

Panel 3: AQR role in restoring market confidence and resolution of NPLs

Identifying potential links: AQRs, asset quality and banks' other risk indicators

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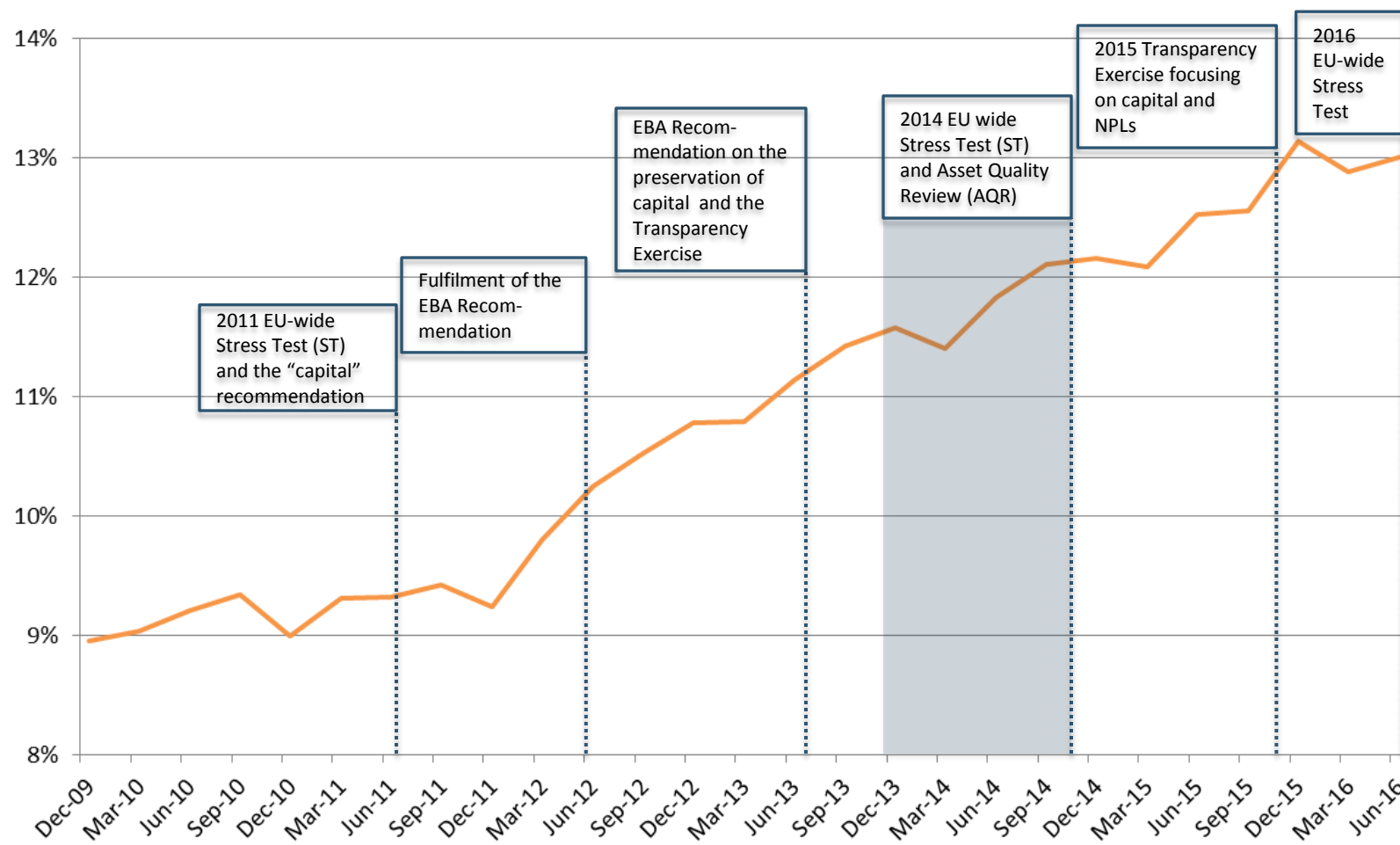
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AQR, STRESS TEST AND BANKS' RISK INDICATORS

Capital strengthening was essential before tackling NPLs

EU aggregate CET1 ratio through time.

Source: Supervisory reporting data (sample of 55 largest EU banks).*

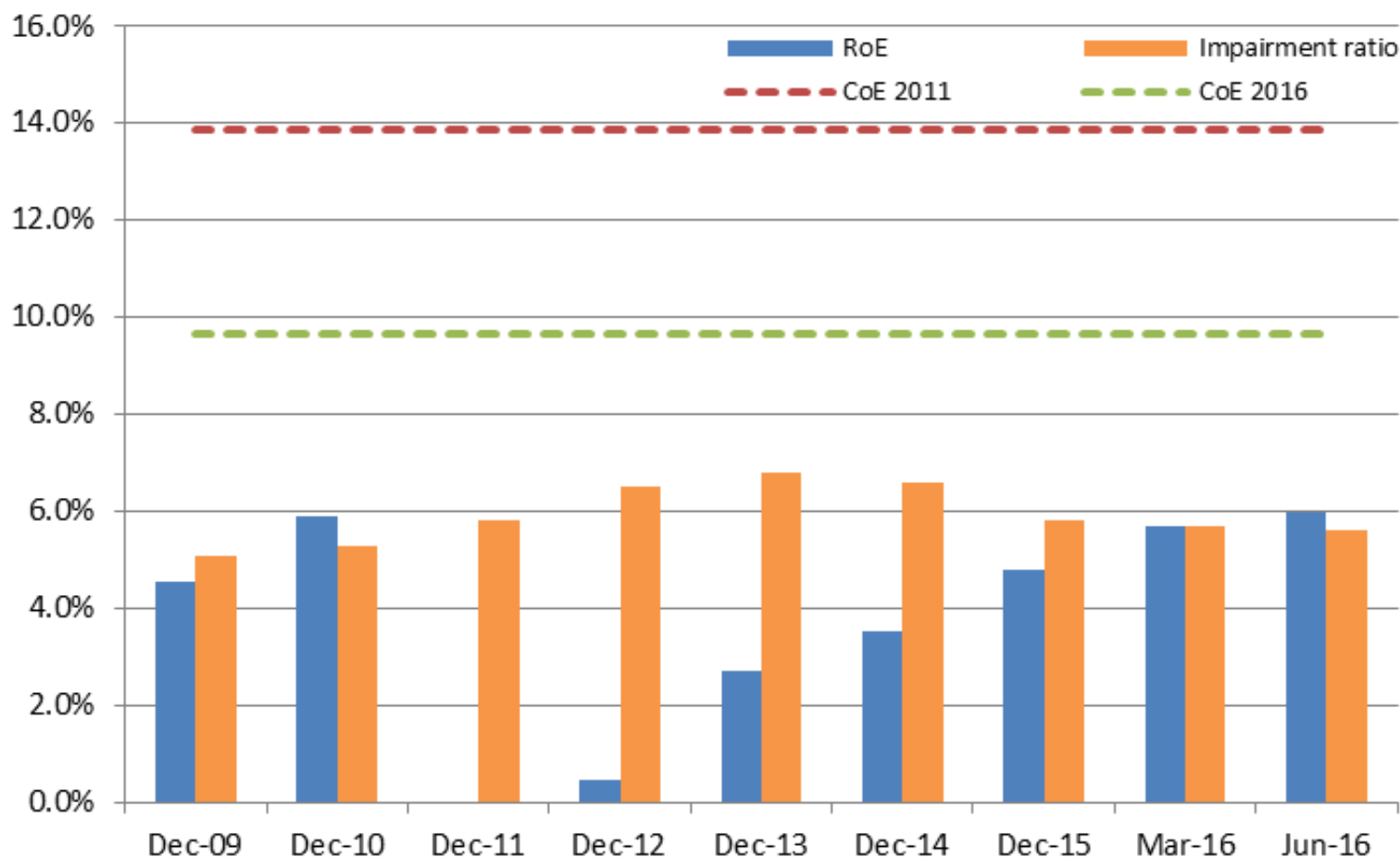


* The sample of banks is different from the one which is used for the EBA's Risk Dashboard for comparing a longer period of time.

For meeting a sustainable RoE, resolving NPLs is crucial

Banks' average RoE, impairment ratio and CoE.

Source: Supervisory reporting data (sample of 55 largest EU banks).*

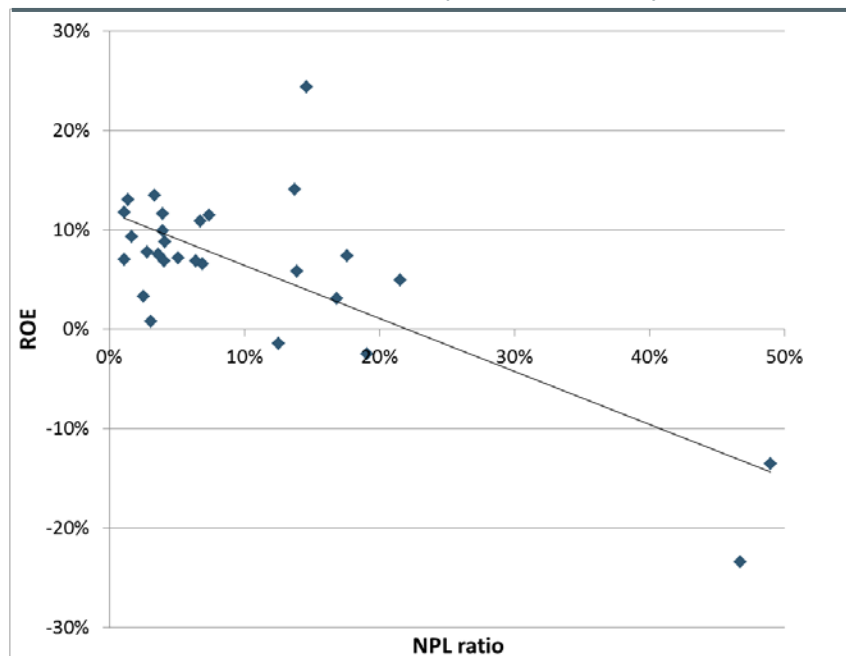


* The CoE estimate is CAPM based, using Bloomberg and Damodaran (NYU Stern) data. The impairment ratio (loans) instead of the NPL ratio is used here due to comparability over a long time horizon. Also for this reason the sample of banks is different from the one which is used for the EBA's Risk Dashboard.

Why NPLs actually matter: bank profitability, new lending and growth

NPL ratio and profitability (RoE) by country.

Source: EBA Risk Dashboard (YE 2015 data).

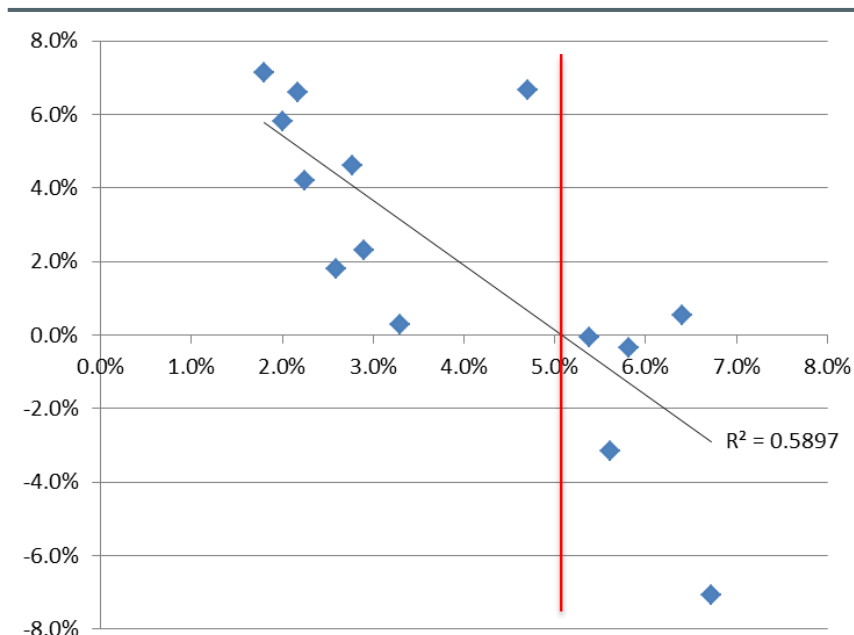


Banks unable to cope with their **non-performing loans** seem to struggle to return to **profitability**.

This has an **impact on new lending** by banks ...

NPL ratio and loan growth in the EU.

Source: IMF.*



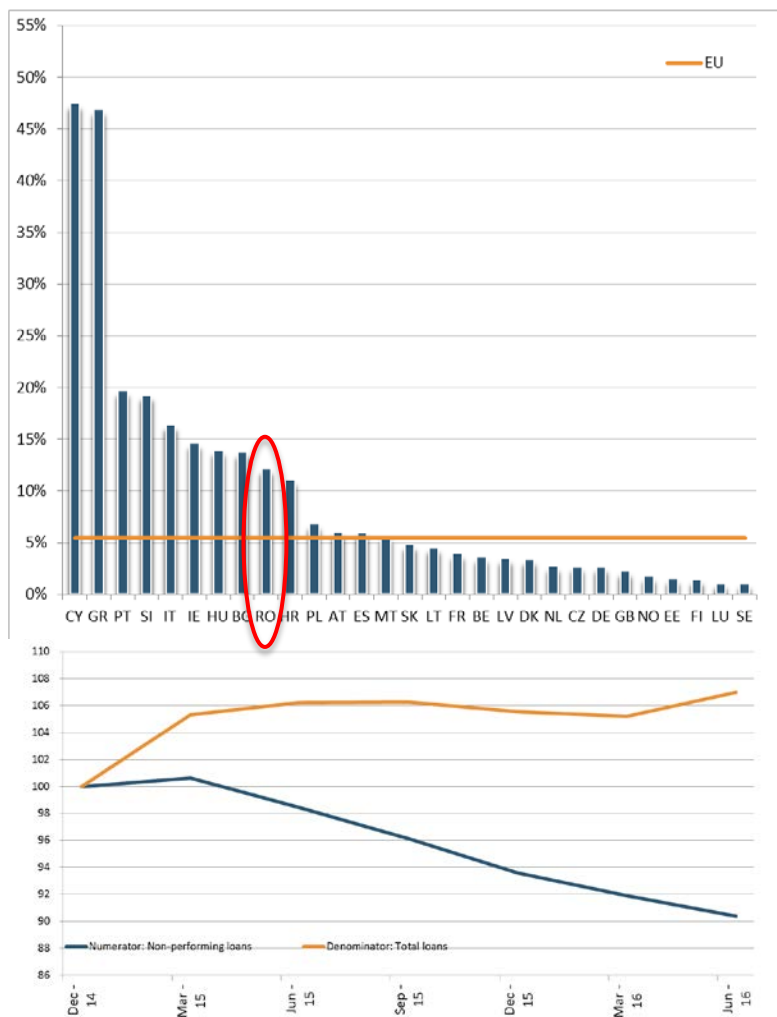
... and IMF data confirms literature (Hou, Y., Dickinson, D., 2007): **loan growth** seems to be **negatively correlated with NPL ratios**. Negative loan growth then reinforces the downward impact of NPLs on the real economy. **Negative correlation between NPLs and economic growth** was also validated for CESEE in IMF research.

* For enabling the comparison of a longer time horizon IMF data was used (2001-2015, loan growth with 1 year time lag to the respective NPL ratio). Loan growth is measured as change in credit-to-GDP ratio

NPL ratios are still far from normal in the EU

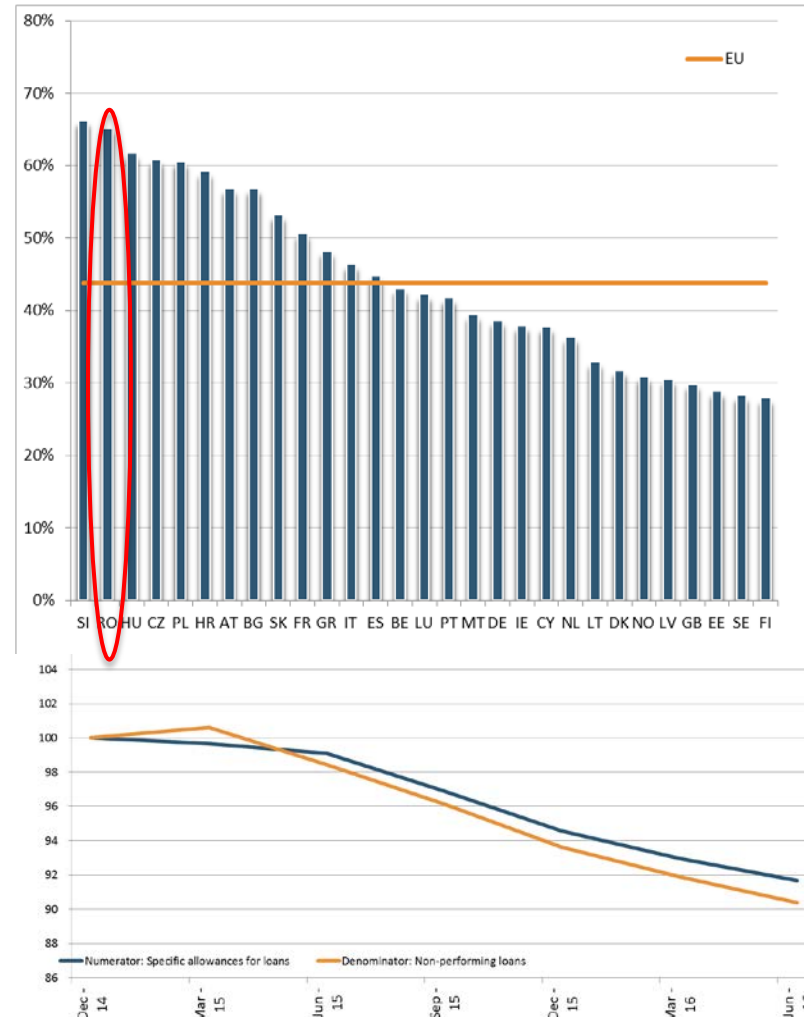
NPL ratio per country of the bank and numerator / denominator trends.

Source: EBA Risk Dashboard (Q2 2016 data).



Coverage ratio per country of the bank and numerator / denominator trends.

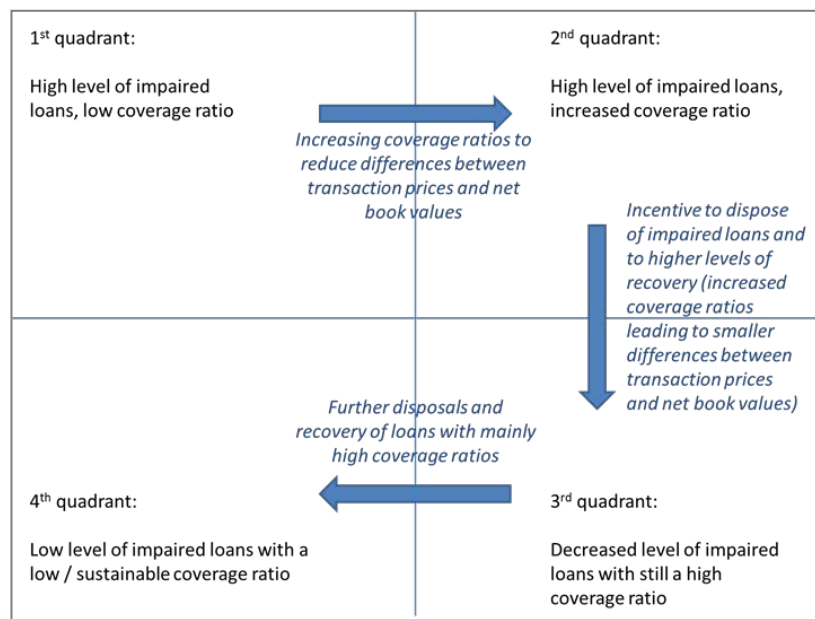
Source: EBA Risk Dashboard (Q2 2016 data).



The virtuous circle in the quadrant model: theory and how it works in practice

The virtuous circle in the quadrant model.

Source: EBA.

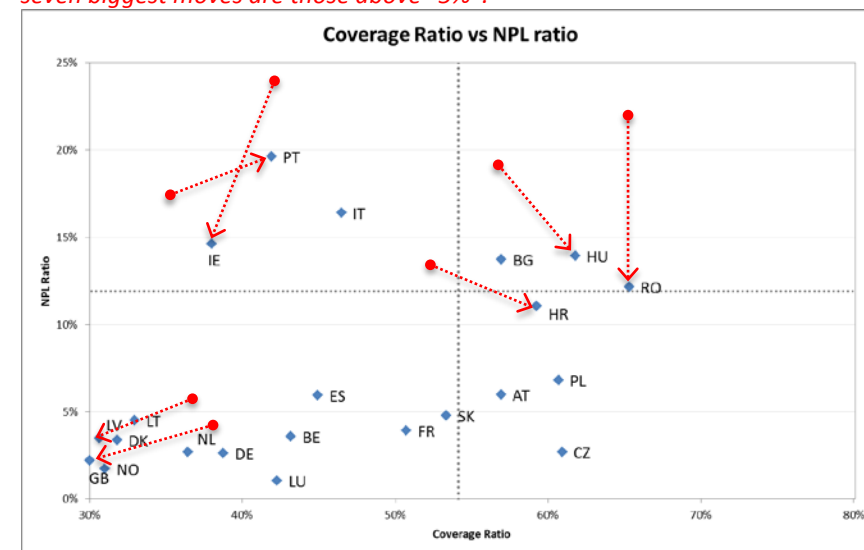


The idea of the quadrant model (virtuous circle) is that one way of identifying a country's issue with restructuring and reducing NPLs is by looking at the **relationship between the coverage ratio and the NPL ratio**.

The quadrant model: current state.

Source: Risk Dashboard (Q4 2014 & Q2 2016 data).

Red arrows indicate the seven biggest moves (i.e. longest arrows) between Q4 2014 and Q2 2016. The length of the arrows is a mix of the change in the NPL and coverage ratio, with a calculation based on the Pythagoras theorem: the seven biggest moves are those above "5%".



A comparison of countries' positions in Q4 2014 and as of now shows that there have been **moves** mainly **within the quadrants**, but **also between them**.

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AQR: WHAT THE RESULTS TELL US AND WHAT IMPACT THEY POTENTIALLY HAVE

AQR and NPE definition: regulatory and supervisory reactions to the NPL crisis

During the **AQR in 2014**, for the SSM the use of the harmonised NPE definition alone has resulted in **EUR 54.6 bn additional NPEs** (increase from EUR 743.1 bn to EUR 797.7bn). The **credit file review (CFR)** added another **EUR 81.4 bn** to the NPE volume.

Harmonised definition of NPL provide supervisors with an extra tool to pressure banks to:

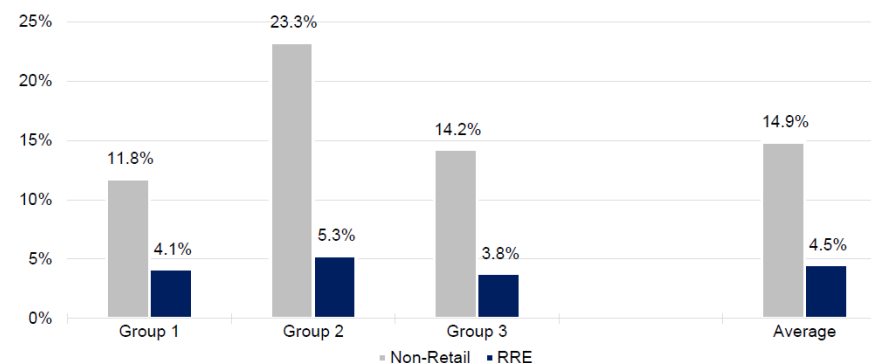
- Recognise **more** NPLs in a more **timely** fashion,
- potential creation of **capital** buffers,
- write-off **lasting** NPLs,
- update their **risk management** systems,
- conservative **lending policies**.

AQRs: experience of reclassification of NPEs.

Asset class	NPE internal definition (€ billion)	EBA NPE pre-CFR (€ billion)	% delta definition	EBA NPE post-CFR (€ billion)	% delta CFR	total % delta AQR
Residential Real Estate	118.5	127.9	8.0%	134.6	5.2%	13.6%
Retail SME	79.8	83.1	4.2%	83.1	0.0%	4.2%
Other Retail	55.6	56.2	1.1%	56.3	0.1%	1.2%
Large SME	146.3	155.6	6.4%	173.9	11.7%	18.8%
Large Corporates	101.6	116.8	14.9%	135.4	15.9%	33.3%
Real Estate Related	199.8	210.1	5.1%	236.5	12.6%	18.4%
Shipping	26.0	27.9	7.3%	35.4	26.6%	35.8%
Project Finance	6.0	6.4	5.5%	7.9	24.3%	31.2%
Other non-retail	9.5	13.7	44.2%	16.0	17.3%	69.1%
SSM	743.1	797.7	7.3%	879.1	10.2%	18.3%

Source: ECB Aggregate report on the comprehensive assessment, 2014.

Reclassified NPEs as % of originally performing debtors reviewed



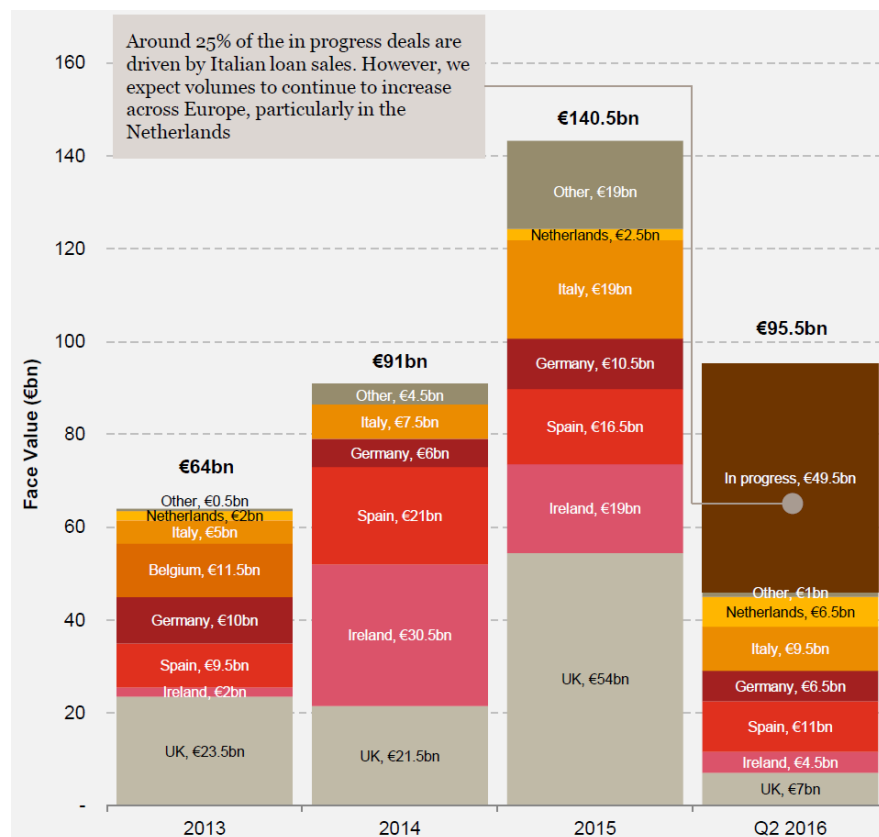
Source: Bulgarian National Bank, report on the AQR and ST results, 2016.

AQRs and further transparency have the potential to promote NPL deals and securitisations

- The IMF stresses the **need for regular AQR updates or supervisory inspections** to check **loan classification and provisioning** across banks*.
- This ensures proper regulatory incentives so that banks **provision for / write off NPLs**, as such not least by **narrowing the gap between net book values and market prices**.
- Through their **data requirements** for NPLs – similar to e.g. transparency exercises and respective disclosure – such exercises **promote** portfolio approaches to NPL disposals, including **portfolio sales** and **asset securitizations**.
- The IMF suggests an **extension of AQRs to smaller banks**, which may lack capacity and resources for NPL resolution.

* Cf. IMF Working Paper on the “Strategy for Developing a Market for Nonperforming Loans in Italy”, 2015, for the arguments.

Loan portfolio transactions across the EU.

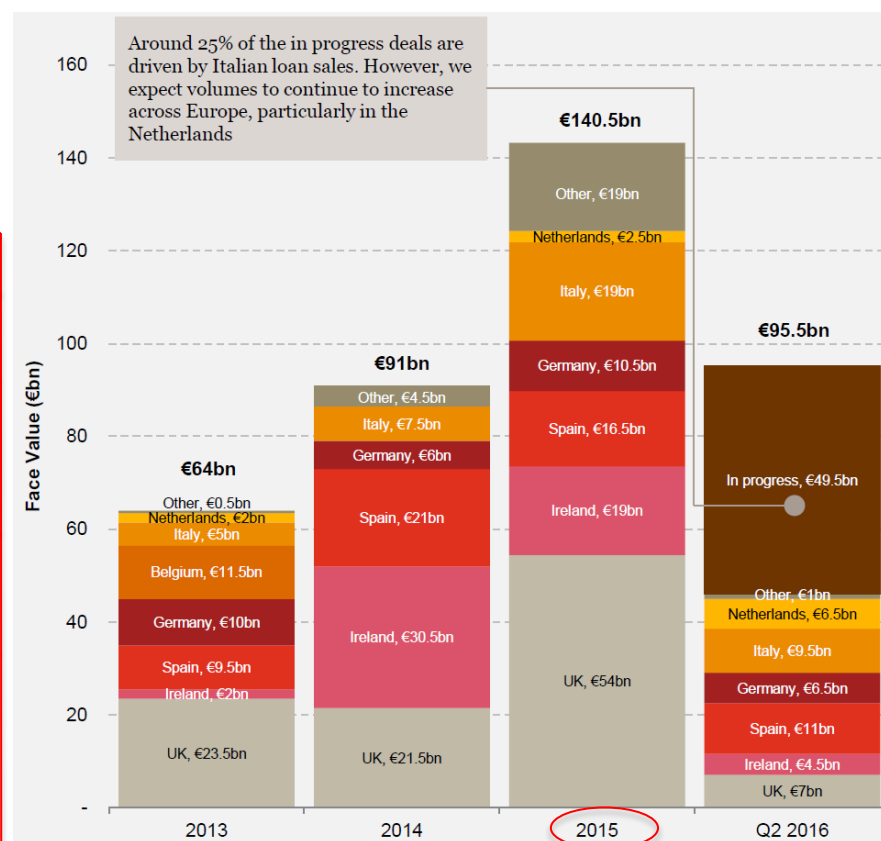


Source: PwC analysis, August 2016, loan portfolio transactions, based on the location of the head office of the bank selling the assets.

... and actively tackling the challenge seems to be of help* ...

NPL Ratio (weighted average)				
%	Dec-14	Dec-15	Mar-16	Jun-16
AT	8.0%	6.9%	6.5%	6.0%
BE	4.3%	3.9%	3.7%	3.6%
BG	13.9%	13.7%	13.7%	13.7%
CY	50.8%	48.9%	48.5%	47.4%
CZ	4.5%	3.3%	3.0%	2.7%
DE	3.7%	3.0%	2.9%	2.7%
DK	3.9%	3.6%	3.6%	3.4%
ES	8.1%	6.3%	6.3%	6.0%
FI	1.6%	1.6%	1.5%	1.6%
FR	4.2%	4.0%	4.0%	3.9%
GB	3.2%	2.4%	2.3%	2.2%
GR	39.7%	46.2%	46.6%	46.9%
HR	13.7%	12.5%	12.5%	11.0%
HU	19.4%	14.0%	13.8%	13.9%
IE	23.2%	18.5%	15.8%	15.4%
IT	17.0%	16.8%	16.6%	16.4%
LT	6.3%	5.1%	4.9%	4.5%
LU	1.5%	1.2%	1.2%	1.1%
LV	5.7%	4.0%	3.9%	3.5%
NL	3.3%	2.8%	2.7%	2.7%
NO	1.6%	1.4%	1.4%	1.7%
PL	7.3%	6.8%	6.9%	6.8%
PT	18.0%	19.1%	19.2%	19.7%
RO	22.2%	14.6%	14.5%	12.1%
SE	1.2%	1.2%	1.1%	1.1%
SK	5.4%	5.2%	5.0%	4.8%
EE*	n.a	n.a	1.6%	1.5%
SI*	n.a	21.5%	19.7%	19.2%
MT*	n.a	7.4%	6.8%	5.6%
EU	6.5%	5.7%	5.6%	5.5%

Loan portfolio transactions across the EU.



Source: PwC analysis, August 2016, loan portfolio transactions, based on the location of the head office of the bank selling the assets.

* Loan portfolio transactions are not the only way to tackle the challenge of high NPL ratios, of course, but one potential solution.

Source: Source: EBA Risk Dashboard (Statistical Annex).

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... but it is not yet a “perfect” world

- There is **no single solution for loan valuations**: banks and investors have different views on the topic and as such they use different approaches to value loans.
- The different approaches are driven by different discount rates, e.g. depending on **accounting rules** or **expected rate of returns**.
- Also the **consideration of (in)direct costs** related to the management / run-down of non-performing loans depend on the purpose of the valuation.
- This is besides **different cost levels for NPL management** at banks or external servicers.
- The **recovery time** has significant impact on valuations.

NPLs: potential difference between book value and market price.

	Bank	Bank (incl. indirect costs)	Investor (IRR 15%)
Input parameters	<i>accounting approach</i>	<i>internal calculation</i>	<i>investor's view</i>
Gross book value	100	100	100
Expected value of collateral (at time of collection)	60	60	60
Years remaining until collection of the collateral	4	4	4
Indirect costs (as a ratio of the collateral value)	n/a	6%	6%
Discount rate	7%	7%	15%
<i>Explanation of the applied discount rate</i>	<i>IAS 39 approach: effective inter. rate</i>	<i>IAS 39 approach: effective inter. rate</i>	<i>investor's IRR</i>
Results			
Discounted cash flow from the collateral	46	46	34
Indirect costs (simplified undiscounted)	n/a	3.6	3.6
Net book value (bank) and investor's offered	46	42	31
Coverage ratio (for the bank, accounting approach)	54%	n/a	n/a
Potential bank's loss (additional write-off)	n/a	-4	-15

Source: own calculation, simplified assumptions.

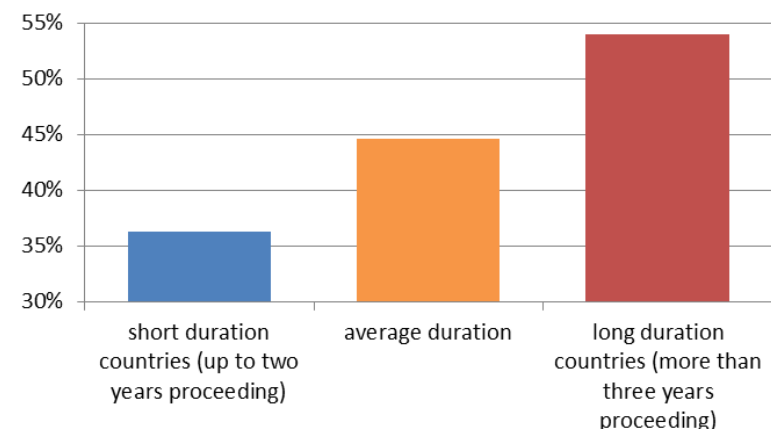
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NPL CHALLENGES: WHAT IS YET TO BE DONE

EBA survey on NPL management*: the main impediments are seen in the countries' structural characteristics ...

- The **EBA definition of forbearance and NPE** are mostly aligned across the EU, but there are **significant differences to the legal systems, duration of out-of-court proceedings and tax regimes**.
- The major impediment to a reliable and fast insolvency procedure is a significant **work-overload of the judicial system**, especially in countries with high NPL ratios. The effect is also reflected in coverage ratios.

Duration of court proceedings vs. coverage ratio for total loans and advances.



Source: EBA report on NPLs (Survey and Q2 data).

- **Out of court restructuring** debt under judicial supervision could be an alternative path for many insolvent clients. However, it seems to be **only infrequently used across the EU**.
- Strong immediate effects of local rules (tax deductibility of LLPs, provisioning rules) on quantitative data could not be identified, most likely due to missing country level data and short time-series.

* EBA's survey among EU NCA on national regulatory and legal framework with implications for the level of NPL, including definitions, NPL identification and troubled debt resolution, conducted in Q1 2016, as part of the work on NPLs, and published in the EBA's report on NPLs (<https://www.eba.europa.eu/documents/10180/1360107/EBA+Report+on+NPLs.pdf>).

... and improved transparency and asset management could ease the process of NPL disposal

Collateral

- **Collateral markets** across the EU are **largely non-transparent**, especially when it comes to Commercial Real Estate. There are only 3 countries (CY, ES, SE) for which the local NCA considers both, CRE and RRE markets as very transparent. On the other hand, the NCAs of GR and HU consider both markets as non-transparent.

Market and Securitisation

- The majority of NCAs consider the **local distressed asset market to be either non-existent or not effective**.
- The majority of NCAs also describe the **local ability for banks to securitize loans to be either non-existent or not efficient**. Only for BE and GB loan securitization is considered efficient, the NCAs of seven countries (IE, DE, GR, IT, ES, NL, SK) assess local securitization somewhat efficient.

Asset management

- Banks face with **limited options to transfer debt into bad banks**. Only 15 out of 28 countries allow for bad bank structures, according to the survey's results.
- Concern about depth and breadth of NPL market raises questions about EU platforms.

Tackling NPLs through further supervisory action, structural changes and improvements in markets' efficiency

1) Further supervisory actions

- Encouraging banks to deal in a more active way with their NPLs:
 - Encourage banks to implement **separate and independent work out units** and to improve their risk management system (setting **quantitative and qualitative targets** for banks).
 - Encourage banks to **increase provisioning**.
 - Foster higher levels of **NPL resolution**, which may require additional capital in some banks.
- More **harmonised application of default definition** (cf. respective EBA Guidelines).
- Scrutinizing **NPL and FBL identification outside the EU**.

2) Structural changes

- A strengthening of the **judicial system**.
- Enhancing real estate collateral **valuation transparency**.
- Supporting the use of **out-of-court restructuring**.
- Supporting an establishment of **AMC solutions** (internally or externally).
- Allowing for **debt securitisation**, ideally through an EU-wide approach.

3) Markets' efficiency

- Improvements needed in respect of
 - **Transparency**,
 - **price discovery** (also fostered by AMCs' participation in the markets),
 - **securitisation** (standard and transparent securitisations).
- Reaction of the markets will most likely be an **increase in NPL transactions at lower discounts**.



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