2021 EU Wide Stress Test

Our First Glance at Results

Highest capital depletion in stress history will not prevent the return of dividends and buybacks – Winners and Losers of Stress Test Results

July 2021
2021 Stress Test Results are out – Although results show highest capital depletion is stress history, given strong capital positions remaining buffers will allow increased dividends and paybacks for most banks.

### Stress Test Impacts

- Impact of 2021 stress tests shows average capital depletion (2020 CET1 to adverse) of 485bps, 91bps higher than depletion created by 2018 stress tests (394bps)
- Much higher depletion explained by more severe scenario and worse starting point due to Covid-19 impact
- As expected stress test results do not generate any major surprises and demonstrate strong capital resilience of the banking sector coming off Covid-19

### Capital Distribution

- ...banks demonstrate strong resilience to weather a stress due to improved capital starting positions.
- No incremental capital needs as capital actions pre-empted for banks (BMPS) falling below the 5.5% CET1 minimum threshold
- Capital flexibility measured as the buffer between CET1 after stress test and minimum threshold of 5.5% increases to 466 from 455bps in 2018
- New Pillar 2 guidance approach will bucket banks into 4 areas and create a stronger link between stress test capital depletion and dividend and buyback decisions
- Report shows winners and losers after application of new P2G rule

### Summary by Country

- Countries most impacted are those with least income generation capabilities to offset capital depletion generated by severe scenario
  - Worst 5 countries by CET1 depletion:
    - Denmark: -651bps
    - Ireland: -607bps
    - Italy: -559bps
    - Germany: -558bps
    - France: -555bps
  - Best 5 countries by CET1 depletion:
    - Poland: -112bps
    - Norway: -252bps
    - Spain: -290bps
    - Sweden: -299bps
    - Hungary: -303bps

### Stress Tests Going Forward

- Climate Risk Stress Test on 2022, and expecting material changes on 2023 Capital Stress Tests
  - The Climate Risk stress test will arrive in 2022 expected to be very comprehensive and detailed, including three main modules (questionnaire, climate metrics and bottom-up stress test). It will require major bank preparation.
  - Next capital stress test exercise in 2023 is expected to bring material new features: (i) supervisory run with top-down stress test view using simplified assumptions, (ii) banks run with bottom-up dynamic approach aligned to ICAAP and (iii) comparative results from both views
1. Stress Test Impacts

2021 stress test impact shows much higher capital depletion compared to ST’18 (measured as 2020 CET1 to adverse FL) (485bps vs. 394bps). Capital flexibility however presents better results (466bps vs. 455bps).
1. Stress Test Impacts
CET1 adverse depletion of 485bps (fully loaded) driven by loan losses (-420bps), Operating Profit (+140bps) and RWA impacts (-120bps). Compared to ST18, higher impact driven mostly by Operating Profit and NTI.

<table>
<thead>
<tr>
<th>Capital Waterfall</th>
<th>EBA ST 2021</th>
<th>EBA ST 2018</th>
<th>ST21-ST18 Var.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CET1R SP '20</td>
<td>15.0%</td>
<td>14.0%</td>
<td>101 bps</td>
</tr>
<tr>
<td>Operating Profit</td>
<td></td>
<td>1.4%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Loan Loss Impact</td>
<td>4.2%</td>
<td>4.3%</td>
<td>3 bps</td>
</tr>
<tr>
<td>Net Trading Income</td>
<td>0.0%</td>
<td>0.2%</td>
<td>-28 bps</td>
</tr>
<tr>
<td>Other P&amp;L Impact</td>
<td>0.9%</td>
<td>0.7%</td>
<td>29 bps</td>
</tr>
<tr>
<td>CET1R after P&amp;L Impact</td>
<td>13.0%</td>
<td>12.3%</td>
<td>74 bps</td>
</tr>
<tr>
<td>Acc. OCI Impact</td>
<td>0.5%</td>
<td>0.3%</td>
<td>-25 bps</td>
</tr>
<tr>
<td>Other Capital Impact</td>
<td>1.1%</td>
<td>0.7%</td>
<td>-43 bps</td>
</tr>
<tr>
<td>RWA Impact</td>
<td>1.2%</td>
<td>1.3%</td>
<td>4 bps</td>
</tr>
<tr>
<td>CET1R Adv. '23</td>
<td>10.2%</td>
<td>10.1%</td>
<td>11 bps</td>
</tr>
<tr>
<td>CET1 3-Year Impact</td>
<td>4.9%</td>
<td>3.9%</td>
<td>-91 bps</td>
</tr>
</tbody>
</table>

- Positive impact is interpreted as beneficial, while a negative impact is considered detrimental to capital.
2. Potential for Capital Distribution - Dividends and Buybacks

No incremental capital needs as capital actions pre-empted for banks (BMPS) falling below the 5.5% CET1 minimum threshold.
2. Potential for Capital Distribution - Dividends and Buybacks

When assessing a bank’s capital trajectory and its distribution plans, supervisors will take a forward-looking view duly informed by the results of the 2021 stress test and new approach to calculate P2G.

- P2G calculated from maximum capital depletion observed in CET1 adverse stress test multiplied by 25% calibration factor rounded up to the next 25bps

<table>
<thead>
<tr>
<th>Capital Depletion</th>
<th>P2G Range</th>
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<tbody>
<tr>
<td>Bucket 1</td>
<td>0 to 3%</td>
</tr>
<tr>
<td>Bucket 2</td>
<td>3% to 6%</td>
</tr>
<tr>
<td>Bucket 3</td>
<td>6% to 9%</td>
</tr>
<tr>
<td>Bucket 4</td>
<td>+ 9%</td>
</tr>
<tr>
<td></td>
<td>0 to 100bps</td>
</tr>
<tr>
<td></td>
<td>50 to 200bps</td>
</tr>
<tr>
<td></td>
<td>100 to 275bps</td>
</tr>
<tr>
<td></td>
<td>From 175bps</td>
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New methodology in line with recent EBA draft guidelines on SREP

- **Step 1:** identification of the institution in a bucket according to the maximum CET1 depletion in the supervisory stress test exercise. Buckets calibrated according to recent supervisory experience, SSM risk tolerance and severity of the stress test exercise.

- **Step 2** JSTs expert judgement to adjust the P2G to the idiosyncratic profile of the institution. Adjustment within the ranges of the corresponding bucket and exceptionally beyond the range of the relevant bucket, including for the last bucket.

**Enhancements:** level playing field, consistency, no floors, no cliff effects (overlapping P2G ranges), institution-specific adjustments, reasonable range of P2G outcomes including in cases of high capital depletion.
New P2G calculations will drive dividend / stock buyback decisions going forward.
New ECB’s Climate Risk Stress Test will arrive in 2022

CR ST 2022 will test bank capabilities to evaluate climate risk in three modules, which will require major banks’ preparation

<table>
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<tr>
<th>Three Modules</th>
<th>Key Elements</th>
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| **ECB CR ST 2022** | ▪ Goal: qualitative assessment of climate risk stress testing framework with 77 questions  
▪ 11 areas including general use, governance and RAF, integration with strategy, methodology, scenarios, data, ICAAP, future plans, internal audit, parent company and bottom-up projections |
| **Climate Metrics Benchmarking** | ▪ Goal: benchmark banks’ income reliance to transition risk sectors and financed GHG emissions  
▪ Metric 1: Gross Interest and Fee Income from NFCs to cover 80% of income / max 5 countries  
▪ Metric 2: Scope 1, 2 & 3 Emissions, Revenue and Loans for top 20 per sector non-SME corporates |
| **Bottom up Stress Test** | ▪ Bottom-up stress test projections for subset of banks under transition and physical risk scenarios  
▪ 5 individual tests with different scope, metrics and horizons: 2 transition risk tests (one short term covering credit and market and one long term covering credit) 2 physical risk tests (one Drought & heat and one flood) and 1 operational & reputation risk test |

Banks should prepare now. Climate risk is here to stay and should be taken as a strategic priority

<table>
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<tr>
<th>Areas for response</th>
<th>Priority</th>
<th>Actions</th>
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<tr>
<td><strong>Data</strong></td>
<td>HIGH</td>
<td>▪ Big challenge to capture GHG scope 3 data for Corporates and EPC / NUTS 3 data for Mortgages &amp; CRE. Some data gaps for NACE 2 breakdowns.</td>
</tr>
</tbody>
</table>
| **Models** | HIGH | ▪ Development of Transition Risk, Physical Risk and Operational Risk Models.  
▪ Introduce dynamic projections over 30 year horizon for Transition Risk |
| **Scenario** | LOW | ▪ Scenario guidance provided with some needs for scenario extension |
| **Climate Risk Framework** | MEDIUM | ▪ Need to develop and formalize climate risk framework, policy and procedures |
| **Other Documentation** | | ▪ Need to develop comprehensive explanatory note for modules 1, 2 and 3 |
| **Industry Collaboration** | | ▪ Explore industry collaboration for sharing of methods and data (e.g., Scope 3) |
Capital Stress Tests Going Forward will bring new features in 2023

The future of stress testing *(approach subject to be reviewed due to Covid-19)*

**FIRST VIEW: SUPERVISOR**

Supervisors Run Top-Down Stress Test using Simplified Assumptions

1. Based on a constrained bottom-up approach
2. Banks provide input starting position data
3. Supervisors apply their models, benchmarks and assumptions to calculate depletion and challenge banks’ results

**SECOND VIEW: BANK**

Banks run Bottom-up Dynamic Run

1. Banks run in parallel their internal models using supervisory scenarios and bank internal approaches to incorporate idiosyncratic factors
2. Banks use dynamic business projections and internal models aligned to ICAAP
3. Models subject to constraints to ensure comparability across banks

**THIRD VIEW: RESULTS**

Final Results

1. 2 sets of results: Supervisor and Banks
2. Supervisor results serve as the starting point for Pillar 2 guidance. P2G could be implemented by buckets, based on capital depletion
3. Lighter quality assurance and much less data published from the supervisor view. However, similar level of granularity required as part of the banks’ view results

Source: Speech by Andrea Enria, Chair of the ECB Supervisory Board and former Chair of the EBA, on November 2019
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