



# Note on the 2015 Comprehensive Assessment

This note provides detailed information on key aspects of the 2015 comprehensive assessment, including the sample of participating banks, methodology, organisational set-up, quality assurance, and outcomes of the exercise.

## 1 Participating banks

The selection of the nine banks subject to the 2015 comprehensive assessment was based on the criteria for significance as set out in the SSM Regulation, which determine a bank's eligibility for direct supervision by the ECB. They include:

- a bank's total assets exceeding €30 billion or 20% of the relevant Member State's gross domestic product (GDP);
- elevation to one of the three most significant banks in a participating Member State; and
- the significance of a banking group's cross-border activities within the SSM.

Five of the participating banks had already become significant in 2014. Four of them - Banque Degroof S.A. (Belgium), Sberbank Europe AG (Austria), Unicredit Slovenia (Slovenia)<sup>1</sup> and VTB Bank (Austria) AG (Austria) - had not been included in the 2014 comprehensive assessment and were thus subject to this year's exercise. The fifth, Novo Banco SA (Portugal), was created in 2014 as a result of the resolution measures taken in respect of Banco Espírito Santo, which was included in the 2014 exercise but did not complete it. Given that Novo Banco's assets had been subject to an asset quality review (AQR) and a special audit in 2014 its involvement in the 2015 comprehensive assessment was limited to the stress test component.

The remaining four participating banks were included since they will become significant as of January 2016 based on the above-mentioned criteria. They comprise Agence Française de Développement (France), J.P. Morgan Bank Luxembourg S.A. (Luxembourg), Medifin Holding Limited<sup>2</sup> (Malta) and Kuntarahoitus Oyj (Municipality Finance plc) (Finland).

The total assets of each of the nine participating banks range from €2.6 billion to €57.4 billion, which places them among the smaller institutions subject to direct ECB supervision.

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<sup>1</sup> Unicredit Slovenia is one of the three largest institutions in Slovenia and is therefore classified as significant. Its parent undertaking UniCredit S.p.A. participated in the 2014 comprehensive assessment but portfolios of its Slovenian subsidiary were not subject to a detailed review at that time.

<sup>2</sup> Holding company of Mediterranean Bank plc

## 2 Applied methodology, organisational setup and quality assurance

The 2015 comprehensive assessment comprised two main pillars: an AQR and a stress test, and the methodologies used were largely identical to those applied in 2014. The exercise was led by the ECB, which conducted it in close cooperation with the national competent authorities (NCAs) and was supported by external advisers (including auditors, consultants and appraisers). This year the European Banking Authority (EBA) was not involved in the stress test.

### 2.1 AQR

#### Methodology

The AQR was a point-in-time assessment of the accuracy of the carrying value of banks' assets as at 31 December 2014 and provided a starting point for the stress test. It was based on the uniform methodology and harmonised definitions used in the 2014 exercise, as outlined in the AQR Manual<sup>3</sup>, and included, inter alia, a review of debtor classification into performing/non-performing debtors and a granular assessment of specific and collective provision levels, supplemented by an examination of collateral valuations.

While specific provisions were assessed based on the review of individual credit files and projection of the findings, collective provisions were examined using a challenger model. The selection of portfolios for in-depth review and the sampling of credit files within those portfolios were conducted based on the 2014 methodologies, ensuring appropriate coverage and representativeness. Dedicated AQR work blocks also covered banks' processes, policies and accounting practices, the calculation of credit valuation adjustments (CVA) on derivatives, and level 3 fair value exposures (where relevant). Based on the aggregated results of the individual work blocks, total AQR adjustments to CET1 capital were calculated. Taking into account those adjustments, banks were required to have a minimum CET1 ratio of 8%.

In line with the treatment of similar cases in the 2014 exercise, the AQR for J.P. Morgan Bank Luxembourg S.A. and Kuntarahoitus Oyj (Municipality Finance plc) was limited to the policy, processes and accounting review, owing to the fact that their business models do not focus on regular lending activity and the treatment of these banks as institutions with minimal banking credit risk is thus justified.

#### Organisational set-up and quality assurance

As in 2014, the AQR execution and quality assurance were based on a "three lines of defence" model. Bank teams (first line), mainly composed of auditors, executed

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<sup>3</sup> The AQR Manual is publicly available at <http://www.ecb.europa.eu/pub/pdf/other/assetqualityreviewphase2manual201403en.pdf?e8cc41ce0e4ee40222cbe148574e4af7>

the AQR methodology at the bank level, with NCA and ECB supervisors (second line) assuring the quality of their results before submitting them to the ECB's Central Project Management Office (third line), which steered the overall process and conducted final quality assurance, ensuring a consistent application of the methodology and a level playing field across the participating banks and vis-à-vis the 2014 exercise. Quality assurance activities, such as detailed revisions of bank team calculations, benchmark analyses and in-depth discussions of key issues made a substantial contribution to the rigour and consistency of the final AQR results.

Given that the 2015 exercise was led by the ECB in its role as supervisory authority, while the 2014 exercise was carried out in preparation for this role, auditor services were procured by the ECB rather than the NCAs this year and the degree of ECB involvement in the execution of the AQR at the level of the individual banks under its direct supervision was stronger.

## 2.2 Stress Test

### Methodology

The stress test aimed to assess banks' resilience to adverse market developments and the potential for systemic risk to increase in situations of stress, using a common baseline and adverse macroeconomic scenario developed in close cooperation between NCAs, the European Commission and the ECB.

The scenarios covered the period 2015-17. The baseline scenario was based on the European Commission's 2015 winter forecast of the evolution of key macroeconomic and financial variables for the years 2015 and 2016, while figures for 2017 were based on various publicly available forecasts from the ECB, national central banks and the IMF. The adverse scenario was constructed by applying deviations from the baseline in line with those calibrated for the adverse scenario applied in the 2014 comprehensive assessment, capturing the same macro-financial risks, including:

- An increase in global bond yields amplified by an abrupt reversal in risk assessment, especially in respect of emerging market economies, and by pockets of market illiquidity;
- A further deterioration of credit quality in countries with feeble demand, weak fundamentals and still vulnerable banking sectors;
- Stalling policy reforms, jeopardising confidence in the sustainability of public finances;
- A lack of necessary bank balance sheet repair to maintain affordable market funding.

These risks were mapped to financial and economic shocks simulated in the adverse scenario, which were as severe as those applied in the 2014 exercise.

The scenarios covered both the EU Member States and territories outside of the EU where the participating banks hold significant exposures. The baseline scenario projected a relatively strong and broad-based recovery in the EU economy, with the real GDP growth rate reaching 1.7% this year, 2.1% in 2016 and 2.0% in 2017 and unemployment rates falling in nearly all EU Member States. Under the adverse scenario, all shocks combined would reduce EU GDP in 2017 by 7.0% compared with the baseline scenario. The EU economy would contract over a two-year period, followed by a weak recovery in 2017. Unemployment would increase in most EU countries, with the EU unemployment rate rising to 11.5%, nearly 3 percentage points above the baseline level.

Short term and long-term interest rates were assumed to remain low for a protracted period under the baseline scenario, with aggregate EU long-term interest rates increasing slowly to 1.5% by 2017. Conversely, under the adverse scenario, long-term interest rates, proxied by 10-year government bond yields, would rise abruptly in all EU countries. This increase would reach, on aggregate, 150 basis points in 2015 before easing in 2016 and 2017 to a 110 basis points increase in comparison to end-2014 values.

The stress test was conducted based on the uniform methodology and harmonised definitions used in the 2014 exercise, as outlined in the comprehensive assessment stress test manual<sup>4</sup>. While the components of the stress test were similar to the 2014 exercise with respect to the scope of risks analysed and methodologies, a reduction in complexity in accordance with proportionality principles was warranted. The stress test results were adjusted to take into account the AQR findings in the projections for the baseline and adverse scenario in a process referred to as the “join-up” (as detailed below).

## Organisational set-up and quality assurance

The process to ensure a consistent, comprehensive and transparent treatment of individual bank results was similar to last year’s exercise, except that, unlike last year, the EBA was not involved. Bottom-up stress test calculations submitted by the banks were subject to review and assessment by NCA and ECB supervisors and additional systematic quality assurance by a central team at the ECB. This set-up ensured the consistency and comparability of the outcomes across banks and participating Member States.

The quality assurance conducted led to revisions of banks’ bottom-up results in comparison with their initial submissions, which were required in order to address concerns flagged by the supervisors. Where disagreements arose, banks had to provide explanations and meet defined standards of evidence in order to justify material divergences from expected values. Where banks’ explanations were considered insufficient, they were asked to comply with the requirements of the methodology. Quality assurance was an iterative process involving multiple rounds of template submissions by the banks. As in the 2014 exercise it had a material

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<sup>4</sup> The manual is publicly available at <https://www.ecb.europa.eu/pub/pdf/other/castmanual201408en.pdf>

impact on the final stress test results as the changes which banks were required to implement in their calculations led to a material decrease in CET1 ratios when comparing banks' initial submissions to the final results. To maintain a level playing field, in cases where banks did not comply with methodological guidance from the centre, and no satisfactory explanation was provided to the ECB, a quality assurance adjustment was defined by the ECB to prescribe required revisions to specific items.

## 2.3 Join-up

As the AQR identified differences in the banks' valuation of their assets, the starting point and subsequent projections through the stress test needed to be adjusted. The join-up of the AQR and stress test combined the impact of both components by adjusting the stress test starting point, taking into account AQR adjustments to CET1 directly, and by reflecting the information on asset performance learned through the AQR, in particular credit-related information from accrual accounted portfolios, in the stress test projections.

The join-up was performed by banks themselves in this year's exercise, based on preliminary AQR results and according to a centrally prescribed methodology. All banks that needed to perform a join-up employed a purpose built tool provided by the ECB. The final results were quality assured by NCAs and ECB supervisors as well as the ECB's Central Project Management Office.

## 3 Outcomes of the 2015 comprehensive assessment

Overall, the comprehensive assessment identified a capital shortfall of €1.74 billion across five participating banks after comparing the projected solvency ratios against the thresholds defined for the exercise.<sup>5</sup> The weighted average decline in the CET1 ratio of the participating banks based on the combined impact of the AQR and stress test after quality assurance adjustments amounted to 605 basis points.

### 3.1 AQR

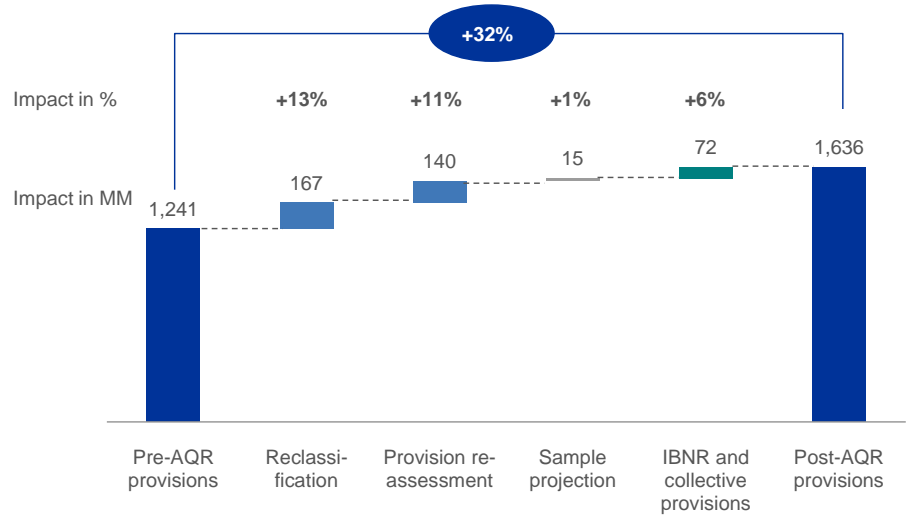
The AQR resulted in aggregate adjustments of €453 million to participating banks' asset carrying values as at 31 December 2014 (of which €395 million were due to provisioning adjustments and €58 million stemming from CVA and Fair Value review). These adjustments originated primarily from accrual accounted assets, and in particular reflected increases in specific provisions for non-retail exposures and provisions for incurred but not reported losses (IBNR). Figure 1 illustrates the distribution of provision adjustments across their sources. In aggregate, those adjustments led to a 32% increase in provisions across all participating banks, compared with an increase of around 12% in the 2014 exercise. As shown in Figure 2, provision adjustments were largely concentrated in corporate portfolios.

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<sup>5</sup> 8% of CET1 in the baseline scenario and AQR, 5.5% of CET1 in the adverse scenario.

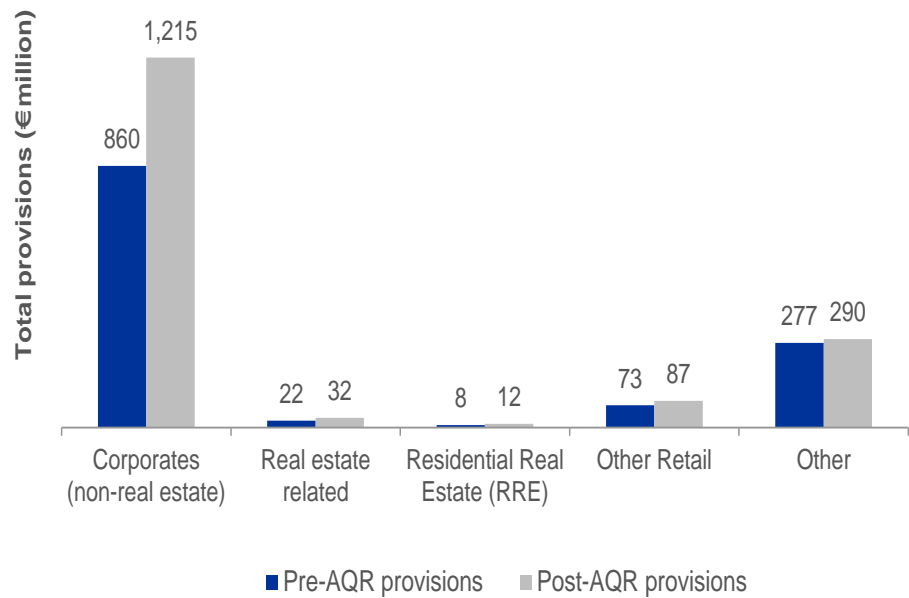
**Figure 1**  
AQR provision adjustments<sup>6</sup>

(In € million)



**Figure 2**  
AQR provision adjustments<sup>7</sup>

(In € million)



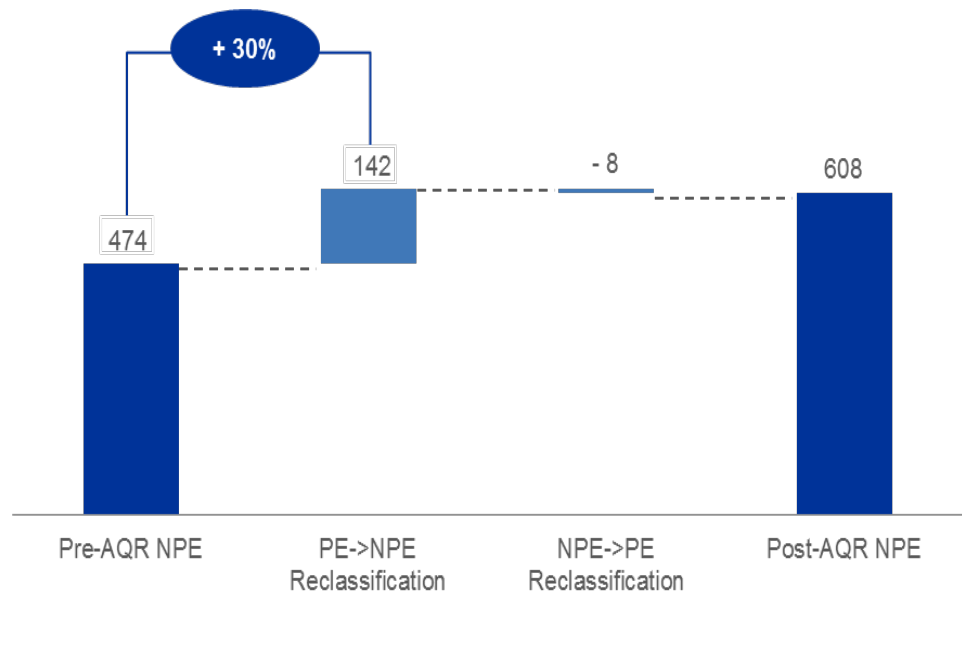
<sup>6</sup> Provision adjustments across all portfolios selected for this year's AQR, resulting from the Credit File Review, Projection of Findings and Collective Provisioning. Impact of CVA and Fair Value review is not reflected in this chart.

<sup>7</sup> Provision adjustments across all portfolios selected for this year's AQR, resulting from the Credit File Review, Projection of Findings and Collective Provisioning. Impact of CVA and Fair Value review is not reflected in this chart.

The provision adjustments listed above reflect the fact that the AQR identified a significant amount of additional non-performing exposures (NPEs), leading the number of non-performing debtors to increase by a total of 134 across the participating banks (see Figure 3), as NPE definitions were applied in a harmonised and comparable manner, also examining forbearance as a trigger of NPE status.

**Figure 3**  
Credit File Review reclassifications

(In number of debtors)



Overall, the AQR adjustments to asset carrying values resulted in an aggregate impact of €348 million on CET1 after taking into account tax effects and risk protection, leading to net changes in CET1 ratios ranging from 0 to -160 basis points. The weighted average AQR impact on CET1 ratios was -69 basis points. Table 1 shows the AQR results for all participating banks by AQR work block, including their overall impact on CET1 ratios.

**Table 1**  
AQR bank-level results

Bank name	Pre-AQR CET1 <sup>2</sup> <i>In € millions</i>	Credit File Review <i>In € millions</i>	Projection of Findings <i>In € millions</i>	Collective Provisioning <i>In € millions</i>	CVA/Fair Value Review <i>In € millions</i>	Tax/Risk protection adjustments <i>In € millions</i>	Post-AQR CET1 <i>In € millions</i>	AQR impact <i>In basis points</i>
AFD (France)	2,752	-139	-12	27 <sup>3</sup>	0	38	2,667 <sup>4</sup>	-31
Bank Degroof (Belgium)	426	-11	0	-8	-1	4	411	-62
Medifin Holding (Malta)	153	-6	0	-7	0	1	140	-87
UniCredit (Slovenia)	213	0	0	-2	0	0	211	-15
JP Morgan <sup>1</sup> (Luxembourg)	935	N/A	N/A	N/A	N/A	0	935	0
Muni. Finance <sup>1</sup> (Finland)	556	N/A	N/A	N/A	-28	6	534	-140
Sberbank (Austria)	1,069	-78	-4	-40	0	20	967	-108
VTB (Austria)	717	-73	0	-44	-29	37	607	-160

Notes: N/A denotes not applicable 1. No portfolios selected and thus no Credit File Review (CFR), Projection of Findings and Collective Provisioning analysis 2. Pre-AQR CET1 as of 31 December 2014 (except for Medifin Holding with Pre-AQR CET1 as at 31 March 2015) 3. Positive impact driven by reduction of bank IBNR by proportion of new NPEs with new AQR specific provisions reflected in the CFR impact 4. Excludes 36% of the AQR impact on exposures held by a subsidiary of AFD since this part is allocated to minority interests (-€17 million)

In addition to the quantitative results outlined above, the AQR process also yielded a number of qualitative findings with respect to the participating banks' processes, policies and systems which require remediation and will be taken up by the Joint Supervisory Teams (JSTs) after the completion of the comprehensive assessment.

## 3.2 Stress Test and Join-up

The aggregate impact on CET1 ratios of the stress test alone (before join-up with the AQR) amounted to a weighted average reduction of 34 basis points under the baseline scenario and 527 basis points under the adverse scenario<sup>8</sup> over the three-year stress test horizon. That is, while there was a slight reduction in CET1 ratios under the baseline scenario, the adverse scenario led to a more prominent decline owing to the shocks projected in it. These net effects combine various offsetting effects between the impact on banks' loss absorption capacity and the impairments arising under the stress test scenarios.

The main drivers of the adverse stress, as reflected by the delta between the baseline effect and the adverse effect shown in Table 2, related to impairments of financial assets (-266 basis points); net interest income (-151 basis points); and losses on fair value through profit and loss (FVTPL) and available for sale (AFS) assets (-111 basis points).

<sup>8</sup> Impact is calculated as the sum of the individual impacts on capital and risk weighted asset (RWA) items. Hence, the impact may differ slightly from a rounded aggregate impact.



These numbers reflect the shocks simulated under the adverse scenario. Their overall magnitude is consistent with the projected evolution of key macroeconomic parameters, such as the significant decline in GDP and increase in the unemployment rate compared with the baseline. Naturally, the geographic distribution of exposures is an important factor with regard to the capital impact at the bank level under the adverse scenario, with banks holding significant exposures to countries and regions perceived as vulnerable facing larger impacts.

**Table 2**  
Average impact by stress test component

Stress test component	Stress test effect (basis points)	
	Baseline scenario	Adverse scenario
Net interest income	496	345
Net fee and commission income	322	304
Net trading income	0	-14
Impairments on financial assets other than FVTPL	-198	-464
FVTPL and AFS	-25	-136
Administrative and other expenses	-607	-607
Taxes, dividends and other items	2	89
<b>Total CET1 Impact</b>	<b>-9</b>	<b>-483</b>
Risk-weighted assets	-24	-44
<b>Total CET1% Impact</b>	<b>-34</b>	<b>-527</b>

Under the baseline scenario of the stress test, the CET1 ratios after the AQR, stress test and join-up ranged from 8.2% to 32.7%<sup>9</sup>. The weighted average decline in the CET1 ratio of the nine participating banks amounted to 138 basis points, with no bank falling below the threshold of 8%.

Under the adverse scenario CET1 ratios ranged from 2.4% to 31.9% across the participating banks, thus facing a weighted average decline of 605 basis points compared with their starting point.

After comparing the new CET1 ratios against the thresholds<sup>10</sup> defined in the exercise, these adjustments resulted in a capital shortfall of €1.74 billion across five participating banks. Table 3 shows the evolution of CET1 ratios under the different components of the exercise and the resulting shortfalls (or lack thereof) for all participating banks.

<sup>9</sup> For each scenario, the final ratio after the stress test and join-up is defined as the lowest CET1 ratio over the three year period (2015-17)

<sup>10</sup> 8% of CET1 in the baseline scenario and AQR, 5.5% of CET1 in the adverse scenario.

**Table 3**

Evolution of CET1 ratios and resulting capital shortfalls

Bank name	CET1 ratio starting point	CET1 ratio post AQR	CET1 ratio baseline scenario	CET1 ratio adverse scenario	Capital shortfall (€millions)	Net eligible capital raised <sup>1</sup> (€millions)	Capital shortfall post net capital raised <sup>1</sup> (€millions)
<b>AFD</b> (France)	9.6%	9.2%	8.4%	5.2%	96	0	96 <sup>2</sup>
<b>Bank Degroof</b> (Belgium)	15.8%	15.2%	17.8%	14.2%	N/A	0	N/A
<b>Medifin Holding</b> (Malta)	10.7%	9.8%	8.6%	5.1%	6	29	N/A
<b>UniCredit</b> (Slovenia)	17.6%	17.4%	18.4%	14.2%	N/A	0	N/A
<b>JP Morgan</b> (Luxembourg)	30.6%	30.6%	32.7%	31.9%	N/A	0	N/A
<b>Muni. Finance</b> (Finland)	29.9%	28.5%	30.2%	20.8%	N/A	0	N/A
<b>Novo Banco</b> (Portugal)	10.2%	10.2%	8.2%	2.4%	1,398	0	1,398
<b>Sberbank</b> (Austria)	10.7%	9.6%	8.9%	4.2%	138	140 <sup>3</sup>	N/A
<b>VTB</b> (Austria)	9.8%	8.2%	8.9%	4.2%	103	200	N/A

1. Eligibility of capital measures shown to cover shortfalls remains subject to validation by the Joint Supervisory Teams based on capital plans to be submitted by the banks 2. Shortfall is covered by a specific mechanism called "compte de reserve" funded by the French state to cover AFD sovereign risks and accounted in AFD's books (€547 million as of 31/12/2014) 3. The bank registered an additional increase of €100 million in CET1 on 5 November 2015

### 3.3 Coverage of identified shortfalls

The capital shortfalls identified by the 2015 comprehensive assessment can be placed in the context of capital recently raised by the participating banks. Since 1 January 2015, a total of €369 million has been raised by participating banks which is not taken into account in the calculation of the capital shortfalls shown above, but which will be considered as mitigation of shortfalls found subject to validation by the JSTs. Remaining shortfalls will have to be addressed by the banks in a timely manner via issuance of capital instruments or other eligible measures which restore capital positions to the required levels. The implementation and monitoring of the relevant actions will be aligned with the annual Supervisory Review and Evaluation Process (SREP).