DECEMBER 2019

HELLENIC REPUBLIC

FUNDING STRATEGY FOR 2020

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PUBLIC DEBT MANAGEMENT OF THE HELLENIC REPUBLIC: OVERVIEW OF MAIN ACHIEVEMENTS IN 2019

During 2019 the Hellenic Republic has been highly successful in accessing international debt capital markets, with the objective of restoring its regular issuer status

✓ **Enhanced market access**

During 2019, the Hellenic Republic has successfully tapped the international debt capital markets through 4 market transactions**: 3 new bond series** (5Y, 7Y, 10Y new issue + tap) for a **total amount of € 9bn** have been issued, **with an aggregated order book of c. € 43bn**

✓ **Historically low funding costs**

The average cost of funding for 10-year bonds has decreased **from c. 4.4% to c.1.5%,** while **yields on 3m and 6m T-bills have recently reached negative values** (-0.083% and -0.02% for the latest issued 3m and 6m T-bills, respectively)

✓ **Investor base rebalanced towards long-term investors**

The investor base for Greece Government Bonds (GGBs) has significantly strengthened and broadened with **an increased share of long-term investors**, notably insurance and pensions funds

✓ **Rating improvements on the back of improving economic fundamentals and enhanced market access**

In 2019, Greece has been upgraded by 5 out of 6 rating agencies (S&P, Moody's, DBRS, Scope Ratings and R&I): from B+ to **BB-** by S&P, from B3 to **B1** by Moody's, from B+ to **BB-** by DBRS, from B+ to **BB** by Scope and from B+ to **BB** by R&I. Fitch maintains **BB-** rating for Greece

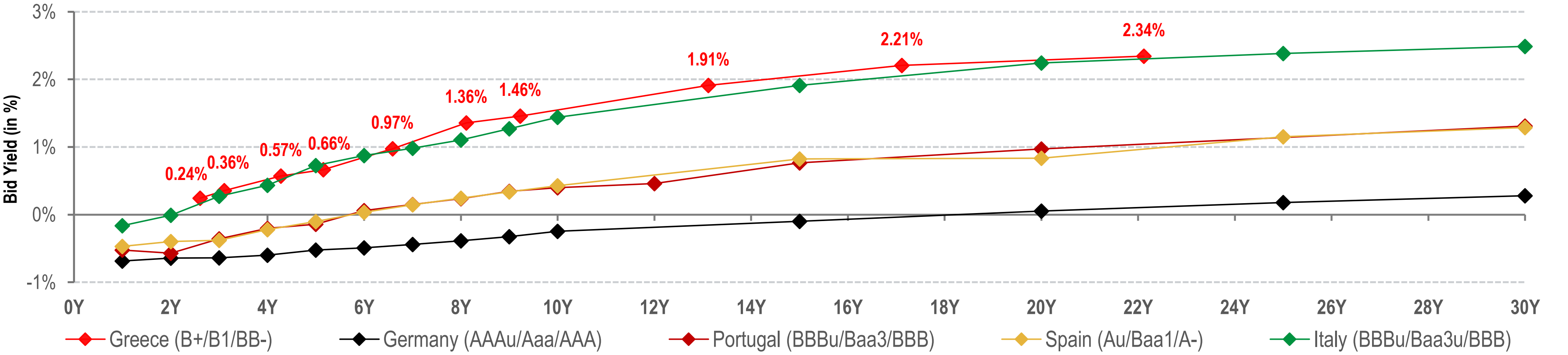
GREECE HAS SUCCESSFULLY ENHANCED ITS MARKET ACCESS DURING 2019

- **New 2019 bond issuances have allowed to further develop Greek yield curve and improve the liquidity of GGBs**
- **Such strong performance has been achieved in a relatively unfavourable regulatory environment, when compared to Eurozone peers:**
  - GGBs remain excluded from the marketable securities eligible to Eurosystem refinancing operations, Asset Purchases Programme
  - The ECB maintains restrictions on Greek Banks' holdings of GGBs

Overview of 2019 Bond Issuances

ISINs	Issue Date	Maturity Date	Tenor	Demand Amount	Issued Amount	Subscr. Rate	Yield	Spread vs Bund
GR0124035693	8-Oct-19	12-Mar-29	10Y (tap)	€ 7.6bn	€ 1.5bn	5.1x	1.50%	210 bps
GR0118019679	23-Jul-19	23-Jul-26	7Y	€ 13.0bn	€ 2.5bn	5.2x	1.90%	243 bps
GR0124035693	12-Mar-19	12-Mar-29	10Y	€ 11.8bn	€ 2.5bn	4.7x	3.90%	373 bps
GR0114031561	5-Feb-19	5-Feb-24	5Y	€ 10.2bn	€ 2.5bn	4.0x	3.60%	389 bps
			Total:	**EUR 43bn**	**EUR 9bn**			

Selected European Sovereign Yield Curves as of 23/12/2019



Source: Bloomberg as of 23-Dec-2019

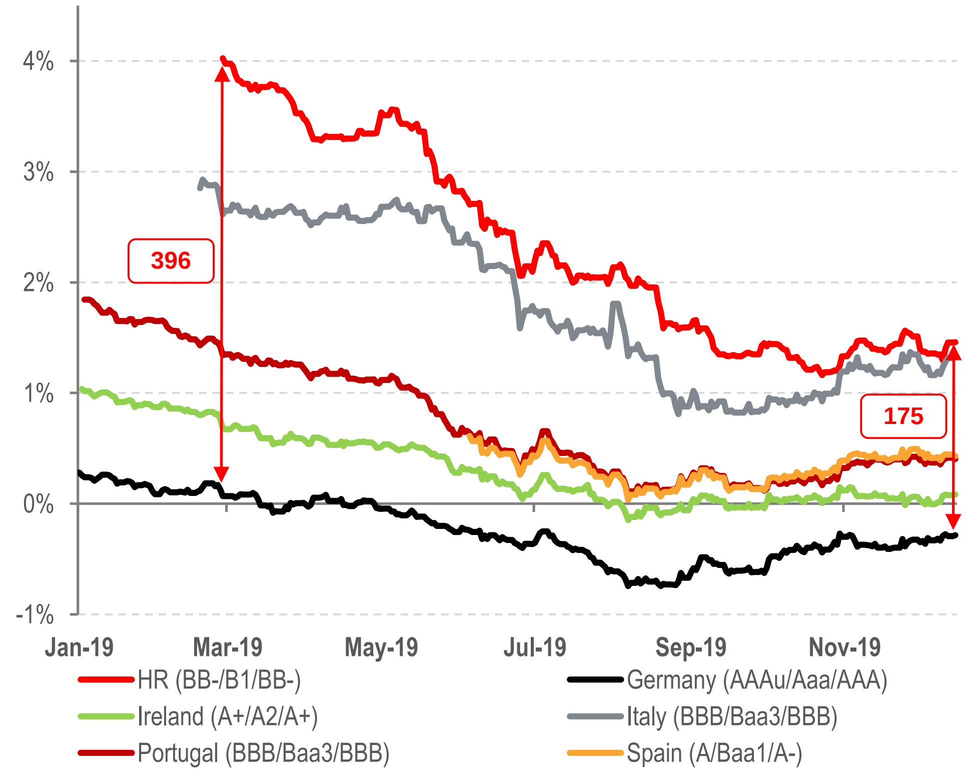
GREECE FUNDING COSTS HAVE REACHED RECORD LOWS IN 2019

Funding costs have substantially tightened in the course of 2019 (257 bps on the 10Y benchmark)

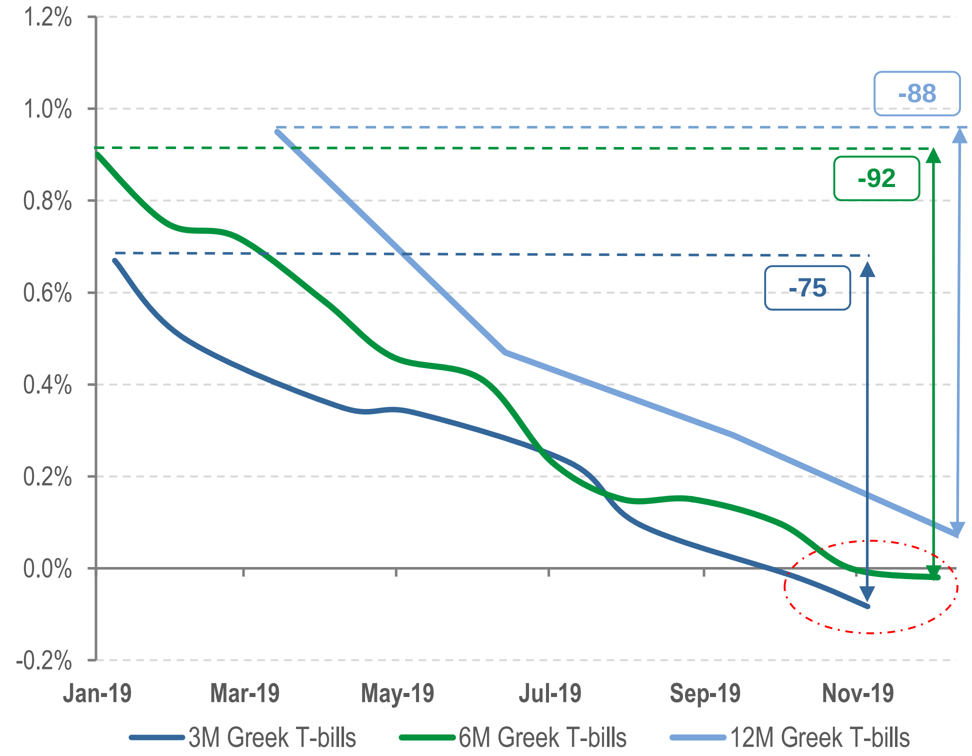
- **Besides, the 10-year spread to Germany has narrowed by more than half (221bps) over the last nine months: from 396bps to 175bps**

T-bills' yields are also on a downward trend with the latest 3m and 6m T-bills' issues priced at negative yields (-0.083% and -0.02%, respectively)

Greece and selected peers' 10-Year bond bid YTM (%)



Greece T-Bills YTM at issue (%)



Source: Bloomberg as of 23-Dec-2019

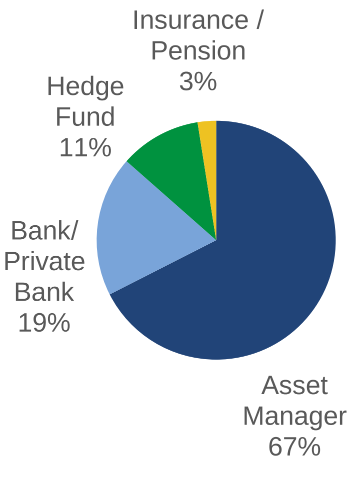
THE INVESTOR BASE IS BROADENING, WITH AN INCREASED PRESENCE OF LONG-TERM HOLDERS

Throughout the year, the share of long-term investors (in particular insurance and pension funds) has been gradually increasing

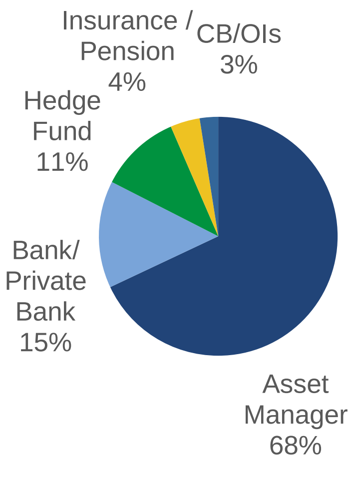
Investor type breakdown of 2019 Greek bond allocations

- **Insurance and pension funds** as well as **CBs and OIs** have maintained a strong presence in the book allocation
- **Asset managers** have accounted for almost two thirds of the allocation of the 10-year bond operations

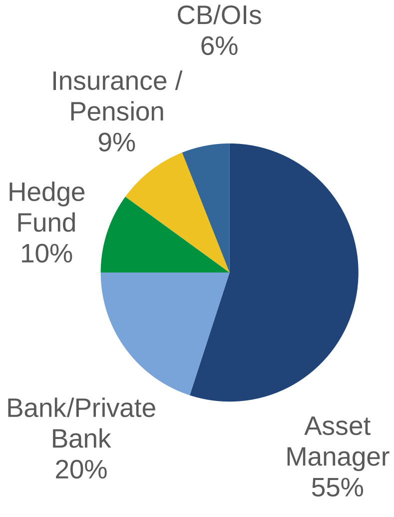
5Y bond (Feb-19)



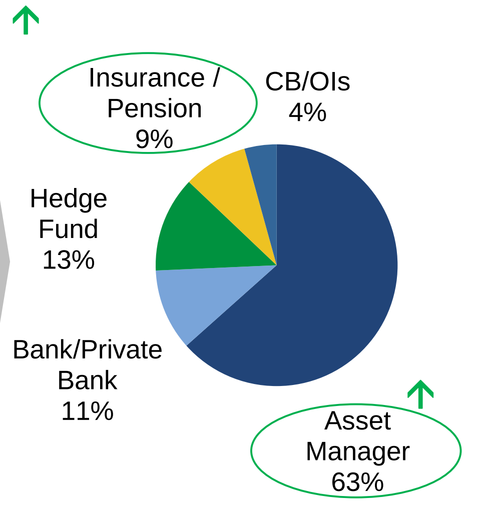
10Y bond (Mar-19)



7Y bond (Jul-19)



10Y bond (Oct-19) Tap

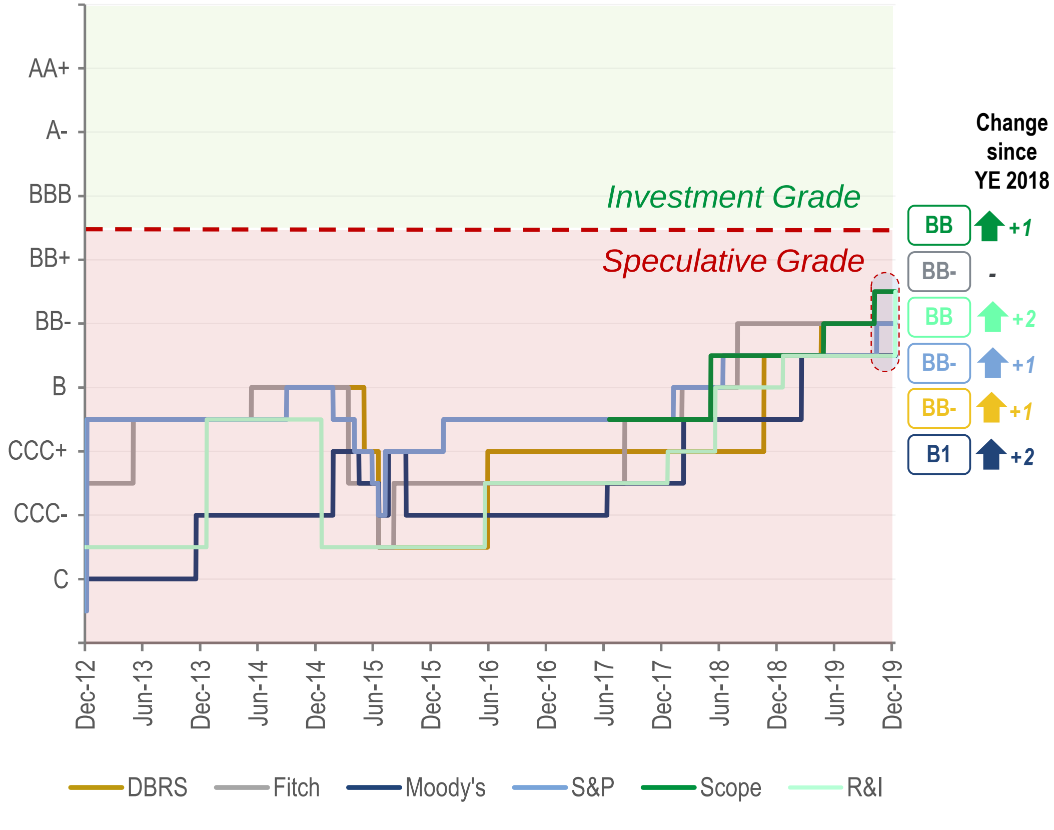


Total LT investors:	5Y bond (Feb-19)	10Y bond (Mar-19)	7Y bond (Jul-19)	10Y bond (Oct-19) Tap
	70%	75%	70%	76%

GREECE RATING UPGRADES HAVE BEEN DRIVEN BY IMPROVING ECONOMIC FUNDAMENTALS AND ENHANCED MARKET ACCESS

Since the beginning of 2019, Greece sovereign credit ratings are on a regular upward trend. The Hellenic Republic has been upgraded by four credit rating agencies: R&I (+2 notches to BB, on December 23th, 2019), Scope (+1 notch to BB, on October 18th, 2019), S&P (+1 notch to BB-, on October 25th, 2019), DBRS (+1 notch to BB(low) on May 3rd, 2019) and Moody's (+2 notches to B1 on March 1st, 2019)

Evolution of Greece Credit Rating since 2012



Sources: DBRS, Fitch, Moody's, S&P, Scope
Note: DBRS and Scope credit ratings are available since 2014 and 2017 respectively

Selected Comments of the Rating Agencies

"The profile of Greece's general government debt is exceptionally favourable […] Greece continues to make progress towards the resumption of regular bond issuance. Yields on Greek government bonds fell sharply after the July snap elections.

SOURCE FITCH / 13 AUGUST 2019

"In terms of maturity and average interest costs, Greece has one of the most advantageous debt profiles of all the sovereigns we rate

SOURCE S&P / 25 OCTOBER 2019

"Greece is in a sweet spot domestically: government success in accumulating primary budget surpluses, maintaining the confidence of international institutional creditors and now luring back foreign investors, is coinciding with what looks like a prolonged period of ultra-low interest rates

SOURCE: SCOPE RATINGS / 16 DECEMBER 2019

"While the public debt burden is very high, Greece benefits from a favourable debt structure and high debt affordability driven by the extensive debt relief from official-sector creditors. […] Very low debt-servicing costs, moderate borrowing needs amid ongoing credit support constitute a credit strength of Greece

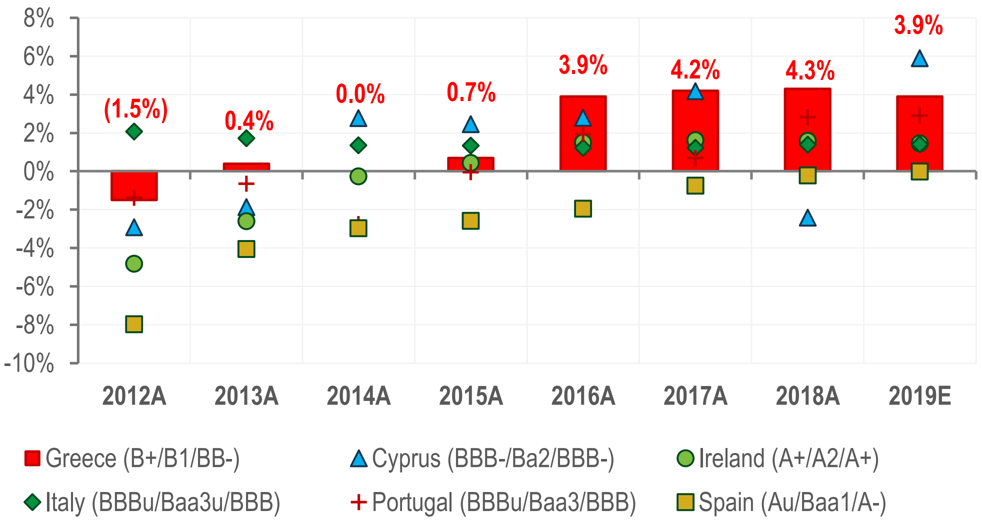
SOURCE MOODY'S / 28 AUGUST 2019

II 2020 BUDGET: KEY HIGHLIGHTS

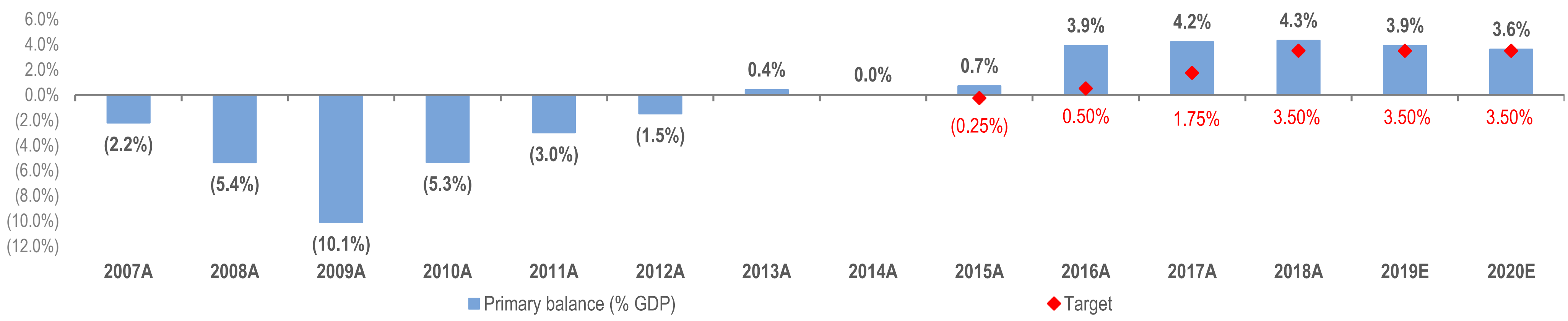
GREECE HAS REPEATEDLY OUTPERFORMED ITS FISCAL OBJECTIVES

- **Since 2015, Greece has regularly exceeded the primary surplus targets**
  - Since 2016, Greece has also been an outperformer in terms of primary fiscal surpluses, compared with its Eurozone peers
- **Greece is estimated at 3.9%, outpacing 3.5% of GDP primary surplus target for 2019**
- **Greece remains committed to a primary surplus of 3.5% of GDP until 2022 and of 2.2% of GDP on average over 2023-2060**

Greece and EZ Peers' Primary Balance (% of GDP)



Greek Primary Balance: Historical Figures and Targets (% of GDP)



Sources: IMF for historical figures (2007-2017); Eurostat – European Commission for data starting from 2018

DRAFT 2020 BUDGET: KEY HIGHLIGHTS

Greece's 2020 budget forecasts a primary balance of 3.6%, above 3.5% commitment

- **The government envisages to implement growth–supportive reforms aimed at boosting economic activity and investment in Greece**
- **Taking into account these measures, the government remains committed to meeting the primary fiscal surplus for 2020 and forecasts a primary surplus at c. 3.6% of GDP**
  - Such primary surplus should allow the Government to reach a total fiscal surplus of 1.0% of GDP at the end of 2020

Greece's 2019 Draft Budget (% of GDP)

	DRAFT BUDGETARY PLAN 2020 SUBMITTED TO THE EC	
	2019	2020
General government revenue	**47.6%**	**46.1%**
Taxes on production and imports	17.0%	16.6%
Current taxes on income, wealth	9.8%	9.1%
Capital taxes	0.1%	0.1%
Social contributions	13.7%	13.5%
Other	6.6%	6.7%
General government expenditure	**47.0%**	**45.0%**
Compensation of employees	11.7%	11.4%
Intermediate consumption	4.8%	4.4%
Social payments	19.5%	19.4%
Interest expenditure	3.4%	2.7%
Subsidies	1.1%	0.8%
Gross fixed capital formation	4.6%	4.3%
Capital transfers	0.3%	0.4%
Other	1.6%	1.6%
General Government Balance	**0.6%(*)**	**1.0%**
General Government Primary Balance	**3.9%(*)**	**3.6%**

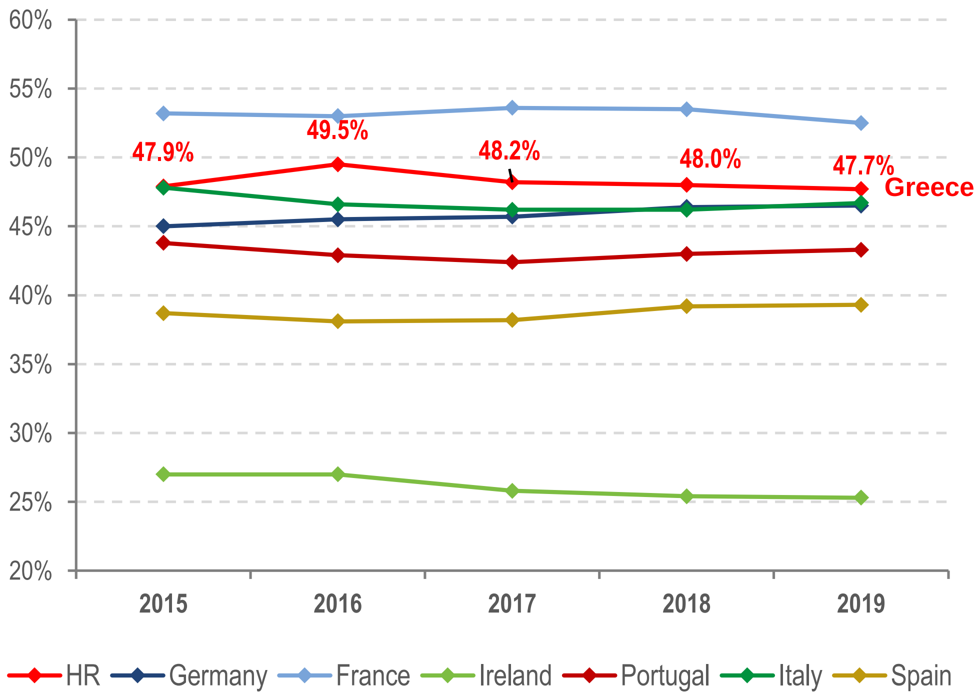
Sources: European Commission
(*) According to the latest government forecasts, the general government balance and general primary balance amount to c. 1.2% of GDP and c. 4.1% of GDP, respectively

GREECE'S FISCAL ADJUSTMENT COMPARES FAVOURABLY WITH PEERS

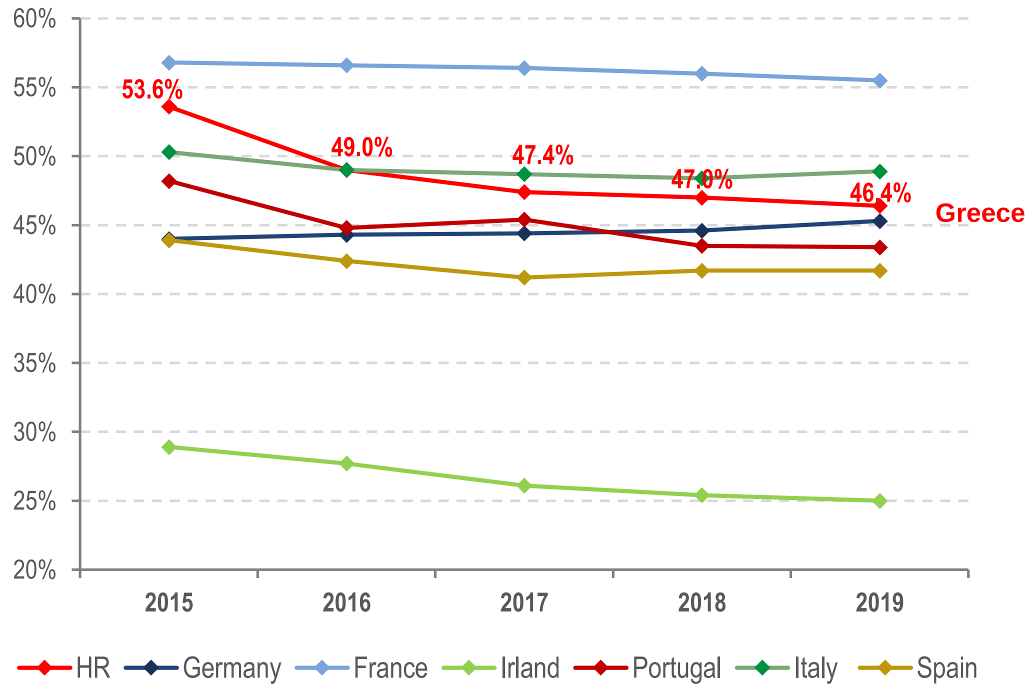
In less than a decade, Greece has reduced its spending while maintaining a high level of revenue

- **Greece has reduced its governement expenditures by c. 7pp of GDP since 2015, in an effort to meet the primary balance targets**
- **At the same time, Greece has maintained a robust level of fiscal revenues of c. 48% of GDP, in line with most of the Eurozone peers**

Greece and EZ peers' government revenues (% of GDP)



Greece and EZ peers' government expenditures (% of GDP)



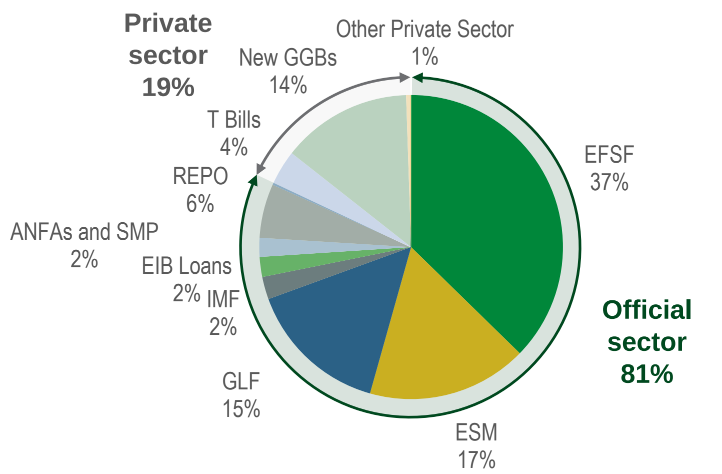
Source: European Commission (Autumn 2019 forecasts)

III OVERVIEW OF GREEK PUBLIC DEBT SUSTAINABILITY

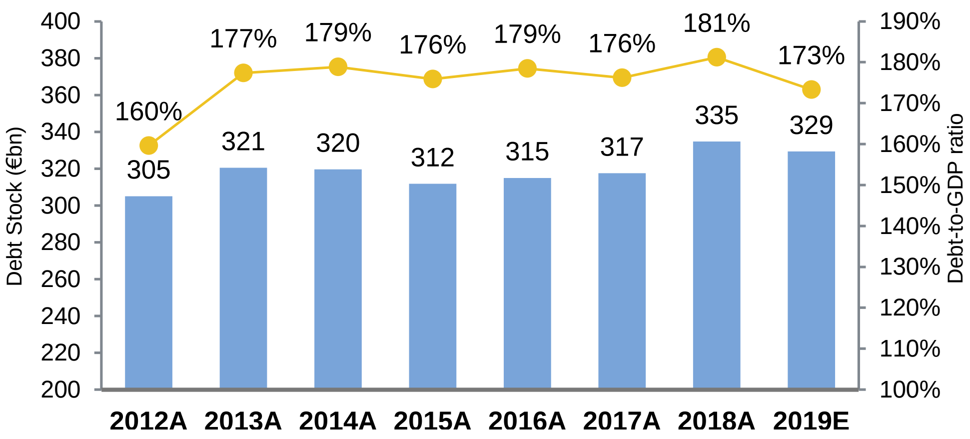
GREECE BENEFITS FROM A FAVOURABLE DEBT STRUCTURE

- **After reaching its peak in 2018, the Greek debt-to-GDP ratio is now on a downward trend driven by solid fiscal performance and improving economic growth**
  - The total debt stock of Greece is expected to decrease from 181% of GDP (€ 335bn) in 2018 to 173% of GDP (€ 329bn) in 2019
- **Greece benefits from a favourable debt structure**
  - 81% of the debt stock is held by official sector creditors, allowing for **long term maturity profile** and **low interest rates**
  - More than **90% of debt is fixed rate**(1), limiting risks related to the raise of interest rates in the debt capital markets

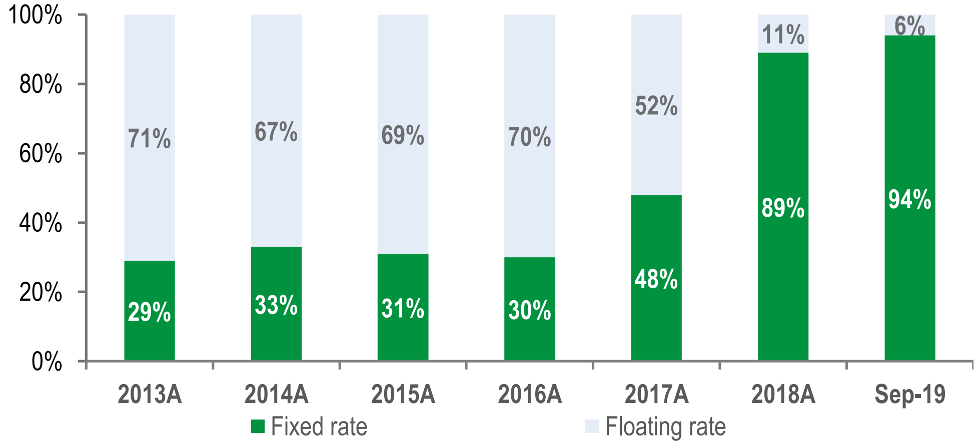
Debt Breakdown by Type of Instruments, as of YE 2019E



Evolution of Greek Public Debt



Debt Breakdown by Coupon Rate Type(1)

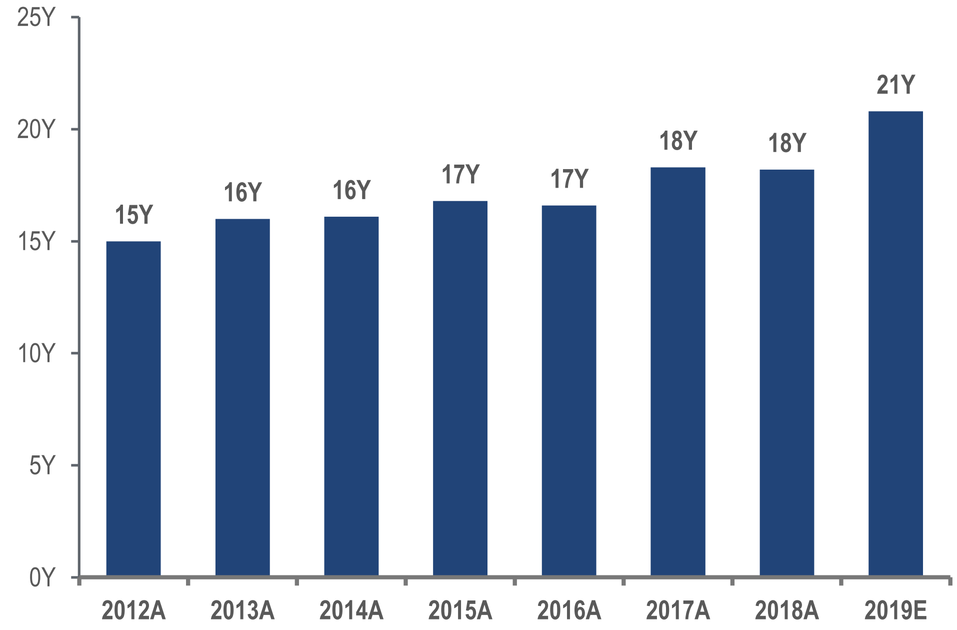


(1) Fixed/floating ratio is calculated taking into account: i) interest rate swap transactions, ii) the use of funding instruments by ESM regarding the loans that have been granted to the Hellenic Republic and iii) the incorporation of the risk metrics of EFSF's liability portfolio into the Greek debt portfolio

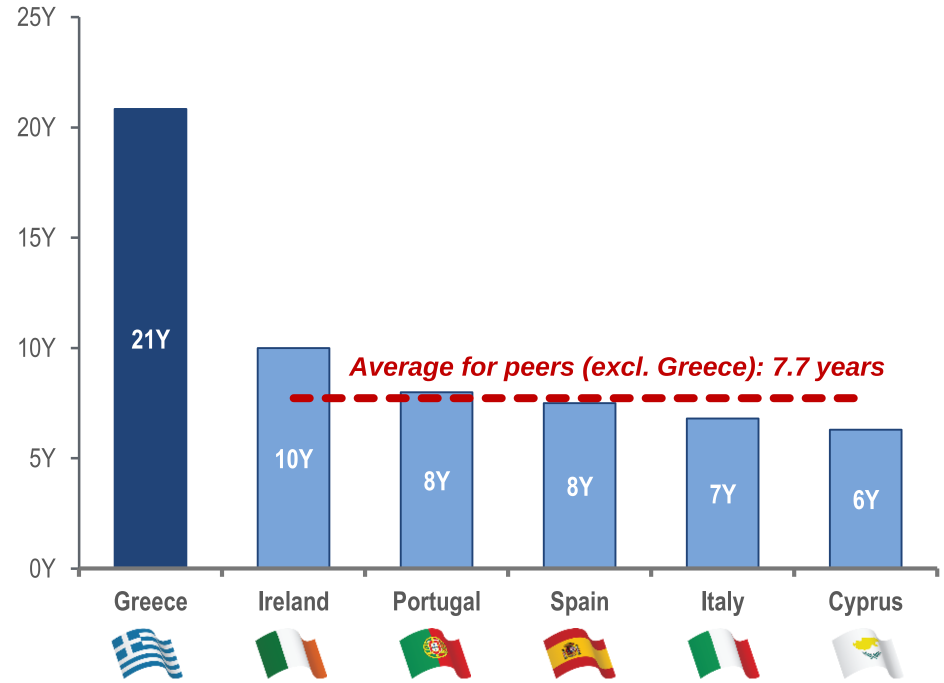
GREEK PUBLIC DEBT HAS AN EXCEPTIONALLY LONG MATURITY

- **The weighted average maturity of the Greek public debt stock has significantly increased since 2012 and now stands at c. 21Y**
  - Greek public debt weighted average maturity stands largely above the similar indicator for Eurozone peers (c. 21Y vs 7.7Y on average for a selected group of peers)
- **Such long weighted average maturity limits refinancing risks**

Evolution of Weighted Average Maturity of Greek Public Debt



Greece and EZ Peers' Debt Weighted Average Maturity (2019E)



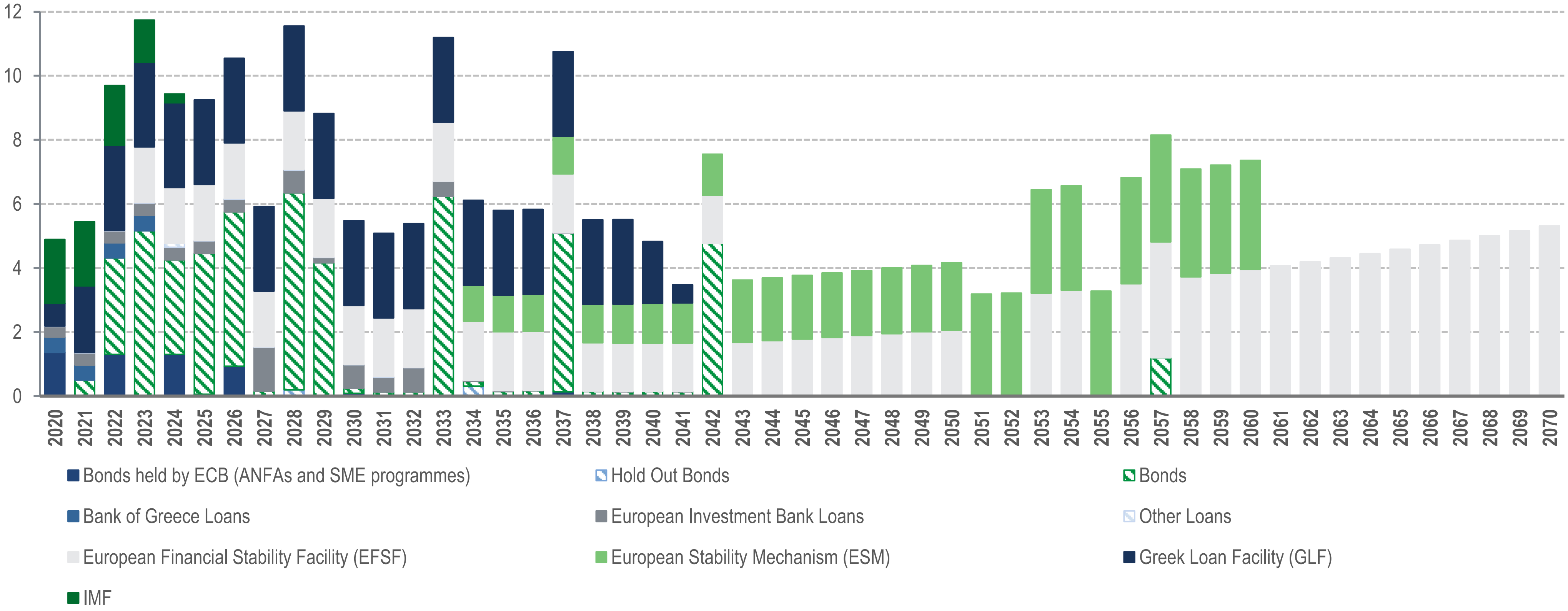
Sources: Moody's, S&P, DBRS for EZ peers

A MATURITY PROFILE WELL INSIDE RECENT DEMAND DYNAMIC

- **Public debt repayment profile with peak below 7% of GDP each year to be well covered by demand dynamic (€ 9bn raised in 2019 for a demand of € 43bn) even leaving aside the large cash buffer**

- **Such favourable amortization profile limits public debt refinancing risks in short, medium and long terms**

Maturity Profile of the Greek Public Debt as of YE 2019E (€bn)

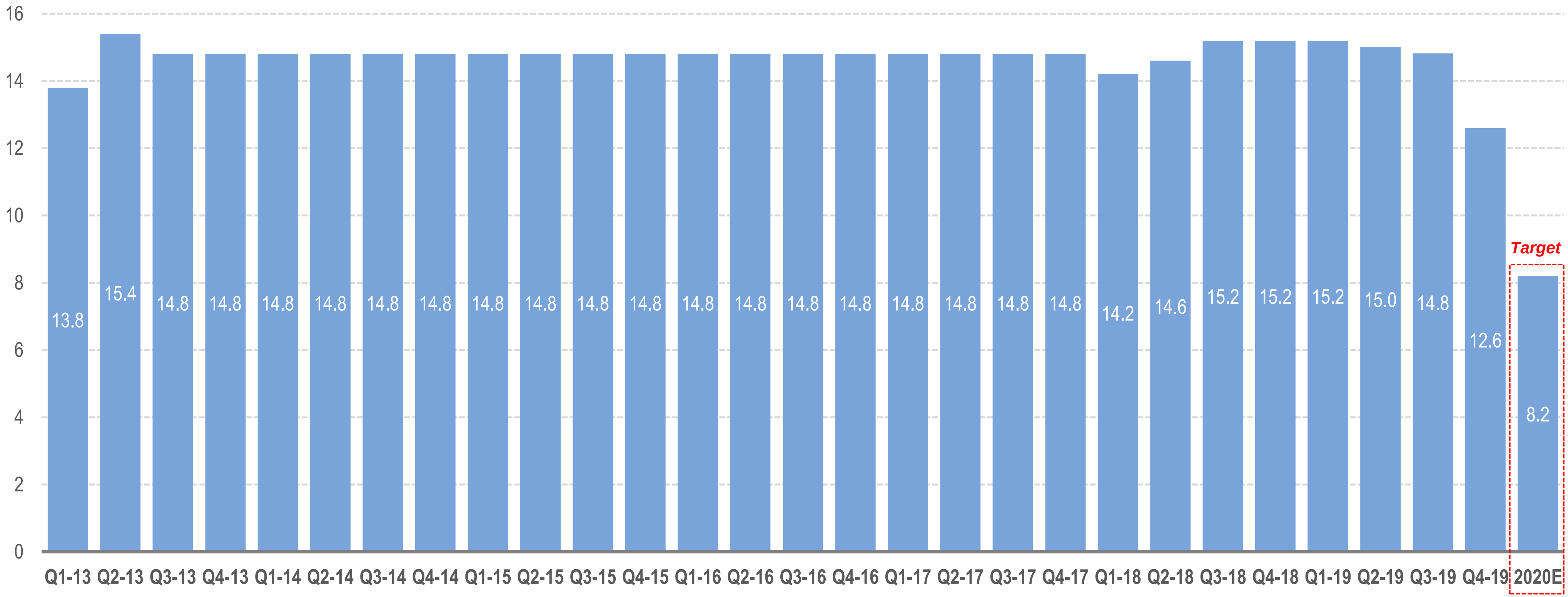


Note: Maturity profile excludes T-bills and REPOs. Last October 10-year tap reopening is included in the Bonds category

THE STOCK OF GREEK T-BILLS IS TO DECLINE

- **The current stock of T-bills of the Hellenic Republic is estimated at €12.6bn at the end of 2019**
- **The further planned reduction in the stock of T-bills by c. €4.4bn in the course of 2020 would allow the government to reduce further short-term refinancing risks and provide space for additional GGBs' issuances**

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

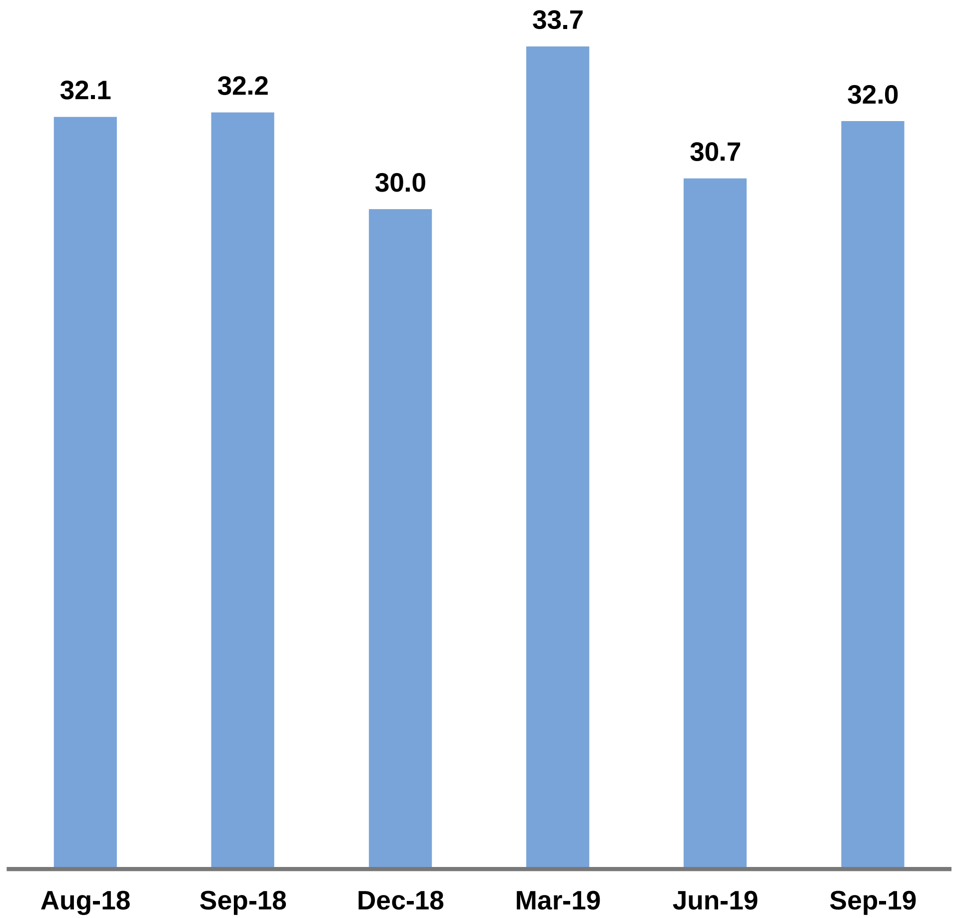
THE SUBSTANTIAL CASH RESERVES IS ANOTHER BACKSTOP AGAINST REFINANCING RISK

Greece's cash reserves now exceeds €30bn[(1)], e.g. approximately 4 years 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 2017-19
  - Final loan disbursement of the ESM under its financial assistance programme of €15bn in August 2018, out of which €5.5bn were dedicated to the segregated account and €9.5bn to the cash buffer account
  - Primary budget surplus
- **The cash reserves stood at c. €32.0bn at the end of September 2019, equivalent to over 4 years of debt maturities, assuming T-Bills are rolled over**
- **Greece sizeable cash reserves will allow to contain refinancing and interest rate risks** related to Greek public debt stock over the medium-term

Greece's Cash Reserves (€bn)[(1)]



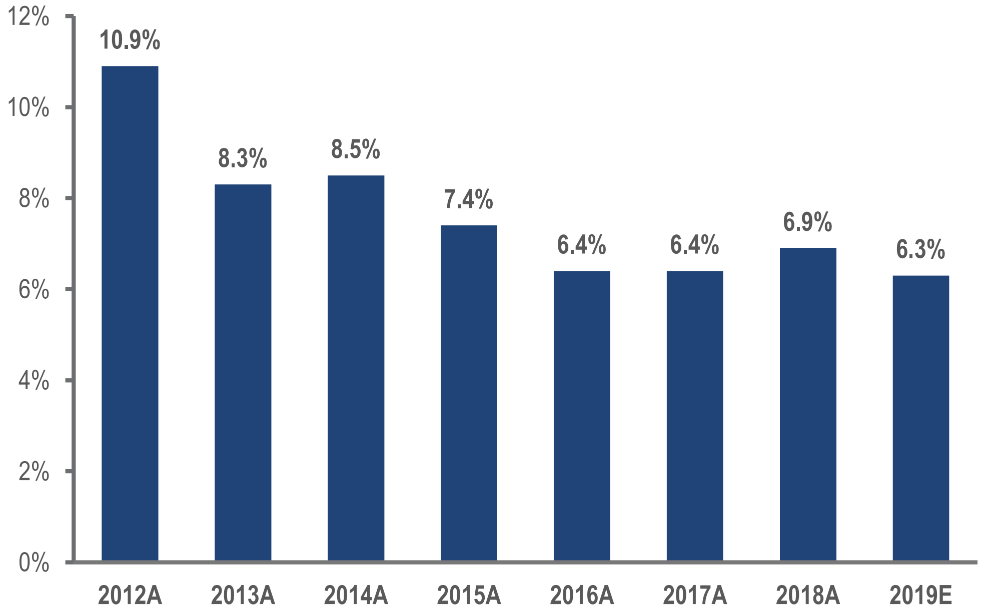
(1) Excluding general government entities' deposits in commercial banks

THE AFFORDABILITY OF GREEK PUBLIC DEBT IS IMPROVING

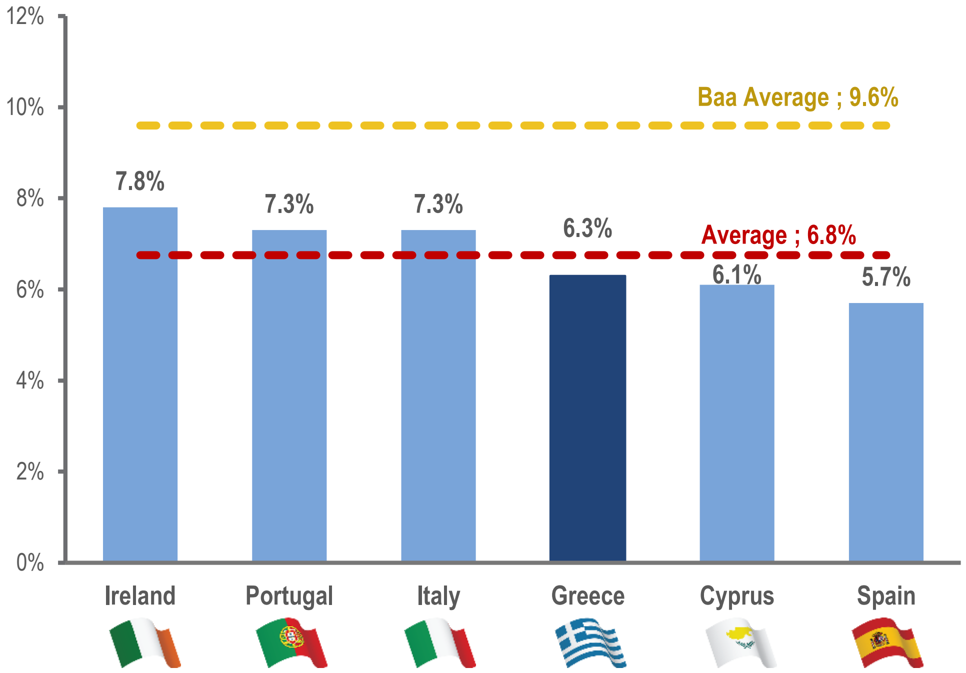
Greek debt affordability is improving, as interest debt service as % of government revenues is decreasing, on the back of falling financing costs for Greece

- **Interest debt service as % of total Greek government revenues has considerably decreased over the past years, from 10.9% in 2012 to 6.3% in 2019. This indicator is expected to further improve over the coming years, as Greek refinancing costs are on a downward trend**
- **Although the public debt stock of the Hellenic Republic is one of the highest in the Eurozone, interest debt service as % of total government revenues is below the average for selected Eurozone peers, providing further evidence of the affordability of Greek public debt**

Evolution of Greek Interest Debt Service to Revenues



Greece and EZ peers' Interest Debt Service to Revenues (2019)

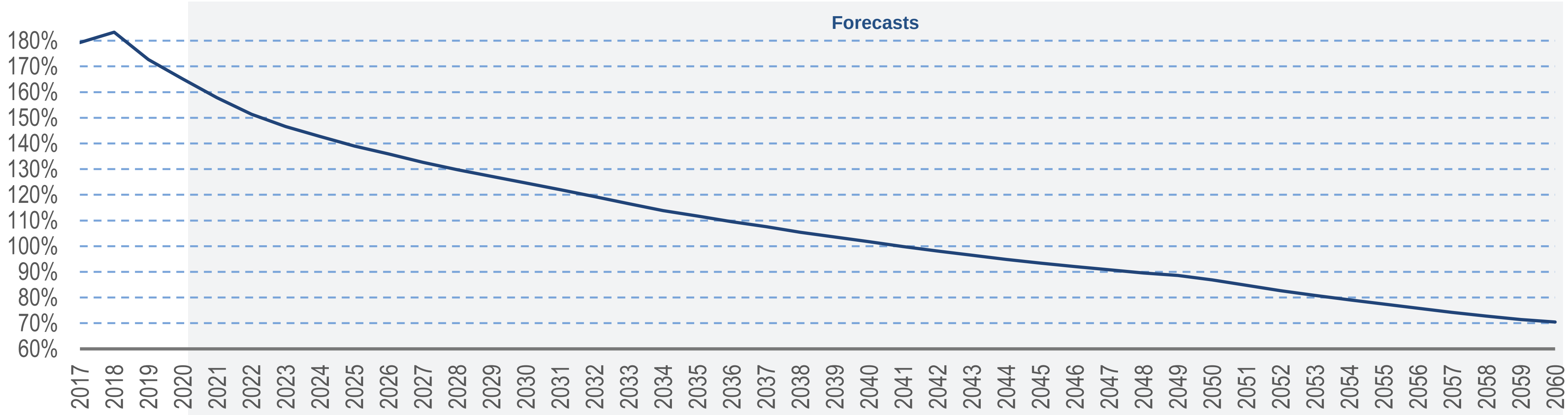


Sources: S&P Research, Moody's

GREEK PUBLIC DEBT TO GDP RATIO HAS BEEN PUT ON A CLEAR AND SUSTAINED DOWNWARD TREND

Greece debt to GDP ratio is expected to decrease over the coming years, supported by stronger economic growth, sustained fiscal discipline and a proactive debt management strategy

Public Debt to GDP Forecast (% of GDP)



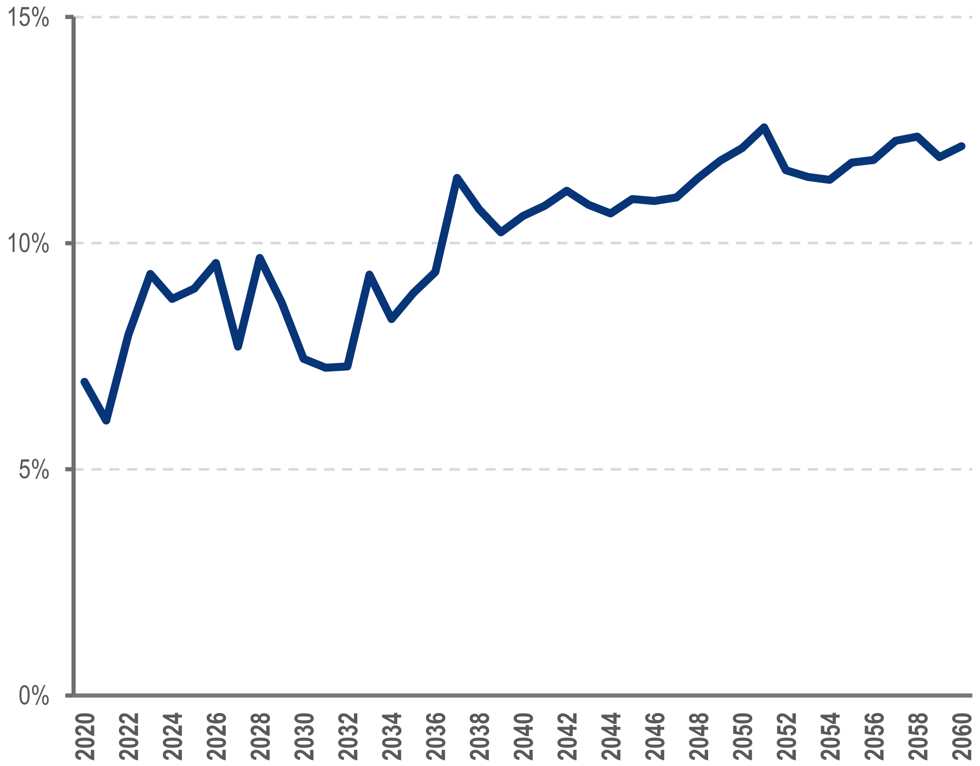
	2020	2021	2022	2023	2024 onwards
Real GDP growth rate	2.8%	2.0%	1.6%	1.0%	1.0%
Inflation (GDP deflator)	0.9%	1.6%	1.7%	2.0%	2.0%
Average effective interest rate	1.7%	1.7%	1.8%	1.8%	3.7%(*)
Primary surplus	3.6%	3.5%	3.5%	3.0%	2.5%(**)

Note: The present analysis is mainly based on the baseline assumptions of the European Institutions
(*) Average effective interest rate for the period 2024-2060; (**) Primary surplus of 2.2% from 2025 onwards

GREECE GROSS FINANCING NEEDS ARE AMONG THE LOWEST OF THE EUROZONE

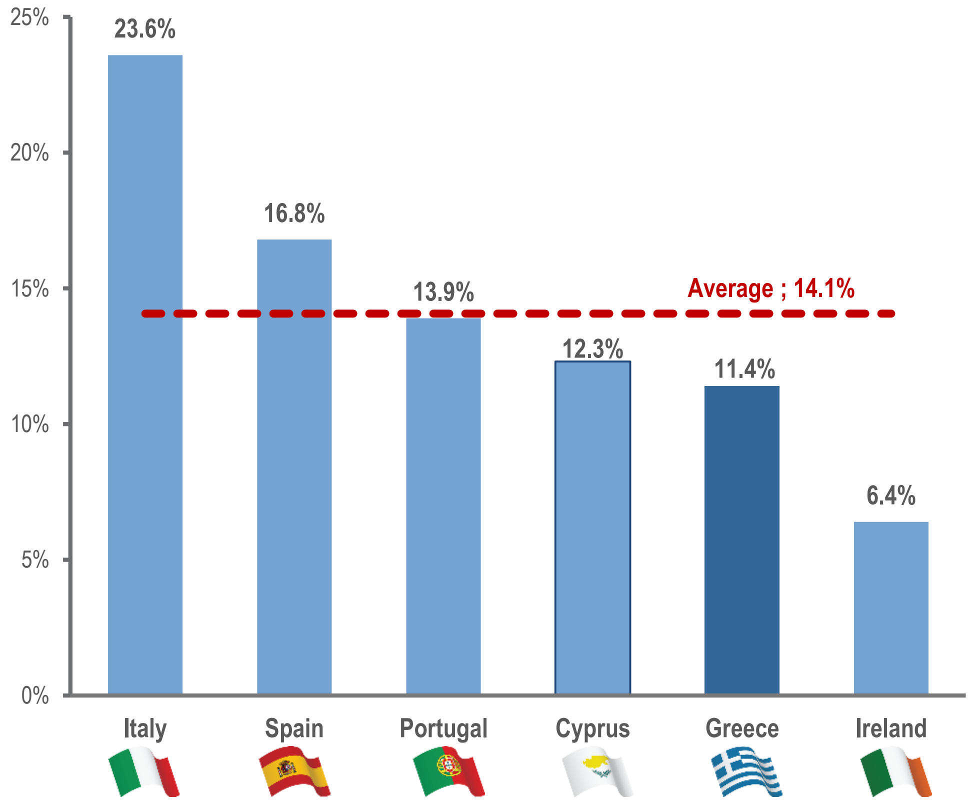
Greece Gross Financing Needs do not exceed 15% of GDP over the coming years, significantly below the average of Eurozone peers

Evolution of Gross Financing Needs[1] (% of GDP)



(1) Including T-bills and excluding Repos

Greece and EZ peers' Gross Financing Needs (2019, % of GDP)



Source: IMF

IV FOCUS ON FINANCING NEEDS FOR 2020

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)**

FOCUS ON GREECE'S FINANCING NEEDS AND SOURCES

PDMA funding strategy for year 2020 will focus on the continuous presence in the international debt markets, accompanied by the reduction in debt stock, while maintaining the current level of cash reserves

- **PDMA considers 2 main financing scenarios for 2020 depending on the amount of early repayments: (1) Scenario 1 focuses on the reduction in T-bills' stock through issuance of additional GGBs, while (2) Scenario 2 takes into account additional possible early prepayments of official and private sector debt. The final amount of early prepayments will depend on market conditions in 2020**

Overview of Greece's 2020 Financing Needs and Sources (€bn)

	Scenario 1	Scenario 2
2020 Financing Needs		
Medium and long-term debt amortization	2.90	2.90
Interests on medium and long-term debt	6.15(*)	6.15(*)
Early Repayments (T-bill stock reduction, official sector debt, etc)	4.40	7.40
Primary deficit / (surplus) to finance	(6.36)	(6.36)
Other cash requirements	0.56	0.56
Total	**7.65**	**10.65**
2020 Financing Sources		
Medium and long-term debt issuance (new money transactions)	4.00	8.00
Return of SMP / ANFA profits	1.54	1.54
Privatization receipts	2.63	2.63
Change in cash reserves, decrease / (increase)	(0.52)	(1.52)
Total	**7.65**	**10.65**
Change in public debt, increase / (decrease)	**(3.30)**	**(2.30)**

(*) This amount comprises c. € 600m in interest on REPOs that are part of intra-governmental debt