EUROPEAN CENTRAL BANK

BANKING SUPERVISION

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Supervisory banking statistics: contents, structure, and utility for analysis

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Presentation structure

1. Overview
2. Data breakdowns
3. Classifications
4. Contents
5. Conclusions

Contents

The contents cover all areas of banks' activities

- General statistics (Expanded list of variables)
  - Number of institutions per classification, location of ultimate parent, asset concentration.
- Balance sheet composition
  - Assets and liabilities
- Profitability components and performance indicators
  - RoE, RoA, Cost-to-income
- Solvency ratios
  - CET1, T1, Total capital ratio
- Risk exposures composition (New list of variables)
  - Credit SA, Credit IRB, Market risk etc
- Asset quality (New list of variables)
  - Non-performing and forborne exposures
- Funding (New list of variables)
  - Loan-to-deposit ratio.

All categories above have been expanded as regards the breakdowns provided: country level and classification-based breakdowns

List of banks (1)

- **1st criterion (SIs):** The classifications will be presented for the institutions designated as significant institutions (SIs) and thus directly supervised by the European Central Bank (ECB). (link)

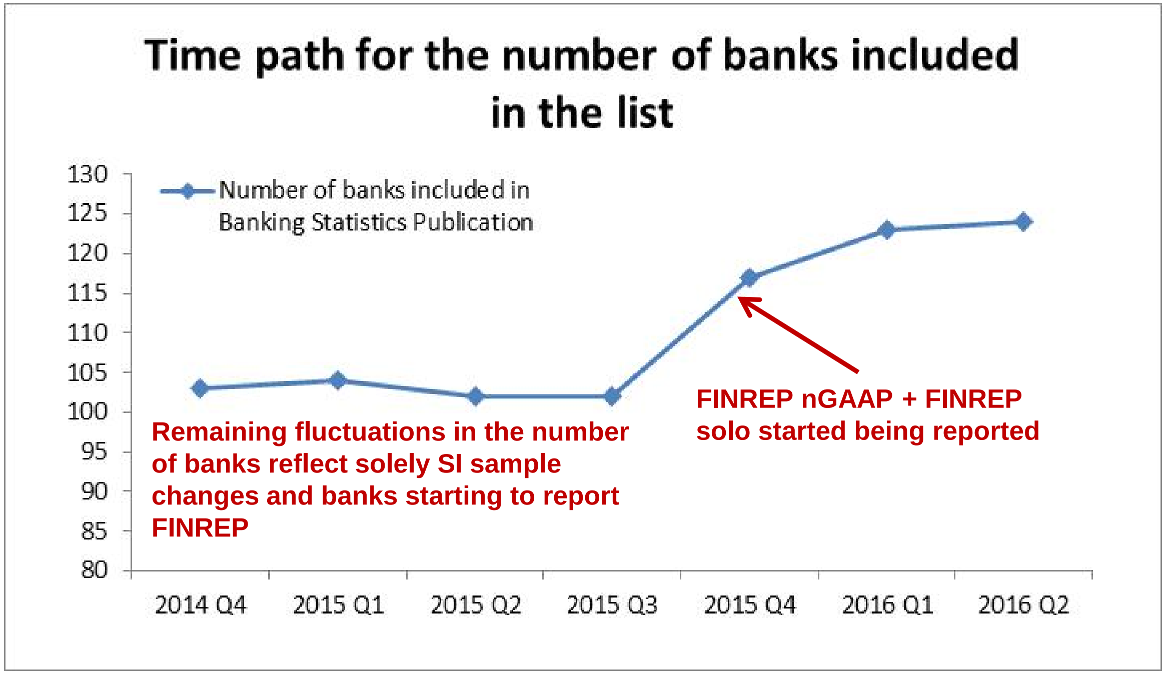
- **2nd criterion (to avoid double counting):** Only entities at the highest level of consolidation are included.

- **3rd criterion (harmonised information):** Sample for each reference period includes only those banks reporting Financial Reporting information (FINREP) together with Solvency Ratio information (COREP) at that point in time.

List of banks (2)

- If a subsidiary of a bank is a SI in a SSM country A but its parent is a SI in SSM country B, then only the consolidated reporting of institution in country B is included. In this way, double-counting is avoided when aggregating the data.

- Branches do not submit Solvency Ratio information so are not included in the sample.



Banks that have recently been designated as an SI and do not yet report FINREP – because of the time lapse between the designation decision and the start of corresponding reporting obligations – are also excluded from the sample until they begin reporting FINREP.

Except from the 2015 Q4 change, subsequent changes in the number of banks are expected to be small.

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Complementary views on the data (1)

Granularity in the published data:

- **Instruments.** (e.g. Assets: loans and advances, debt securities, equity instruments etc; Liabilities: Deposits, debt securities etc; Capital components)
- **Counterparties.** Second-level breakdown after that by instruments (e.g. loans and advances to credit institutions/non-financial corporations/households; deposits by credit institutions/non-financial corporations/households)
- **Profit components and performance metrics.** (Net interest income, net fee and commission income, net trading income etc)
- **Risk exposures.** Risk weighted exposures by type of risk and risk measurement approach.
- **Credit risk state.** Both distinctions of performing vs. non-performing and forborn vs. non-forborne exposures are presented (and their combination).
- **Region of the ultimate parent.** (Ultimate parent in SSM, EEA and not SSM, outside EEA)

Complementary views on the data (2)

Data / reference date	**Q2 2015**	**…**	**Q2 2016**
Variable1	100	..	50
Variable2	200	..	100
…	…	…	…

Time dimension view: time path of variables, on aggregate

Country / Data for Q2 2016	**Variable1**	**…**	**VariableN**
Belgium	100	..	50
Germany	200	..	100
…	…	…	…

Country view: variables broken down by country, for the last reference date

Category / Data for Q2 2016	**Variable1**	**…**	**VariableN**
Category 1 (e.g. G-SIBs)	200	…	110
Category 2 (e.g. Banks with total assets €300 billion)	250	…	220
…	…	…	…

Classification view: variables broken down by category, for the last reference date – for each classification.

Complementary views on the data (3)

The presence of multiple breakdowns enhances utility of the data for the final user and transparency

- **Offers an alternative view of how banks can be classified.** Commonly, in this type of statistics, the country-breakdown is the expected and usually the only choice provided. A novel feature of this data is that alternative banks' classification are used in parallel enhancing the potential for further analysis.
  - **Rationale:** The jurisdiction within which banks operate undoubtedly determines to a significant extent its activities and risks, however this is not the only relevant dimension. Bank-specific common features exist across banks in different countries and this aspect is often neglected when the focus is solely on the aspect of country origin.
  - **Benchmarking:** These complementary data views could be potentially very useful for benchmarking (e.g. wrt profitability and credit risk)

- **Confidentiality.** The ECB faces a legal constraint on publishing bank-level information (CRD Article 53(1)). The utilisation of different breakdowns enhances the usefulness of the data to the user while respecting the confidentiality constraint.

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CLASSIFICATIONS PROPOSED: OVERVIEW

The proposed classifications distribute Significant Institutions (SIs) into categories along certain dimensions which include a set of variables (input set). They represent an alternative to the country breakdown.

Aims

- Classifications should offer to the users insights about the data.
- They could be used to provide the data users with complementary views on the supervisory reporting data (different classifications can be presented side-by-side).
- They should not be interpreted by the user as reflecting supervisory priorities.

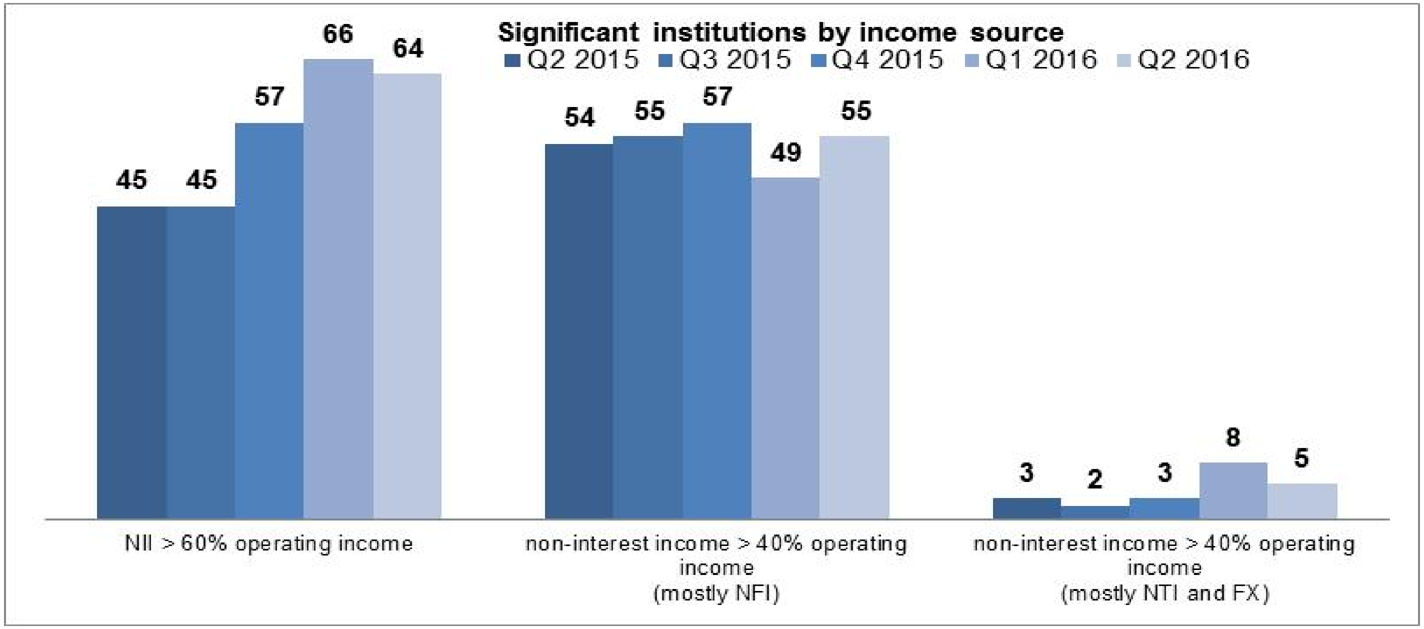
Guiding principles and trade-offs

- Transparency vs. comprehensiveness.
- Simplicity vs. complexity.
- Data sources. Most classifications are based on supervisory data handled in DG-S/SUP. A few also use external data, like credit ratings data. A classification based on SREP scores is also presented.

INCOME SOURCES

Features: This classification differentiates SIs among those relying mostly on interest income from those that derive a significant part of their income from fees, trading or FX.

Operating income (OI) is decomposed into its three main components: net interest income (NII), net fee and commission income (NFI), net trading income (NTI) and net FX gains and losses.



Income sources represent a proxy for the activities in which a bank is involved, which takes also into account the returns and costs of these activities. This is in contrast to a purely balance sheet-based classification where only the amounts are taken into account.

As the classification results show, most SIs are acquire their revenues predominantly through interest income but there is also a significant percentage which also acquires a significant portion of their profits from fees and commissions.

GEOGRAPHICAL DIVERSIFICATION (v.1)

Features: SIs are classified according to both the level and the dominant geographical area(s) of their exposures (loans and debt securities).

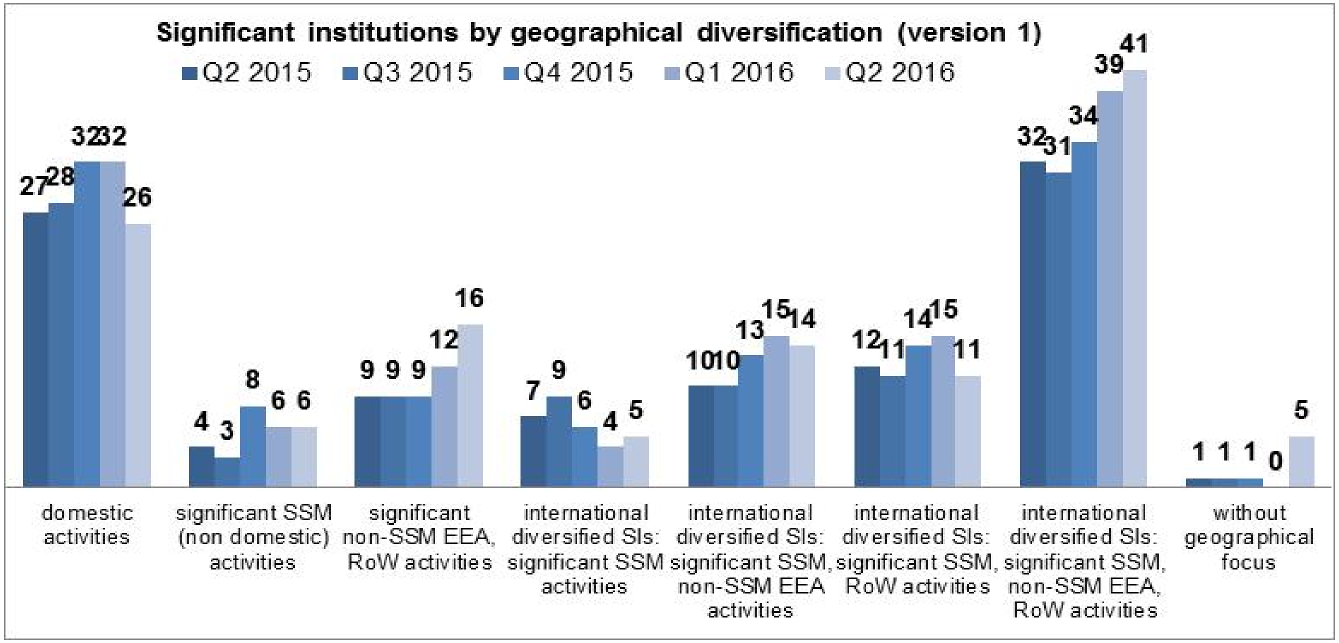
A bank is considered focused on a specific area if the corresponding exposures exceed 5% of the total assets. Specifically, a bank with international exposures < 5% of its assets is labelled domestic.

Geographical areas: **1.** home country (domestic exposures); **2.** SSM (excluding home country); **3.** EEA others (non-SSM); **4.** rest of the world (RoW) – all regions outside the EEA.

Most SIs are either purely domestic (or with <5% exposures in each of SSM, non-SSM EEA and RoW), or diversified internationally with >5% in each of these areas.

We observe that when SIs have non-negligible international exposures they tend to be diversified.

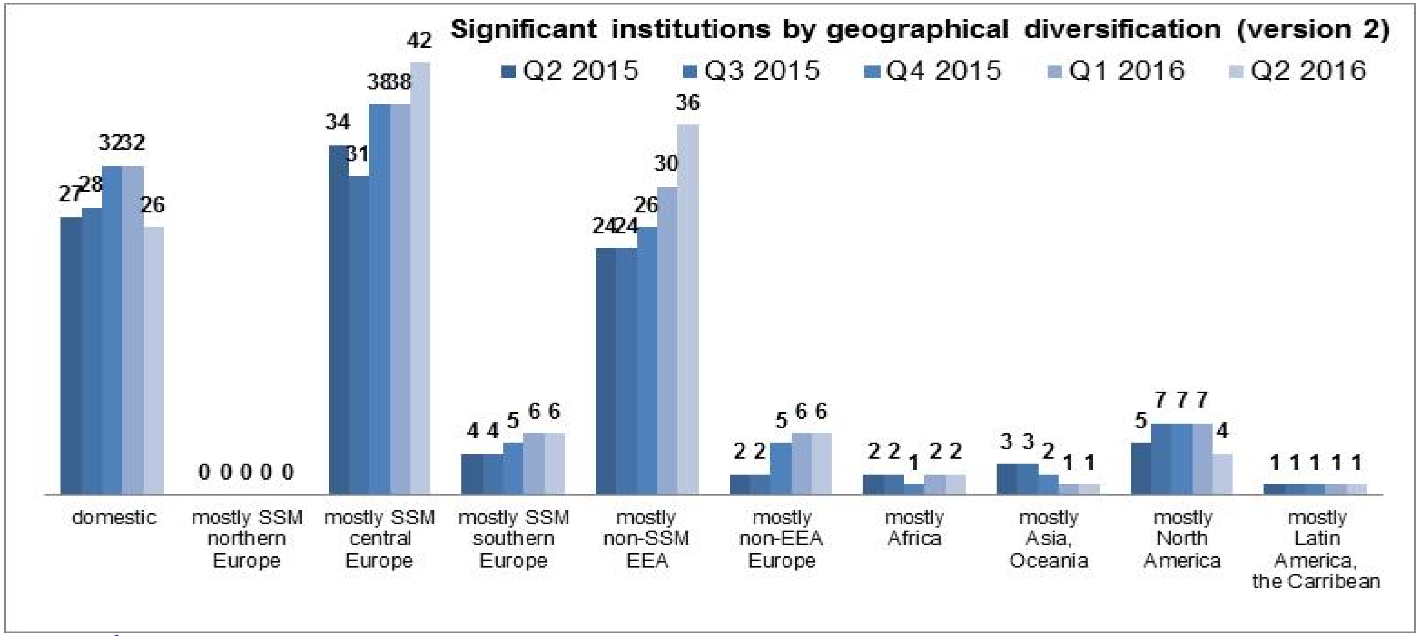
Due to our aim to identify significant amounts of exposures, the geographical granularity is rather coarse. Consequently, we provide another version of the geographical classification which addresses this issue.



GEOGRAPHICAL DIVERSIFICATION (v.2)

Features: A significantly finer geographical classification is achieved by classifying banks according to the regions where they have the relative majority of their exposures.

The majority of non-domestic exposures determines banks' classification, even if it is slight. E.g. a bank with almost balanced exposures between, say, domestic, the UK and South America would be classified exclusively according to the relative majority of its exposures.



SIs with international exposures < 5% are considered domestically-oriented

The vast majority of SIs have their exposures (loans and debt securities) mostly towards domestic, SSM (central Europe) and non-SSM EEA countries.

If we take into account both versions of the geographical classification, we infer that banks with significant geographical exposures are mostly focused towards European investments but in general are also diversified.

SIZE

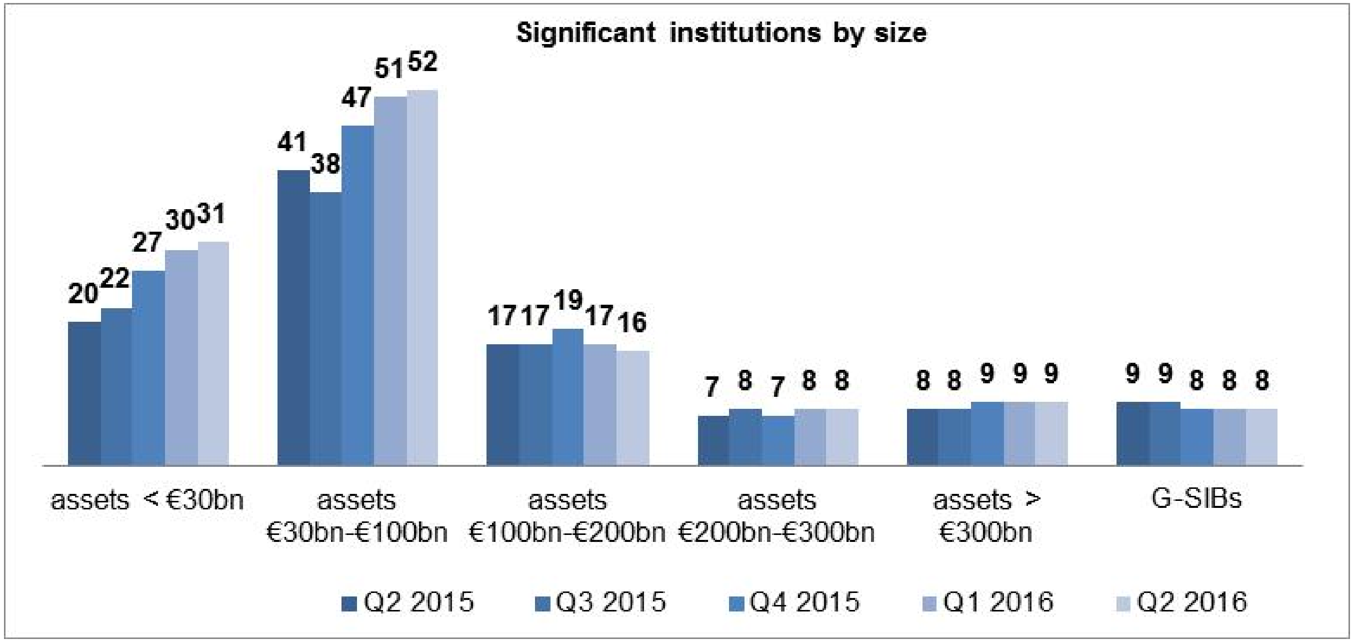
Features: Banks' size (expressed in terms of total assets) is linked to its systemic importance and potentially to risk-taking. Using this classification, data users are allowed to examine whether, for instance, large banks present distinctive differences with respect to their capital, profitability and risk variables.

Thresholds for classifications have been defined having in mind current ECB Banking Supervision and EBA definitions (€200 billion – EBA, €30 billion – ECB Banking Supervision).

Most SIs fall under the medium-sized category with assets between 30bn and 100bn.

31 entities have total assets of <30bn therefore, given the SSM criteria for SIs, users may infer that these banks either reside in small countries or have significant cross-border exposures.

The number of G-SIBs has been affected by the removal of BBVA from the sample in 2015:Q4.

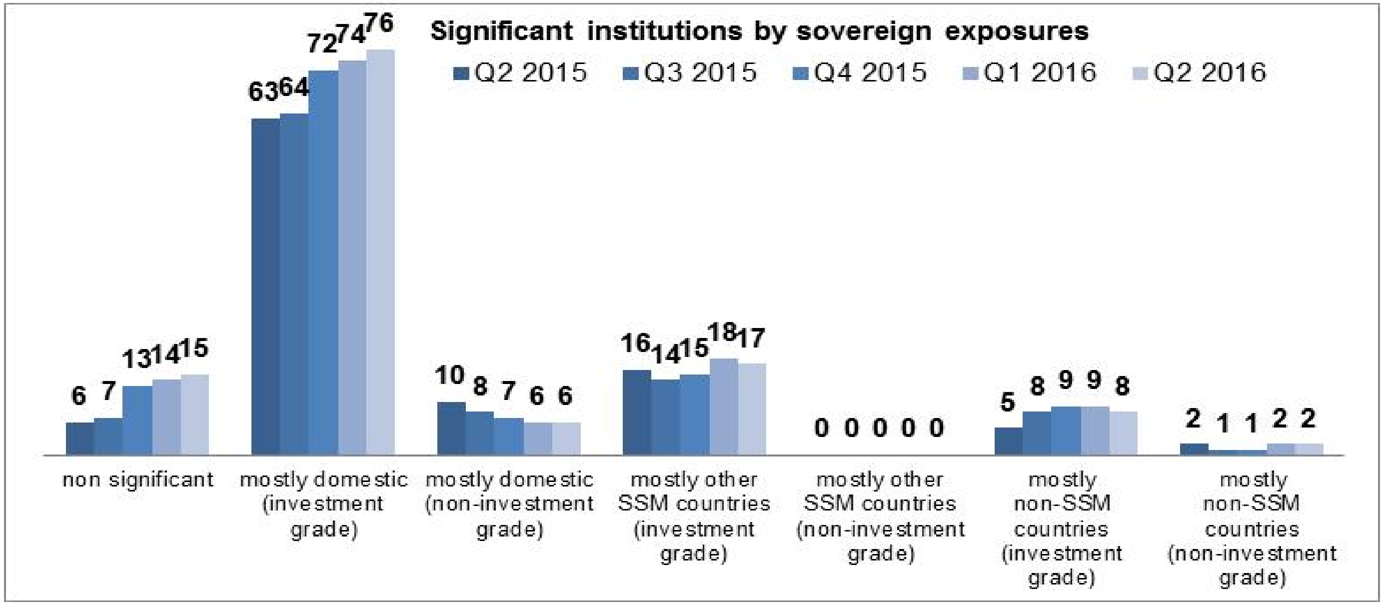


SOVEREIGN EXPOSURES

Features: SIs are classified according to the amount of exposures to sovereigns (loans and debts towards the general governments*) as a percentage of the own funds and taking into account the counterparty countries' credit ratings.

Banks' sovereign exposure is a widely discussed issue and this classification may add on transparency to the debate.

* Includes local governments but excludes public companies.



The category non significant exposures to sovereigns filters out banks with low sovereign exposures (<50% of own funds).

The remaining categories differentiate among regions and credit ratings. A majority rule is applied in this case and banks are classified according to their dominant area/credit rating exposure.

Credit rating includes the ratings provided by DBRS, Fitch, Moody's, and S&P.

The category mostly domestic (investment grade) sovereign exposures clearly dominates the sample. This reflects the home-bias of sovereign holdings and the investment grade of most SSM countries.

Some categories are very thinly populated, but we kept them as to treat different regions symmetrically.

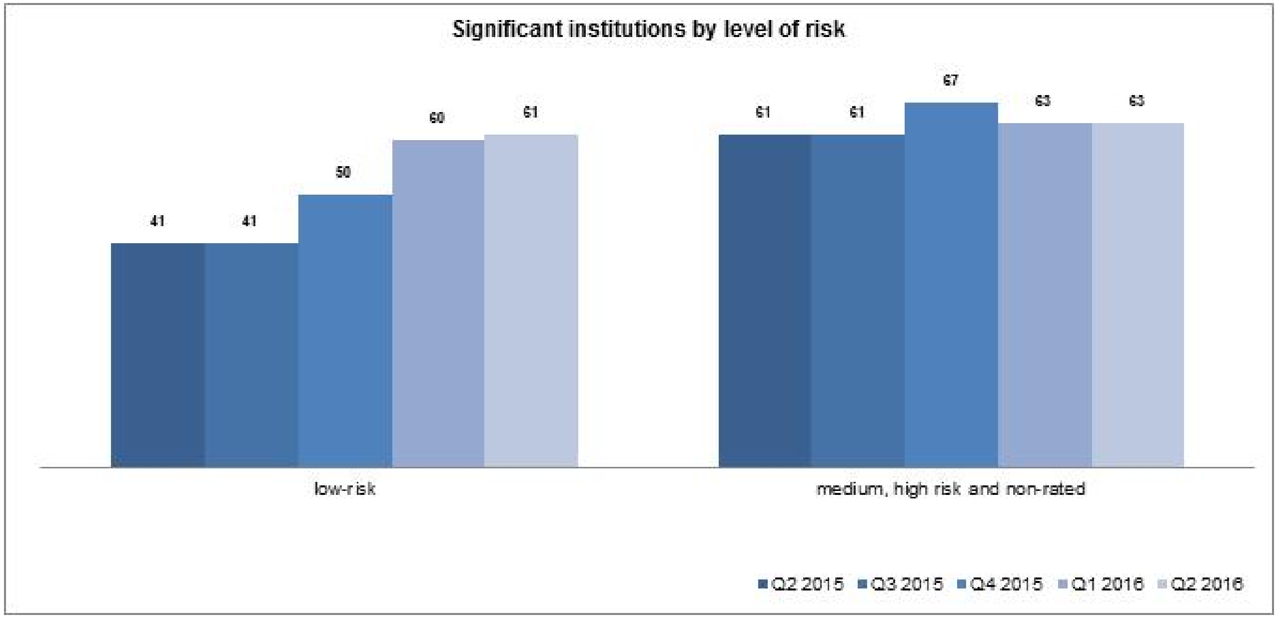
RISK-BASED

Features: SIs are classified based on the quantitative assessment of the Supervisory Review and Evaluation Process (SREP). The SREP assessment provides an overview of banks' risk profiles and vulnerabilities based on their business model, governance and risk management, risks to capital and liquidity, and funding.

A score is derived as part of the SREP process, which examines the aforementioned bank-specific elements plus the external environment (peer comparisons and the macroeconomic environment). (Score=1 or 2 => 'low risk', Score=3, 4 or no score => 'medium, high risk and non-rated')

The SREP assessment takes place annually. For each reference date we use the latest available SREP score.

The SI banks are almost equally split among the two categories for Q2 2015.



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The tables (90 tables with data) can be broadly categorised as follows

- **General statistics.** Number of institutions per classification, location of ultimate parent, asset concentration.
- **Balance sheet composition and profitability** (FINREP data)**.** Profitability components, performance indicators, composition of assets and liabilities.
- **Capital adequacy and asset quality** (COREP data)**.** Solvency ratios and bands, risk exposures composition, asset quality (non-performing and forbearance).
- **Funding.** Loan-to-deposit ratio.
- **Data quality.** Data quality tables across various dimensions.

Each variable focuses on a specific aspect and this aspect is presented using all complementary views described before (i.e. time-dimension, per country, per classifications).

General statistics (Tables T01.01 – T01.04)

Common theme: Number of banks and asset distribution, per category, country and location of ultimate parent.

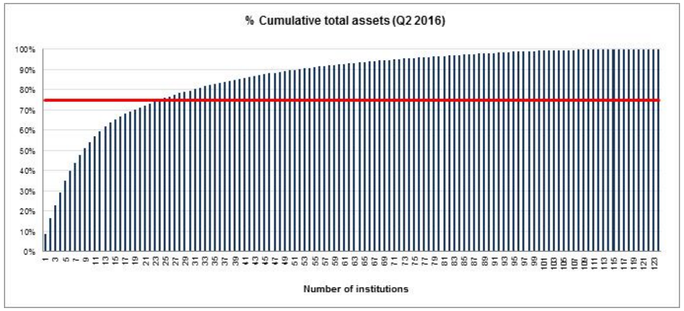
Category	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016
Banks with significant domestic exposures [1]	27	28	32	32	26
Banks with significant international exposures [2]					
One geographical area					
SSM	4	3	8	6	6
Non-SSM EEA [3] *and RoW* [4]	9	9	9	12	16
Internationally diversified [5]					
SSM [6]	7	9	6	4	5
SSM and non-SSM EEA	10	10	13	15	14
SSM and RoW	12	11	14	15	11
SSM, non-SSM EEA and RoW	32	31	34	39	41
Banks with exposures without geographical focus [7]	1	1	1	-	5
Total	**102**	**102**	**117**	**123**	**124**

The change in the number of banks per category – indirect information about the changes in the underlying dimension

Country (Q2 2016)	Total	Groups with ultimate parent in SSM [2]	Groups with ultimate parent in EEA (outside SSM) [3]	Groups with ultimate parent outside EEA [4]
Belgium	7	6	-	1
Germany	22	20	1	1
Estonia	2	-	2	-
Ireland	4	3	1	-
Greece	4	4	-	-
Spain	14	14	-	-
France	12	11	1	-
Italy	14	14	-	-
Cyprus	4	4	-	-
Latvia	3	1	2	-
Lithuania	3	-	3	-
Luxembourg	6	2	-	4
Malta	3	1	1	1
Netherlands	7	6	1	-
Austria	8	5	-	3
Portugal	4	4	-	-
Slovenia	3	3	-	-
Slovakia [1]	-	-	-	-
Finland	4	2	2	-
Total	**124**	**100**	**14**	**10**

Number of banks per location of ultimate parent.

Most banks have an ultimate parent ultimate parent in SSM but some also outside SSM or even the EEA.



Concentration of assets. In addition, concentration of assets per location of ultimate parent is presented.

Balance sheet composition and profitability (Tables T02.x)

Profit and loss statement and also performance and efficiency indicators (RoE, RoA, CtI).

Balance sheet decomposition – both assets and liabilities.

Profit and loss [1,2]	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016
Net interest income	132,686.88	200,149.47	270,429.56	65,677.23	131,817.53
Net fee and commission income	67,602.61	100,110.39	134,673.02	32,629.31	66,004.50
Net trading income	11,560.12	17,369.80	21,836.92	4,702.79	9,225.02
Exchange differences, net	4,385.81	-1,939.39	1,303.44	1,643.77	2,636.68
Net other operating income	31,039.72	45,805.07	53,410.89	9,832.40	26,005.34
Operating income	247,275.13	361,495.34	481,653.83	114,485.50	235,689.07
Administrative expenses and depreciation	-149,645.44	-222,112.69	-304,659.14	-77,729.37	-151,359.20
Net operating income	97,629.69	139,382.65	176,994.69	36,756.13	84,329.87
Impairment and provisions	-50,522.67	-72,682.54	-102,907.76	-15,220.81	-37,507.74
Other	8,048.01	9,125.81	11,757.93	2,284.09	6,295.98
Profit and loss before tax from continued operatior	55,155.03	75,825.92	85,844.85	23,819.40	53,118.11
Profit and loss before tax from discontinued operation	133.01	220.49	-2,990.33	563.32	-2,304.87
Tax expenses or income	-15,465.10	-20,400.54	-22,057.59	-6,546.90	-13,348.42
Net profit/loss	**39,822.95**	**55,645.86**	**60,796.93**	**17,835.82**	**37,464.82**

Profit and loss – time dimension view. As with all remaining tables, country- and classification views are also provided.

Assets (Q2 2016)	**Total**	Banks with total assets: Less than €30 billion	Between €30 billion and €100 billion	Between €100 billion and €200 billion	Between €200 billion and €300 billion	More than €300 billion	G-SIBs [1]
Cash, cash balances at central banks, other demand deposits	**1,231.66**	45.93	109.93	78.82	59.73	295.28	641.98
Loans	**13,652.68**	231.22	1,839.13	1,481.90	1,114.82	2,940.40	6,045.20
Central banks	**154.99**	2.91	21.13	7.15	12.11	38.31	73.39
General governments	**1,068.99**	9.12	181.77	220.25	194.28	125.28	338.29
Credit institutions	**1,506.05**	35.03	223.76	200.31	118.18	319.23	609.54
Other financial corporations	**1,281.95**	14.63	63.55	91.06	54.47	261.17	797.08
Non-financial corporations	**4,542.58**	86.48	631.13	592.59	357.46	952.38	1,922.53
Households	**5,098.11**	83.05	717.79	370.54	378.33	1,244.03	2,304.37
Debt instruments	**3,351.15**	51.38	582.24	388.51	379.32	615.47	1,334.23
of which: loans and receivables	**360.54**	3.78	99.60	17.26	69.89	69.49	100.53
of which: held to maturity	**319.56**	8.56	118.54	34.31	67.27	42.04	48.84
of which: available for sale	**1,845.60**	30.81	269.51	199.93	205.22	377.45	762.68
of which: designated at fair value through profit or loss	**119.81**	3.02	26.25	28.78	0.78	10.39	50.58
of which: held for trading	**609.27**	1.66	24.45	59.29	36.16	116.11	371.59
Equity instruments	**410.40**	1.81	44.00	16.17	9.30	59.85	279.27
of which: available for sale	**101.43**	1.16	30.86	5.21	7.18	18.83	38.19
of which: designated at fair value through profit or loss	**24.45**	0.21	3.75	9.00	0.48	4.73	6.28
of which: held for trading	**277.38**	0.42	2.27	1.96	1.64	36.30	234.80
Derivatives	**2,577.69**	7.43	89.38	188.64	115.55	409.88	1,766.82
Trading	**2,324.03**	6.42	53.07	149.26	93.67	373.36	1,648.24
Derivatives – hedge accounting	**253.67**	1.01	36.31	39.38	21.88	36.52	118.58
Investments in subsidiaries, joint-ventures and associates	**161.45**	3.92	19.56	15.47	6.73	56.12	59.66
Intangible assets and goodwill	**139.37**	1.17	7.67	10.29	5.70	30.36	84.18
Other assets	**1,234.89**	17.18	155.04	109.55	101.35	196.67	655.10
Total assets	**22,759.31**	**360.03**	**2,846.95**	**2,289.34**	**1,792.51**	**4,604.03**	**10,866.44**

Balance sheet decomposition.

First level of breakdown is by instrument (loans, debt instrument, equity instruments etc) and the second levels refer to the counterparties and the accounting portfolios.

Capital and credit risk (Tables T03.x) **(1)**

Regulatory capital ratios. Risk weighted assets decomposition by type of risk. Credit risk.

Category (Q2 2016)	Total RWA[1]	Total capital		Tier 1		CET 1[2]	
		Amount	*Ratio*	Amount	*Ratio*	Amount	*Ratio*
Banks with significant domestic exposures [3]	826.90	132.19	*15.99%*	120.64	*14.59%*	119.58	*14.46%*
Banks with significant international exposures [4]							
One geographical area							
SSM	75.55	16.42	*21.74%*	14.61	*19.34%*	14.44	*19.11%*
Non-SSM EEA [5] *and RoW* [6]	231.56	39.56	*17.08%*	35.10	*15.16%*	34.13	*14.74%*
Internationally diversified [7]							
SSM [8]	344.35	64.05	*18.60%*	56.68	*16.46%*	55.28	*16.05%*
SSM and non-SSM EEA	424.74	85.53	*20.14%*	74.46	*17.53%*	72.47	*17.06%*
SSM and RoW	1,742.01	320.15	*18.38%*	258.78	*14.85%*	238.47	*13.69%*
SSM, non-SSM EEA and RoW	4,408.98	709.47	*16.09%*	601.10	*13.63%*	554.60	*12.58%*
Banks with exposures without geographical focus [9]	189.38	28.12	*14.85%*	23.71	*12.52%*	23.09	*12.19%*
Total	**8,243.47**	**1,395.51**	***16.93%***	**1,185.07**	***14.38%***	**1,112.05**	***13.49%***

Regulatory capital ratios – classification view.

Noticeable differences in capital ratios could be attributed to various reasons – scope for analysis.

Risk-weighted assets (RWA)	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016
Credit RWA	6,806.59	6,757.29	6,906.71	6,942.33	6,962.11
Credit RWA under Std approach [1]	3,069.45	3,051.23	3,117.38	3,134.67	3,105.16
Credit RWA under IRB approach [2]	3,730.28	3,699.40	3,782.72	3,800.80	3,848.74
Risk exposure for contributions to the default fund of a CCP [3]	6.85	6.66	6.61	6.85	8.20
Settlement/delivery RWA	0.17	0.11	0.09	0.08	0.13
Market RWA	378.46	357.59	332.98	340.92	336.97
Market RWA under SA [4]	155.46	149.89	137.85	137.13	131.07
Market RWA under IM approach [5]	223.00	207.69	195.13	203.79	205.90
Operational RWA	780.94	792.92	800.82	814.85	814.21
Operational RWA under BIA [6]	59.83	65.57	66.23	67.77	65.49
Operational RWA under TSA/ASA [7]	327.85	321.39	321.98	325.49	325.55
Operational RWA under AMA [8]	393.26	405.95	412.61	421.59	423.18
Credit value adjusted	111.34	108.17	101.83	104.70	99.92
Other	29.38	30.53	32.24	29.99	30.12
Total RWA	**8,106.87**	**8,046.61**	**8,174.67**	**8,232.87**	**8,243.47**

Risk-weighted assets decomposition – time view.

The user can investigate differences across countries or categories of banks.

Capital and credit risk (Tables T03.x) **(2)**

The inclusion of credit risk enables the user to identify subsets of banks with different realised credit risk characteristics and coverage ratios.

Category (Q2 2016)	Loans and advances	Non-performing loans and advances	Non-performing loans ratio
Banks with total assets			
Less than €30 billion	279.21	43.06	*15.42%*
Between €30 billion and €100 billion	2,024.10	278.27	*13.75%*
Between €100 billion and €200 billion	1,565.14	134.86	*8.62%*
Between €200 billion and €300 billion	1,162.29	52.06	*4.48%*
More than €300 billion	3,244.90	160.44	*4.94%*
G-SIBs [1]	5,887.76	267.87	*4.55%*
Total	**14,163.41**	**936.56**	***6.61%***

Non-performing loans – classification view.

E.g. here the non-performing ratio is inversely related to size.

Category (Q2 2016)	Total exposures				Forborne exposures			
	Performing		Non-performing		Performing		Non-performing	
	Amount	*Coverage ratio*	Amount	*Coverage ratio*	Amount	*Coverage ratio*	Amount	*Coverage ratio*
Banks with total assets								
Less than €30 billion	343.84	*0.41%*	44.89	*40.18%*	9.12	*2.31%*	20.21	*30.53%*
Between €30 billion and €100 billion	2,692.70	*0.43%*	291.73	*41.97%*	53.86	*3.70%*	111.87	*34.74%*
Between €100 billion and €200 billion	2,144.31	*0.37%*	141.33	*40.94%*	29.73	*2.12%*	50.03	*34.40%*
Between €200 billion and €300 billion	1,786.56	*0.20%*	55.06	*45.92%*	28.31	*3.94%*	27.48	*42.27%*
More than €300 billion	4,748.61	*0.31%*	170.52	*44.10%*	58.98	*2.57%*	58.79	*36.24%*
G-SIBs [3]	9,535.30	*0.28%*	286.88	*47.38%*	63.17	*6.35%*	75.56	*39.87%*
Total	**21,251.32**	***0.31%***	**990.40**	***43.90%***	**243.17**	***3.90%***	**343.93**	***36.43%***

Non-performing and forborne loans and corresponding coverage ratios – classification view.

Coverage ratios, total and on forborne loans, differ significantly across categories.

Funding (Tables T04.x)

These tables provide a measure of the degree of real economy credit intermediation and the extent to which it is funded with retail deposits. Loans to non-financial corporations and households, the corresponding deposits and their ratio is provided.

Indicator	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016
Total loans to non-financial corporation and households	9,310.87	9,263.80	9,475.25	9,531.21	9,640.69
Total deposits to non-financial corporations and households	7,352.03	7,403.36	7,690.40	7,674.25	7,823.06
Loan-to-deposit ratio	**126.64%**	**125.13%**	**123.21%**	**124.20%**	**123.23%**

Loans to and deposits from real economy – time view.

The growth of deposits is higher compared to loans and the ratio is decreasing.

Category (Q2 2016)	Total loans to non-financial corporation and households	Total deposits to non financial-corporations and households	Loan-to-deposit ratio
Banks with et interest income more than 60% of operating income	4,218.69	3,198.75	131.89%
Banks with non-interest income more than 40% of operating income			
Mostly net fee income	5,287.98	4,541.70	116.43%
Mostly net trading income and foreign exchange gains and losses	134.02	82.61	162.23%
Total	**9,640.69**	**7,823.06**	**123.23%**

Loans to and deposits from real economy – classification view.

The ratio is higher for banks acquiring significant trading income, which may have potential implications for the stability of their funding.

Presentation structure

1	Overview
2	Data breakdowns
3	Classifications
4	Contents
5	**Conclusions**

Conclusions

- The content of the published data is wide enough and could prove to be useful for
  - the general public: main risk and solvency information
  - market participants and analysts: performance of banks, risks
  - the banks themselves: benchmarking (e.g. identifying efficiency and risk-return frontiers)

- The alternative classifications complement the customary country breakdown, offering alternative views on the data and proposing alternative dimensions to differentiate banks

- Future increase in the data offered is planned but the current step of data expansion seems to offer a large amount of material that users can utilise