

*A quantitative assessment of the agreement on Greece  
reached at the Eurogroup of 15 June 2017*

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## Summary of views & key findings

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- ❑ This study attempts a quantitative assessment of the decisions made for Greece at the Eurogroup of 15 June 2017, with particular emphasis on the clarifications provided on the medium- and long-term framework for debt relief.
- ❑ The study attempts a replication of the most recently published debt sustainability analyses (DSA) presented in: a) the European Commission's Compliance Report for the First Review of the Third Economic Adjustment Programme for Greece (Jun. 2016); and b) the IMF's Article IV (Feb. 2017).
- ❑ Furthermore, it presents an assumed baseline scenario, which is based on the European Commission's DSA (Jun. 2016) adjusted to incorporate the new fiscal path agreed at the Eurogroup of 15 June 2017; namely, an annual general government primary surplus of 3.5%-of-GDP for the period 2018-22 and a primary surplus equal to or higher than 2.0%-of-GDP for the rest of the projection horizon (2023-60) – see *page # 5*.

### Baseline scenarios

- ❑ The analysis presents the evolution of Greece's general government funding needs (GNF) as a % of GDP under the aforementioned baseline scenarios – see *page # 6*.
- ❑ In line with the baseline DSAs presented in the European Commission (Jun. 2016) and the IMF Article IV (FEB. 2017) reports, the GNF-to-GDP ratio is projected to evolve as follows:
  - **Scenario I** - *European Commission (Jun. 2016)*: GNF ratio remains below the medium-term sustainability threshold of 15% over the period 2018-40, but exceeds the respective long-term threshold of 20% afterwards, reaching 23.3% in 2060.
  - **Scenario II** - *IMF Article IV (Feb. 2017)*: GNF ratio crosses the 15% threshold already in 2024 and the 30% threshold by 2031, reaching around 62% by 2060.
  - **Scenario III** - *European Commission (Jun. 2016), incorporating the new fiscal path agreed at the Eurogroup of 15 Jun 2017 (based on number of simplifying assumptions made by the Author)*: GNF ratio evolves broadly in line with what has been projected in the European Commission's Jun. 2016 DSA, reaching around 26% at the end of the forecasting horizon (2060), reflecting the agreed downward adjustment in the medium- & long-term primary surplus targets.

### Debt relief scenarios

- ❑ The analysis also presents the evolution of Greece's general government funding needs (GNF) as a % of GDP under three theoretical debt relief scenarios; namely:
  - **Scenario III with debt relief** (see *page # 8*) -- *Scenario III*, incorporating an assumed debt relief package which is deemed compatible with the clarifications for the medium-term relief framework provided at the Eurogroup of 15 June 2017; namely: a) maturity extension of all EFSF loans (2nd programme) by 15 years; b) further deferral of interest & principal payments on these loans by 15 years; c) abolishment of the step-up interest rate margin of the debt buyback tranche;

## Summary of views & key findings (continued)

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and d) return to Greece of profits accrued to the euro system's ANFA and SMP portfolios of Greek debt (2014 and from budget year 2017 onwards). Under this scenario, the GFN ratio remains broadly below the 15% to 20% sustainability threshold over the full projection horizon (2018-2060).

- **Scenario II with IMF-proposed debt relief** (see page # 9) -- Scenario II, incorporating an assumed debt relief package, which is broadly in line with an indicative proposal presented in the IMF's latest Article IV report. Under this scenario, which assumes much more substantial debt relief than that implied by the existing European medium-term framework, the GFN ratio remains broadly below the 15% to 20% sustainability threshold over the full projection horizon (2018-2060).
- **Scenario II with EU framework-compatible debt relief** (see page # 10) -- Scenario II, incorporating an assumed debt relief package, which is deemed compatible with the clarifications for the medium-term relief framework provided at the Eurogroup of 15 June 2017; namely: a) maturity extension of all EFSF loans (2nd programme) by 15-years; b) further deferral of interest & principal payments on these loans by 15 years; c) abolishment of the step-up interest rate margin of the debt buyback tranche; and d) return to Greece of profits accrued to the euro system's ANFA and SMP portfolios of Greek debt (2014 and from budget year 2017 onwards). Under this scenario, which assumes much less substantial debt relief relative to that presented in the IMF's latest Article IV (Feb. 2017), the GFN ratio cross the 15% threshold already in 2024, reaching levels higher than 45% by 2060.

### Contrasting the size debt relief implied by the aforementioned scenarios

- ❑ Assuming that the macroeconomic scenario will evolve in line with that assumed in the IMF's latest Article IV report (Feb. 2017), the IMF's debt relief proposal implies an additional reduction in the GFN-to-GDP ratio (relative to that implied by the EU framework-compatible relief package specified above) to the tune of: 1.1% in 2018-20; 7% in 2021-30; 17% in 2031-40; 20.5% in 2041-50; and 25.5% 2051-60 (all in period average terms) – see page # 11.

### Bottom line

- ❑ As we have noted in a number of earlier research pieces on Greek public debt, a significant part of debt relief implied by the existing European framework for medium-term debt relief is mainly projected to come from the targeted reprofiling (maturity & grace period extensions) of the EFSF loans disbursed to Greece in the context of the 2nd bailout; and this, without incurring any additional costs for former programme countries or to the EFSF.
- ❑ On the other hand, the existing framework does not envisage any interventions in/reprofiling of the remaining package of EU loans to Greece (GLF facility & ESM).
- ❑ However, the package of outstanding EFSF loans to Greece constitute c. 60% of all EU loans disbursed thus far and just c. 50% of all EU loans that are expected to be disbursed until the completion of the present programme (all in notional terms).

## Summary of views & key findings (continued)

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- ❑ The baseline of all these is that the scope of the existing medium- and long-term debt relief framework would probably need to further be extended and/or clarified if debt sustainability were to be accommodated under significantly more adverse macroeconomic scenarios, such as the one currently assumed by the IMF.
- ❑ The latter could be done by e.g. adjusting the existing framework to envisage a significant reprofiling of all EU loans disbursed to Greece under the three bailout programme, or, alternatively, by providing an explicit commitment on the part of the EU creditors to keep Greece's GFN ratio within the respective suitability range over the full-projection horizon.

### Important notes

- i. We stress that most of the analysis presented in this document utilizes a number of simplifying, yet necessary assumptions made by the Author to account for some crucial information pieces that are missing from the published official documents. This effectively implies that the estimates and projections provided herein may deviate somewhat from these presented in the respective official documents. In any case, we believe that the analysis provides useful insights on a range of crucial issues and challenges related to the authorities' ongoing efforts to restore the medium- and long-term sustainability of Greece's fiscal position.
- ii. Due to the lack of adequate information, this document provides no analysis on the potential implications of either the operational growth adjustment mechanism or the long-term contingency mechanism for Greek debt cited in the formal statement released upon the completion of the June 15 Eurogroup.

## **Part I**

Medium-term debt relief framework for Greece  
*A quantitative assessment of the agreement reached  
at the Eurogroup of 15 June 2017*

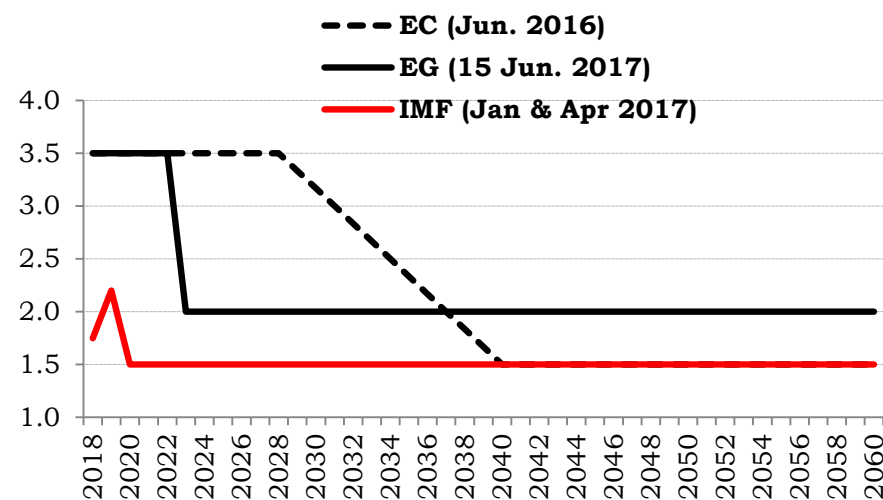
# Public debt sustainability analysis (DSA) for Greece

Underline assumptions of baseline scenarios (EU institutions & IMF staff)

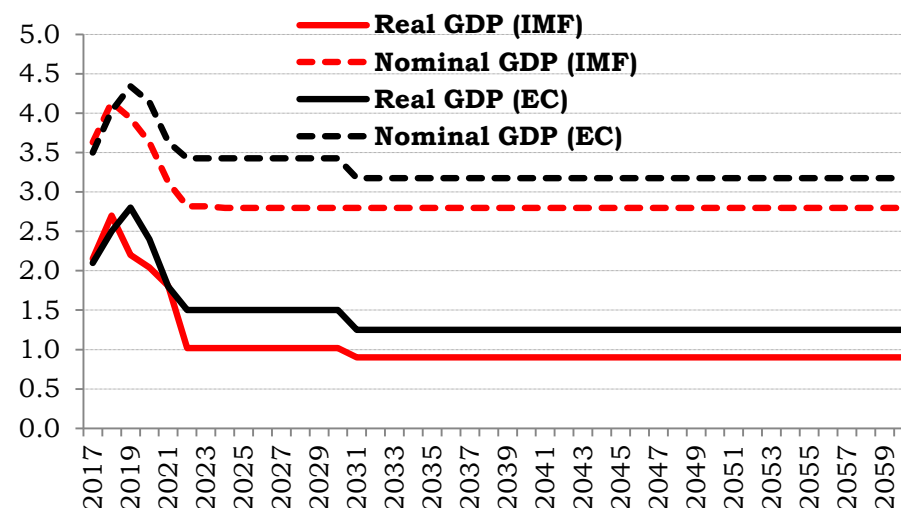
## Underlying macro assumptions

	IMF, Article IV (Feb. 2017)	EC (Jun. 2016) & EG (Jun. 2017)
<b>Average real GDP growth, %</b> (long-term)	0.95%	1.25%
<b>Average nominal GDP growth, %</b> (long-term)	2.8%	3.2%
<b>Primary surplus as % GDP</b> (post-2018)	1.5%	3.5% until 2022 & c. 2.0% afterwards
<b>Privatization revenue in € bn</b> (full-projection horizon)	€10 bn	€18 bn
<b>Set aside for bank recap needs in € bn</b> (full-projection horizon)	€10 bn	none
<b>Market refinancing rate (%)</b>	6.00% in 2019; +/-4bps afterwards per +/-1ppt change in debt ratio	5.00% average in post- programme period (Eurobank Research)

## Assumed fiscal paths EU & IMF baseline scenarios (primary surplus as % GDP)



## Assumed GDP growth rates EU & IMF baseline scenarios



# Baseline DSA scenarios

Before & after incorporating the fiscal path agreed at the 15 Jun. 2017 Eurogroup

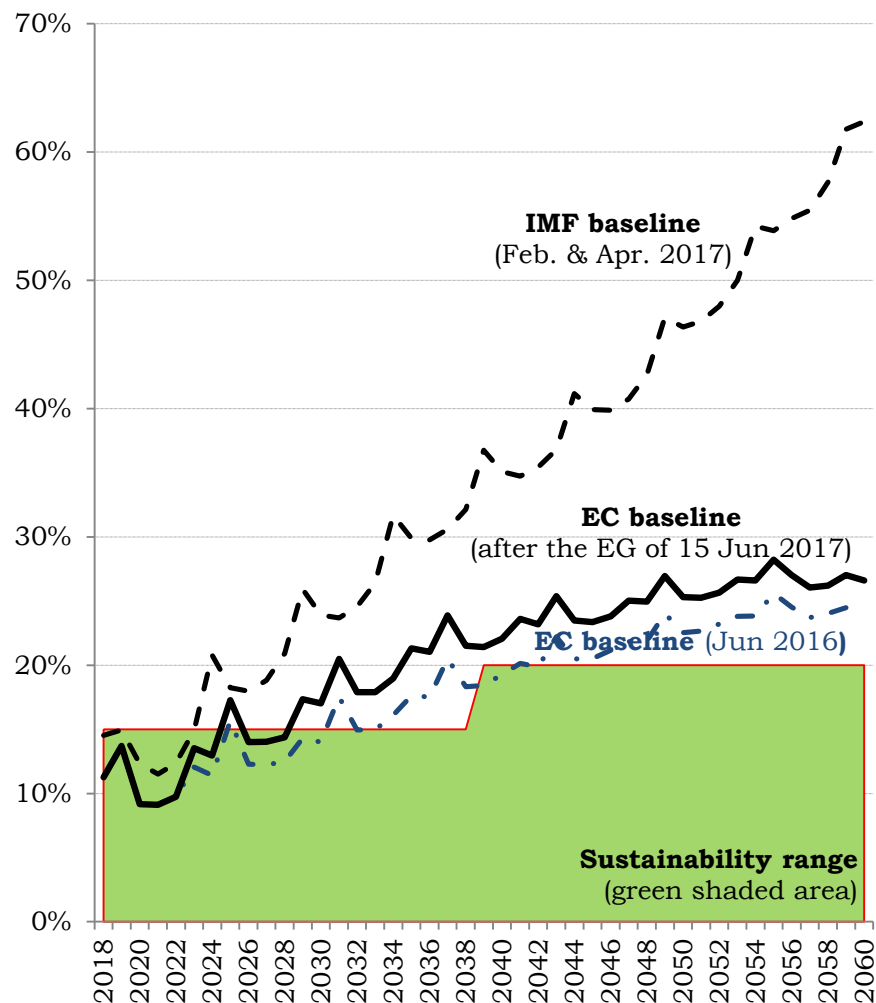


## Gross financing needs (GFN) as % of GDP

Eurobank Research estimates based on underlying macro assumptions of the EU institutions & the IMF staff

## Gross financing needs as % of GDP (period average)

Eurobank Research estimates based on underlying macro assumptions of the EU institutions & the IMF staff



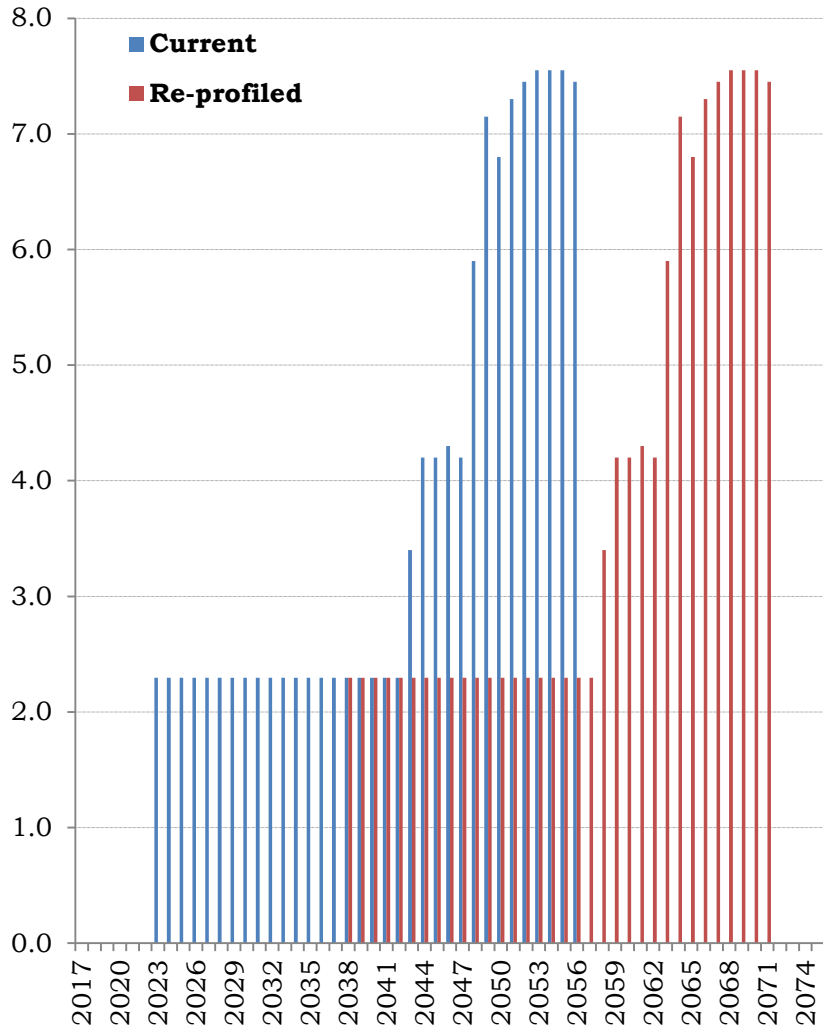
period avrg /	IMF (Feb & Apr 2017)	EC (Jun 2016)	EC after the Eurogroup of 15 Jun 2017	Sustainability threshold
<b>2018-2020</b>	13.9%	11.4%	11.4%	15.0%
<b>2021-2030</b>	18.5%	12.3%	13.9%	15.0%
<b>2031-2040</b>	30.1%	17.5%	20.7%	15% in 2031-38; 20% in 2039-40
<b>2041-2050</b>	40.5%	21.5%	24.5%	20.0%
<b>2051-2060</b>	54.5%	24.0%	26.5%	20.0%

# Public debt amortization payments (as of June 2017)

## Impact of extending the maturities of (all) EFSF loans by 15 years

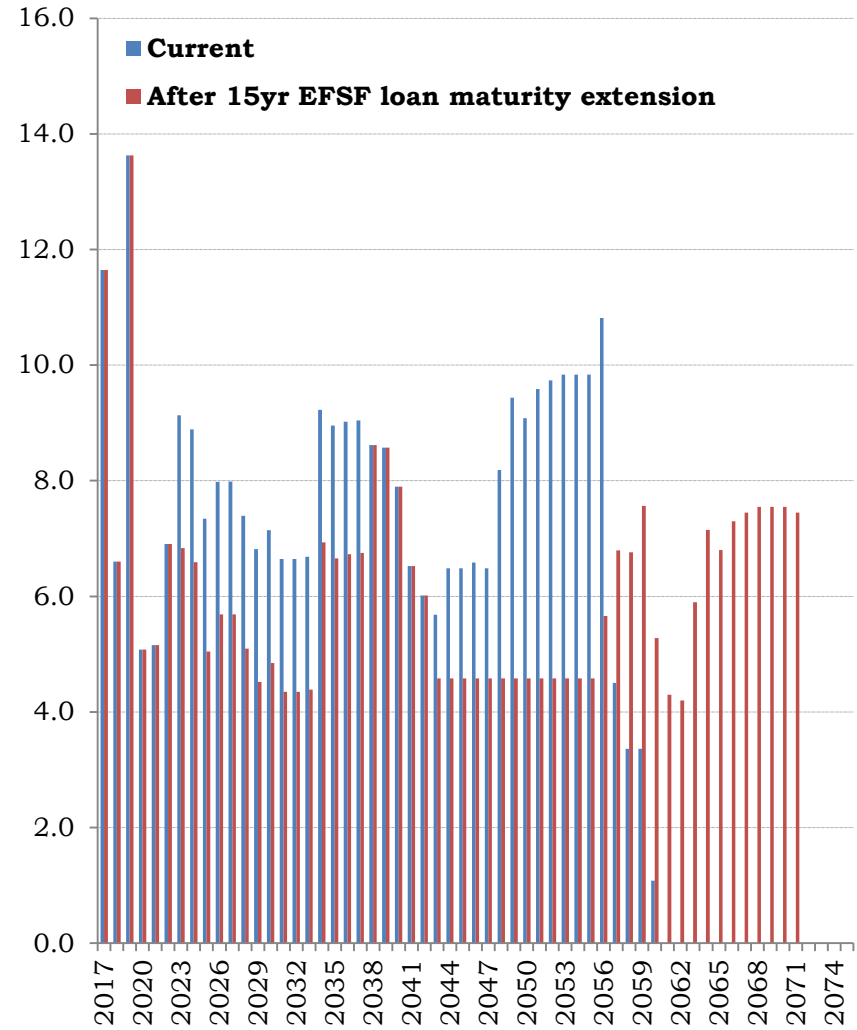
### EFSF loan redemptions (€ bn)

Current & after extending loan maturity by 15 years



### Total debt redemptions as of Jun. 2017 (€ bn)

Current & after extending EFSF loan maturities by 15 years (excl. T-bills)

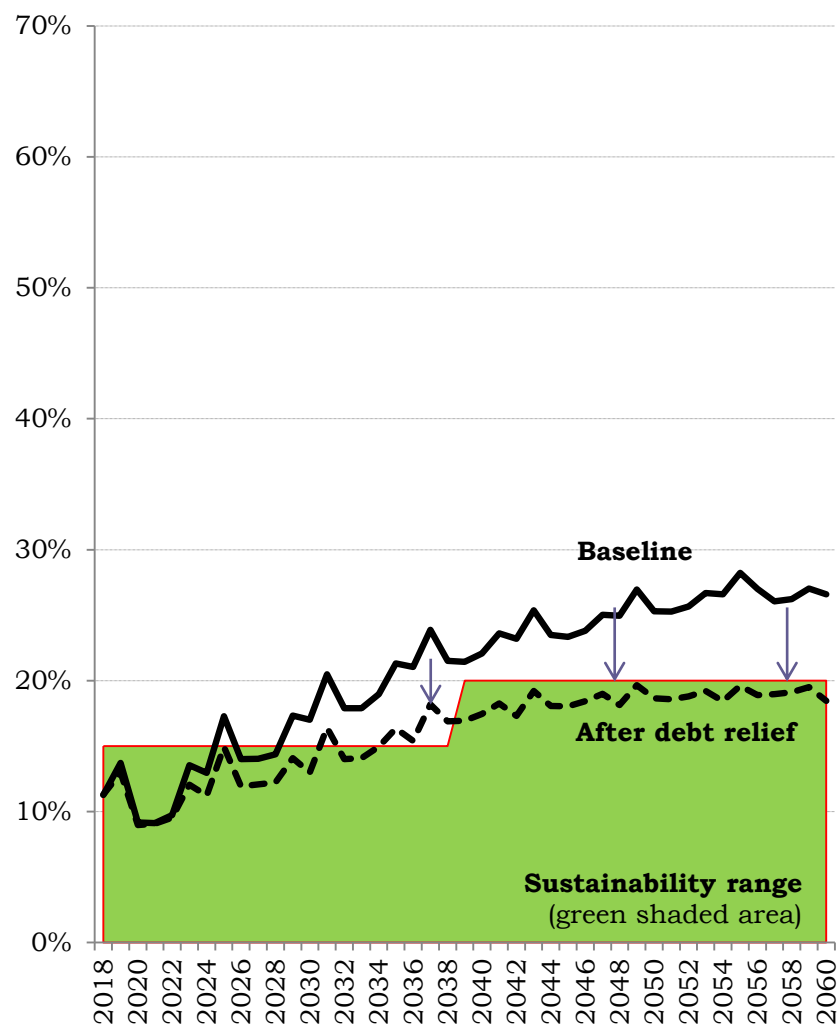




# Sustainability analysis of Greek public debt

## Assessing the European framework for medium-term debt relief

Gross financing needs as % of GDP (\*)



Underlying macro & debt relief assumptions

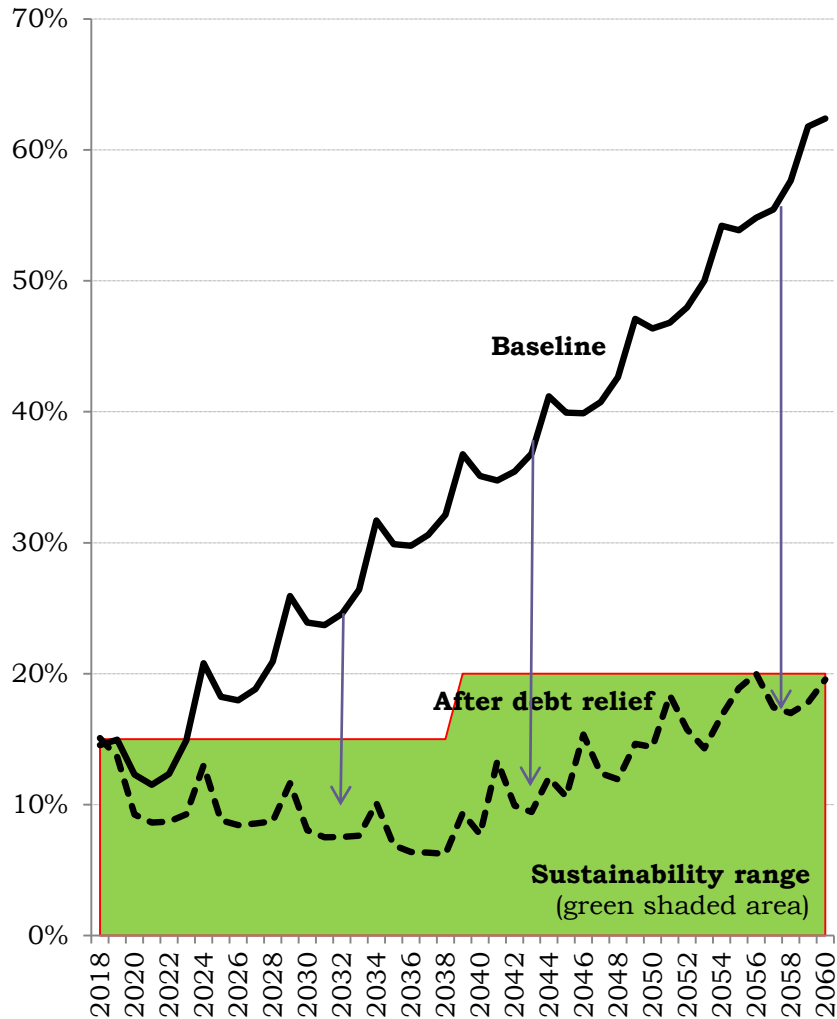
Baseline macro assumptions		Debt relief assumptions	
<b>Average real GDP growth</b> (long-term)	1.25%	<b>EFSF loan maturities</b>	extended by 15 years
<b>Average nominal GDP growth</b> (long-term)	3.2%	<b>EFSF principal &amp; interest payments</b>	deferred by 15 years
<b>Primary surplus as % GDP</b> (post-2018)	3.5% until 2022 & c. 2.0% afterwards	<b>Use of SMP profits from the ESM segregated account</b>	budget year 2014
<b>Privatization revenue in € bn</b> (full-projection horizon)	€18 bn	<b>Return to Greece ANF &amp; SMP profits</b>	as of budget year 2017
<b>Set aside for bank recap needs in € bn</b> (full-projection horizon)	none	<b>Step-up IR margin of debt buy-back tranche of 2nd programme</b>	fully abolished
<b>Market refinancing rate</b>	5.00% average in post-programme period	<b>Market refinancing of maturing debt</b>	issuance of 6 yr fixed coupon bonds (Eurobank Research assumption)

(\*) Eurobank Research estimates based on the baseline macro assumptions of the EC DSA (Jun. 2016) & the decisions made at the Eurogroup of 17 Jun. 2017

# Greece public debt sustainability analysis

Assessing the IMF staff's debt relief proposal (Article IV, Feb 2017)

**Gross financing needs as % of GDP (\*)**



(\*) Eurobank Research estimates based on the baseline macro assumptions & the debt relief proposal presented in the IMF's Article IV report for Greece (Feb. 2017)

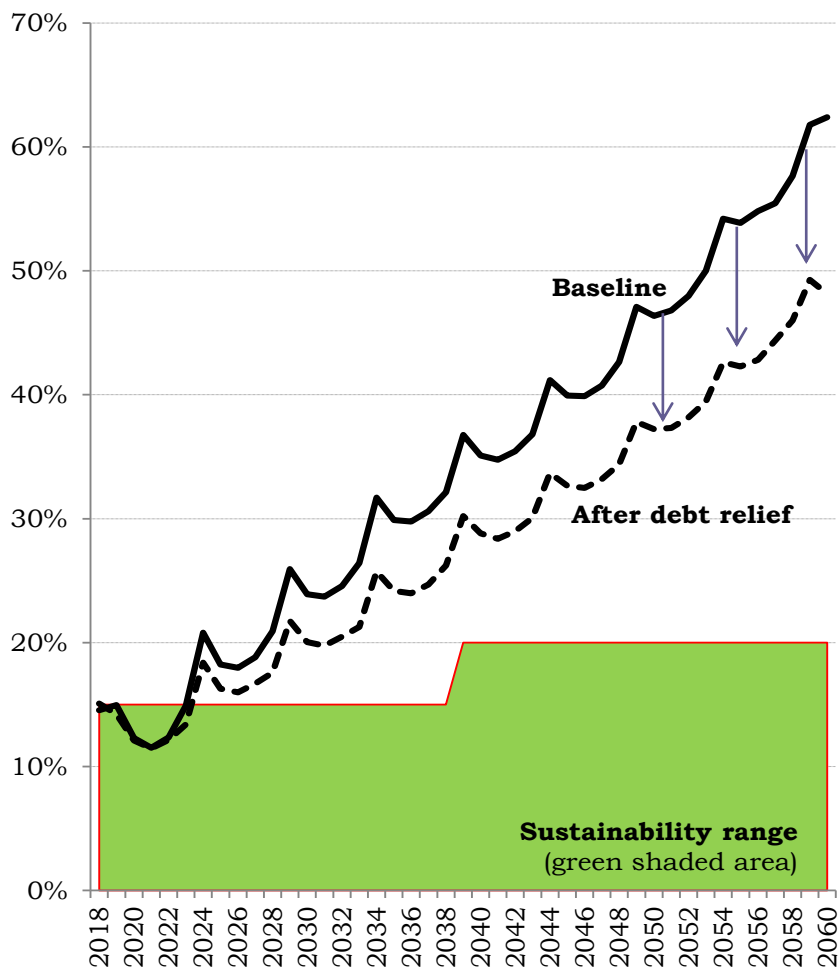
**Underlying macro & debt relief assumptions**

Baseline macro assumptions		Debt relief assumptions	
<b>Average real GDP growth</b> (long-term)	0.95	<b>GLF loans</b> (1st programme)	loan maturities extension (30yrs) & deferral of interest & principal payments (21 & 20 yrs, respectively)
<b>Average nominal GDP growth</b> (long-term)	2.8%	<b>EFSF loans</b> (2nd programme)	loan maturities extension (14 yrs) & deferral of interest & principal payments (20 & 17 yrs, respectively)
<b>Primary surplus as % GDP</b> (post-2018)	1.5%	<b>ESM loans</b> (3rd programme)	loan maturities extension (10 yrs) & deferral of interest and principal payments (19 & 6 yrs, respectively)
<b>Privatization revenue, € bn</b> (full-projection horizon)	€10 bn	<b>Interest on deferred interest</b>	1.5% per year until 2040 & 3.8% afterwards
<b>Set aside for bank recap, € bn</b> (full-projection horizon)	€10 bn	<b>Return of ANFA and SMP profits</b>	€1.8bn pending from 2014 plus profits accrued from 2018 onwards
<b>Market refinancing rate</b>	6.00% in 2019; +/-4bps afterwards per +/-1ppt change in debt ratio	<b>Market refinancing of maturing debt</b>	issuance of 5yr fixed coupon bonds (Eurobank Research assumption)

# Greece public debt sustainability analysis

## IMF baseline scenario incorporating medium debt relief compatible with the EU framework

### Gross financing needs as % of GDP (\*)



(\*) Eurobank Research estimates based on the baseline macro assumptions presented in the IMF's Article IV report (Feb. 2017) & an assumed debt relief scenario compatible with the decisions made at 15 June 2017 Eurogroup

### Underlying macro & debt relief assumptions

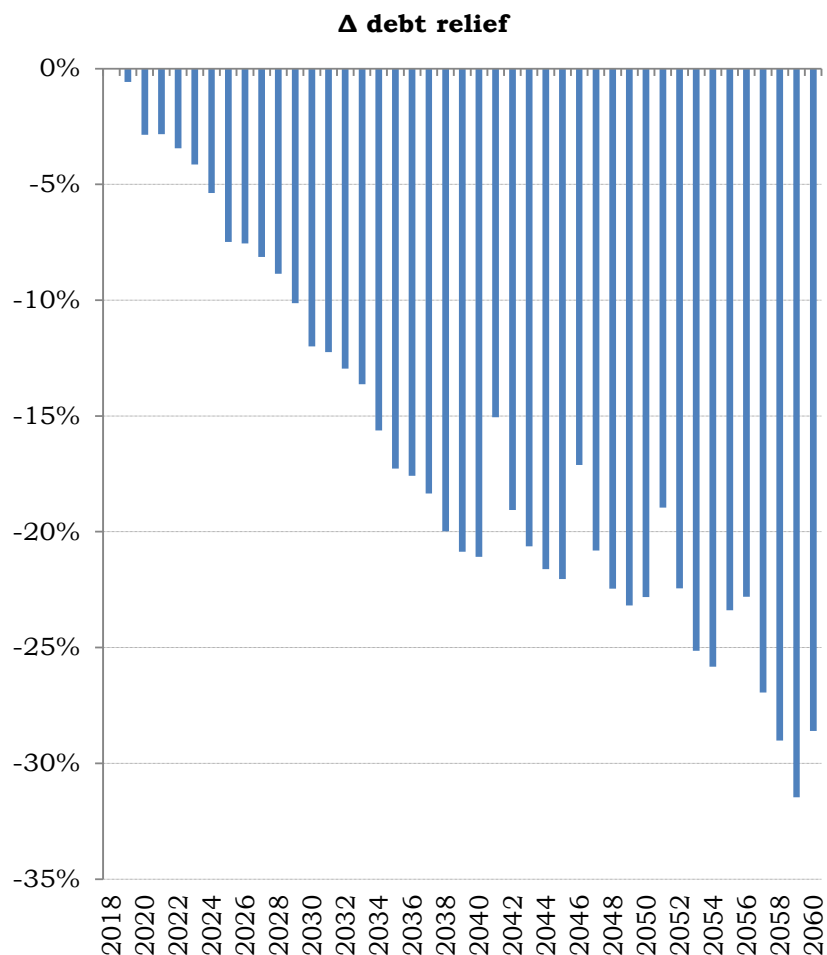
Baseline macro assumptions (IMF Article IV, Feb 2017)		Debt relief assumptions (scenario compatible with the European medium-term framework, as specified at the Eurogroup of 15 Jun 2017)	
Average <u>real</u> GDP growth (long-term)	0.95%	EFSF loan maturities	extended by 15 years
Average <u>nominal</u> GDP growth (long-term)	2.8%	EFSF principal & interest payments	deferred by 15 years
Primary surplus as % GDP (post-2018)	1.5%	Use of SMP profits from the ESM segregated account	budget year 2014
Privatization revenue, € bn (full-projection horizon)	€10 bn	Return to Greece ANF & SMP profits	as of budget year 2017
Set aside for bank recap, € bn (full-projection horizon)	€10 bn	Step-up IR margin of debt buy-back tranche	fully abolished
Market refinancing rate	6.00% in 2019; +/-4bps afterwards per +/-1ppt change in debt ratio	Market refinancing of maturing debt	issuance of 6 yr fixed coupon bonds (Eurobank Research assumption)

# Comparative size of debt relief for Greece

IMF staff analysis (Feb 2017) vs. European medium-term framework (EG, Jun 2017)

## Δ debt relief as % of GDP (\*)

Assuming IMF's baseline macro scenario



(\*) Eurobank Research estimates based on the baseline macro assumptions presented in the IMF's Article IV report (Feb. 2017) & an assumed debt relief scenario compatible with the decisions made at 15 June 2017 Eurogroup

## Δ debt relief as % of GDP (\*)

Assuming IMF's baseline macro scenario

period average (ppts of GDP) /	<b>scenario A</b> Implied by indicative debt relief package presented in IMF's Article IV (Feb. 2017)	<b>Scenario B</b> Implied by (assumed) debt relief package compatible with the 15 Jun 2017 EG decisions	<b>Difference (B - A)</b>
<b>2018-2020</b>	1.5%	0.3%	-1.1%
<b>2021-2030</b>	9.2%	2.2%	-7.0%
<b>2031-2040</b>	22.5%	5.5%	-17.0%
<b>2041-2050</b>	28.1%	7.6%	-20.5%
<b>2051-2060</b>	36.9%	11.5%	-25.5%

## **Part II**

Greece general government borrowing needs & funding sources;  
impact of short-term debt relief measures; and  
purchasing capacity of Greek eligible debt under ECB's PSPP (QE)

# Greece: state borrowing needs & sources of funding (€ bn)

January 2017-August 2018

	Greece - State borrowing needs & sources of funding, January 2017-August 2018 in EUR bn (*)									
	FY-2017					FY-2018				
	Q1	Q2	Q3	Q4	FY-2017	Q1	Q2	July	August	Jan-Aug 2018
State cash primary balance <sup>1</sup> ("-" = surplus)	-1.0	1.7	-4.5	0.0	-3.8	-1.1	-1.1	-0.4	-0.4	-3.0
Interest payments	2.4	1.1	1.3	0.7	5.6	2.3	0.7	0.6	1.1	4.7
Amortization payments	0.2	2.2	7.1	0.2	9.7	0.7	0.8	2.4	0.0	3.9
Banking sector needs <sup>2</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Partial unwinding of repo operations <sup>3</sup>	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	2.0
Clearance of arrears <sup>4</sup>	1.7	0.0	1.8	0.0	3.5	1.0	1.0	0.0	0.0	2.0
<b>I. Gross financing need</b>	<b>3.3</b>	<b>5.0</b>	<b>5.7</b>	<b>3.0</b>	<b>16.9</b>	<b>2.9</b>	<b>1.4</b>	<b>4.6</b>	<b>0.7</b>	<b>9.6</b>
<b>II. Gross financing source</b>	<b>0.8</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>2.3</b>	<b>1.1</b>	<b>0.8</b>	<b>0.0</b>	<b>0.0</b>	<b>1.9</b>
Privatisation revenue <sup>5</sup>	0.5	0.5	0.5	0.5	2.0	0.8	0.8	0.0	0.0	1.6
Return to Greece of ANFA and SMP profits	0.3	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.3
<b>III. Net financing need (I-II)</b>	<b>2.5</b>	<b>4.5</b>	<b>5.2</b>	<b>2.5</b>	<b>14.6</b>	<b>1.8</b>	<b>0.6</b>	<b>4.6</b>	<b>0.7</b>	<b>7.7</b>
Official loan disbursements <sup>6</sup>	7.6	9.6	2.0	5.1	24.3	3.0	3.4	0.0	3.5	9.9
State deposit financing	-5.1	-5.1	3.2	-2.6	-9.7	-1.2	-2.8	4.6	-2.8	-2.2
Use of subsector deposits (repos)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>IV. Financing gap</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<i>Memo items</i>										
Total State deposit stock e.o.p (assumed c. € 3bn at end-2016)	8.1	13.2	10.0	12.7	12.7	13.9	16.7	12.1	14.9	14.9

(\*) Table assumes rollover of full amount of T-bills outstanding (c. €15bn currently)

1/ Assumptions for FY-2017 in line with 2017 Budget; assumptions for 2018 in line with EC compliance report (June 2016)

2/ Table assumes no need for any new bank recapitalisations

3/ & 4/ Eurobank Research assumptions

5/ Revenues assumed for FY-2017 in line with 2017 Budget; assumptions for 2018 in line with EC compliance report (June 2016)

6/ Timeline of official loan disbursements assumed to be in line with the EC compliance report (June 2016); €6.1bn loan tranche of 2nd programme review

## Greece: monthly amortization payments on public debt in 2017 (€ bn)

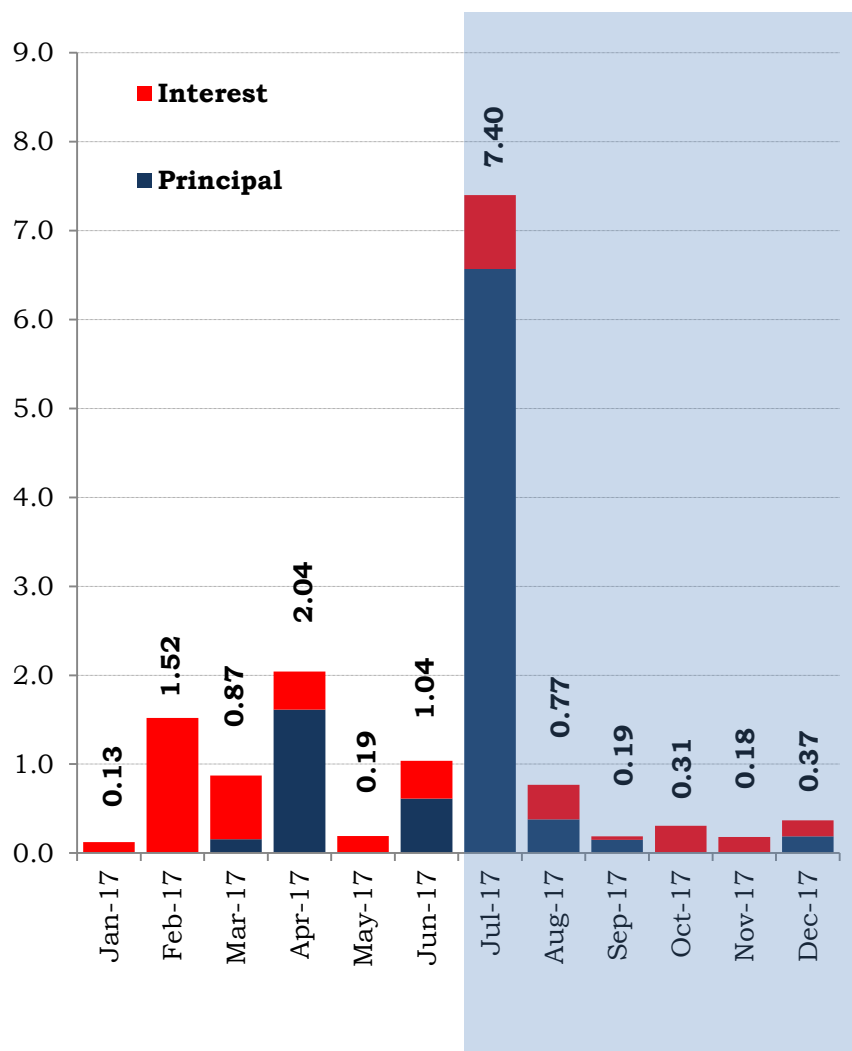
	NCBs (ANFA)	ECB (SMP)	Old GGBs (holdouts)	GGBs issued in 2014	Bonds (total)	BoG loans	Special purpose & bilateral international loans (EIB)	Other loans	EFSF loans	GLF loans	IMF loans	ESM loans (3rd bailout)	<b>Total</b>
Jan-17													
Feb-17				0.005	0.005								<b>0.00</b>
Mar-17							0.01				0.15		<b>0.16</b>
Apr-17	0.17	1.23			1.40			0.21					<b>1.61</b>
May-17													
Jun-17						0.47	0.14						<b>0.61</b>
Jul-17	1.46	2.42	0.20	2.09	6.16		0.11				0.30		<b>6.57</b>
Aug-17			0.38		0.38								<b>0.38</b>
Sep-17							0.004				0.15		<b>0.15</b>
Oct-17													
Nov-17													
Dec-17							0.03				0.16		<b>0.19</b>
<b>Total</b>	<b>1.62</b>	<b>3.66</b>	<b>0.57</b>	<b>2.09</b>	<b>7.95</b>	<b>0.47</b>	<b>0.30</b>	<b>0.21</b>			<b>0.75</b>		<b>9.67</b>

(\*) Table excludes T-bill maturities (full rollover assumed) & partial unwinding of repo operations (inter-governmental borrowing)

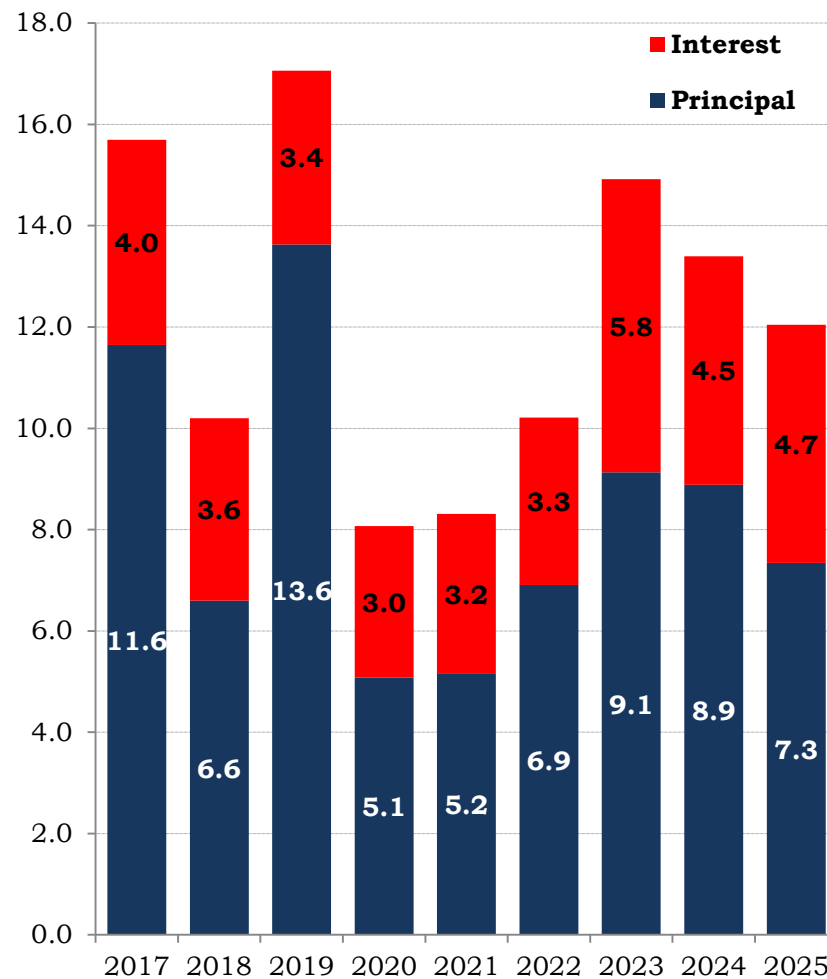
# Greece: interest & amortization payments on public debt (€ bn)

No policy change / no debt relief scenario

**Monthly interest & amortization payments on Greek public debt**  
(Jan 2017-Aug 2018; € bn)



**Annual interest & amortization payments on Greek public debt**  
(2017- 2025)





# Greece: central government amortization payments schedule

Outstanding amounts as of Jan. 2017 (period 2017-2025; € bn)

	T-bills	NCBs (ANFA)	ECB (SMP)	Bonds	BoG loans	Special purpose & bilateral international loans (EIB)	Other international loans	EFSF loans re-profiled	GLF loans (1st bailout)	IMF loans	Repos (EUR 11.9bn outstanding)	ESM loans (assumed at €64.8bn by Aug. 2018)	Total excluding T-bills
<b>2017</b>	15.0	1.6	3.7	2.7	0.5	0.3	0.2	0.0	0.0	0.7	2.0	0.0	<b>11.6</b>
<b>2018</b>	15.0	0.6	1.3	0.0	0.5	0.3	0.2	0.0	0.0	1.8	2.0	0.0	<b>6.6</b>
<b>2019</b>	15.0	1.0	4.8	4.8	0.5	0.3	0.2	0.0	0.0	2.0		0.0	<b>13.6</b>
<b>2020</b>	15.0	0.2	1.1		0.5	0.3	0.2	0.0	0.7	2.0		0.0	<b>5.1</b>
<b>2021</b>	15.0				0.5	0.4	0.2	0.0	2.1	2.0		0.0	<b>5.2</b>
<b>2022</b>	15.0	0.8	0.5	0.0	0.5	0.4	0.2	0.0	2.6	1.9		0.0	<b>6.9</b>
<b>2023</b>	15.0			1.8	0.5	0.4	0.2	2.3	2.6	1.3		0.0	<b>9.1</b>
<b>2024</b>	15.0	0.2	1.1	1.8		0.4	0.2	2.3	2.6	0.3		0.0	<b>8.9</b>
<b>2025</b>	15.0	0.1		1.7		0.4	0.2	2.3	2.6			0.0	<b>7.3</b>
<b>Total</b>	<b>135.0</b>	<b>4.5</b>	<b>12.5</b>	<b>12.9</b>	<b>3.3</b>	<b>3.2</b>	<b>1.6</b>	<b>6.9</b>	<b>13.4</b>	<b>12.1</b>	<b>4.0</b>	<b>0.0</b>	<b>74.4</b>

# Greece: central government interest payments schedule

## Outstanding amounts as of Jan. 2017 (period 2017-2025; € bn)

	T-bills (assumed IR 4.0%)	NCBs_ANFA (assumed avrg. IR 5.2%)	ECB_SMP (assumed avrg. IR 5.3%)	Bonds (assumed IR 3% up to 2020; 3.65% in 2021 & 4% afterwards)	BoG loans (assumed IR 4.0%)	Special purpose & bilateral intern. loans (assumed IR 3.5%)	Other international loans (assumed IR 3.0%)	EFSF (IR: funding cost + spread)	GLF (IR: 3m euribor+50bps)	IMF (assumed IR 3.4%)	Repos (assumed IR 3.7%)	ESM (IR: ESM funding + 10bps)	Total
<b>2017</b>	0.60	0.26	0.70	1.16	0.00	0.23	0.13	0.00	0.12	0.41	0.44	0.00	<b>4.05</b>
<b>2018</b>	0.60	0.17	0.51	1.08	0.01	0.22	0.13	0.00	0.12	0.39	0.38	0.00	<b>3.60</b>
<b>2019</b>	0.60	0.14	0.44	1.08	0.01	0.21	0.12	0.00	0.17	0.33	0.33	0.00	<b>3.43</b>
<b>2020</b>	0.60	0.09	0.18	0.94	0.01	0.19	0.12	0.00	0.27	0.26	0.33	0.00	<b>2.99</b>
<b>2021</b>	0.60	0.08	0.12	1.14	0.01	0.18	0.11	0.00	0.39	0.19	0.33	0.00	<b>3.16</b>
<b>2022</b>	0.60	0.08	0.12	1.25	0.01	0.17	0.11	0.00	0.52	0.12	0.33	0.00	<b>3.31</b>
<b>2023</b>	0.60	0.04	0.10	1.25	1.50	0.16	0.10	0.95	0.63	0.06	0.33	0.08	<b>5.79</b>
<b>2024</b>	0.60	0.04	0.10	1.18		0.14	0.10	1.13	0.73	0.01	0.33	0.16	<b>4.51</b>
<b>2025</b>	0.60	0.03	0.04	1.11		0.13	0.09	1.32	0.79		0.33	0.27	<b>4.70</b>
<b>Total</b>	<b>5.38</b>	<b>0.91</b>	<b>2.31</b>	<b>10.19</b>	<b>1.56</b>	<b>1.62</b>	<b>1.02</b>	<b>3.40</b>	<b>3.74</b>	<b>1.76</b>	<b>3.13</b>	<b>0.51</b>	<b>35.53</b>

# Greece: multi-year amortization payments on public debt (EUR bn)

Outstanding amounts as of January 2017



Year	T-bills (EUR 14.94bn outstanding)	NCBs (ANFA)	ECB (SMP)	Bonds	BoG loans	Special purpose & bilateral international loans (EIB)	Other international loans	EFSF loans re-profiled	GLF loans (1st bailout)	IMF loans	Repos (EUR 11.9bn outstanding)	ESM loans (all disbursements assumed to reach €64.8bn by late 2018)	Total (netting out T-bills & repos)
2017	15.0	1.6	3.7	2.7	0.5	0.3	0.2	0.0	0.0	0.7	2.0	0.0	9.6
2018	15.0	0.6	1.3	0.0	0.5	0.3	0.2	0.0	0.0	1.8	2.0	0.0	4.6
2019	15.0	1.0	4.8	4.8	0.5	0.3	0.2	0.0	0.0	2.0		0.0	13.6
2020	15.0	0.2	1.1		0.5	0.3	0.2	0.0	0.7	2.0		0.0	5.1
2021	15.0				0.5	0.4	0.2	0.0	2.1	2.0		0.0	5.2
2022	15.0	0.8	0.5	0.0	0.5	0.4	0.2	0.0	2.6	1.9		0.0	6.9
2023	15.0			1.8	0.5	0.4	0.2	2.3	2.6	1.3		0.0	9.1
2024	15.0	0.2	1.1	1.8		0.4	0.2	2.3	2.6	0.3		0.0	8.9
2025	15.0	0.1		1.7		0.4	0.2	2.3	2.6			0.0	7.3
2026	15.0	0.2	0.7	1.5		0.4	0.2	2.3	2.6			0.0	8.0
2027	15.0			1.5		1.4	0.2	2.3	2.6			0.0	8.0
2028	15.0			1.7		0.5	0.2	2.3	2.6			0.0	7.4
2029	15.0			1.5		0.2	0.2	2.3	2.6			0.0	6.8
2030	15.0	0.1	0.0	1.4		0.4	0.2	2.3	2.6			0.0	7.1
2031	15.0			1.4		0.1	0.2	2.3	2.6			0.0	6.6
2032	15.0			1.4		0.1	0.2	2.3	2.6			0.0	6.6
2033	15.0			1.5		0.0	0.2	2.3	2.6			0.0	6.7
2034	15.0			1.7		0.0	0.3	2.3	2.6			2.3	9.2
2035	15.0			1.4		0.0	0.3	2.3	2.6			2.3	9.0
2036	15.0			1.5		0.0	0.3	2.3	2.6			2.3	9.0
2037	15.0	0.1	0.0	1.4		0.0	0.3	2.3	2.6			2.3	9.0
2038	15.0			1.4		0.0		2.3	2.6			2.3	8.6
2039	15.0			1.3		0.0		2.3	2.6			2.3	8.6
2040	15.0			1.4		0.0		2.3	1.9			2.3	7.9
2041	15.0			1.4		0.0		2.3	0.6			2.3	6.5
2042	15.0			1.4				2.3				2.3	6.0
2043	15.0							3.4				2.3	5.7
2044	15.0							4.2				2.3	6.5
2045	15.0							4.2				2.3	6.5
2046	15.0							4.3				2.3	6.6
2047	15.0							4.2				2.3	6.5
2048	15.0							5.9				2.3	8.2
2049	15.0							7.2				2.3	9.4
2050	15.0							6.8				2.3	9.1
2051	15.0							7.3				2.3	9.6
2052	15.0							7.5				2.3	9.7
2053	15.0							7.6				2.3	9.8
2054	15.0							7.6				2.3	9.8
2055	15.0							7.6				2.3	9.8
2056	15.0							7.5				3.4	10.8
2057	15.0			1.1				0.0				3.4	4.5
2058	15.0											3.4	3.4
2059	15.0											3.4	3.4
2060	15.0											1.1	1.1
<b>Total</b>		<b>4.9</b>	<b>13.2</b>	<b>38.8</b>	<b>3.3</b>	<b>6.5</b>	<b>4.4</b>	<b>130.9</b>	<b>52.9</b>	<b>12.1</b>	<b>4.0</b>	<b>64.8</b>	<b>331.9</b>

# Greece: short-term debt relief package

Approved at the Eurogroup of December 5, 2016

## I. Smoothing of the EFSF repayment profile

Description: 4-year extension in the weighted average maturity of EFSF loans provided to Greece in the context of the 2nd bailout programme.

Objective: reduce refinancing risks for the Greek state, by back-loading EFSF loan amortizations and creating a much lighter (and smoother) redemptions profile over the next two decades or so.

Impact (FY-2060): -3.6ppts and -0.8ppts respective reductions in public debt and GFN ratios.

## II. Use of the EFSF/ESM funding strategy to reduce interest rate risk

**Scheme 1** - Issuance of long-term fixed rate notes and bonds to the market with maturities up to 30 years, with a view to fund the repurchase of floating rate notes held by Greece's four systemic banks.

Impact (FY-2060): -7.1ppts and -1.6ppts respective reductions in public debt and GFN ratios.

**Scheme 2** - Use of interest rate swaps to mitigate the risk of higher market rates, with the ensuing benefits to Greece from a sustainability standpoint varying with maturity, the rate and the size of the swap transactions that can be executed in the market.

Impact (FY-2060): -6.9ppts and -1.5ppts respective reductions in public debt and GFN ratios.

**Scheme 3** - Use of matched funding, via ESM fixed rate long-term issuances with maturities up to 30 years, for part of future disbursements to Greece under the current programme (c. €30bn).

Impact (FY-2060): -1.3ppts and -0.3ppts respective reductions in public debt and GFN ratios.

## III. Waiver of the step-up interest rate margin on the DBB tranche

Description: waiver of the step-up interest rate margin related to the debt buy-back tranche (€11.3bn) released in the context of the 2nd bailout programme.

Impact (FY-2060): -0.3ppts and -0.1ppts respective reductions in public debt and GFN ratios.

**Total projected impact of measures I, II, & III (FY-2060)**: -21.8ppts and -4.9ppts respective reductions in public debt and GFN ratios.

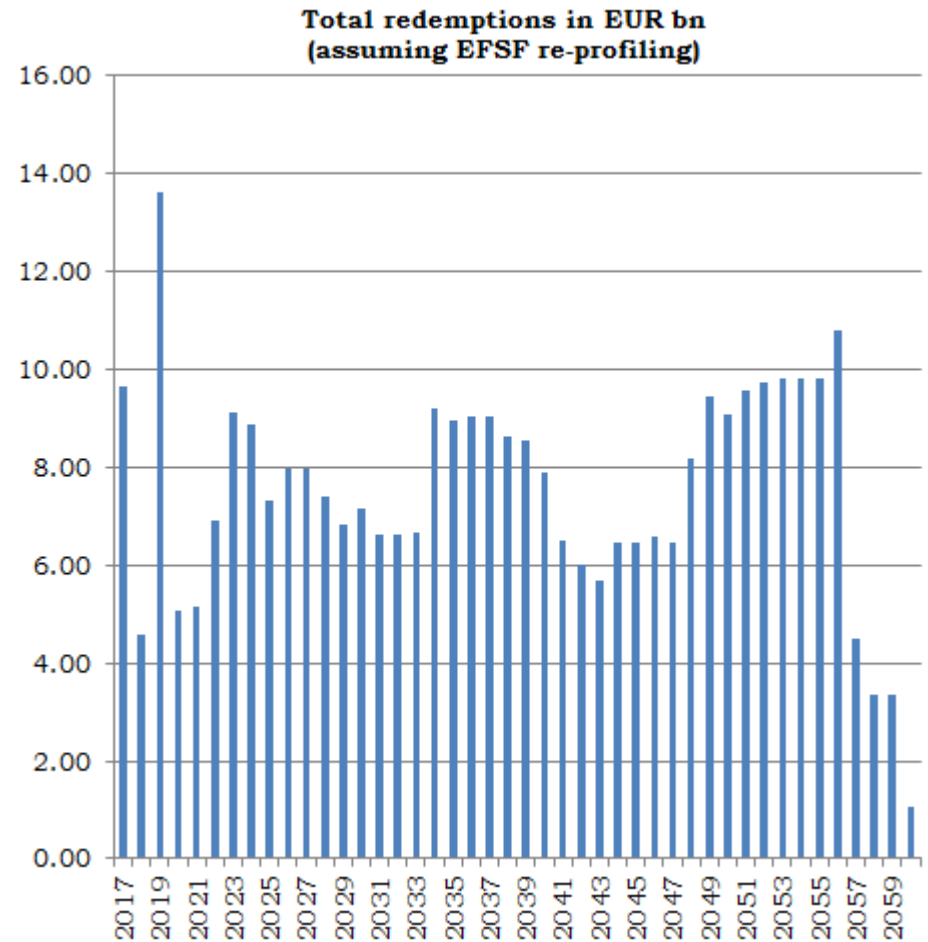
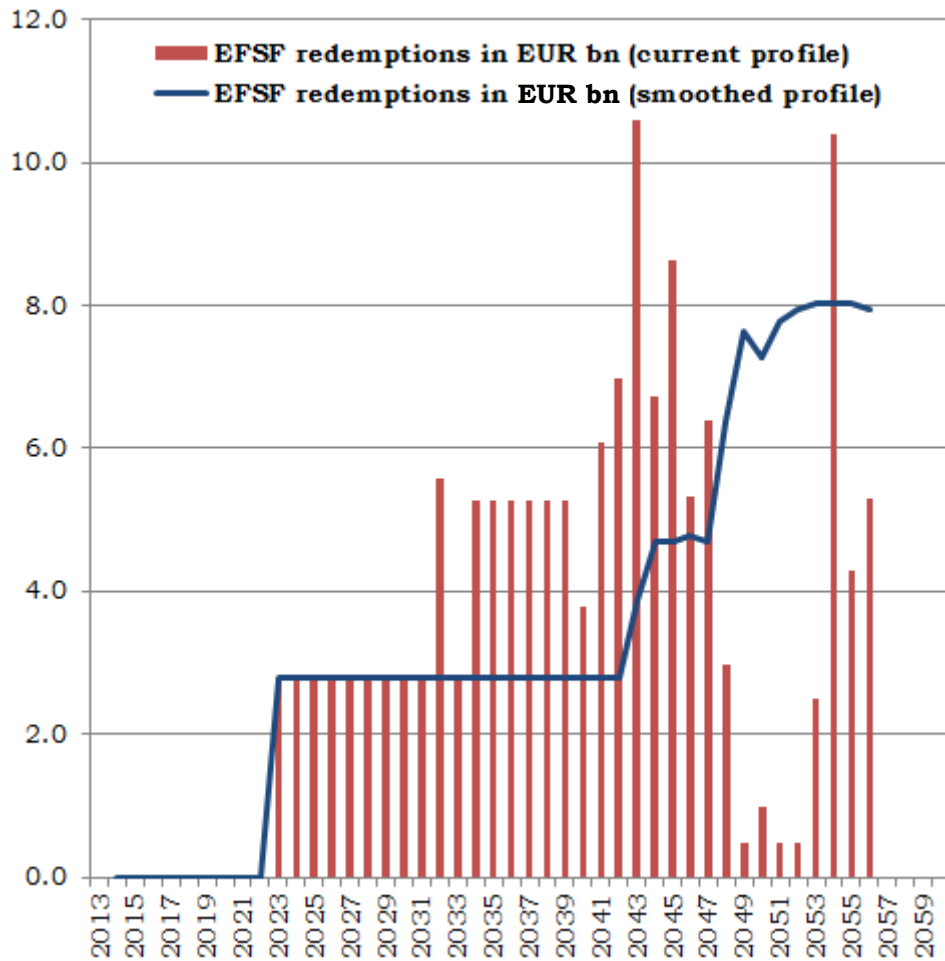
# Short-term debt relief package for Greece

## Stock & cash-flow impact (ESM projections)

		Table 1. Impact of short - term relief measures on Debt-to-GDP and GFN - to - GDP ratios under baseline scenario									
		Greece, DSA ( central scenario )									
		2016	2017	2018	2019	2020	2022	2030	2040	2050	2060
<b>Debt-to-GDP</b>	1. Smoothing the ESM repayment profile under the current WAM	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	-1.0	-2.4	-3.6
	2. Use EFSF/ ESM diversified funding strategy										
	i. BtB extension	0.0	0.0	0.1	0.2	0.2	0.2	-1.2	-3.7	-5.7	-7.1
	ii. ESM, interest rate swap ( IRS )	0.0	0.0	0.1	0.2	0.3	0.4	-0.4	-2.9	-5.1	-6.9
	iii. Split of the pool with matched funding ( ESM )	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	-1.1	-1.3
	3. Walver of the step-up in interest rate margin (DBB) , 2017	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2
Second round effect on market rates		0.0	0.0	0.1	0.0	0.0	-0.1	-0.4	-1.0	-1.8	-2.6
<b>GFN- to- GDP</b>	1. Smoothing the ESM repayment profile under the current WAM	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-1.3	-0.8	-0.8
	2. Use EFSF/ ESM diversified funding strategy										
	i. BtB extension	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	-0.9	-1.2	-1.6
	ii. ESM, interest rate swap ( IRS )	0.0	0.0	0.1	0.1	0.1	0.1	-0.2	-0.7	-1.2	-1.5
	iii. Split of the pool with matched funding ( ESM )	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-0.3	-0.3
	3. Walver of the step-up in interest rate margin (DBB) , 2017	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Second round effect on market rates		0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.3	-0.4	-0.6

# Short-term debt relief package for Greece

## Impact of EFSF loans re-profiling



### European Central Bank Decision (EU) 2015/774

- ✓ *For a euro area member state that is under a financial assistance program (and for which a waiver on the required credit quality threshold has been granted), eligibility for PSPP purchases should be suspended during a program review and resume only in the event of its successful completion*
- ✓ *The period of purchases under the PSPP is generally limited to two months following the successful completion of a review. That is, unless there are exceptional circumstances justifying a suspension of purchases before or a continuation of purchases after this period and until the start of the next review*
- ✓ *All other PSPP modalities as regards eligibility criteria, purchase eligibility limits and allocation of portfolios are the same for both program and non-program euro area countries*
- ✓ *Restrictions to be taken into account when estimating the potential size of marketable debt that can be purchased by the ECB and NCBs of the euro area:*
  - security-specific limit of 33% (notional terms)
  - issuer-specific limit of 33% (notional terms)
  - 1-yr ≤ eligible security tenor (remaining maturity) ≤ 30-yrs plus 364 days

### Estimating the potential size of Greek debt that can be purchased by the Eurosystem

- ✓ the monthly notional amount of Greek debt that could be purchased (after Mar. 2017) should not exceed €1.57bn (=2.9055% x 90% x €60bn), or c. €2.24bn in prevailing market prices, where:
  - 2.9055% is Bank of Greece's subscription key in the ECB capital;
  - 90% is the share of PSPP purchases of securities issued by eligible central governments and recognized agencies;
  - €60 bn is the amount of combined (average) monthly purchases under PSPP
  - The maximum *cumulative* amount of Greek securities (in notional terms) that could be purchased is between €3bn and €4bn

## Evolution of cumulative purchases of eligible Greek debt under PSPP (in EUR bn)

Maximum purchases limit could be attained over a period of at least two months

	PSI & post-PSI bonds (eligible outstanding)	Public enterprises (eligible outstanding)	SMP bonds (eligible outstanding)	ANFA bonds (eligible outstanding)	Total eligible	of which, ECB & NCB holdings	% owned by ECB & EA NCBs	Remaining to reach 33% issuer limit	<b>Eurosystem purchases</b>
Apr-17	34.9	0.0	9.6	3.2	47.7	12.81	26.8%	6.2%	<b>2.9</b>
May-17	34.9	0.0	9.6	3.2	47.7	12.81	26.8%	6.2%	<b>2.9</b>
Jun-17	34.9	0.0	9.6	3.2	47.7	12.81	26.8%	6.2%	<b>2.9</b>
Jul-17	34.9	0.0	9.6	3.2	47.7	12.81	26.8%	6.2%	<b>2.9</b>
Aug-17	34.9	0.0	8.4	2.6	45.9	10.95	23.9%	9.1%	<b>4.2</b>
Sep-17	34.9	0.0	8.4	2.6	45.9	10.95	23.9%	9.1%	<b>4.2</b>
Oct-17	34.9	0.0	8.4	2.6	45.9	10.95	23.9%	9.1%	<b>4.2</b>
Nov-17	34.9	0.0	8.4	2.6	45.9	10.95	23.9%	9.1%	<b>4.2</b>
Dec-17	34.9	0.0	8.4	2.6	45.9	10.95	23.9%	9.1%	<b>4.2</b>



## **Appendix**

Eurogroup of 15 June 2017

*Main elements of the agreement on Greece*

***Positive assessment on  
2<sup>nd</sup> review  
conditionality***

**Political agreement for release of next ESM loan disbursement (€8.5bn);**

- € 7.7bn (€ 6.9 for debt servicing + € 0.8 for arrears) in early July
- € 0.8bn for clearing arrears (after summer)

***Clarification of fiscal  
trajectory***

**Medium-term primary surplus target**

- 2018 – 2022: 3.5%-of-GDP per annum
- 2023 – 2060: equal or higher than (but close to) 2.0%-of-GDP

***More clarity on existing  
medium & long-term  
debt relief framework***

***Medium-term framework (“to the extent needed”)***

- Consideration of further targeted EFSF loans re-profiling (maturity & extension of principal & interest payments, both up to 15 years);
- EFSF re-profiling recalibration to be based on operational growth-adjustment mechanism

***Long-term framework***

- Conditional activation of additional contingency mechanism

***Explicit commitment to  
support Greece’s return  
to financial markets***

**Future disbursements to also cater for building up cash buffers on top of debt repayments & arrears clearance**

***Tentative agreement  
with the IMF***

**IMF management to recommend to the IMF’s Executive Board an Agreement-in-Principle for Standby Arrangement; financial participation subject to more clarity on debt relief measures**

***Growth enhancing  
investment initiatives***

**Mobilization for full absorption of remaining 2017-2020 EU Funds & possible additional EIB/EBRD funds; creation of National Development Bank**

# June 15 Eurogroup: Conclusion of Greece's 2<sup>nd</sup> programme review

## Main differentiations with prior Eurogroup agreements

	June 15, 2017 Eurogroup	Previous Eurogroup meetings
<b>Fiscal trajectory</b>	Primary surplus of 3.5%-of-GDP from 2019 to 2022 & equal to or higher than (but close to) 2%-of-GDP from 2023 onwards	Primary surplus of 3.5%-of-GDP until 2028; gradual convergence thereafter to 1.5% of GDP by 2040
<b>Medium-term debt relief framework</b>	<p>Eurogroup stands ready to implement medium-term debt relief measures "<b>to the extent needed</b>" to meet the GFN objectives</p> <p>Eurogroup stands ready to implement, <b>extensions of the weighed average maturities and a further deferral of EFSF interest &amp; amortization payments by between 0 and 15 years</b></p> <p>In order to take into account possible differences between growth assumptions in the DSA and actual growth developments over the post-programme period, the EFSF re-profiling would be recalibrated according to an <b>operational growth-adjustment mechanism</b></p>	<p>Eurogroup stands ready to consider, "<b>if necessary</b>", possible additional debt relief measures, aiming at ensuring that Greece's GFN remain at a sustainable level</p> <p>...some targeted EFSF re-profiling <b>to the extent needed</b> to keep GFN under the agreed benchmark</p> <p style="text-align: center;"><b>x</b></p>
<b>Long-term debt relief framework</b>	In the case of an unexpectedly more adverse scenario, a <b>contingency mechanism</b> on debt could be activated entailing measures such as a further EFSF re-profiling and capping and deferral of interest payments	The Eurogroup is confident that the implementation of the agreement on the main features for debt measures, together with a successful implementation of the Greek ESM programme and the fulfilment of the primary surplus targets, <b>will bring Greece's public debt back on a sustainable path over the medium to long run ...</b>
<b>Return to financial markets</b>	The Eurogroup <b>commits</b> to provide support for Greece's return to the market through future disbursements that will cater not only for the need to clear arrears but also to further build up cash buffers to support investors' confidence and facilitate market access.	... and will <b>facilitate</b> a gradual return to market financing

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