Comprehensive Assessment

Analyst presentation

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Sunday 26th October 2014
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Comprehensive Assessment results

Comprehensive Assessment - key figures

Key results

• The Asset Quality Review (AQR) results in a gross impact on asset carrying values of €48 billion

• In total, a €136 billion increase in non-performing exposure was identified

• Combining the AQR with the stress test the Comprehensive Assessment results in:
  - €263 billion capital depletion over the three-year horizon of the exercise under the adverse stress test scenario
  - Median 4% reduction of the CET1 capital ratio of in scope banks

• In aggregate, the Comprehensive Assessment resulted in a €24.6 billion capital shortfall across 25 participant banks
Comprehensive Assessment results

Comprehensive assessment identified a capital shortfall of €24.6 billion across 25 banks

Comprehensive assessment capital shortfall by driver
SSM level (€ BN)

- Shortfall from stress test: €11.2 billion
- Shortfall including AQR adjustments: €21.9 billion
- Shortfall incorporating AQR findings into stress test: €24.6 billion

Note: Numbers do not add up due to rounding
Capital shortfall was observed at banks from 11 of the 19 countries in scope of the exercise

Comprehensive assessment capital shortfall by driver
By country, as % RWAs

<table>
<thead>
<tr>
<th>Country</th>
<th>Total shortfall (€ BN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CY</td>
<td>2.37</td>
</tr>
<tr>
<td>GR</td>
<td>8.72</td>
</tr>
<tr>
<td>PT</td>
<td>1.14</td>
</tr>
<tr>
<td>IT</td>
<td>9.68</td>
</tr>
<tr>
<td>SI</td>
<td>0.07</td>
</tr>
<tr>
<td>IE</td>
<td>0.86</td>
</tr>
<tr>
<td>AT</td>
<td>0.87</td>
</tr>
<tr>
<td>BE</td>
<td>0.54</td>
</tr>
<tr>
<td>DE</td>
<td>0.23</td>
</tr>
<tr>
<td>FR</td>
<td>0.13</td>
</tr>
<tr>
<td>ES</td>
<td>0.03</td>
</tr>
<tr>
<td>EE</td>
<td>0.00</td>
</tr>
<tr>
<td>FI</td>
<td>0.00</td>
</tr>
<tr>
<td>LT</td>
<td>0.00</td>
</tr>
<tr>
<td>LU</td>
<td>0.00</td>
</tr>
<tr>
<td>LV</td>
<td>0.00</td>
</tr>
<tr>
<td>MT</td>
<td>0.00</td>
</tr>
<tr>
<td>NL</td>
<td>0.00</td>
</tr>
<tr>
<td>SK</td>
<td>0.00</td>
</tr>
</tbody>
</table>

- Shortfall incorporating AQR findings into stress test
- Shortfall including AQR starting-point adjustments
- Shortfall from stress test

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The median bank’s CET1 ratio falls by 4% in the adverse scenario

Comprehensive assessment impact on CET1 ratio under the adverse scenario
Median by country of participating bank, %

- Median bank’s CET1 ratio declines from 12.4% to 8.3%
2 Asset Quality Review results
Across the SSM, the Asset Quality Review (AQR) led to a €48BN adjustment to asset carrying values

Asset Quality Review impact on available CET1 capital
By AQR workblock (€ billion)
The AQR led to an €136 BN increase in non-performing exposure, with increases across all asset segments

Change in NPE exposure, pre- and post-AQR
By asset segment (€ billion)

Commentary

• Divergent bank definitions of non-performing exposures were harmonised leading to €55 billion added non-performing exposure

• Following harmonisation, an increase in non-performing exposure of €81 billion was observed in the credit file review

• In total, non-performing exposure increased by €136 billion, representing a 18% total adjustment
Provisioning increased by a total €43 BN across all asset segments

Change in provisions
By Asset Segment (€ billion)

Commentary

- Total specific provisions increased by €43 billion, a 12% overall adjustment
- Provisions increased as a result of both the credit file review and collective provisioning workblocks
- Shipping (28%), Large SME (16%) and Large Corporates (16%) experienced largest relative increases
ECB Quality Assurance had a tangible impact on NPE classification, ensuring harmonised treatment

Example of impact of ECB Quality Assurance
Number of performing debtors hitting 2 or more impairment triggers, pre- and post- ECB Quality Assurance (%)

Remedial approach taken
• ECB identified banks in where debtors were hitting triggers but not being classified as NPE
• ECB discussed with NCAs and challenged auditor decisions at the individual debtor level
• In some cases the decision against reclassification was justified
• In a significant number of cases, decision was withdrawn and the debtor reclassified to NPE along with debtors in similar scenarios
ECB Quality Assurance resulted in a significant increase in collateral haircut levels

Example of impact of ECB Quality Assurance
Mean collateral haircuts pre- and post- ECB Quality Assurance (%)

- ECB reviewed haircut levels across NCAs for each asset segment
- ECB discussed with NCAs and challenged auditor decisions at the individual debtor level
- In some cases the ECB accepted the NCA submission
- In others additional haircuts were agreed and applied

Note: The exhibited number of banks is not necessarily exhaustive for the example NCA
In total, collective provisioning led to an increase in provisions of €16BN, of which 62% was IBNR

Collective provisioning adjustment – IBNR
SSM-level, € billion

- Pre-AQR IBNR: 43
- Additional IBNR: 10
- Post-AQR IBNR: 53

Collective provisioning adjustment – specific provisions
SSM-level, € billion

- Pre-AQR specific provisions: 104
- Additional specific provisions: 6
- Post-AQR specific provisions: 110

• In total, more than 800 portfolios across most AQR asset classes were assessed

• Collective Provisioning workblock identified the need for additional collective provisions of €16 billion,
  - €6 billion of retail specific provisions
  - €10 billion of additional IBNR

• Key drivers included
  • Application of EBA simplified NPE definition
  • Credit file review findings leading to adjustments in LGI parameter
  • Adjustments to RRE collateral values impacting LGL
  • Bank use of non point-in-time parameters
Collective provisioning Quality Assurance aligned parameters to ECB defined fall back assumptions

Collective provisioning parameter distribution – emergence period
Distribution of performing exposures by emergence period

Comparison of other fall back parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Fall back assumption</th>
<th>Observed average</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGL secured</td>
<td>60%</td>
<td>50.4%</td>
</tr>
<tr>
<td>LGL unsecured</td>
<td>90%</td>
<td>86.9%</td>
</tr>
<tr>
<td>Original effective interest rate</td>
<td>4%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Sales ratio</td>
<td>75%</td>
<td>78.0%</td>
</tr>
<tr>
<td>Sales ratio volatility</td>
<td>18%</td>
<td>21.6%</td>
</tr>
<tr>
<td>Appraiser discount</td>
<td>5%</td>
<td>5.4%</td>
</tr>
</tbody>
</table>
The adjustment of the Fair value exposures review was €4.6 billion, with 66% from CVA adjustments

Fair value exposures review adjustment
By workblock (€ billion)

- Non-derivative positions were assessed through independent revaluations leading to a €1.2 billion adjustment
- Adjustment on CVA reserves was significant, with a 27% increase of €3.1 billion identified
- Complex derivative pricing models were also reviewed, with modelling errors or inappropriate assumptions leading to a further €0.2 billion adjustment
3 Stress Test & Join-up results
Overall, total adverse scenario capital depletion is €263 billion

Comprehensive assessment adverse scenario capital depletion
SSM level, (€ BN)

Key drivers

- Total gross AQR adjustment of €48 billion, and €34 billion net of tax offset
- The stress test (and Join-up with AQR results) led to a capital depletion of €182 billion in the adverse scenario
- In addition, the increase in RWA in the adverse scenario increases capital requirements in the amount of €47 billion

1Stress Test results include the impact of the Join-Up.
Note: Scenario capital depletion and the effect on required capital are based on the 2016 adverse scenario.
SSM banks' average CET1 ratio is projected to increase from 11.8% to 12.0% in the baseline

Key drivers

• Improvement in the solvency position under the baseline mainly reflects
  – Projected accumulation of pre-provision profits (3.6 percentage point contribution to the change in the CET1 ratio)
  – Projected loan losses (-2.5 percentage point contribution)

• The average development of participating banks' solvency positions, however, masks variations across individual institutions and countries

Aggregate post-JU stress test effect\(^1\) by risk drivers under the baseline scenario

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1. Weighted means; excluding the AQR impact on starting point capital
SSM banks' average CET1 ratio is projected to decrease from 11.8% to 8.8% in the adverse scenario.

Key drivers:

- Increase in loan losses (-4.5 percentage point contribution to the change in the CET1 ratio)
- Lower pre-provision profits compared to the baseline (corresponding to a 1.3 percentage point lower positive contribution the change in the CET1 ratio)
- “Administrative and other expenses” have an impact on the overall results; however, they remain largely unchanged between the baseline and adverse scenario and mainly reflect staff and other administrative costs that regardless of the scenario have a negative impact on banks' loss absorption capacity.

1. Weighted means; excluding the AQR impact on starting point capital
Loan losses and net interest income are key drivers of divergence from baseline to adverse

Aggregate post-JU stress test effect by risk drivers under the adverse scenario

1. Weighted means; excluding the AQR impact on starting point capital
Corporate and retail portfolios are the key drivers of loan losses in both scenarios

Decomposition of loan losses across portfolios and banks under the baseline and adverse scenario

Key drivers
- Loan losses across banks are mainly driven by the corporate and retail portfolios, both under the baseline and adverse scenarios
- Under the baseline scenario, the median CET1 percentage point reduction due to losses is:
  - 0.9% in the corporate segment
  - 0.5% in the retail segment
- Results under the adverse scenario are, however, more severe with a median CET1 percentage point reduction of:
  - 1.6% in the corporate segment
  - 1.1% in the retail segment
Under the adverse scenario, the median decline in NII is larger and more varied across banks

Key drivers
- While the picture is heterogeneous across banks, the median decline in net interest income is larger under the adverse than the baseline scenario
- Moreover, the distribution of changes in net interest income across banks is in general wider under the adverse scenario
RWAs grow in net terms across the horizon, resulting in higher capital requirements

RWA development across banks under the baseline and adverse scenario, year-on-year % changes

Key drivers
- Risk-weighted assets experience net growth across the horizon, albeit at a declining rate
- For the large majority of banks under the static balance sheet assumption, the nominal balance sheet size remains the same by design
- Risk weights for the median bank grow under the baseline scenario from 1.0% in the first year to 0.7% in the third year, and under the adverse scenario 3.2% in the first year to 0.9% in the third year
- Increased RWAs result in higher capital requirements
The stress test impact differs across banks under the static and dynamic balance sheet assumption

Distribution of changes to CET1 ratios across banks following the static vs. dynamic balance sheet assumption under the baseline and adverse scenario, cumulative % changes

Key drivers

- Banks under the dynamic balance sheet assumption are less heavily affected under the baseline scenario.
- In the adverse scenario larger CET1 ratio declines are observed for banks under the dynamic balance sheet assumption. This could reflect that restructuring banks:
  - Are generally weaker and more vulnerable to stress tests.
  - May be located in countries with relatively more severe scenarios.
- In cases where banks provided both, static and dynamic templates, the dynamic version generally resulted in less severe effects.
Join-up results

Join up effect varies by bank but is driven by bank AQR impact

Join-up effect by bank in relation to AQR impact

Key drivers

- Join up effect is highly correlated with the magnitude of AQR findings
- The strongest join-up effect (above 1% of RWA) is observed for banks where AQR had a major impact
- For banks with small or negligible AQR findings, the join-up effects on average were similarly small (<0.2% of RWA)
Impairments are the major driver of join-up effect by change in CET1 in the baseline scenario

CET1 effect of join-up by type (credit vs. other effects) under the baseline scenario

<table>
<thead>
<tr>
<th>Type</th>
<th>Change in CET1 (€ billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impairment on financial assets</td>
<td>8.5</td>
</tr>
<tr>
<td>Changes in fair value</td>
<td>0.2</td>
</tr>
<tr>
<td>Tax benefit from additional losses</td>
<td>2.4</td>
</tr>
<tr>
<td>Other tax effects</td>
<td>1.1</td>
</tr>
<tr>
<td>Dividends and other effects</td>
<td>1.5</td>
</tr>
<tr>
<td>Total</td>
<td>5.8</td>
</tr>
</tbody>
</table>
Distribution of join-up effect by type is similar, but for greater impacts overall, in the adverse scenario

CET1 effect of join-up by type (credit vs. other effects) under the adverse scenario
The post-JU impact of the Stress Test is 0.2% in the baseline and -3.0% in the adverse

<table>
<thead>
<tr>
<th>Stress test component (€ billion)</th>
<th>Stress test results (post-JU)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline</td>
</tr>
<tr>
<td>NII</td>
<td>760</td>
</tr>
<tr>
<td>Net fee and commission income</td>
<td>377</td>
</tr>
<tr>
<td>Net trading income</td>
<td>25</td>
</tr>
<tr>
<td>Sovereign FVO/AFS</td>
<td>-1</td>
</tr>
<tr>
<td>Admin. and other expenses</td>
<td>-865</td>
</tr>
<tr>
<td>Loan losses</td>
<td>-209</td>
</tr>
<tr>
<td>Taxes, dividends and other</td>
<td>-45</td>
</tr>
<tr>
<td><strong>Total CET1 impact (€ billion)</strong></td>
<td>43</td>
</tr>
<tr>
<td><strong>Total CET1 ratio change (percentage points)</strong></td>
<td>0.2%</td>
</tr>
<tr>
<td>of which: Join-up CET1 impact (€ billion)</td>
<td>-6</td>
</tr>
</tbody>
</table>