2021 EU-wide stress test

Summary of results and next steps

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Executive summary

- Banks began the exercise with the higher CET1 ratios compared to all previous EU-wide stress tests.
- This year's scenario is very severe (more so than the one in 2018) and has a different and very specific narrative focused on the impact of the pandemic.
- The results show a high depletion – close to 500 bps – even so banks finish the exercise with a CET1 ratio above 10% on average.
- Credit risk remains the main driver – but there is a higher impact on NII compared to previous stress tests.
- Banks more focused on domestic activities or with lower net interest income (NII) have a higher depletion.
- The baseline scenario results provide comparable information about individual banks in the context of a gradual exit from the pandemic.
- The results will be used as an important input into the SREP process.

Agenda

- EBA 2021 EU-wide stress test
- EU-wide Pilot Exercise
  - Main results and findings
- Looking ahead
  - Top-down versus bottom-up approach to stress testing
  - Incorporating ESG drivers of risk in Stress testing

2021 EU-wide stress test

Introduction

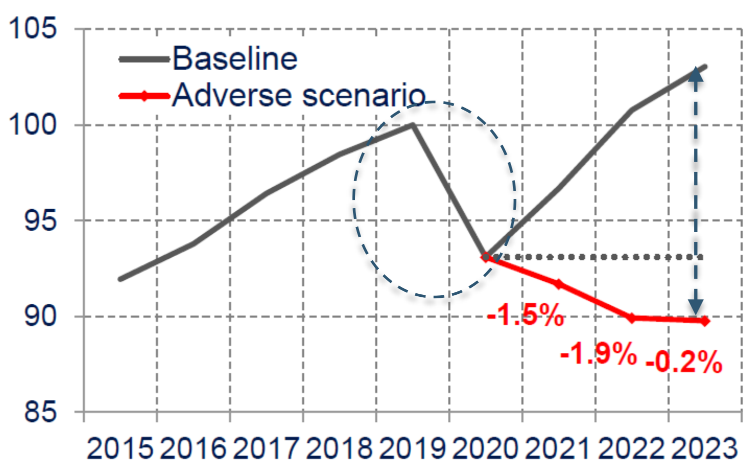
- Initially scheduled for 2020 but **postponed by 1 year as part of the temporary relief measures** decided by the EBA, due to the pandemic.
- 2021 EU-wide stress test involves **50 banks from 15 EU and EEA countries.**
- **Covers 70% of the EU banking sector assets**.
- This year's exercise had **a specific focus on loans under moratoria and PGS loans**.
- This year's stress test is focused on a **very severe adverse scenario that assumes a prolonged Covid-19 scenario in a lower-for-longer interest rate environment**:
- A separate "instantaneous" scenario is provided for testing banks' market risk.
- From 1 January 2021 onwards moratoria are assumed to expire. Exposures under PGS are assumed to keep their guarantee throughout the stress test horizon.

Adverse scenario is a prolonged COVID-19 pandemic

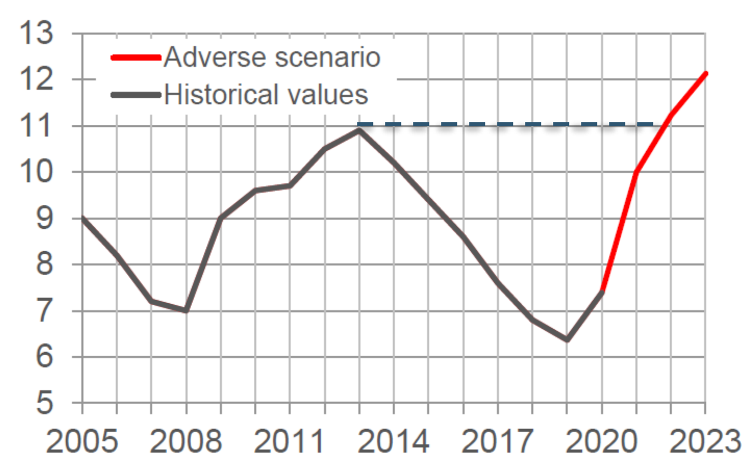
- The **adverse scenario** reflects ongoing concerns about the possible evolution of the COVID-19 pandemic in a lower-for-longer interest rate environment;

- **Cumulative GDP EU27** – 3.6% below end-2020 level and 12.9% below baseline at the end of the horizon. Economic slowdown leads to a cumulative **increase of the EU27 unemployment rate** amounting to 4.7% to 12.1% at the end of 2023. Accordingly, economic activity in **other major regions** is affected materially.

EU27 GDP level (2019 level = 100)



EU27 Unemployment rate (percentages)



Source: ESRB, Adverse scenario for the EBA 2021 stress test, EBA technical briefing for the press.

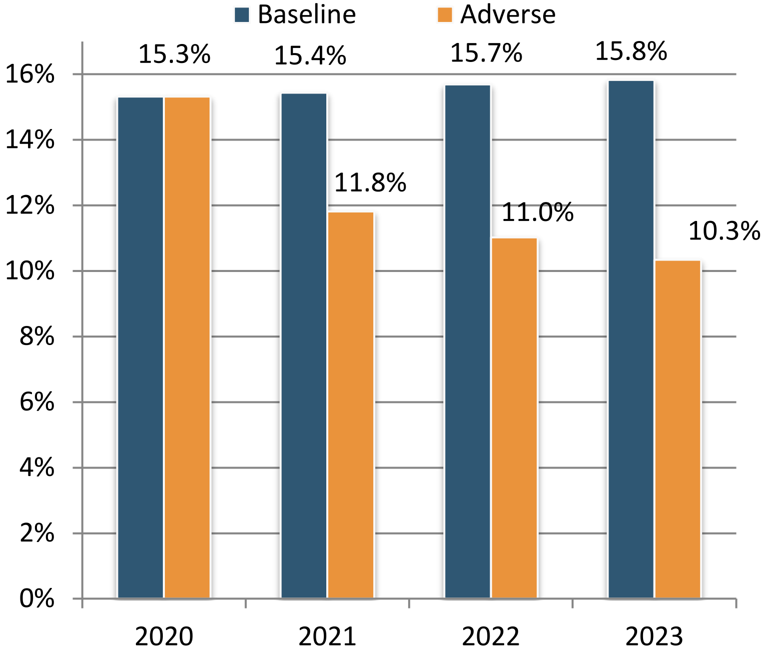
Key economic shocks in adverse scenario

- Besides the GDP decline and the increase of unemployment **the key economic shocks in the** adverse scenario are:
  - A falling Harmonised Index of Consumer Prices (HICP) in the EU, with the adverse level being 1.5% lower than the baseline level in 2023;
  - A decrease in residential property prices by 21.9% below the baseline level by 2023, which corresponds to a cumulative fall in residential property prices over the scenario horizon by 16.1% at the EU aggregate level.
  - A cumulative fall of commercial real estate (CRE) prices from the starting point amounts to 31.2% for the EU due to a stronger impact of COVID-19 on the CRE.
  - An increase of long-term rates by 53 bps in aggregate EU terms at the 3-year horizon, while the equities drop in the first year by 50% for Europe and the Developed World.

2021 ST results – Impact on EU aggregate CET1 ratio

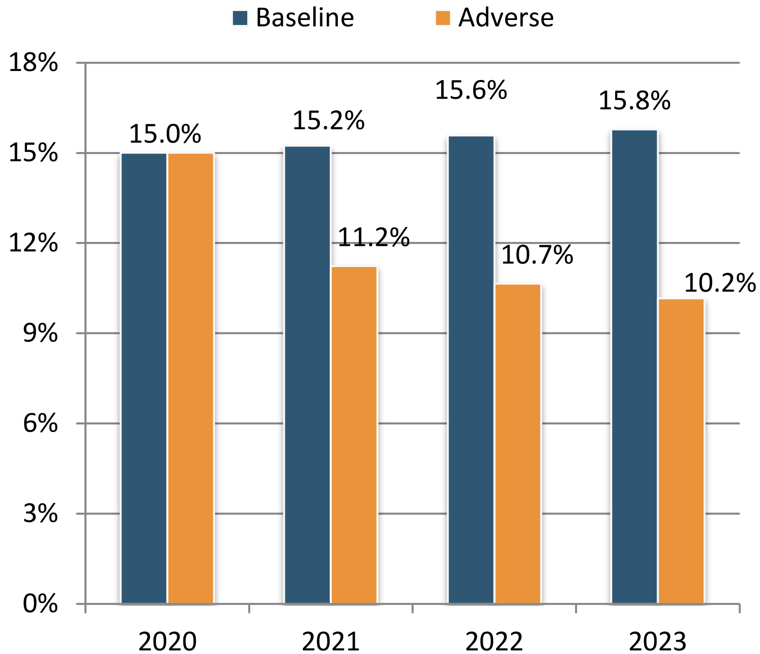
Transitional – starting point 15.3%

- Stress test impact: -497bps
- Capital depletion: €273bn
- Increase of total REA: €866bn



Fully loaded – starting point 15%

- Stress test impact: -485bps
- Capital depletion of €265bn
- Increase of total REA: €868bn



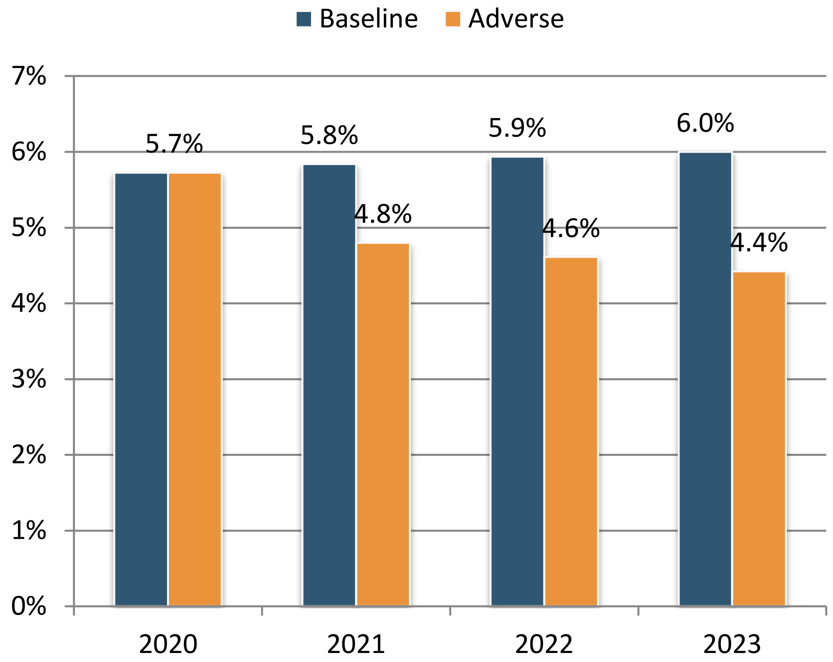
The impact (adverse) on CET1 capital ratio varies significantly across banks, ranging from a minimum decrease of -80 bps to a maximum decrease of -1,179 bps (transitional) or -80 bps to -996 bps (fully loaded).

The CET1 ratio impact in the 2018 EU-wide stress test amounted to 410bps transitional and 395bps fully-loaded.

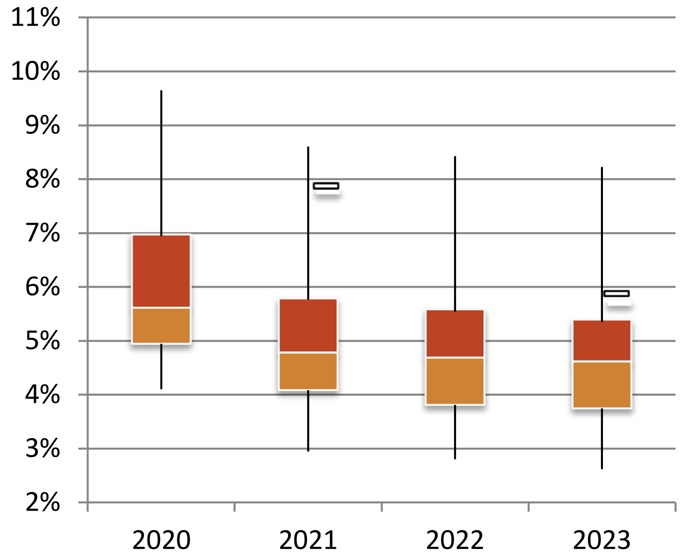
In the baseline scenario, banks' CET1 ratio increase by 51bps on transitional (78bps on fully-loaded) basis.

2021 ST – Impact on leverage ratio (transitional)

Evolution of aggregate leverage ratio (%)



LR dispersion – 5th and 95th percentiles, interquartile range and median in the adverse scenario (%)

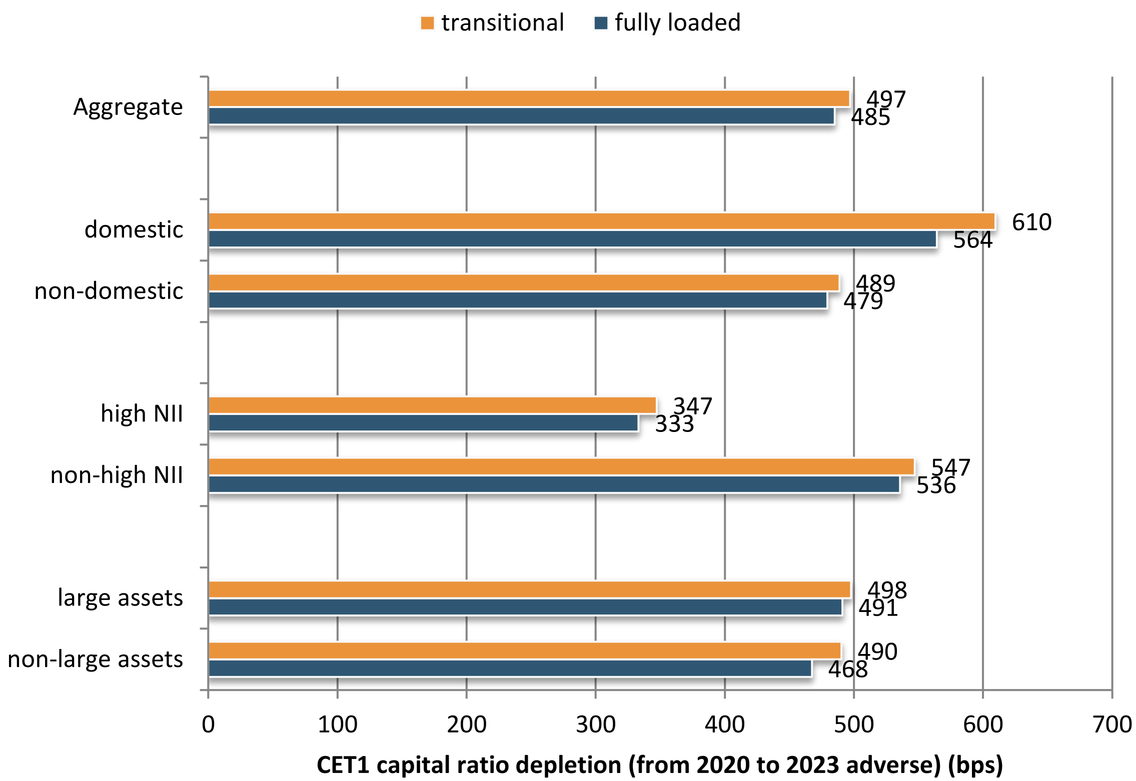


Transitional leverage ratio falls from 5.7% in 2020 to 4.4% in 2023 – adverse.

Drop solely due to decreasing T1 capital, as leverage exposure remain constant.

In the adverse scenario, four banks report a ratio below 3% for every year of the stress test horizon

Impact on EU aggregate CET1 ratio by bank cluster



Cumulative capital depletion of 497 bps transitional (485 bps fully loaded)

Banks more focused on domestic market have higher depletion than more geographically diversified banks

Banks with higher Net Interest Income have lower capital depletion than other banks

The size of banks (in terms of total assets) is not a key driver for capital depletion

Credit risk impact

- As a consequence of the severity of the scenario the **stock of provisions** more than doubled over the stress test horizon (+127%). The increase is higher than in 2018 exercise (+100%)*
- The **increase of provisions for stage 3 exposures** is higher (161%) and widely above the increase reported in 2018 (+106%).
- The **starting point of banks in terms of credit risk** was better than in 2018 (e.g. the share of stage 3 exposures at the starting point is 2% in 2021, as reported in the following slide; it was 3% in 2018)
- The combination of a **more severe scenario** and a **better starting point for banks** resulted in a **Credit risk impact on the CET1 ratio of -423 bps** - in line with the previous exercise (-425 bps).

* The sample of banks involved in the 2018 stress test was different from the one of the 2021 exercise.

EU-wide pilot exercise on climate risk

Introduction

First EU-wide exercise run on climate risk: paving the way for future EBA work on climate risk:

- **EBA is very grateful to the participating banks**; smooth and open exchange achieved.
- **No focus on capital implications**: not a stress test but a first step to get there.
- **Moving away from the "unknown"**: learning by doing project for analyzing key issues to address to move forward.
- **Experience gained in mapping exposures:** starting points estimates and overview of the main data and methodological challenges.
- **Testing banks' readiness to apply the EU taxonomy**: lessons learnt, raising awareness.

Key features

- **Objectives**:
  - Explore **main data and methodological challenges** for banks to assess climate risks.
  - First attempt to collect data based on the EU green taxonomy.
- **Core Analysis**
  - Scenario Analysis to explore methodologies and scenarios
  - Multiple data classification approaches used
    - Sector-based (NACE level 4), GHG emissions-based, EU green taxonomy classification
- **Data scope**
  - Non-SME corporate exposures (IRB and STA) towards EU countries (non-financials) at obligor level.
  - Data collection from beginning of May to mid-December 2020.
- **Sample**
  - Voluntary exercise: 29 banks from 10 jurisdictions, covering 50% of EU banking system total assets.
  - Heterogeneous business models: commercial banks, public banks, saving banks, cooperative banks

Scenario analysis - findings

- **Exploratory scenario analysis (run jointly with the ESRB/ECB)**

Distribution of losses in the two scenarios
(*Expected loss over RWA of submitted exposures, bps*)

	Disorderly	Hot House
P10	58	65
P25	92	107
P50	146	167
P75	199	213
P90	321	343
EU average	**160**	**175**

→ **Model:** 30-year horizon but static balance sheet analysis

→ **Scenarios**: NGFS reference scenarios are a good starting point. However, they lead to similar results despite different degree of severity (in line with other ESAs results).

Looking ahead

What’s next?

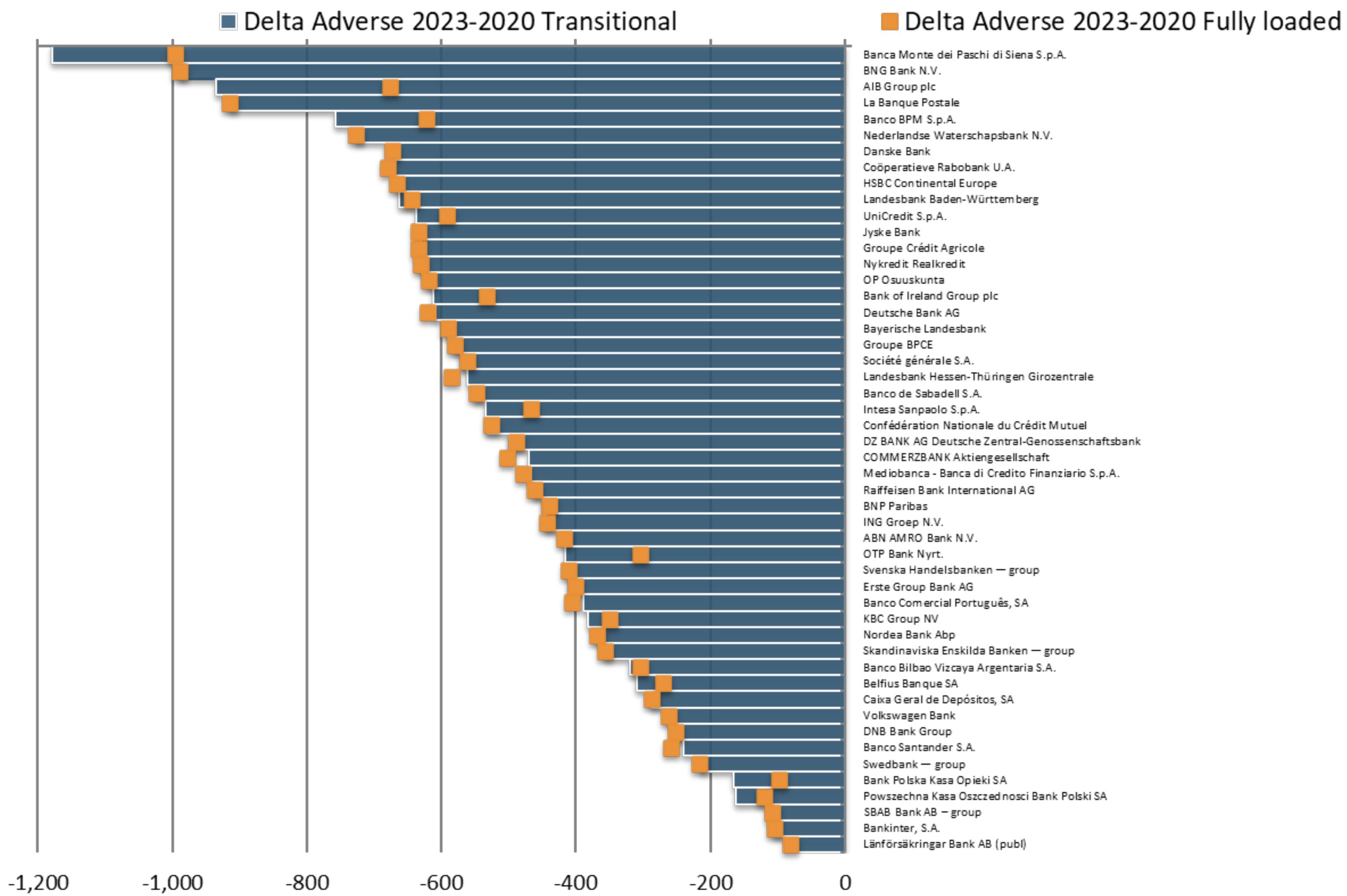
- **EU-wide stress test**
  - Continue to improve realism.
  - Increase efficiency.
  - Introduce a “hybrid” approach, whereby the constrained bottom-up approach could be complemented by top-down elements for some risk areas.
- **Climate risk stress test**
  - Take learnings from the EBA pilot exercise and others exercise run by EU CAs.
  - Exploring data challenges and methodological issues.
  - Format and approach still being considered.

ANNEX I: Summary and bank-by-bank results

Summary of impacts - Key results, aggregate EU level

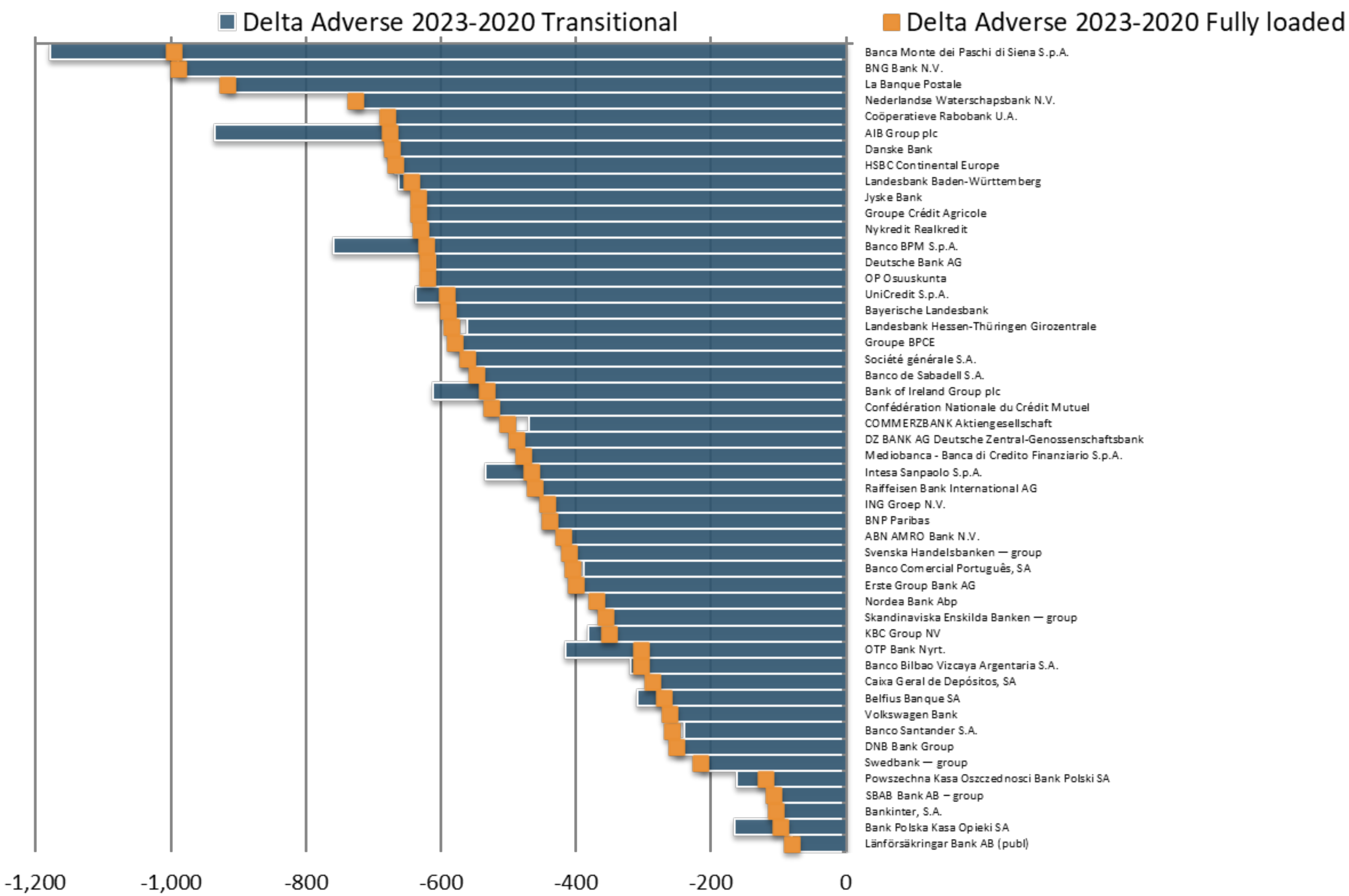
Metric	Starting 2020	Baseline 2023	Adverse 2023	Delta baseline 2023 - 2020	Delta adverse 2023 - 2020
Transitional CET1 capital ratio	15.3%	15.8%	10.3%	51 bps	-497 bps
Fully loaded CET1 capital ratio	15.0%	15.8%	10.2%	78 bps	-485 bps
Transitional leverage ratio	5.7%	6.0%	4.4%	28 bps	-130 bps
Fully loaded leverage ratio	5.6%	6.0%	4.3%	39 bps	-124 bps
Transitional CET1 capital	1,115 bn	1,180 bn	843 bn	65 bn	-273 bn
Transitional total REA	7,284 bn	7,455 bn	8,149 bn	172 bn	866 bn
Fully loaded CET1 capital	1,093 bn	1,176 bn	828 bn	84 bn	-265 bn
Fully loaded total REA	7,279 bn	7,451 bn	8,148 bn	172 bn	868 bn

Bank-by-bank impact, order by size of transitional impact



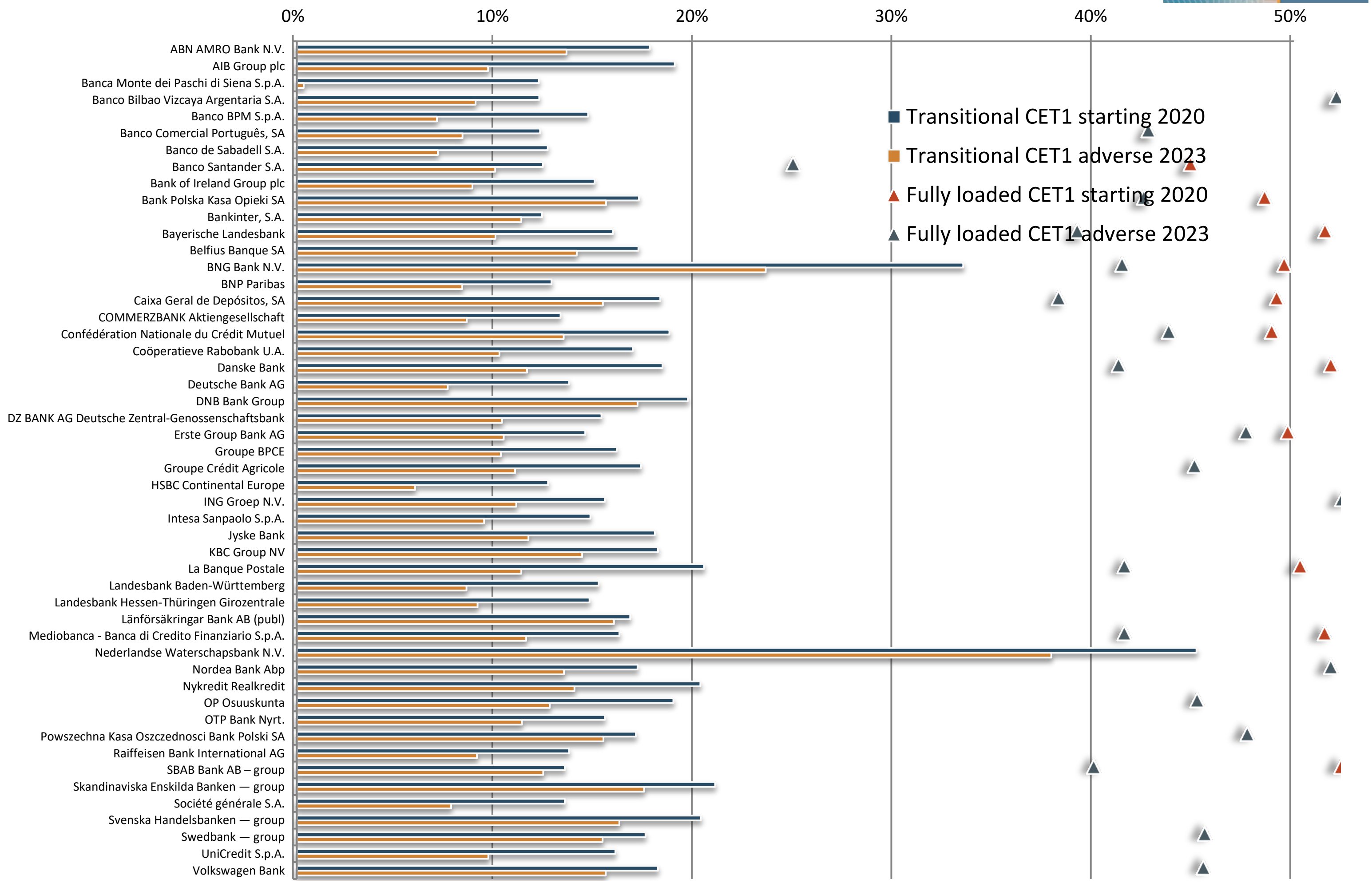
25% of the banks report a decrease above 631bps, with another 25% of banks reporting a decrease below 360bps.

Bank-by-bank impact, order by size of FL impact



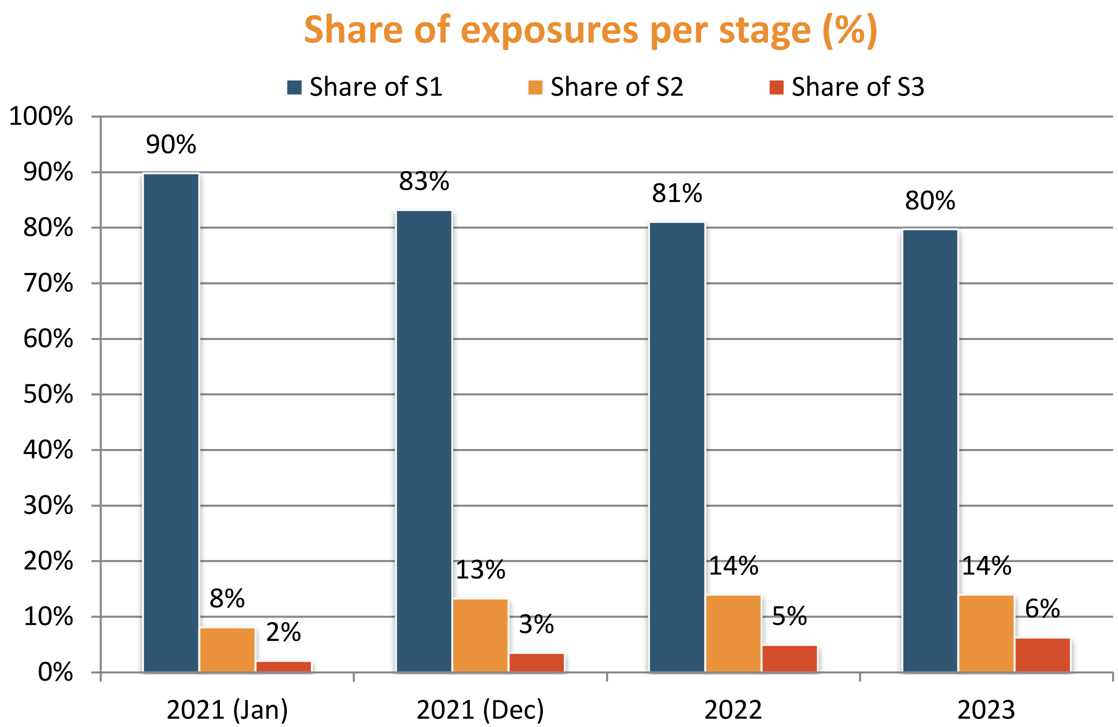
25% of the banks report a decrease above 621bps, with another 25% of banks reporting a decrease below 315bps.

Bank-by-bank CET1 ratio, starting and end point (%)



Large dispersion also of banks' capital position at the starting and end-point. CET1 ratios range from 12.1% to 45.1% on a transitional basis (from 9.9% to 45.1% on a fully loaded basis) at the end of 2020 and from 0.3% to 37.8% on a transitional basis (from -0.1% to 37.8% on a fully loaded basis) at the end-2023 adverse scenario.

Evolution of credit risk exposures by stages



The share of stage 1 exposures decreased over the 3 years of the stress test horizon by 10pp, reflecting moves to stage 2 and stage 3. The share of stage 2 and stage 3 exposures increased by 6pp and 4pp respectively. In 2023, the share of stage 2 and stage 3 exposures stands at 14% and 6%, respectively.

Banks with high exposures towards the sectors most affected by COVID-19 show higher flows to stage 3 than the aggregate (above 2% per year vs. 1.5% per year for the aggregate). The share of stage 3 exposures for these banks increased from ca. 3% in 2020 to 9% in 2023.

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