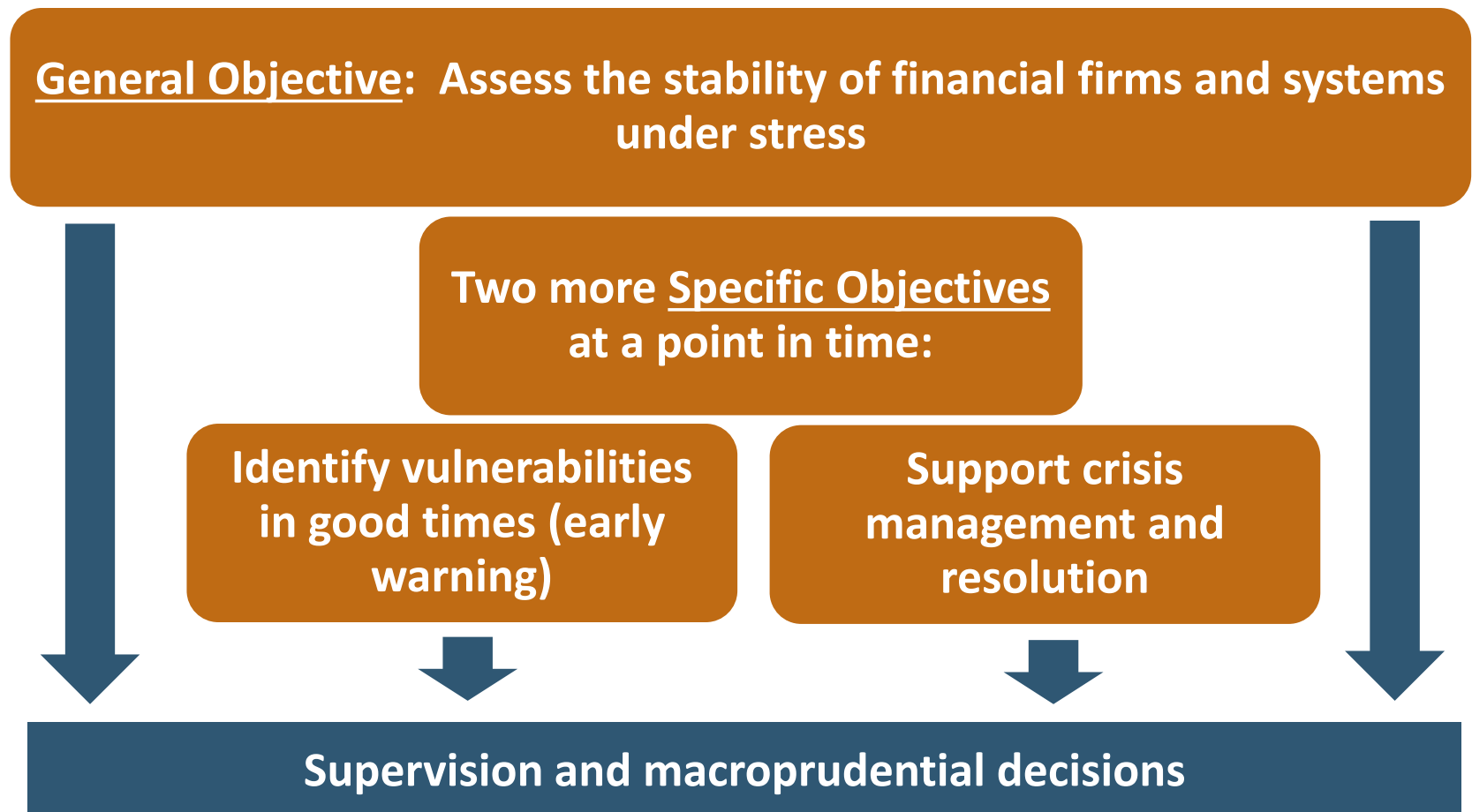


# Stress Testing

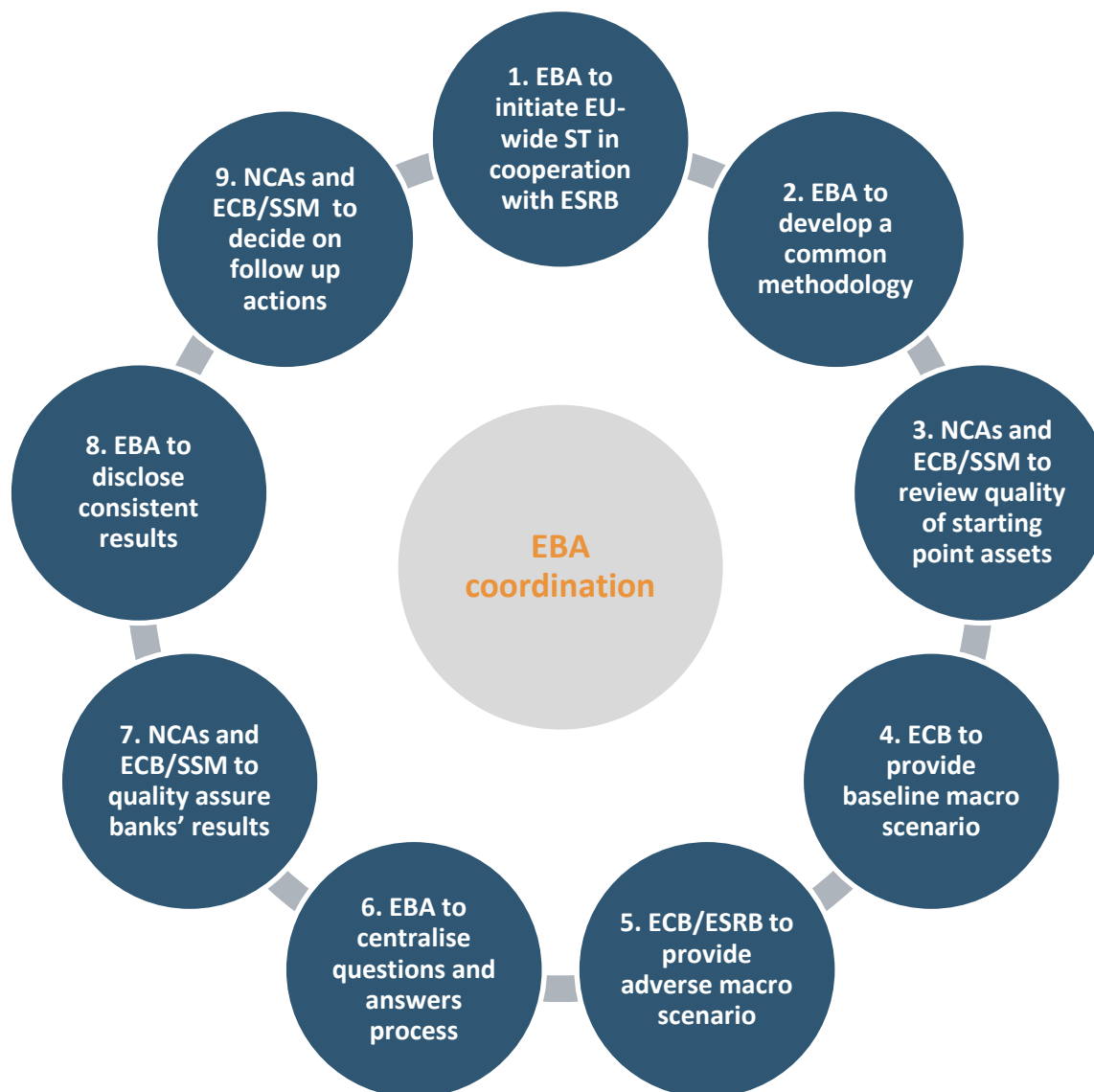
Mario Quagliariello | Director Economic Analysis and Statistics

FBF Online Seminar | 27 February 2019

# The objectives of stress testing



# How the EU-wide stress testing works



# 2018 EU-wide stress test – Main features

## Constrained bottom-up

- Conducted by banks following a **bottom-up** approach
- Static balance sheet**
- Banks' projections are subject to conservative **constraints** that are included in the EBA methodology

## Not a pass-fail exercise but an input for SREP

- The 2018 exercise is **not a pass-fail** exercise, i.e. not capital threshold was defined.
- Input** for the supervisory review and evaluation process (**SREP**) under the responsibility of competent authorities.
- All main regulatory capital ratios are assessed including **fully loaded ratios** and the **leverage ratio**.

## Common baseline and adverse scenarios over three years

- The stress test is based on a common **baseline** and **adverse** scenario.
- 3 years time horizon (**2018 – 2020** based on data as of end-2017).

# Poll Question 1

Should also the EU move towards a top-down stress test like in the US?

YES

NO

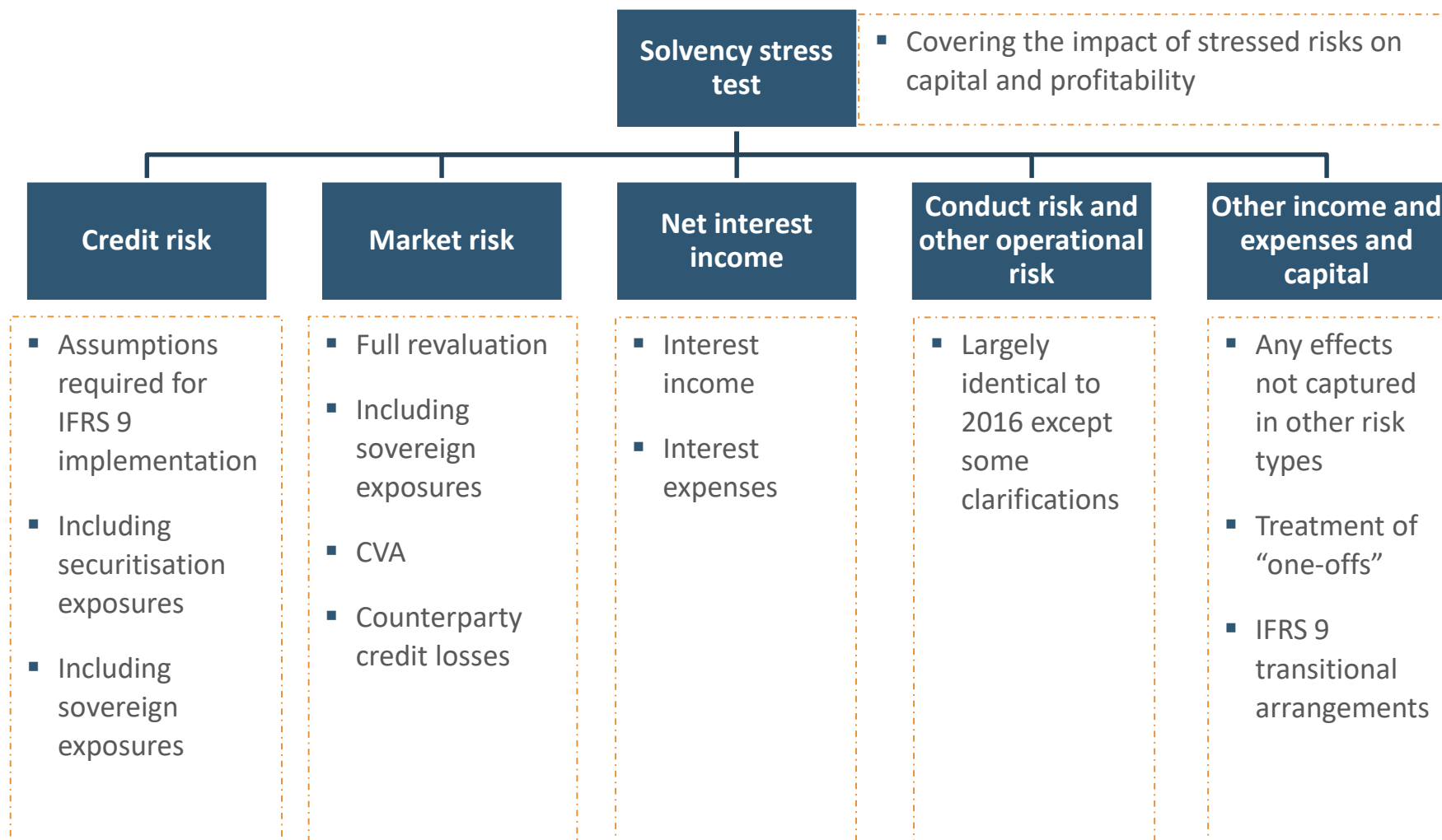
## No pass/fail: why?



- **Pass/fail** exercise are seemingly easier to interpret, but may give a sense of false security
- What is resilience? Capital available for absorbing shocks vs little sensitivity to shocks?
  - Banks with strong capital positions, but very sensitive to the adverse scenario
  - Banks with weaker starting points, but less sensitive
- Lack of capital thresholds (and possible shortfall) makes the results less intuitive (and less media-friendly), but allows to focus on impacts, vulnerabilities and areas for improvement.

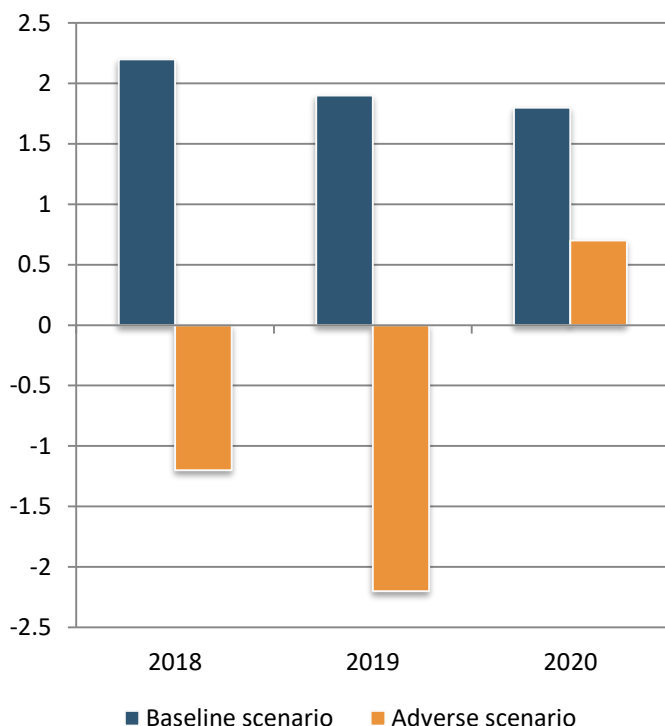


# 2018 EU-wide stress test – Scope



# Macroeconomic adverse scenario for the 2018 stress test

## European Union GDP growth rates



(annual average percentage deviations from baseline levels)

Stock markets shock	2018	2019	2020
EU	-29.9	-27.2	-21.5

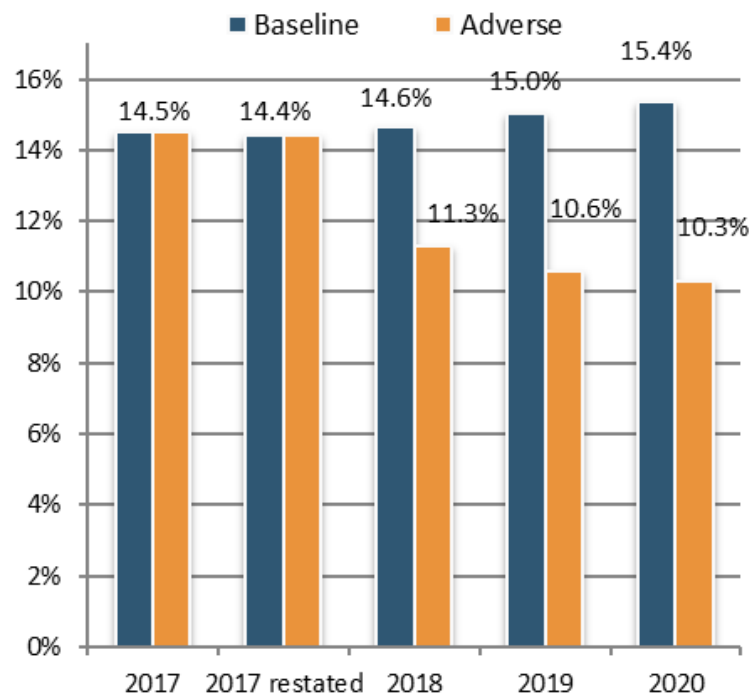
- Scenario defined inter alia for GDP dynamics, unemployment, long-term interest rates, stock prices, CRE and RRE prices, inflation
- EU GDP in adverse scenario is projected to deviate from its baseline by 8.3% in 2020
- Cumulative GDP growth in the advanced economies between 2.5% and 7.4% lower than under the baseline scenario in 2020
- Among the main emerging economies, the total GDP between 3.3% and 5.6% below the baseline, with a strong impact for India, Russia and Turkey
- Shock in the residential and commercial real estate prices, as well to foreign exchange rates in Central and Eastern Europe under the adverse scenario



# 2018 ST results – Impact on EU aggregate CET1 ratio

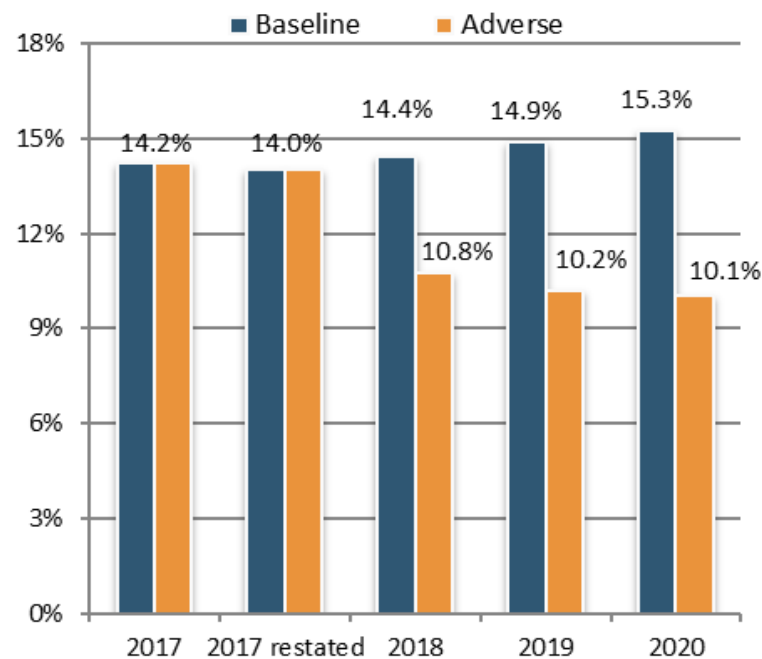
## Transitional – starting point 14.5%

- IFRS 9 first implementation: -10bps
- Stress test impact: -410bps
- Capital depletion: €236bn
- Increase of total REA: €1055bn

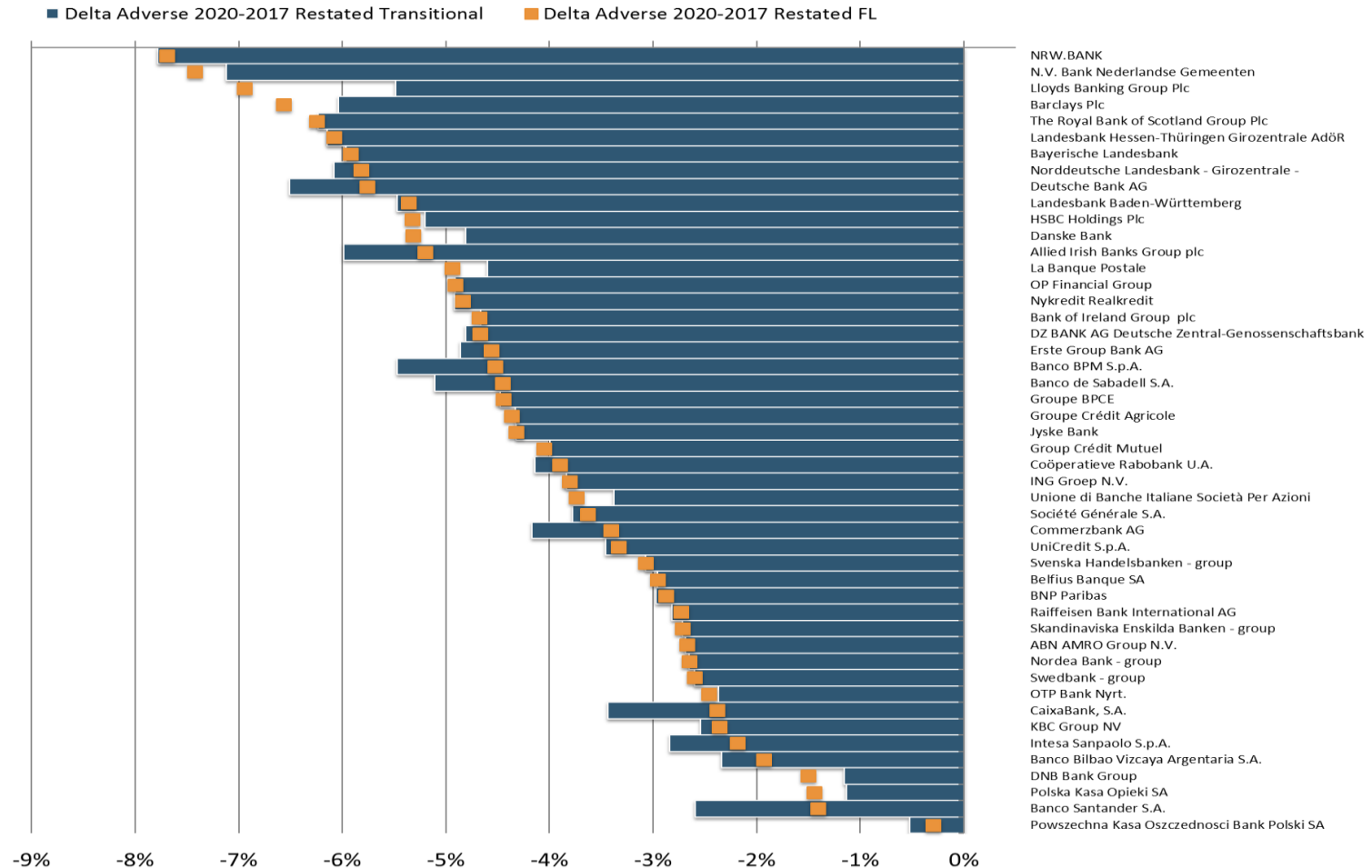


## Fully loaded – starting point 14.2%

- IFRS 9 first implementation: -20bps.
- Stress test impact: -395bps
- Capital depletion of €226bn
- Increase of total REA: €1049bn



# Bank-by-bank impact, order by size of FL impact (pp)



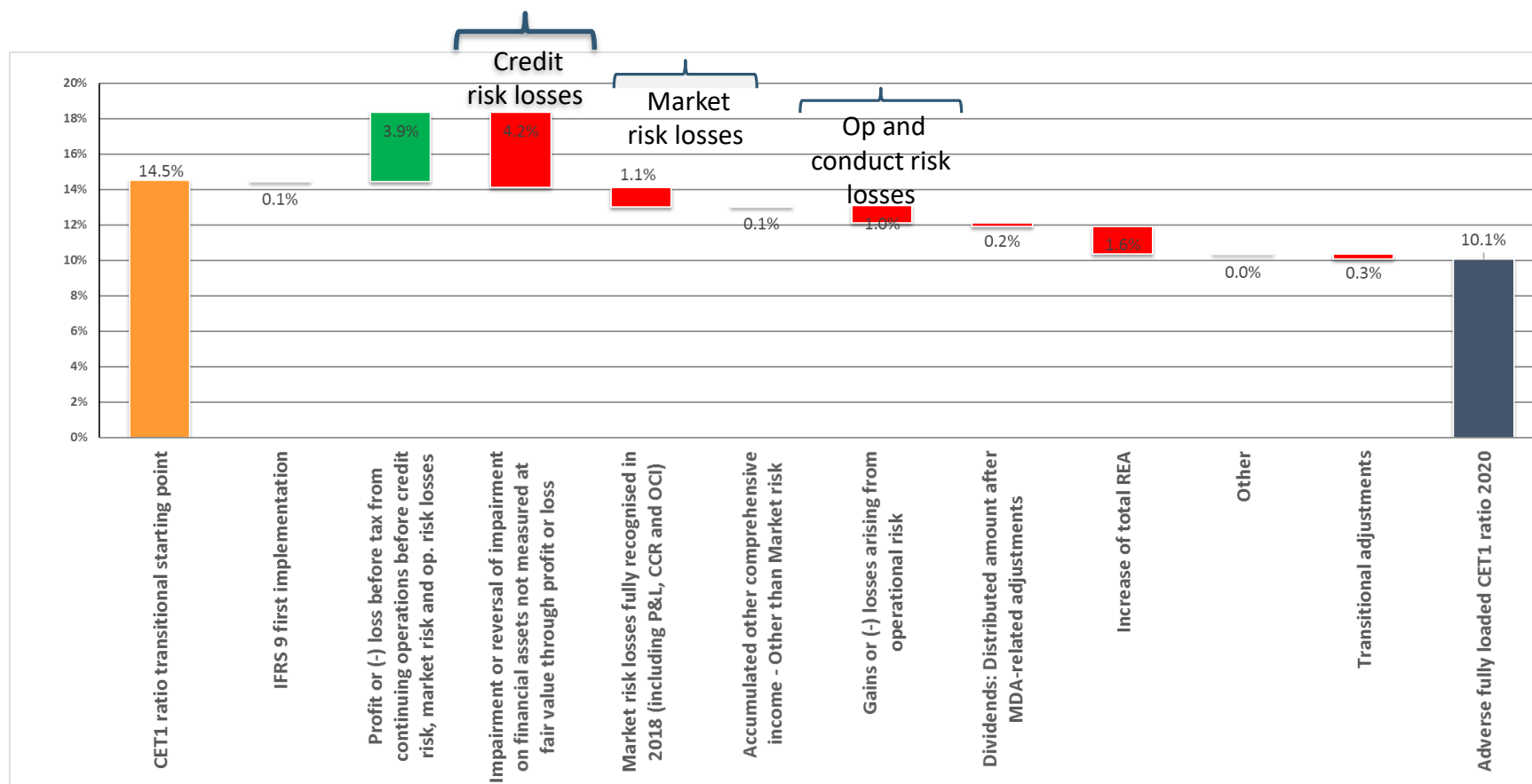
The impact of the stress test on FL CET1 capital ratio also varies significantly across banks, ranging from a decrease of -30 bps to a maximum decrease of -769 bps.

## Poll Question 2

Have you ever searched online for bank-by-bank EU-wide stress test results?

1. Yes, very often
2. A couple of times
3. Never
4. I did not know data was available

# Aggregate waterfall



Credit losses have the highest impact: -€358bn, -424bps (-370bps in 2016)

REAs increase by 12% compared to 2017, with a negative impact on capital of 160bp

Market risk shock (including OCI): -€94bn, -110bps (-100bps in 2016), of which -40bps is OCI

Op. risk: -€82bn, -97bps (-110bps in 2016), mostly conduct risk, -64bps (-80bps in 2016)

# What we have learnt

- A severe exercise, with the highest impact in terms of CET1 ratio depletion (410 bps), because of the severity of the scenario and IFRS 9 implementation
- Overall, EU banks proved to be resilient on average also thanks to strong initial capital positions and improvements in credit quality. But the stress test also confirmed that low profitability remains a challenge, especially for some banks
- The results vary bank by bank and it is difficult to identify a clear country pattern, with better and worse performers in all countries
- The EU-wide stress test doesn't cover all possible sources of risks:
  - Disclosure of individual exposures is a necessary complement to stress test results
  - Stress test is the starting point of the wider SREP assessment

## However....

- A complex exercise, involving significant resources
- Informative on potential risks and vulnerabilities, but constraints considered as not realistic (but reality can be worse than unrealistic constraints!)
- Calibration of constraints sometimes perceived as more judgmental than model-based
- If constraints are binding most of the times, a bottom up turns into a top down
- Static balance sheet creates a lag between results and supervisory decisions
- Supervisory decisions are not disclosed

What's next? Work in progress!

# Poll Question 3

Should banks be left free to use internal models for ST without constraints?

1. Yes, this would make the exercise more realistic.
2. No, this would make the exercise less credible and conservative.
3. I have no clue what methodological constraints are



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