



EUROPEAN CENTRAL BANK

BANKING SUPERVISION

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Euro area banks after the 2016 Stress Test

Conference on

“The Strengths and Weaknesses of European Banking”

Imperial College, London

26th September 2016

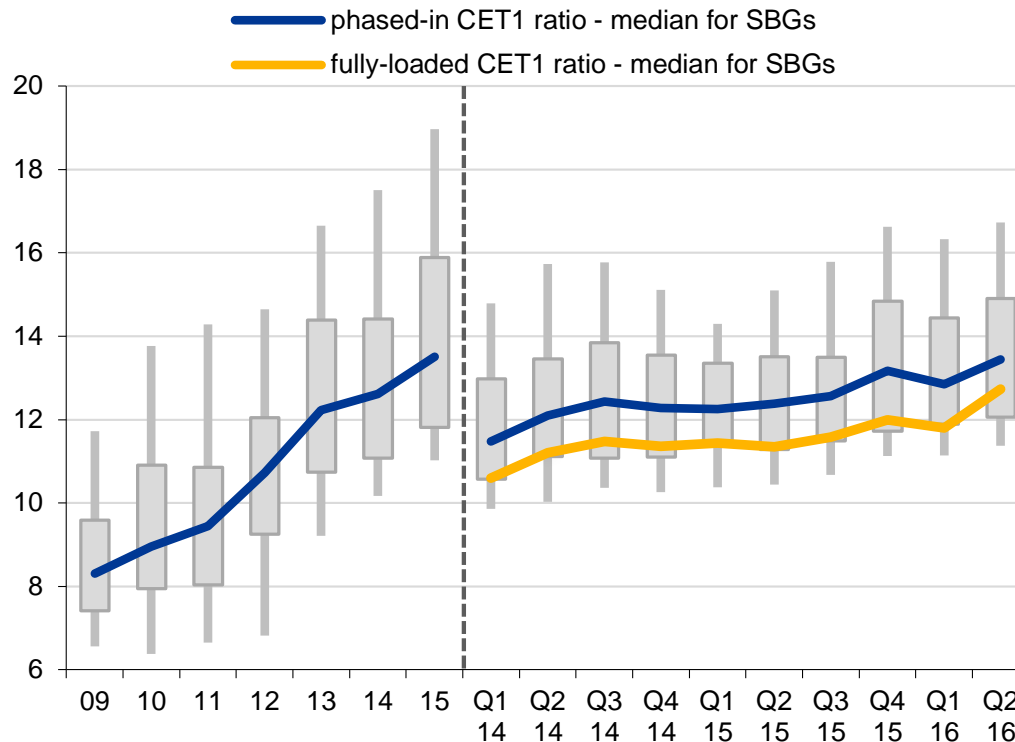
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Overview

- 1 Introduction
- 2 Stress test methodology and scenarios
- 3 Overview of stress test results
- 4 Specific issues
- 5 Conclusions

Phased-in and fully-loaded common equity Tier 1 (CET1) ratios of euro area significant banking groups

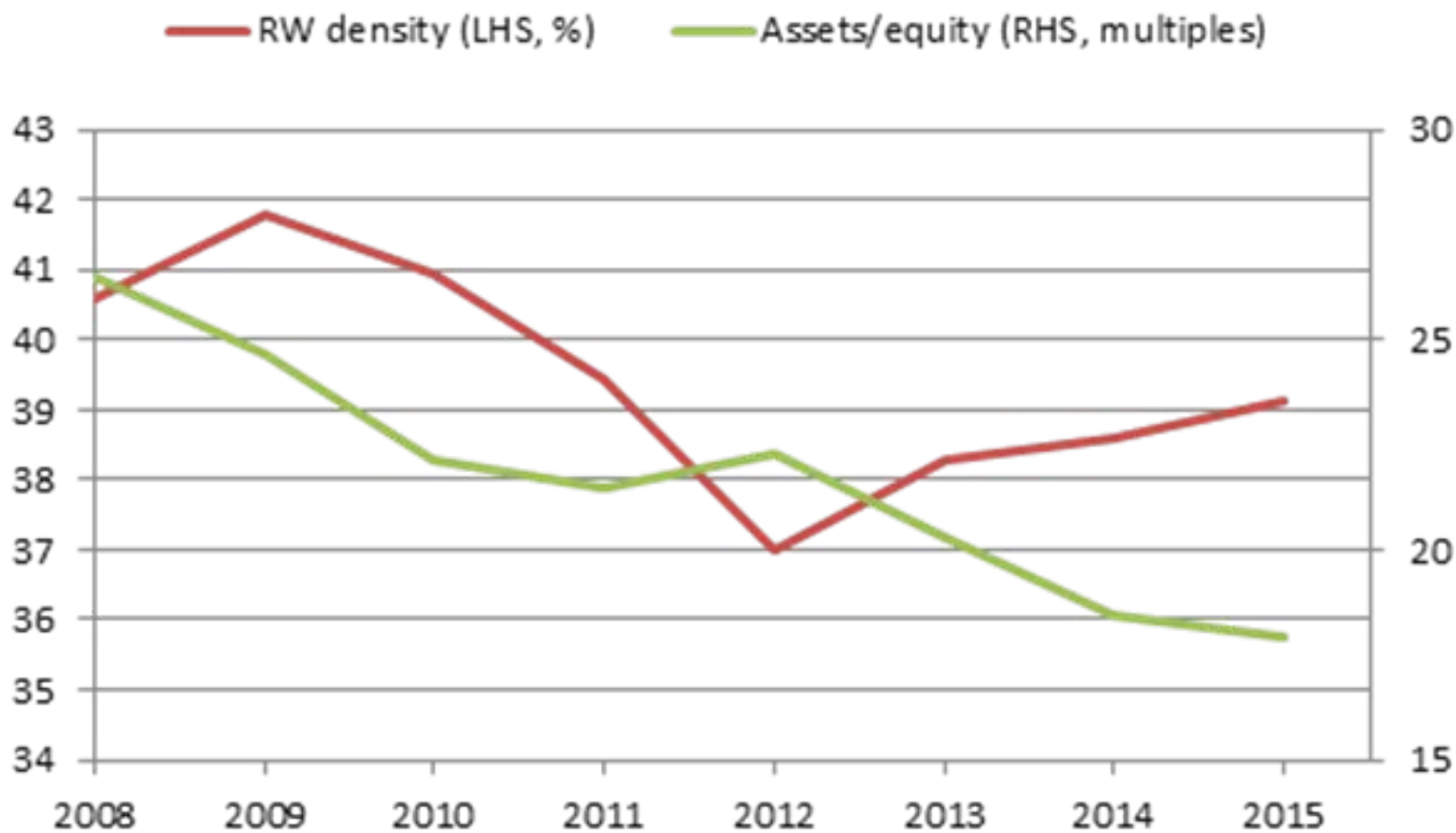
(2009 – Q2 2016; percentages; phased-in CET1 ratio: 10th and 90th percentile and interquartile range distribution across SBGs; fully-loaded CET1 ratio: median)



Source: SNL Financial.

Note: Quarterly data are based on a sample of 52 (phased-in) and 45 banks (fully-loaded).

Background: RWA density and leverage



63 large euro area banking groups. Source: ECB calculations

Overview

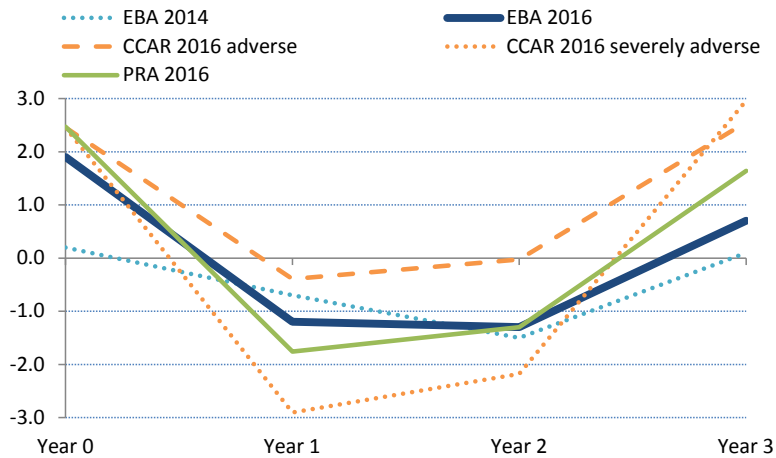
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- The **EBA** coordinates the execution of the stress test at EU level
- The **EU Commission** forecast provides the baseline macro scenario
- The **ESRB** provides the adverse scenario
- For the **euro area**, the **ECB/SSM**
 - conducts the EBA stress test on 37 large institutions under its direct supervision (the result are published by EBA)
 - executes “supervisory” stress tests on a number of other banks under its direct supervision, using a similar methodology (the results remain internal)
 - feeds these results with other information into the Supervisory Review and Examination Process (SREP), to determine the prudential requirements of each bank.

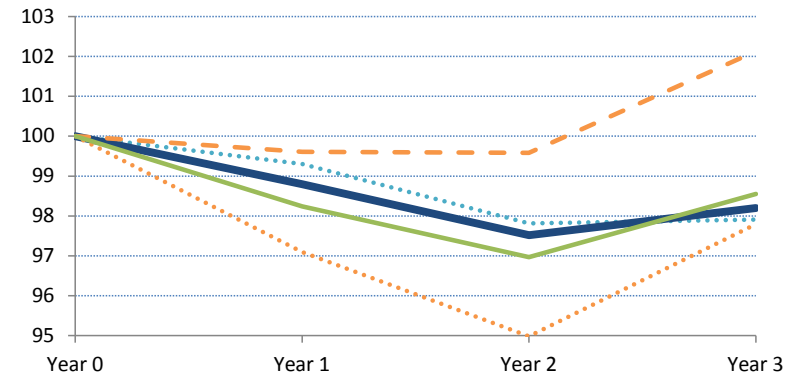
- **“Constrained bottom-up” approach:** each bank calculates the impact of the two scenarios (baseline and adverse) on its own balance sheet, with a common methodology, subject to quality checks by the ECB
- **Time horizon:** Base-year is 2015; scenarios extend over a period of 3 years
- **Static balance sheets:** Balance sheet composition is kept constant; assets and liabilities that mature within the time horizon are replaced with similar financial instruments
- **No hurdle rates:** No minimum capital thresholds automatically determining capital shortfalls. The results are used in the SREP together with other supervisory information (more on this later)
- **Conservative treatment of certain risks:** FX lending, ratings downgrades, market risks on AFS/FVO, op. and conduct risk

Adverse scenario assumes a severe economic downturn with interest rate rise

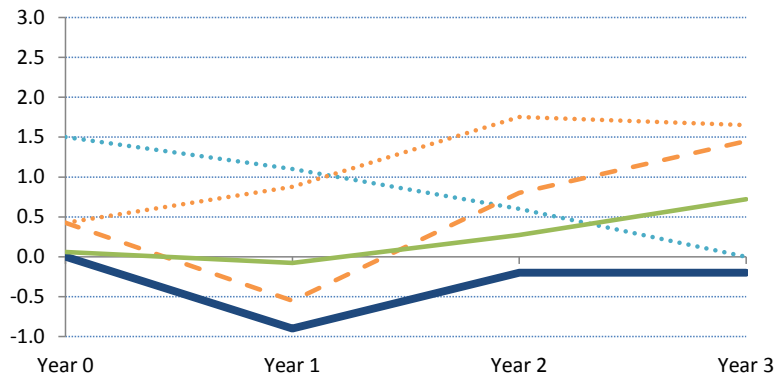
Annual real GDP growth (%)



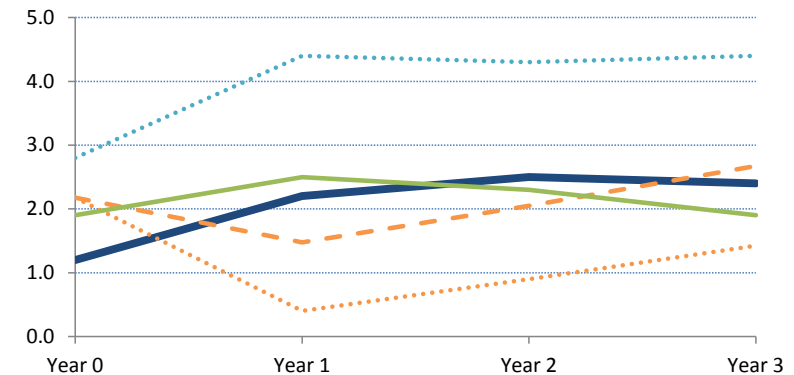
Real GDP level (year 0 = 100)



HICP/CPI inflation (%)



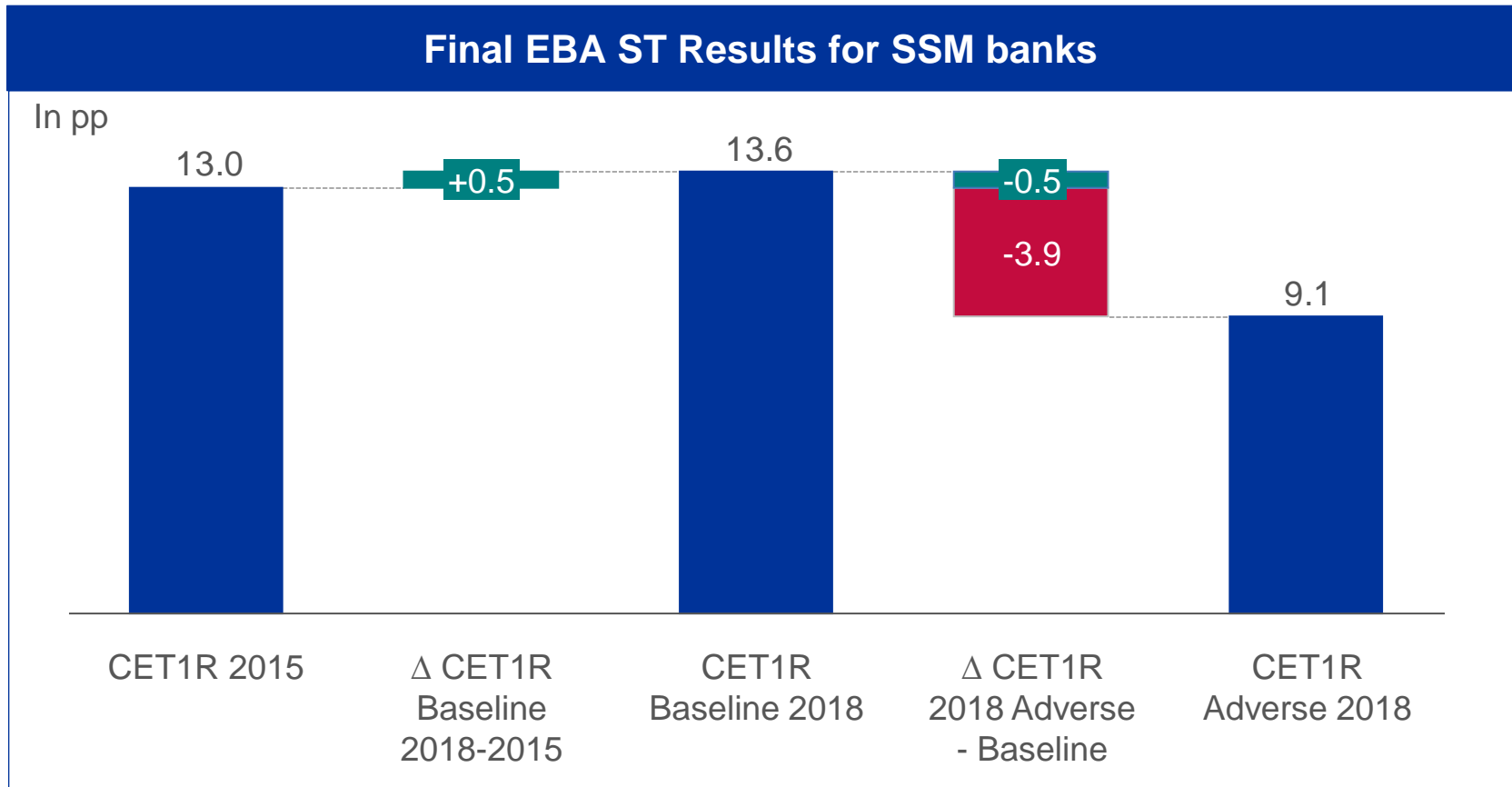
10-year government bond yields (%)



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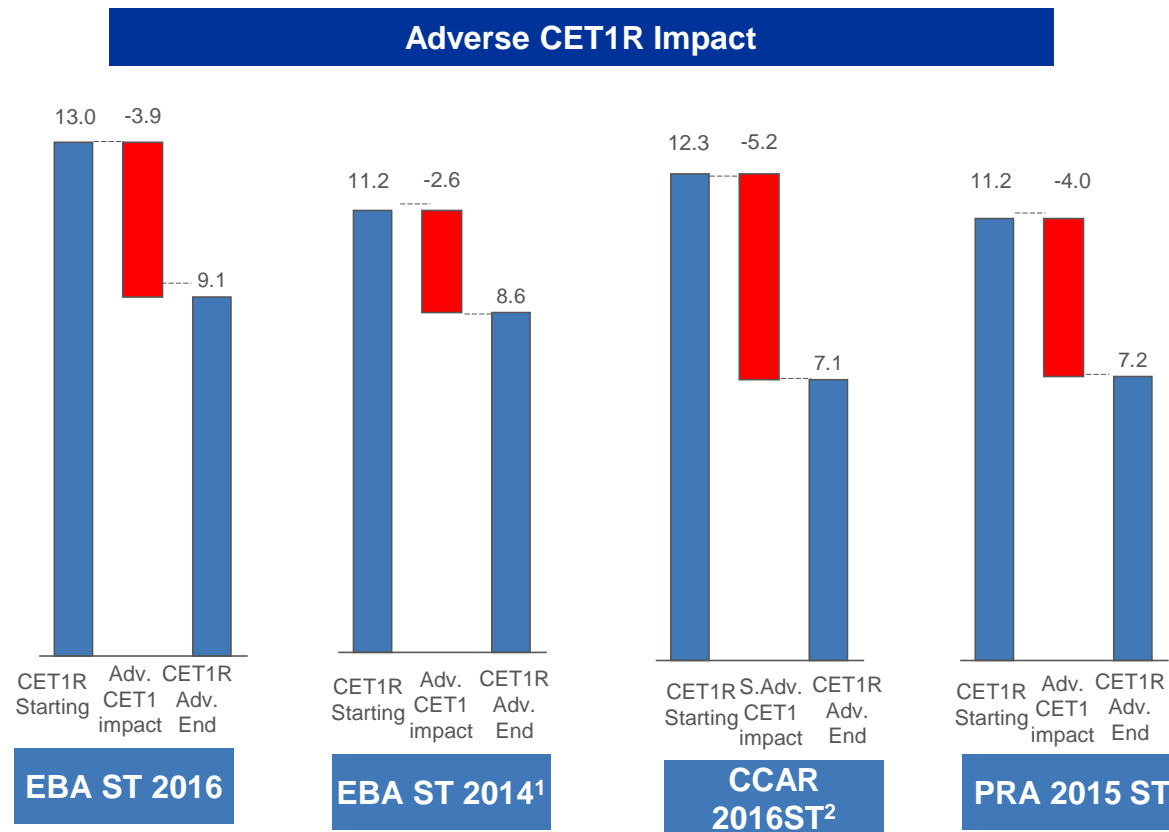
Adverse CET1R impact of -3.9pp on average*



* Weighted by RWA

Note: Numbers may not match due to rounding

Capital depletion: comparison across different stress test exercises

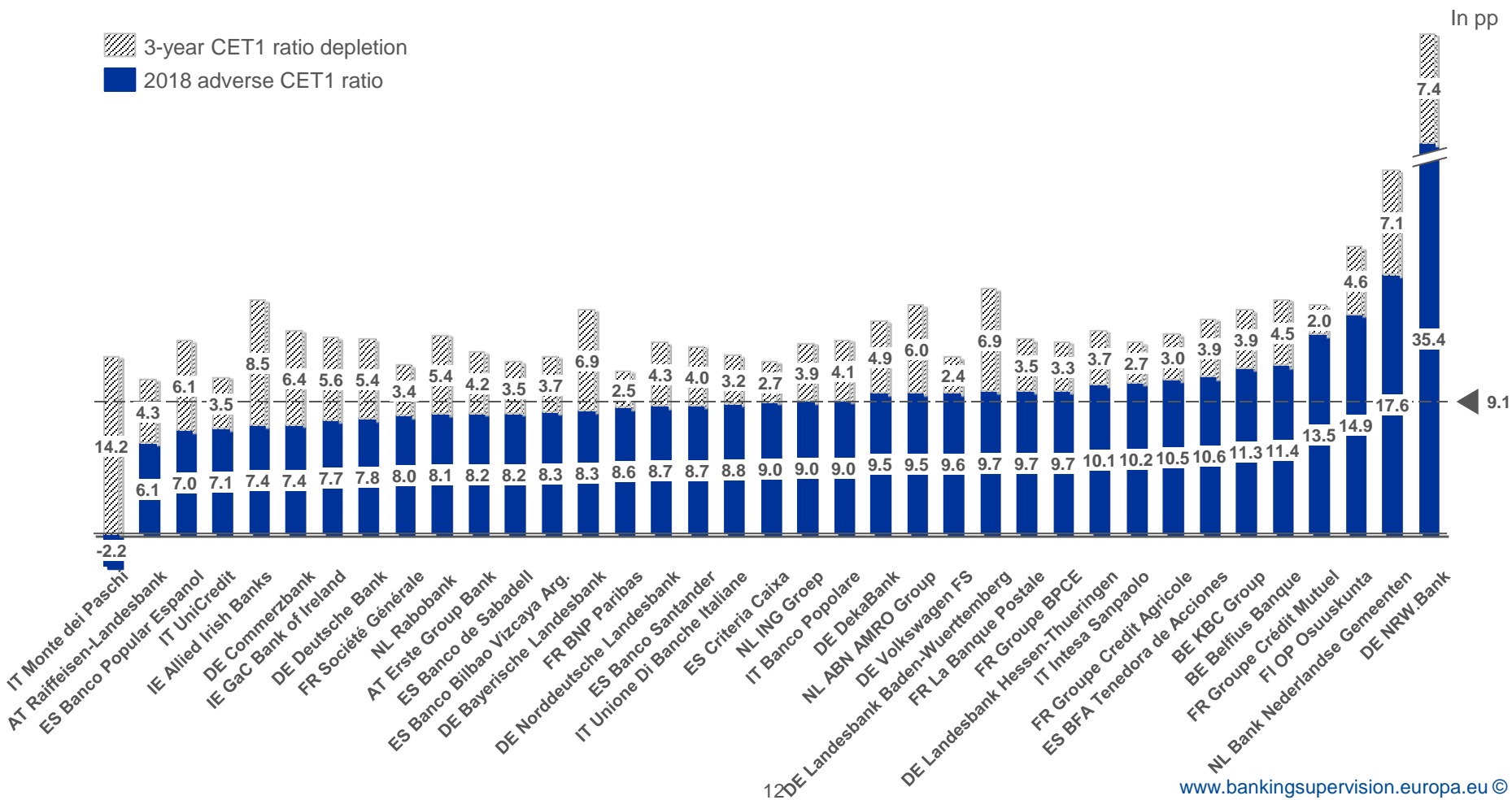


The comparison is not straightforward due to differing timeline and scenarios: ST horizon; EBA ST (12 quarters), CCAR ST (9 quarters), PRA ST (20 quarters); CCAR ST considers 3 scenarios: base, adverse and severely adverse.

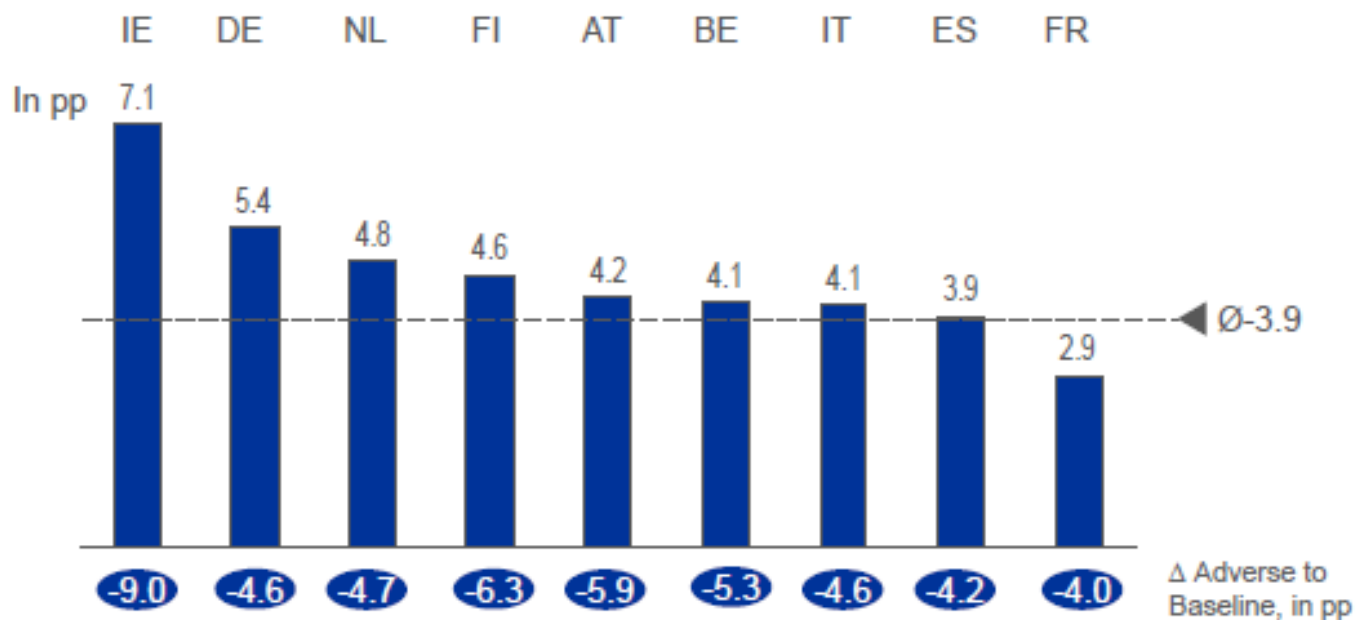
¹ Only SSM banks included in the EBA ST 2016 were included in the results of the EBA ST 2014 | ² Severely adverse scenario. Adverse impact : 3.9pp. Note: Numbers may not match due to rounding.

CET1R adverse impact

2018 CET1R – Adverse scenario



CET1 ratio depletion by country



Decomposition of CET1R impact

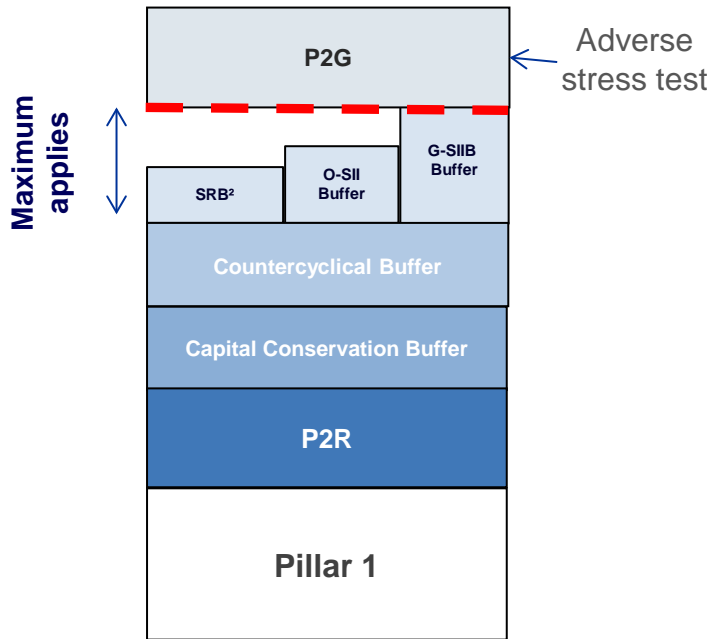
In percentage points

	Baseline	Adverse	Δ Adverse - Baseline	
			CET1R differ.	Contribution
Trans. CET1 Ratio 2015	13.0	13.0	n/a	n/a
Δ Net Interest Income	+9.8	+8.4	-1.3	30%
Δ Net Fees and Commissions Income	+5.4	+5.0	-0.4	8%
Δ Market Risk	+0.9	-1.1	-2.0	45%
Δ Loan Losses	-2.1	-3.8	-1.7	39%
Δ Administrative Expenses	-10.6	-10.2	0.5	-10%
Δ Operational Risk	-0.4	-0.9	-0.4	10%
Δ Non-Interest Income and Capital	-1.3	+0.0	1.3	-30%
Δ Phase-in effect	-0.7	-0.6	0.1	-2%
Δ Risk Exposure Amount	-0.4	-0.8	-0.5	11%
CET1 Ratio 2018	13.6	9.1	-4.5	100%
Δ CET1 Ratio	+0.5	-3.9		

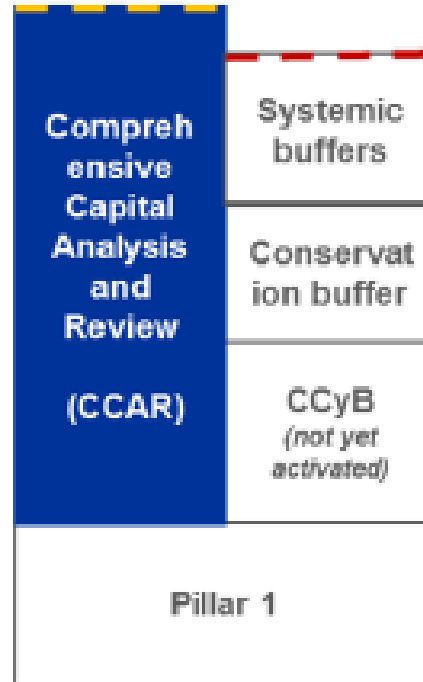
Note: Numbers may not match due to rounding



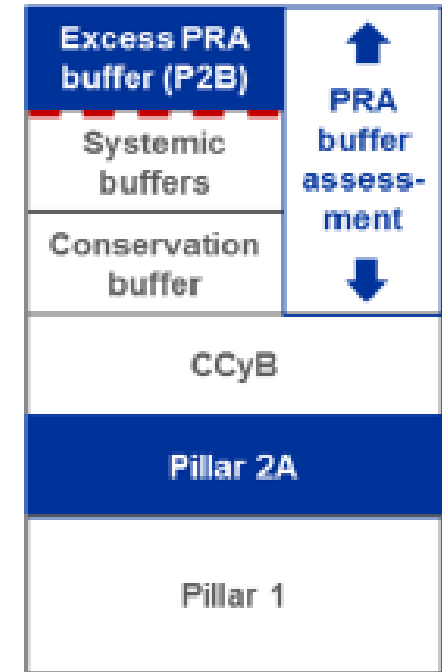
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MDA restrictions cover dividends, AT1 distributions and bonuses.



CCAR breach results in dividend restriction (but not on restriction to AT1 distributions or bonuses)



Automatic MDA restrictions kick in after P2B exhausted.

Restrictions cover dividends, AT1 distributions and bonuses

- - Maximum Distribution Amount (MDA) restriction trigger point

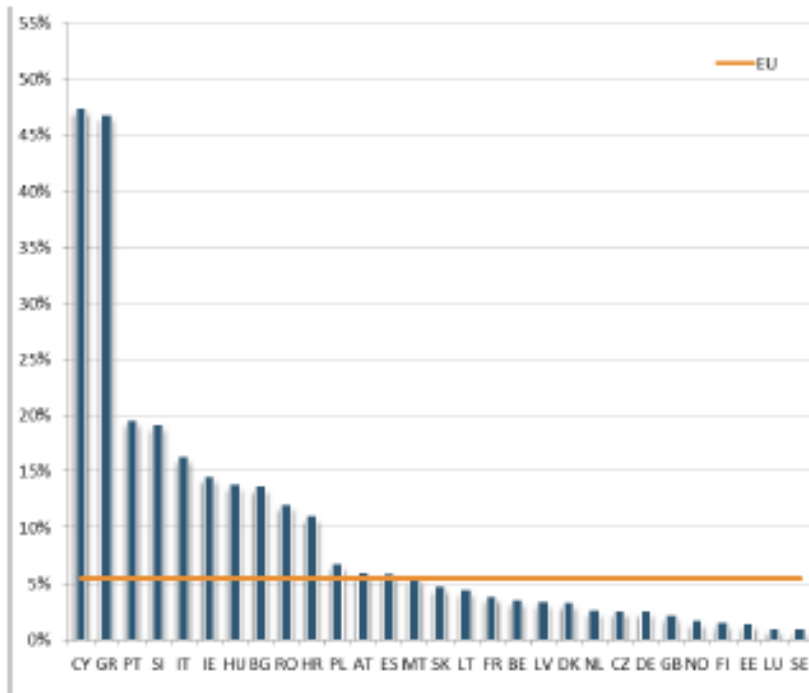
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NPLs distributed heterogeneously across countries and bank types

NPL ratio per country of the bank.

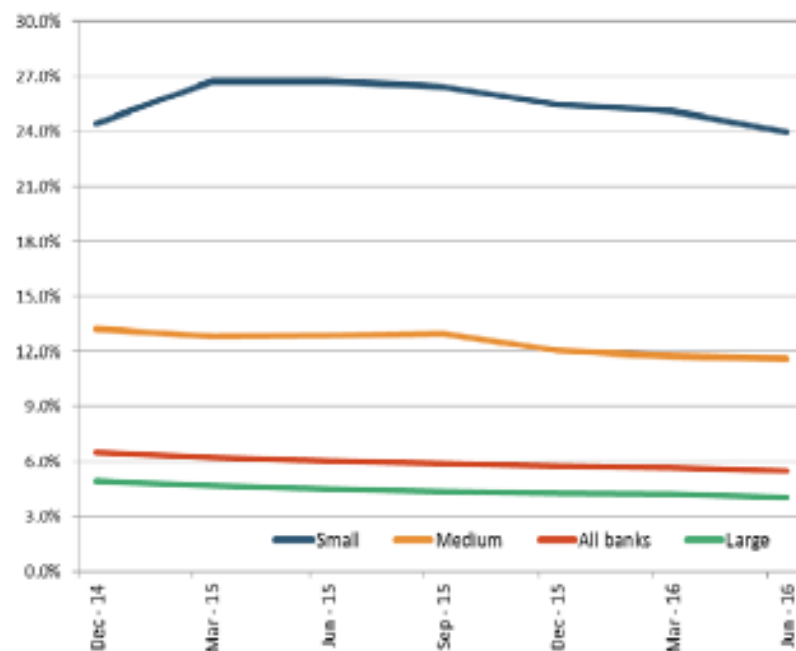
Source: Risk Dashboard (preliminary Q2 2016 data).



The EU weighted average NPL ratio was 5.5% in Q2 2016 (5.7% in Q1 2016, 5.8% in Q4 2015). Its dispersion among countries remained wide (between about 1% and nearly 50%).

NPL ratio per size class of the bank.

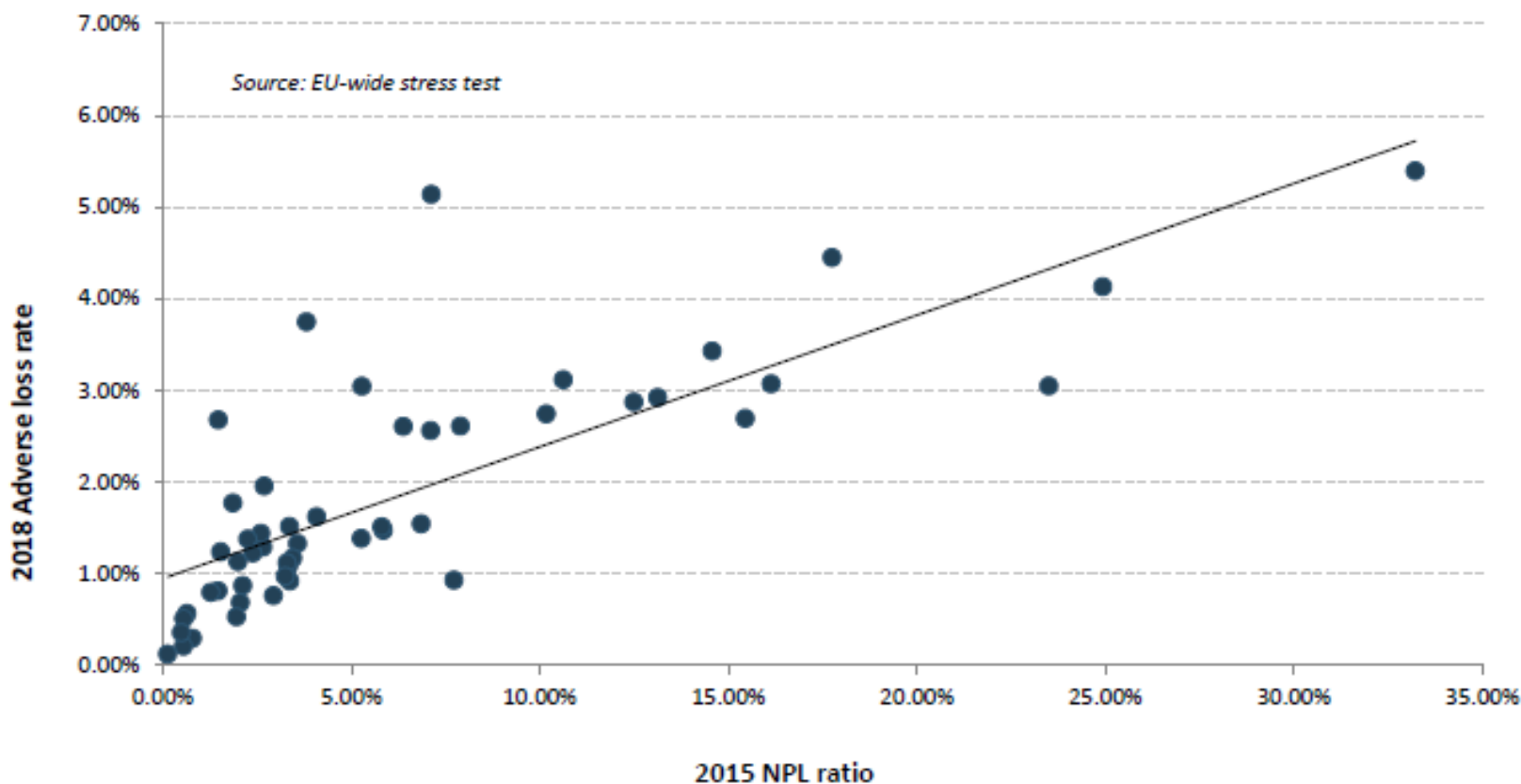
Source: Risk Dashboard (preliminary Q2 2016 data).



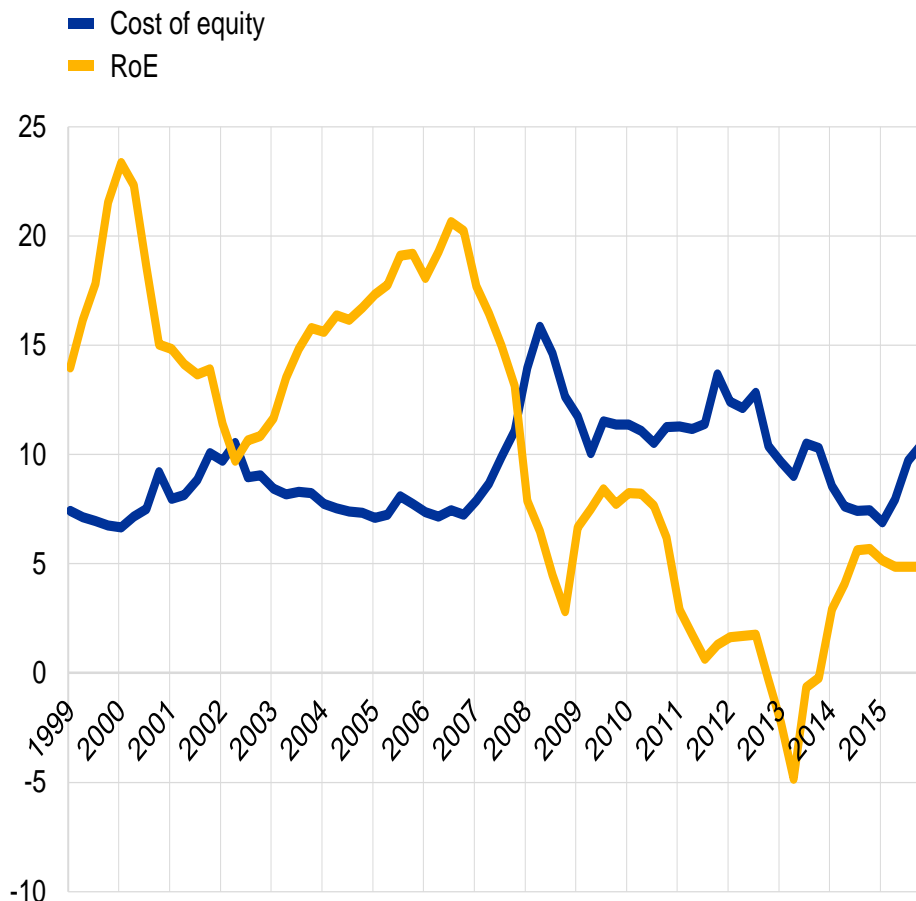
The NPL ratio is higher for small banks (24.0% in Q2 2016) and lower for large banks (4.0% in Q2 2016). Supervisory data also shows that the NPL ratio of exposures towards SMEs is higher (16.7% in Q2 2016) than for exposures towards large corporates (7.5%) and households (4.7% in Q1 2016).

Loss rates in the stress test correlate with initial NPLs

2015 NPL ratio vs 2018-Adverse Loss Rate



Euro area banks' Cost of Equity (CoE) and RoE (Q4 1999 – Q3 2016, percentages per annum)



Sources: Datastream and ECB calculations.

The blue line represents the ECB CoE measure derived using banks' betas and an estimate of the euro area equity risk premium.

Determinants of price-to-book ratios for 29 large listed euro area banks (2000 – 2015, Annual observations)

	Sign	Significance
RoE	+	***
NPL/Total loans	-	***
Vix Index	-	***
GDP expectations	+	***
Assets over equity	+	***
Δ in the yield curve	+	***
R-sq	0.68	
N	257	

Sources: Bloomberg, Consensus Economics and ECB calculations.

Notes: Panel regression results; ***, ** and * denotes significance at the 1%, 5% and 10% levels respectively

Bank stock prices have been under severe pressure, while profitability expected to remain weak

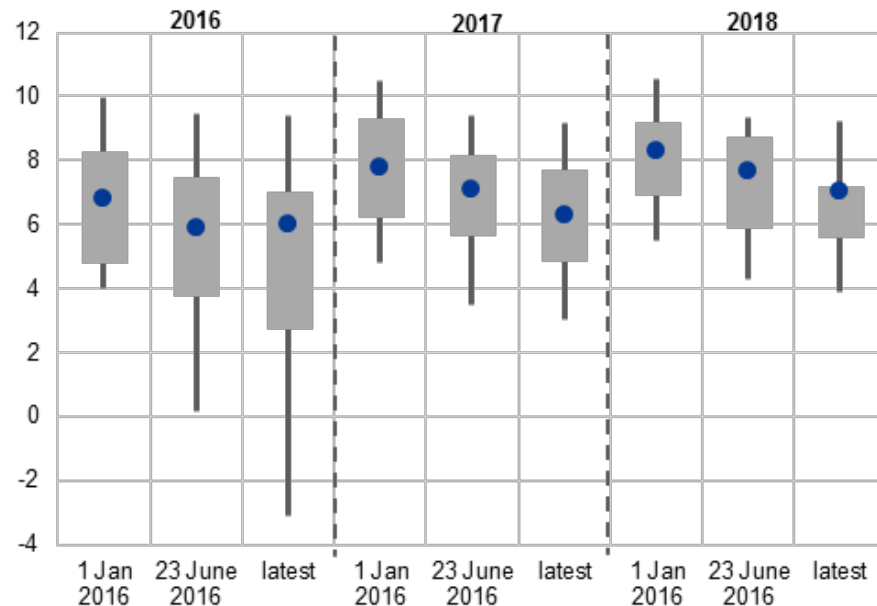
Euro area banks' Cost of Equity (CoE)
(Jan 2000 – Aug 2016, percentages per annum)



Sources: Datastream and ECB calculations.

Notes: The line represents the standard ECB CoE measure derived using banks' betas and an estimate of the euro area equity risk premium.

RoE expectations for euro area SGBs
(analyst forecasts for 2016, 2017 and 2018; percentages; 10th and 90th percentile and interquartile range distribution across SGBs)



Source: Bloomberg and ECB calculations.

Note: Data are based on a sample of 29 listed SGBs

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Challenges for European banks

- **NPLs**

- A major problem, concentrated in a few member states
- Legacy of the crisis, compounded by weak internal governance and controls
- ECB has recently launched a consultation on best practices and guidelines for NPL reduction

- **Cost of equity > RoE**

- CoE mainly driven by high equity premium
- SSM action to support RoE focused on business model sustainability and cost structures

- **Adapting to low interest rate environment**

- Margins are compressed by macro factors (historically low rates and flat yield curves)
- Banks need to enhance sources of non-interest income

- **Efficiency and costs**

- Banks have further room to reduce costs – branch structure, staffing, remuneration
- Banking union and more stable regulation will enhance opportunities for consolidation

- **IT and automation challenges**

Challenges for future stress tests (could potentially be fruitful areas for research)

- **Improve modelling techniques:** Study impact of macro scenarios on bank balance sheets; introduce feedbacks from banks to the macro-economy
- **Better macro-risk distribution:** Scenarios are one realization in the distribution of macro outcome; study ways to take into account the full distribution of risks
- **Dynamic balance sheets:** Allowing banks to react to adverse macro scenarios
- **Nexus between liquidity and solvency:** Liquidity risks and their impact on solvency are not explicitly incorporated in current stress testing techniques

Annex

Overview of Risk Type Drivers

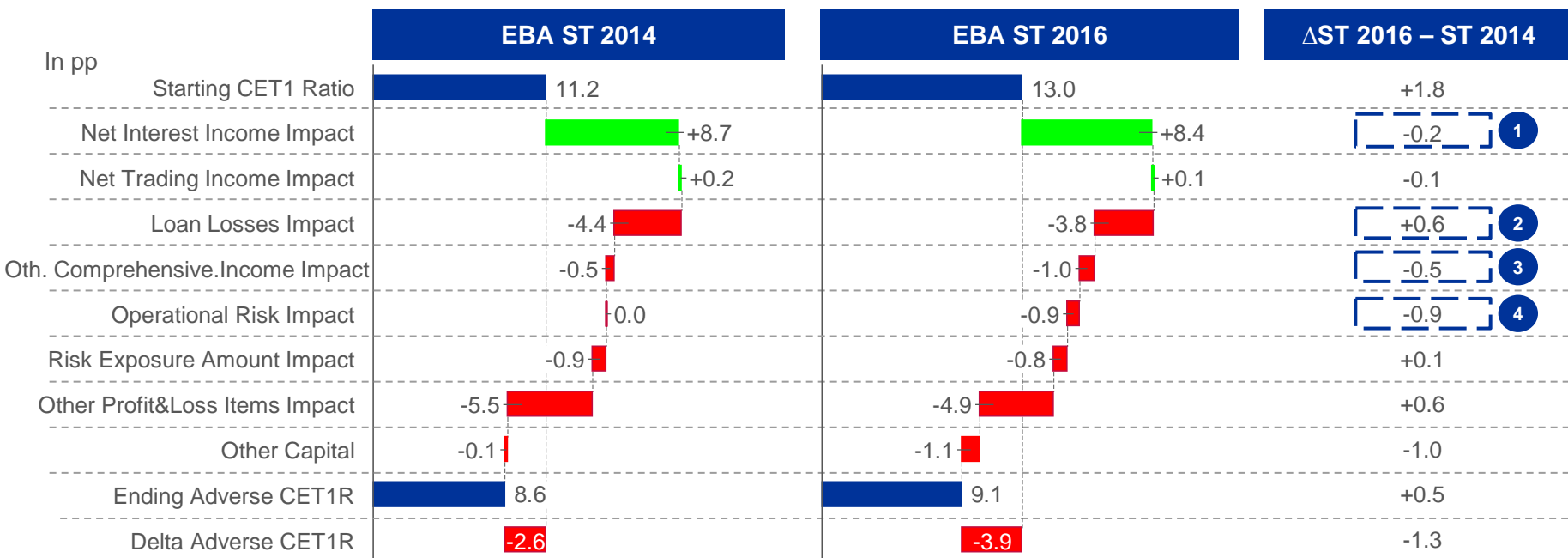
Adverse CET1R Impact

<p>Credit Risk</p>	<ul style="list-style-type: none"> • Stock of defaulted loans, recent default rates, and portfolio composition across asset classes and countries drive loan loss differences across banks in addition to macroeconomic scenario <ul style="list-style-type: none"> ▪ Unsecured retail and unsecured corporates exposure account for c. 70% of total losses ▪ Exposure to certain geographies i.e. LATAM and CEE contributes to higher losses, in part, due to the more severe adverse scenario for these geographies
<p>Net Interest Income</p>	<ul style="list-style-type: none"> • Key contributions are the stress to the net margin and loss of any income from defaulted assets under the adverse scenario • Lower credit quality impacts both contributions as <ol style="list-style-type: none"> 1. banks with higher amount of defaulted loans tend to have a lower rating and consequently tend to experience a higher stress to funding costs 2. Income from defaulted assets is more relevant
<p>Market Risk</p>	<p>2016 Available for Sale (AFS)/ Fair Value Option (FVO) Revaluation Losses drive Market risk impact</p> <ul style="list-style-type: none"> • Non-Sov. AFS/FVO: equity positions have a high contribution to losses compared to their portfolio share • Sovereign AFS/ FVO: Loss contribution from home-country sovereign exposure varies depending on the concentration of sovereign exposures to the home country, prescribed respective haircuts and duration of portfolio • Projected NTI 2016-2018 exceeds the 2016 HFT revaluation losses
<p>Operational Risk</p>	<ul style="list-style-type: none"> • Amount of operational risk loss projections correlate with size of the bank (total assets) • In some countries wide-spread issues clearly identifiable as a driver of CET1R impact
<p>Non-Interest Income and Capital</p>	<ul style="list-style-type: none"> • Administrative Expenses have largest negative CET1R impact (-10.2pp CET1R impact), partially compensated by Net Fees & Commissions Income contribution (+5.0pp CET1R impact) • Significant positive impact under adverse scenario from certain Other P&L items (e.g. other operating income) for which there is no prescribed EBA methodology • Creation of DTAs under the ST is more than offset by the full deduction of these DTAs in 2018. Positive capital impact from usage of these DTAs is overall marginal (c. 0.1pp CET1)

Overall impact higher in EBA ST 2016 vs. EBA ST 2014 and varies by risk type

Observations

- 1 **NII impact is comparable across the 2 EBA ST exercises** despite the incorporation of an idiosyncratic shock in EBA ST 2016
- 2 **Loan Losses impact is lower in EBA ST 2016** (-3.8pp) compared to EBA ST 2014 (-4.4pp)
- 3 **AOCI impact in EBA ST 2016 is higher** due to higher haircuts on non-sovereign AFS, revised treatment of hedges (breakdown of hedged position and hedging instrument in 2016 ST) and gross of tax reporting vs. net in 2014 ST
- 4 **Impact due to Operational Risk is higher in 2016** (-0.9pp) driven by increased focus in 2016 ST



Integration of Stress Test results into the SREP decision – General EBA Guidance

As communicated by the EBA as of 1 July 2016, the 2016 SREP cycle see the introduction of the concept of Pillar 2 Guidance (P2G) to the supervisors toolset complementing the formal Pillar 2 Requirements.

- Banks are **expected to meet the P2G** which will be set **above the level of binding capital** (minimum and additional) requirements and on top of the combined buffers
- If a bank **does not meet its P2G**, this will **not result in automatic action by the supervisor** and will **not be used to determine the MDA trigger**. Instead, the breach of P2G will be used to fine-tune remedial measures based on the individual situation of the bank.