)</i>					
		RRF Allocation (2021-26)	Total Mobilized Investment			
G	rants	18bn	28bn			
Lo	oans	13bn	31bn			
To	otal	31bn	59bn			

Disbursement Schedule of RRF Funds (% of GDP)						
	2021	2022	2023	2024	2025	2026
RRF Grants Disbursement						
Effective cash disbursements	1.3%	1.8%	1.7%	1.7%	1.6%	0.8%
As included in revenue projections	0.3%	1.7%	1.8%	1.7%	1.6%	1.6%
RRF Loans Disbursement	0.9%	1.0%	0.9%	0.9%	0.8%	1.7%

Sources: 2022 Draft Budgetary Plan, Greek Authorities - Greece 2.0 May 2021 presentation, Bank of Greece



III OVERVIEW OF GREEK PUBLIC DEBT SUSTAINABILITY

GREECE BENEFITS FROM A FAVOURABLE DEBT STRUCTURE

The Greek debt-to-GDP ratio recovered its firm downward path in 2021

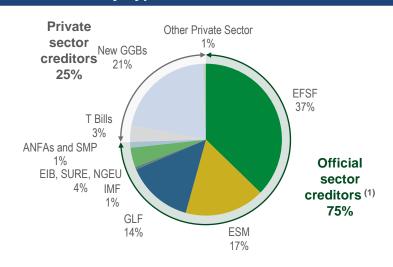
- The total debt stock is expected to decrease from 206% of GDP (€341bn) in 2020 to 198% of GDP (€350bn) in 2021
- The strong GDP rebound in 2021 largely makes up for the slight increase of the debt in nominal terms (€9 bn)

Greece benefits from a favourable debt structure

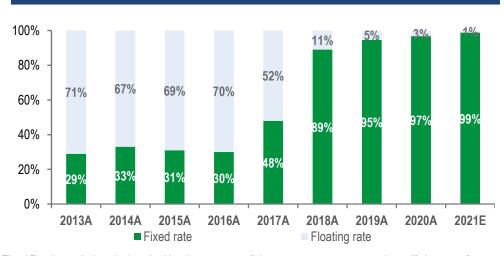
- Over 75% of the debt stock is held by official sector creditors⁽¹⁾, which comes along with long term maturity profile and low interest rates
- 99% of debt is fixed rate⁽²⁾, limiting interest rate risks

Evolution of Greek Public Debt Estimates 450 250% 206% 198% 177% 179% 176% 179% 176% 181% 181% 400 200% 160% Debt Stock (€bn) 350 341 335 150% 350 331 312 315 317 305 300 100% 250 50% 200 0% 2012A 2013A 2014A 2015A 2016A 2017A 2018A 2019A 2020A 2021E

Debt Breakdown by Type of Instruments, as of YE 2021E



Debt Breakdown by Coupon Rate Type⁽²⁾



Sources: 2022 Draft Budgetary Plan, Ministry of Finance, PDMA

Notes: (1) Excludes Eurosystem holding of GGBs, purchased on the secondary markets through the PEPP; (2) Fixed/floating ratio is calculated taking into account: i) interest rate swap transactions, ii) the use of funding instruments by ESM regarding the loans that have been granted to the Hellenic Republic and iii) the incorporation of the risk metrics of EFSF's liability portfolio into the Greek debt portfolio

GREEK PUBLIC DEBT HAS AN EXCEPTIONALLY LONG MATURITY

The long weighted average maturity of the Greek debt limits refinancing risks

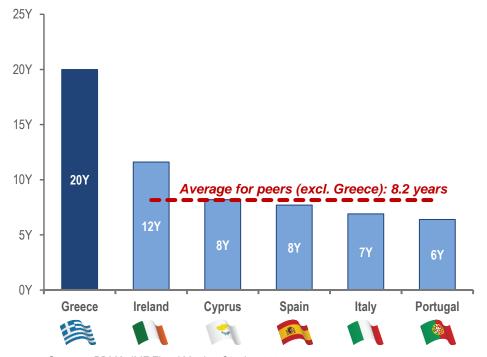
- The weighted average maturity of the Greek public debt stock remains at very high levels, at 20-Y
 - Greek public debt weighted average maturity stands largely above that of Eurozone peers (20-Y vs 8-Y on average for a selected group of peers)

Evolution of Weighted Average Maturity of Greek Public Debt



Source: PDMA

Greece and EZ Peers' Debt Weighted Average Maturity (2021E)



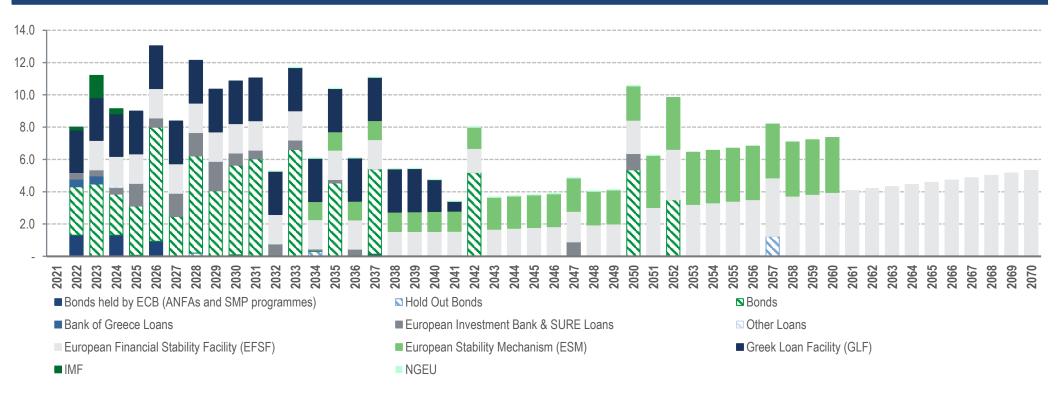
Sources: PDMA, IMF Fiscal Monitor October 2021

A MATURITY PROFILE WELL INSIDE RECENT DEMAND DYNAMIC

Greece's favourable debt repayment profile limits public debt refinancing risks in short, medium and long terms

- Debt amortization is evenly distributed over the medium-term so that the debt service will remain at or below €13bn each year, which represent less than one tenth of the 2021 demand for GGB (€123bn of demand in 2021, for €14bn raised⁽¹⁾).
- At close to €32bn, the cash buffer is also a strong mitigant to any refinancing risks

Maturity Profile of the Greek Public Debt as of December 2021⁽²⁾ (€bn)



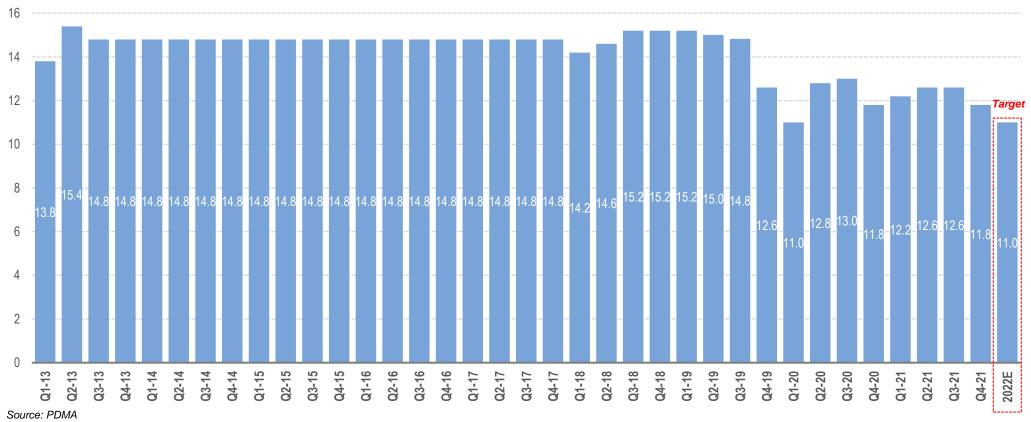
Source: PDMA

Notes: (1) Excluding the GGBs issued in the context of the PSI leftovers exchange offer; (2) Maturity profile excludes T-bills and REPOs.

THE STOCK OF GREEK T-BILLS IS SET TO DECLINE

- The current stock of T-bills of the Hellenic Republic is estimated at €11.8bn at the end of 2021
- The stock of T-bills is expected to be further reduced by c. €0.8bn in the course of 2022. The refinancing risk would be subsequently
 mitigated over the short-term

Evolution of the Stock of Greek T-bills by Quarter (End of Period, €bn)



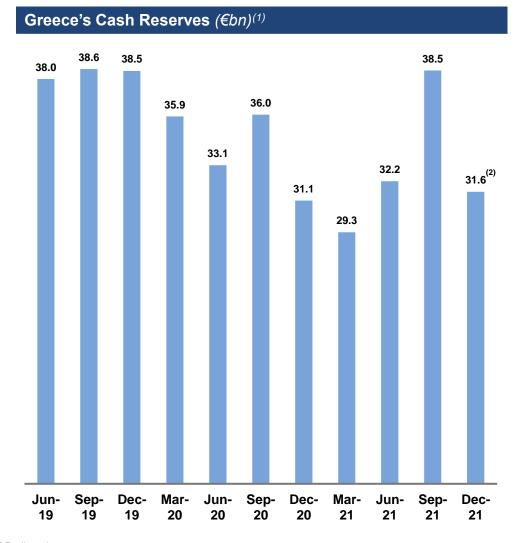
Note: The T-bills' stock is calculated at the end of each quarter

THE SUBSTANTIAL CASH RESERVES ARE ANOTHER BACKSTOP AGAINST REFINANCING RISK

Greece's cash reserves now exceed €31bn⁽¹⁾, i.e. over 3 years of debt maturities

Key Considerations

- Greece benefits from important cash reserves, which it has progressively accumulated over the past years thanks to:
 - New GGBs' issuances over 2017-21
 - Fiscal surpluses accumulated prior to the pandemic and a very favorable debt amortization profile
- Despite funding needs remaining high in 2021, the active debt management allowed to maintain cash reserves above €31bn as of the end of 2021
- These sizeable cash reserves cover more than 3 years of gross financing needs of the Republic, providing a significant buffer against any refinancing and interest rate risks over the medium-term



Source: PDMA

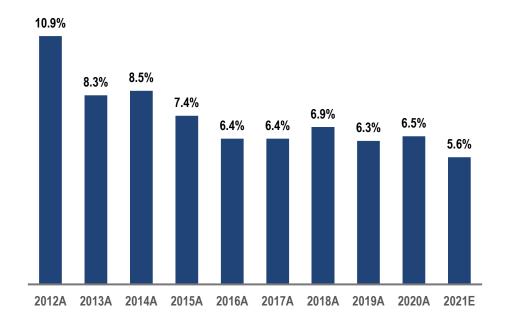
Notes: (1) Including general government entities' deposits in commercial banks; (2) Including Greece's 2021 SDR allocation

THE AFFORDABILITY OF GREEK PUBLIC DEBT IS FURTHER IMPROVING

Sustained low financing costs for Greece continue to materialize into a declining interest-to-revenue ratio

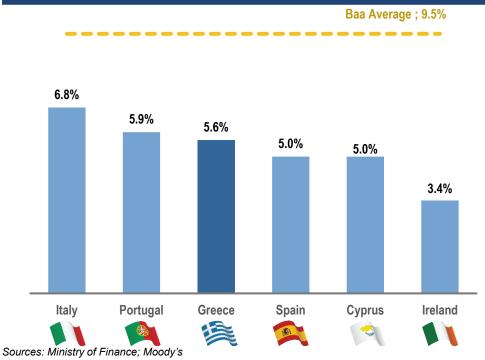
- Interest debt service as a share of total general government revenues resumed its downward trend to reach 5.6% in 2021, despite a
 conjunctural and temporary contraction in revenues since the beginning of the pandemic. Since 2012, the debt service-to-revenue
 ratio has decreased by almost a half, down from 10.9%, allowing to further improve Greece's debt sustainability
- Despite having the highest debt-to-GDP ratio in the Eurozone, Greece's debt service remains in line with its peers' and significantly below the average of Baa-rated sovereigns'

Evolution of Greek Interest Debt Service to Revenues



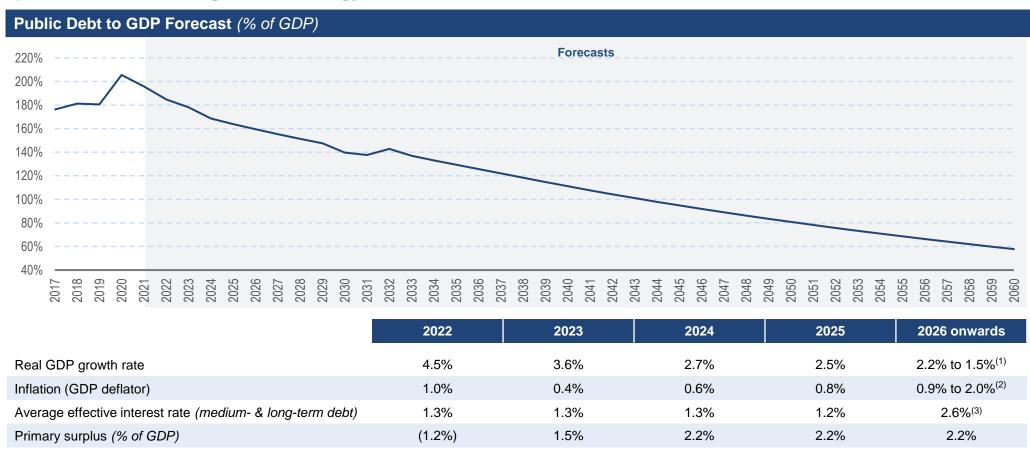
Sources: European Commission, Ministry of Finance, PDMA

Greece & EZ peers' Interest Debt Service to Revenues (2021E)



GREEK PUBLIC DEBT-TO-GDP RATIO IS BACK ON A FIRM DOWNWARD PATH

Despite a short-term deterioration due to the COVID-19 impact, the Greek debt-to-GDP ratio is expected to decrease over the coming years, supported by strong economic recovery, sustained fiscal discipline and a proactive debt management strategy



Sources: European Commission, 2022 Draft Budgetary Plan, Ministry of Finance, PDMA

Notes: The present analysis is mainly based on the baseline assumptions of the European Institutions, and includes conservative assumptions with respect to contingent liabilities (assumed crystallization of c. 43% of the total stock of contingent liabilities over 2022-2030, on average); 1) Real GDP growth decreasing from 2.2% in 2026 to 1.2% in 2030, then increasing to 1.7% in 2040 and finally converging to 1.5% in 2060; 2) GDP deflator increasing from 0.9% in 2026 to 2.0% in 2040, and then remaining constant at 2.0% from 2040 onwards:; 3) Average effective interest rate for the period 2026-2060

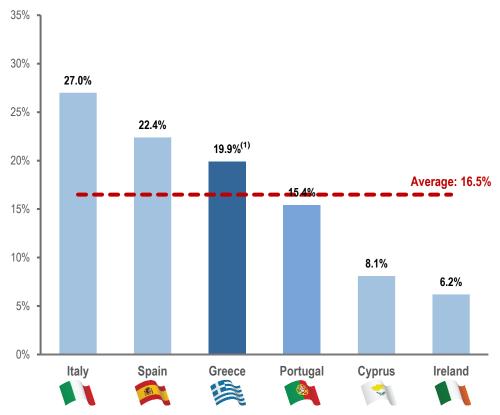
GREECE GROSS FINANCING NEEDS ARE EXPECTED TO REMAIN LOW AS COMPARED TO EUROZONE PEERS

Greece Gross Financing Needs did not exceed 20% of GDP in 2021, close to Eurozone peers' average, and will remain well below 15% going forward

Evolution of Gross Financing Needs(1) (% of GDP) 25% 20% 15% 10% 2049 2051 2033 2037 2039 2041 2043 2045 2047

Source: PDMA Note: 1) Including T-bills and excluding Repos

Greece & EZ peers' Gross Financing Needs (2021E, % of GDP)





IV FOCUS ON FINANCING NEEDS AND SOURCES FOR 2022

OVERVIEW OF PDMA DEBT & 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 Lower 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 the General Government Entities)			

TOWARDS THE ISSUANCE OF A GREEN GREEK GOVERNMENT BOND

Greece contemplates the issuance of an inaugural Green GGB in late 2022, to (i) support the implementation of its sustainability agenda and (ii) enhance PDMA's funding strategy



Supporting the roll-out of Greece sustainability agenda

- Greece is committed to reducing greenhouse gas emissions by 55% by 2030 and achieving net-zero by 2050, as outlined in November 2021 Draft Climate Law
- The implementation of Greece' sustainability strategy involves public investments that can be financed through the issuance
 of Green Bonds, as presented by the Minister of Finance at the UN's COP-26 (November 2021)



Enhancing PDMA's funding strategy

By issuing Greece's first Green sovereign bond, PDMA intends to:

- ✓ Align the State's financial policy with national sustainability targets, by further evidencing commitment to its sustainability agenda, and by facilitating the monitoring of progresses made under Greece's ESG strategy (through regular reporting)
- ✓ **Strengthen Greece's investor base,** by addressing institutional investors' rising ESG standards, and by reaching out to new types of investors
- ✓ **Stand at the forefront of Eurozone sovereign issuers,** by joining the few Eurozone Member States already present on the sovereign Green bond market, and by anticipating the growing impetus of Credit Rating Agencies for environment-related assessment criteria

Key features of the contemplated Green GGB issuance					
Format	Green GGB	Currency	EUR		
Timing of issuance ⁽¹⁾	H2 2022	Size ⁽¹⁾	Benchmark size		
Maturity ⁽¹⁾	Medium to long-term (complementary to the conventional GGB yield curve)	Framework	Green Bond Framework (under development, in line with international best standards)		
Note: (1) Subject to market conditions					

FOCUS ON GREECE'S 2022 FINANCING NEEDS AND SOURCES

PDMA funding strategy for year 2022 will focus on the continuous presence in the international debt markets, accompanied by the reduction in debt-to-GDP ratio, proactive management of the debt portfolio and the preservation of a large cash buffer

Overview of Greece's 2022 Financing Needs and Sources (€bn)	
	Baseline scenario
2022 Financing Needs	
Medium- and long- term debt amortization	8.0
Interests on debt (incl. interest rate swaps)	4.7
Primary deficit / (surplus) to finance	2.7
Early repayments (T-bill stock reduction, official sector debt, etc.)	5.2
Other cash requirements	4.3
Total	24.8
2022 Financing Sources	
Medium- and long- term debt issuance (new money transactions)	12.0
Other financing sources (RRF, EIB, CEB, etc.)	4.2
Return of SMP / ANFA profits	1.3
Privatization receipts	0.7
Change in cash reserves, decrease / (increase)	6.6
Total Control of the	24.8
Change in public debt, increase / (decrease)	3.0