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Greek banking sector's 2021 EU-wide Stress Test results

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KEY TAKEAWAYS

- Greece demonstrated greater resilience in the 2021 EU-wide Stress Test compared to the two earlier exercises of 2018 and 2015. We expect this to have been mainly driven by: (i) lower impairment losses, with NPEs more than halved since their 2015 peak, (ii) less severe NII stress due to favorable balance sheet structure, lower funding costs and banks' improved long-term credit rating, and (iii) lower administrative expenses, as banks have downsized and streamlined operations.
- For the first time, Greece narrowed the capital depletion gap to Europe's largest banks vis-à-vis the previous exercises. Notwithstanding, Greece remains relatively less capitalized than Europe at the end of the Stress Test horizon (2023), similar to the starting point.
- In preparation of the 2023 EU-wide Stress Test and as Greece's capital depletion still exceeds that of Europe, we argue that Greek banks shall (i) further de-risk their loan book, while closely monitoring COVID-19 impacts and ensuring risk-adjusted credit underwriting standards in the context of the envisaged substantial loan book expansion, (ii) diversify revenue streams into NFCI and geographically, in the wake of downward pressures on NII from deleveraging, and (iii) explore digitalization initiatives to enhance operational efficiency and enable an 'always on' risk management approach.

INTRODUCTION

Greece's 2021 EU-wide Stress Test results were markedly improved compared to the previous two exercises. We view this as a reflection of Greek banks' unprecedented efforts to clean-up their balance sheet, improve their funding mix and rationalize their cost base.

Nonetheless, Greece is still recording a higher capital depletion than Europe. To this end, we encourage Greek banks to further enhance their business model resilience through improved asset quality, revenue diversification and operating model transformation.

In this Bulletin, we (i) provide the background information on the EU-wide Stress Test exercise, (ii) review Greece's 2021 results, and (iii) benchmark these against Europe, (iv) analyse potential implications on SREP capital requirements, and (v) identify pillars for Greek banks to further explore with a view to solidify their business model resilience in the context of the 2023 EU-wide Stress Test.

BACKGROUND ON EU-WIDE STRESS TEST[1]

The EU-wide Stress Test exercise is a forward-looking assessment of banks' resilience to hypothetical shocks. The aim is to provide a uniform analytical framework for comparison of banks' resilience to supervisors, banks and other market participants.

Key features of the exercise are:

- Common methodology;
- Common macroeconomic scenarios, namely adverse and baseline, over a three-year horizon;
- Constrained bottom-up approach, i.e. banks project the impact of the scenarios subject to constraints and quality assurance by the competent authority;
- Static balance sheet assumption, importantly pertaining to (i) same business mix and model, (ii) replacement of assets and liabilities that mature or amortise within the horizon of the exercise with similar (in terms of type, original maturity, credit quality at maturity, currency) financial instruments, (iii) no cures or

[1] Sources: [6]-[7], [10]-[11], [15]-[16]

workouts of Stage 3 assets, (iv) no capital measures considered after the reference date (31-Dec-2020 for 2021 Stress Test exercise); and

- 'Perfect foresight' assumption, i.e. the full macroeconomic scenarios are treated as known when calculating ECL.

The EU-wide Stress Test is coordinated by the EBA and carried out in cooperation with the ECB, the ESRB and the CAs from all relevant national jurisdictions. In 2021, the 50 largest European[2] banks participated in the exercise, covering c70% of banking assets. In parallel, the ECB/SSM conducted the Stress Test on 51 medium-sized ECB-supervised banks. Greek banks were part of the ECB-led exercise.

In 2018, the ECB frontloaded (compared to the EU-wide Stress Test) the Stress Test of the four significant Greek banks to conclude the exercise before the lapse of ESM's third support programme for Greece. The exercise run under the same methodology and approach as the EU-wide Stress Test.

In 2015, the ECB conducted a Stress Test on the four significant Greek banks as part of a Comprehensive Assessment. The methodology involved a constrained dynamic balance sheet approach – allowing for new lending, deposit evolution, asset sales included in DG Comp restructuring plans et al. Greek banks were required to maintain 9.5% and 8.0% minimum CET1 under the baseline and adverse scenario, respectively. In turn, the 2016 EU-wide Stress Test was performed under a static balance sheet assumption with no hurdle rates, similar to the 2018 and 2021 EU-wide Stress Test exercises.

The results of the Greek Stress Test were published on a bank-level in 2015 and 2018, as Greece was under economic adjustment programmes. In 2021, in line with the ECB-led exercise, only select bank-level data were published. To this end, except where otherwise indicated, 2021 capital depletion for Greece is based on Greek banks' disclosures[3], while benchmarking across exercises and against Europe is based on the EBA Risk Dashboard[4] and ECB disclosures[5].

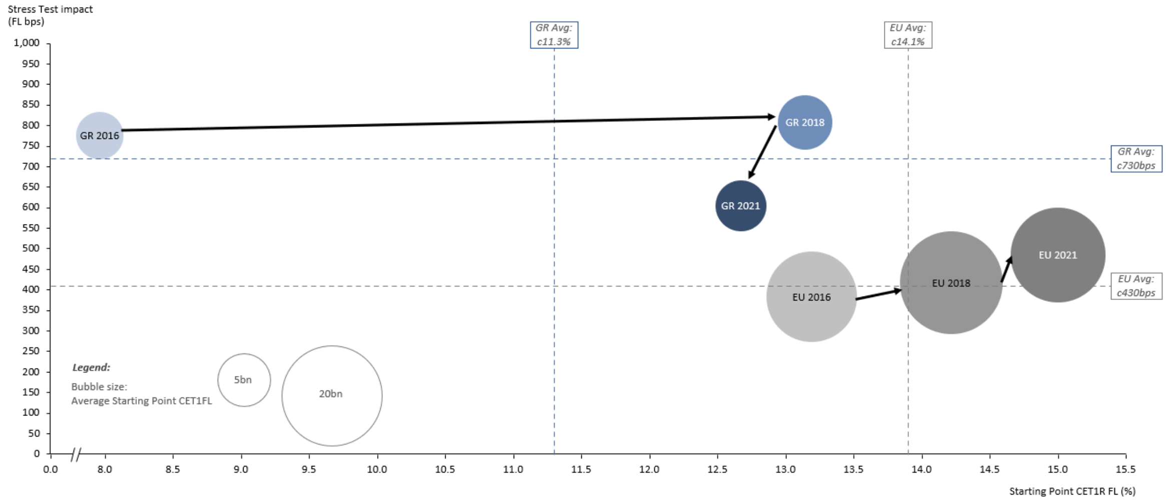
GREECE STRESS TEST RESULTS

Greece demonstrated greater resilience in the 2021 Stress Test compared to the previous two exercises (Figure 1). The Stress Test impact[6] was on average c605bps in FL terms, more than 20% lower than in 2018 and 2015. Despite a lower starting point CET1FL compared to 2018, Greece showed stronger capitalization both at the point of maximum capital depletion and at the end of the Stress Test horizon. Post reference date capital enhancement actions and other events are not considered in the Stress Test results, but inform the SREP process.

We expect the main drivers of comparative performance to have been (i) improved asset quality, (ii) more favorable NII dynamics, and (iii) lower administrative expenses.

[2] Europe defined as Euro-area, non-Euro area EU Members and Norway
[3] Source: [1], [17], [19], [21]
[4] Source [8]
[5] Source [14]
[6] Stress Test impact defined as the maximum capital depletion under the adverse scenario over the Stress Test horizon in terms of CET1R

Figure 1: *Evolution of Greece and European Stress Test results (2015/16, 2018, 2021)*



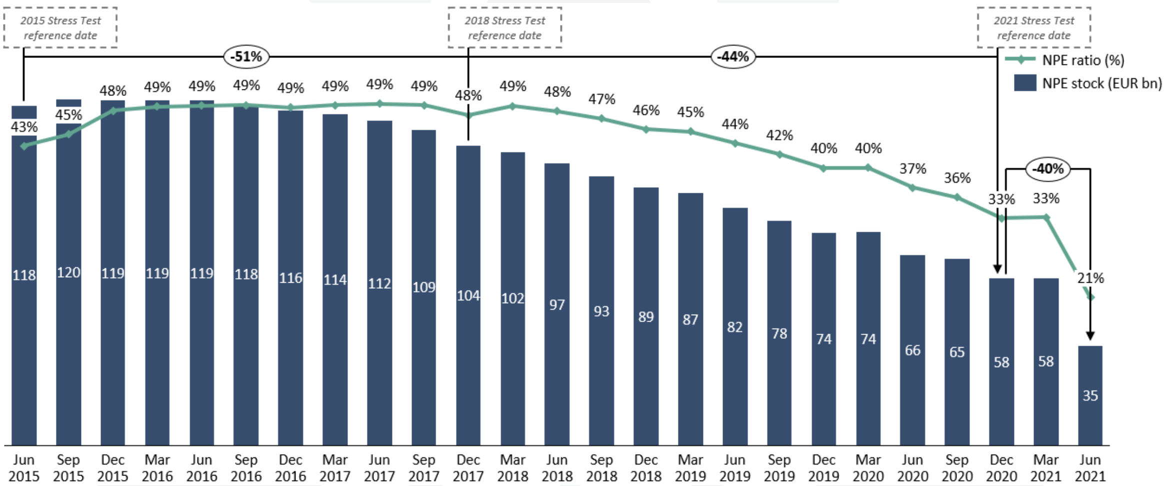
Sources: [1]-[2], [7], [10]-[11], [15]-[22], authors' calculations

Improved asset quality

Notwithstanding scenario differences, we expect that banks' improved asset quality compared to the 2018 and 2015 exercises contributed to lower credit risk losses under the adverse scenario. Notably, NPEs more than halved since mid-2015, with most of the progress being made since end-2017 (Figure 2). Historically, credit risk losses have been the primary driver of Stress Test impact for Greece and a key differentiating factor to Europe's Stress Test performance (see also Section *'Benchmarking Greece against Europe'*).

Post reference date, further de-risking has taken place, with an additional c40% decrease in NPE stock, leading to an NPE ratio of c21% as at H1'2021. Changes in banks' risk profile after the reference date are taken into account in the P2G determination process (see Section *'SREP capital requirements'*).

Figure 2*: Evolution of NPE stock & NPE ratio in Greece*



Source: [4]

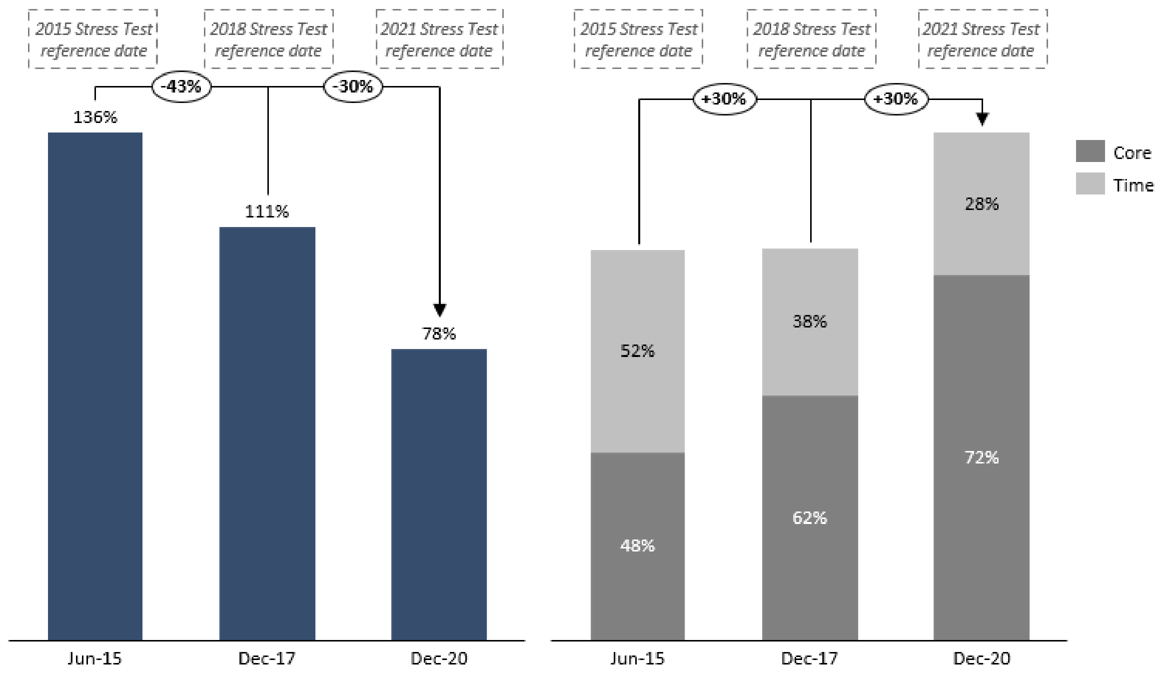
Note: NPEs on a consolidated basis of Greek commercial and cooperative banks.

More favorable NII dynamics

We expect that NII was relatively less severely hit compared to the previous exercises, primarily due to:

- Favorable liability mix and lower cost of funding at starting point, as a result of:
  - Transition away from expensive ELA, following sustainable improvement in liquidity conditions since the 2015 debt crisis;
  - Move to cheaper ECB funding, given waiver to accept Greek sovereign debt instruments as collateral in Eurosystem credit operations, as part of ECB's collateral easing measures adopted in response to COVID-19;
  - Negative TLTRO rates, as an additional monetary easing tool;
  - Improved balance sheet structure, with loans-to-deposits ratios decreasing to c80% from more than 130% in mid-2015 (Figure 3, LHS), given deleveraging along with gradual return of deposits, as the economy and market sentiment rebounded; and
  - Increase in core deposits (Figure 3, RHS), reflecting improved depositor confidence, on the back of rise in disposable income and repatriation of funds;

***Figure 3**: Evolution of loans-to-deposits (LHS) & deposits by type (RHS) in Greece*



Sources: [3], [8]

Note: Deposits (households and non-financial corporations) by type held with credit institutions in Greece (RHS).

- Lower idiosyncratic shock on the liabilities' side, due to improved long-term credit rating of banks at starting point; and
- Lower downstream effects from credit risk on the assets' side (see Section *'Improved asset quality'*).

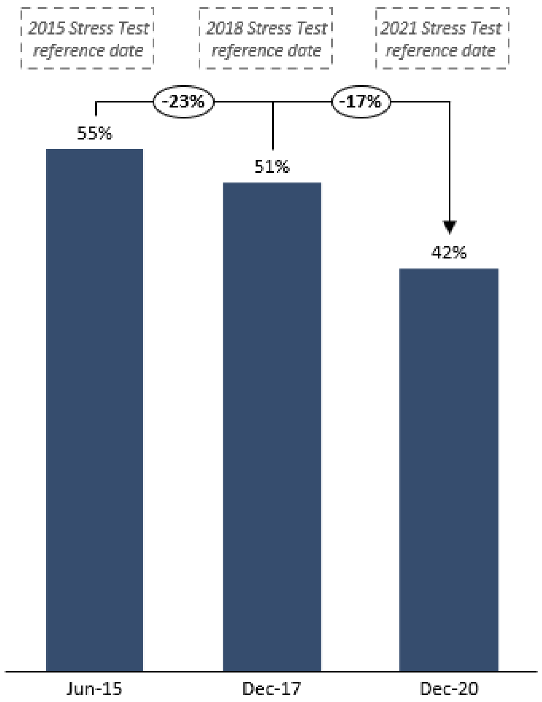
NII was also affected by:

- 'Lower for longer' interest rate scenario (i.e. inverted yield curve that flattens at negative rates); and
- Lower NIM at starting point (Figure 8), as share of NII from likely higher yielding NPEs is decreasing due to deleveraging.

Lower administrative expenses

We expect that relatively less capital was consumed in the 2021 Stress Test to cover administrative expenses, as Greek banks have downsized and streamlined operations. Markedly, cost-to-income at the reference date has decreased c20% compared to the starting point of the previous two exercises (Figure 4).

***Figure 4**: Cost-to-income evolution in Greece*



Source: [8]

Note: Cost-to-income defined as administrative and depreciation expenses over total net operating income.

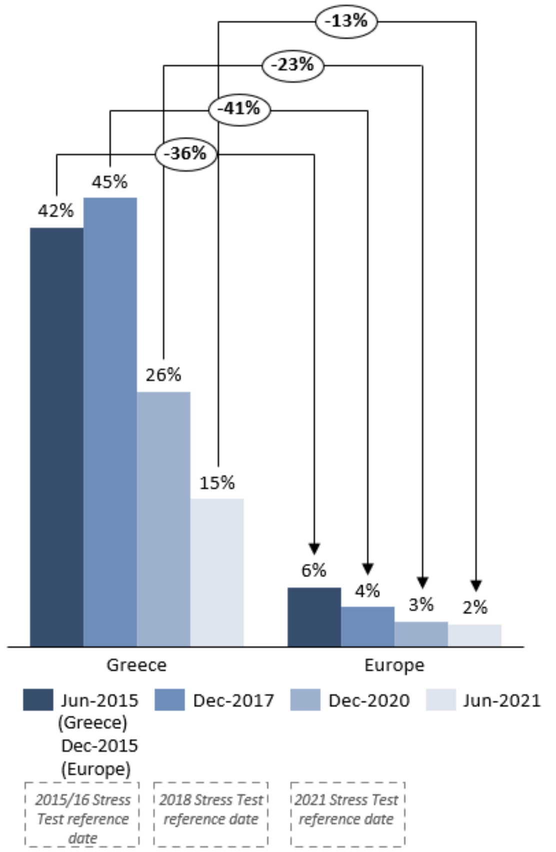
BENCHMARKING GREECE AGAINST EUROPE

In the 2021 Stress Test, Greece substantially narrowed the capital depletion gap to Europe's largest banks compared to the previous two exercises. Greece demonstrated a c120bps higher Stress Test impact vs. Europe (Figure 1), c70% lower gap compared to the 2018 and 2015 exercises.

We view the main drivers of the tighter capital depletion gap between Greece and Europe to be the following:

- Lower impairment losses in Greece, given healthier loan book. The delta in NPL ratios[7] between Greece and Europe narrowed more than one-third since 2015 (Figure 5);
  - That said, Greece still entered the Stress Test with c26% NPL ratio vs. Europe's c3% (Figure 5). We see this as the main factor that continues to drive the materially greater level deviation (delta adverse to baseline) in the Stress Test of Greece's credit losses compared to Europe (Figure 6);

***Figure 5**: NPL ratio[7] evolution in Greece & Europe*

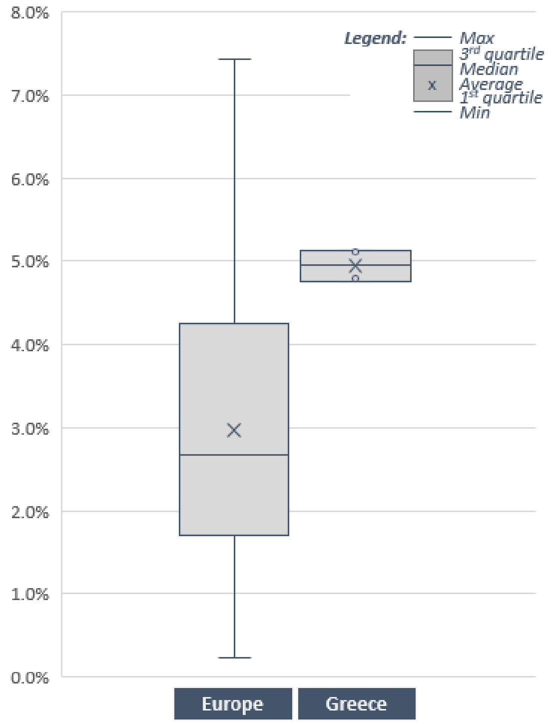


Source: [8]

Note: Europe defined as EU/EEA for Dec-2020 and Jun-2021, and as EU for Jun-2015 and Dec-2017, as per EBA Risk Dashboards.

[7] In Section *'Benchmarking Greece against Europe'*, NPL ratio is used for comparison purposes, given data availability

***Figure 6**: Level deviation in loan loss provisions (as % of 2020 FL REA) for Europe & Greece – 2021 Stress Test*



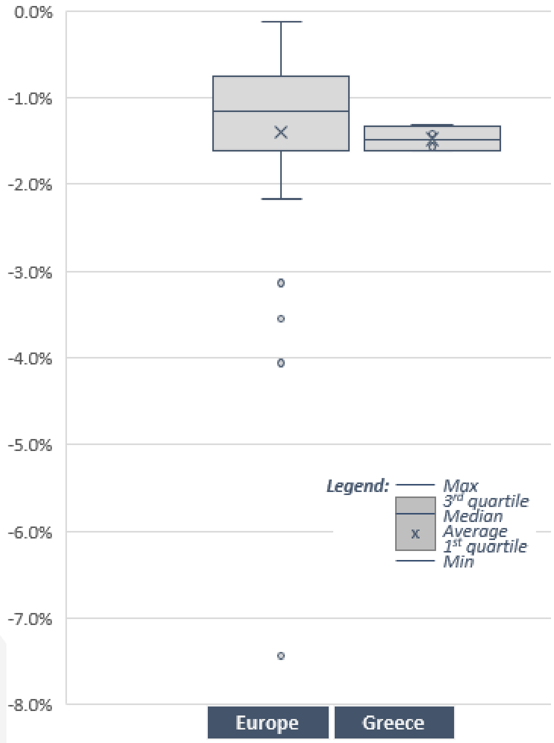
Source: [14]

Note: Level deviation is the difference between the adverse and the baseline scenario of the Stress Test exercise. Europe depicts all banks participating in the ECB-led exercise.

- Already 6-months post the reference date, Greece has further narrowed the delta in NPL ratio with Europe (Figure 5). Post-reference date de-risking shall be taken into account in the P2G determination process;

- Higher impairment losses in Europe vs. the 2018 and 2016 exercises, on the back of overall significantly more severe macroeconomic assumptions[8]. Notable related scenario differences include higher GDP shock, higher unemployment rate, steep increase in CRE shock;
- Less severe NII shock for Greece vs. 2018 and 2015 exercises (Section *'More favorable NII dynamics'*);
  - However, Greece continues to record among the most significant level deviation in Europe (Figure 7), with higher credit downstream effects and larger idiosyncratic shock on liabilities' margin repricing;
  - Overall, lower NIM is observed at starting point for both Greece and Europe (Figure 8). Nonetheless, Greece's NIM still remains above European levels, likely supported by higher NPE stock.

***Figure 7**: Level deviation in NII (as % of 2020 FL REA) for Europe & Greece – 2021 Stress Test*

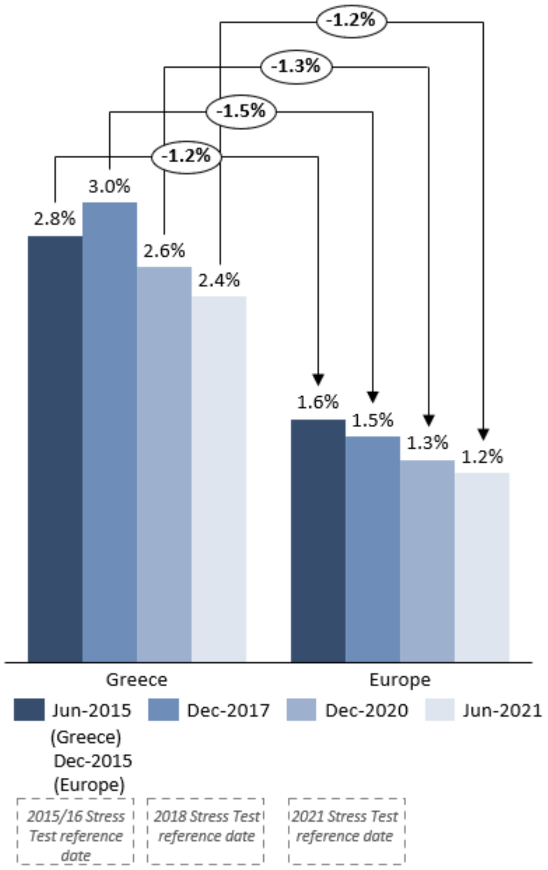


Source: [14]

Note: Level deviation is the difference between the adverse and the baseline scenario of the Stress Test exercise. Europe depicts all banks participating in the ECB-led exercise.

[8] Source: [14]

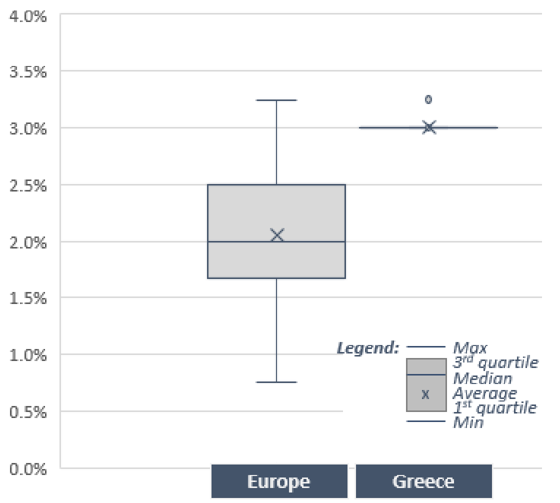
***Figure 8**: NIM evolution in Greece & Europe*



Source: [8]

Note: Europe defined as EU/EEA for Dec-2020 and Jun-2021, and as EU for Jun-2015 and Dec-2017, as per EBA Risk Dashboards.

***Figure 9**: P2R for European & Greek Significant Institutions*



Source: [13]

Note: P2R of 2019 and 2020 SREP cycle in terms of total capital.

SREP CAPITAL REQUIREMENTS

The Stress Test informs the SREP process, which determines bank-specific Pillar 2 capital requirements.

The qualitative outcome of the Stress Test influences the P2R[9] determination process. Such outcome relates to banks' internal governance and risk management and is not publicly disclosed.

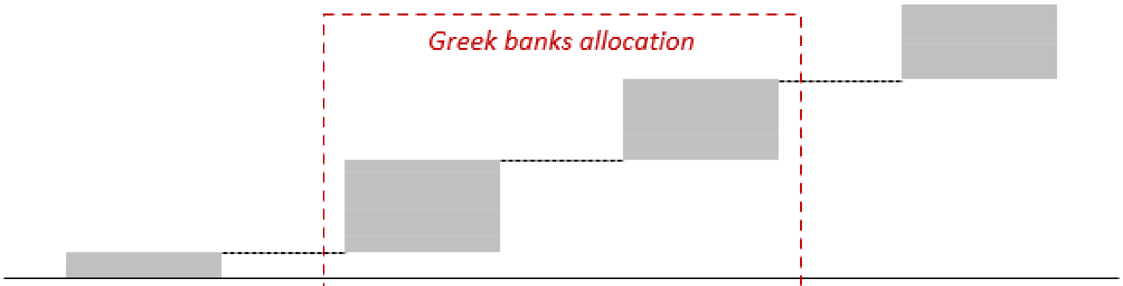
We expect it is unlikely that Greek banks' currently elevated P2R levels at or in excess of 3.0% may reach the European average of 2.1% in the current SREP cycle (Figure 9).

The quantitative outcome of the Stress Test is an essential starting point for the determination of P2G[10]. A new P2G methodology was introduced in the 2021 SREP cycle[11] that consists of two steps. In step 1, banks are allocated to P2G buckets based on the maximum CET1 depletion under the adverse scenario of the Stress Test. In step 2, the final P2G is set within the range of the bucket, or exceptionally beyond that range, taking into account banks' idiosyncratic situations, such as changes in risk profile and mitigating actions since the reference date, the year in which the maximum Stress Test impact occurs et al. P2G levels are not publicly disclosed.

Greek banks end the exercise in the middle (between *lowest* and *highest*) two P2G buckets, translating to P2G levels of 0.50-2.75% (Figure 10).

[9] Further information on P2R is available here
[10] Further information on P2G is available here
[11] Source: [5]

***Figure 10**: P2G bucket allocation (step 1) of European & Greek banks*



	Bucket 1	Bucket 2	Bucket 3	Bucket 4
Max CET1RFL depletion	<3%	[3 - 6%)	[6 - 9%)	≥ 9%
P2G	0 - 1.00%	0.50 - 2.00%	1.00 - 2.75%	1.75% - 4.50%*

Source: [14]

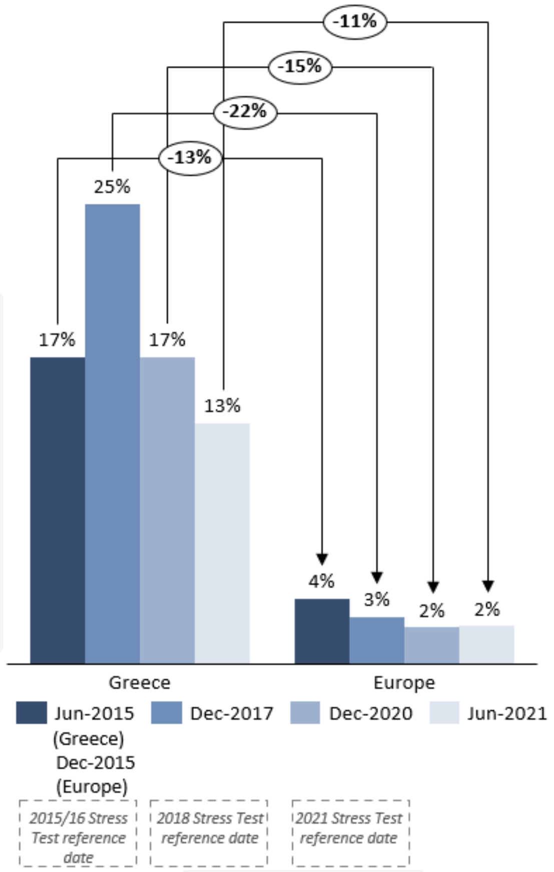
*Notes: Europe depicts all banks participating in the ECB-led exercise. *4.50% max P2G for current supervisory cycle.*

KEY CONSIDERATIONS AHEAD OF THE 2023 STRESS TEST

Despite Greece performing relatively well in the 2021 Stress Test compared to the previous two exercises, capital depletion still exceeds that of Europe. In preparation of the 2023 EU-wide Stress Test, we identify the following pillars for Greek banks to explore with a view to further enhance their business model resilience:

- Further de-risk their loan book, addressing the legacy NPE stock, with an aim to move towards the European average NPE ratio;
- Closely monitor the forborne portfolio through enhanced credit risk management and control, ensuring readiness to act should expected cures not materialise;
  - Despite deleveraging efforts, Greece still has a materially higher forborne book vs. Europe (Figure 11);

***Figure 11**: Forbearance ratio of loan book in Greece & Europe*

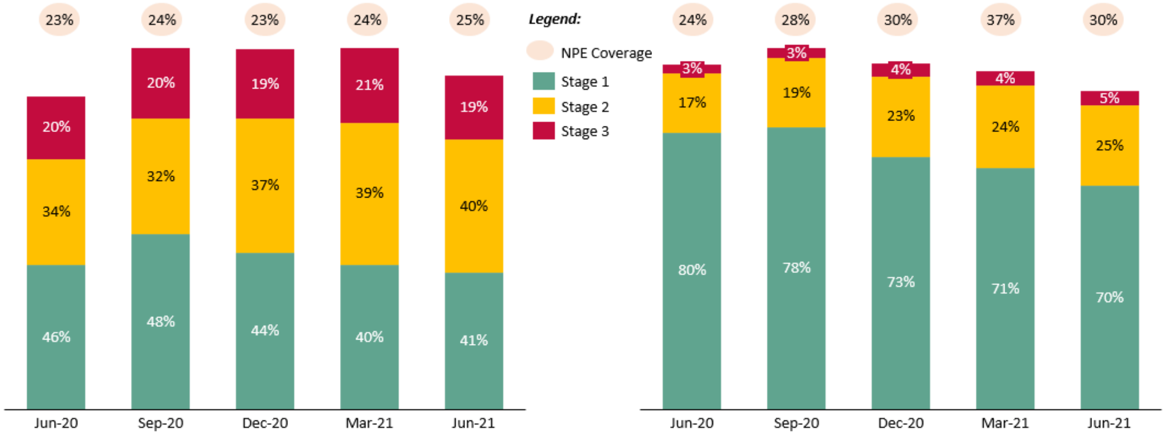


Source: [8]

Notes: Forbearance ratio of loan book defined as exposures with forbearance measures for loans and advances over total instruments on-balance sheet. Europe defined as EU/EEA for Dec-2020 and Jun-2021, and as EU for Jun-2015 and Dec-2017, as per EBA Risk Dashboards.

- Closely monitor the COVID-19 moratoria perimeter, especially the 'at risk' segments, and the overall COVID-19 impact on asset quality to minimize potential NPE formation and increases in cost of risk;
  - Greece has consistently a higher share of Stage 2 loans vs. Europe in the COVID-19 moratoria perimeter (Figure 12);
  - Greece has a higher share of Stage 3 loans which are also less covered by provisions vs. Europe (Figure 12).
- Seek risk-adjusted opportunities and ensure robust credit underwriting standards and risk control environment in the context of the substantial loan book expansion, currently envisaged as part of the broader Greece 2.0 package and banks' business plans;
- Diversify revenue streams into NFCI and geographically, as more diversified banks performed better in the Stress Test[12]. This becomes even more important in the wake of downward pressures on NII from deleveraging;
- Explore potential initiatives to enhance operational efficiency through digitalisation, 'always on' risk management and further streamlining of operations; and
- Integrate ESG considerations across risk management, business strategy, governance arrangements as well as metrics and targets[13].

***Figure 12**: Evolution of Stage distribution in COVID-19 moratoria perimeter and related Stage 3 coverage ratio in Greece (LHS) & Europe (RHS)*



Source: [8]

Note: COVID-19 moratoria perimeter defined as EBA-compliant moratoria, both expired and non-expired. Europe defined as EU/EEA for Dec-2020 and Jun-2021, and as EU for Jun-2015 and Dec-2017, as per EBA Risk Dashboards

[12] Source: [14]

[13] Reflects FSB's TCFD framework on climate risk available under https://www.fsb-tcfd.org/publications/

ABBREVIATIONS

BoG: Bank of Greece

CET1: Common Equity Tier 1

CET1RFL: Common Equity Tier 1 Ratio Fully Loaded

CA: Competent Authority

CRE: Commercial Real Estate

DG Comp: Directorate-General for Competition

EBA: European Banking Authority

ECB: European Central Bank

ECL: Expected Credit Losses

EEA: European Economic Area

ELA: Emergency Liquidity Assistance

ESM: European Stability Mechanism

ESRB: European Systemic Risk Board

EU: European Union

FL: Fully Loaded

FSB: Financial Stability Board

NFCI: Net Fee & Commission Income

NII: Net Interest Income

NPE: Non-Performing Exposures

P2G: Pillar 2 Guidance

P2R: Pillar 2 Requirement

PF: Pro-forma

RRE: Residential Real Estate

SREP: Supervisory Review & Evaluation Process

SSM: Single Supervisory Mechanism

TCFD: Task Force on Climate-Related Financial Disclosures

TLTRO: Targeted Longer-term Refinancing Operations

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