

EBA 2015 CVA RISK MONITORING EXERCISE

MAIN RESULTS

21 June 2017

EBA

EUROPEAN
BANKING
AUTHORITY

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Executive Summary

Article 456(2) of Regulation (EU) No 575/2013 (Capital Requirements Regulation — CRR) mandates the EBA to ‘monitor the own funds requirements for CVA risk and by 1 January 2015 submit a report to the Commission’.

The EBA published its CVA Report¹ on 25 February 2015. The report, which was informed by a data collection exercise conducted based on 2014 data, highlighted the materiality of the CVA risks that are currently not covered by EU legislation due to exemptions, and recommended that EU exemptions should be reconsidered and possibly removed upon completion of a review of the CVA risk charge in Basel². The report also made specific proposals on how the international standards on CVA risk should be amended³ and recommended developing ‘an EBA coordinated approach for yearly monitoring of the impact of transactions exempted from the CVA risk charge and for defining situations constituting a presumption of excessive CVA risks to be considered under SREP’⁴.

On 12 November 2015 the EBA consulted on Guidelines on the treatment of CVA risk under the supervisory review and evaluation process (SREP). In parallel with the public consultation, the EBA launched a data collection exercise based on 2015 data. The exercise is henceforth referred to as the ‘2015 CVA risk monitoring exercise’.

Due to continued developments in the CVA risk framework at international level, the EBA has put on hold the work on its draft Guidelines on the treatment of CVA risk under SREP until further notice. Instead, the EBA will focus on monitoring the impact of transactions exempted from the CVA risk charge and assessing the impact of the revised international standards on CVA risk, in particular on the scope of exempted transactions, once the standards are made public. Competent authorities will use the outcome of the EBA monitoring in their assessments of institutions’ CVA risk performed in accordance with the EBA Guidelines on common procedures and methodologies for SREP⁵ (2014). The EBA will closely follow international (BCBS) developments and, if needed, will review whether further guidance is needed to achieve greater consistency in appropriate risk-based supervisory measures.

This short report presents the main results of the 2015 CVA risk monitoring exercise, in which 171 EU banks, representing 28 EU Member States and 1 EEA member country, participated.

The collected data was used to assess the materiality of CVA risk for this sample of banks, which is considered to comprise major EU banks. In particular, banks were requested to compute the impact of a reintegration into the scope of their CVA risk charge transactions currently subject to

¹ <http://www.eba.europa.eu/documents/10180/950548/EBA+Report+on+CVA.pdf>

² CVA Report Policy Recommendation No 3.

³ CVA Report Policy Recommendation No 15.

⁴ CVA Report Policy Recommendation No 4.

⁵ <http://www.eba.europa.eu/documents/10180/935249/EBA-GL-2014-13+%28Guidelines+on+SREP+methodologies+and+processes%29.pdf/4b842c7e-3294-4947-94cd-ad7f94405d66>

CRR exemptions. In addition, banks using the advanced method for CVA risk were requested to assess the impact of Policy Recommendations No 7 (proxy spread) and No 8 (LGD_{MKT}) of the CVA Report.

With caveats on data quality, in particular in the case of the inclusion of intragroup transactions, results show that the median bank would see, as a result of the reintegration of exempted transactions, its current CVA risk charge multiplied by 2.77 when intragroup transactions are not taken into account and by almost 4 when they are.

In terms of CET1 ratio, the results show that the full capitalisation of CVA risk would lead to impacts greater than 200 bp, compared with initial CET1 levels, for 4 banks. As expected, the decrease in the CET1 ratio is more significant when intragroup transactions are reintegrated into the scope of the charge. Furthermore, the impact is naturally dependent on the initial level of the CET1 ratio, which in some cases (e.g. where the initial CET1 ratio is above 20%) is comfortable enough to absorb the shock.

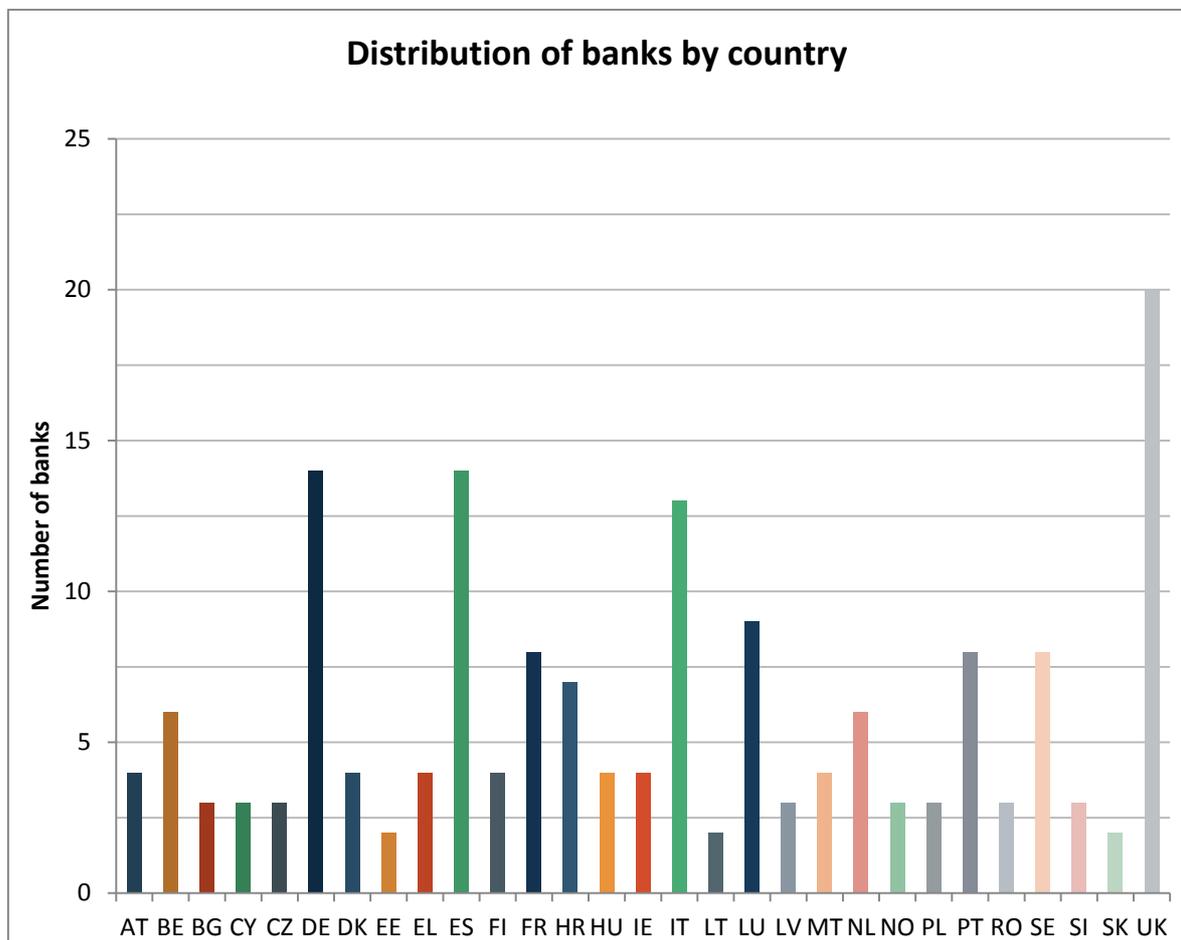
As mentioned above, to fulfil its mandate under Article 456(2) of the CRR to 'monitor the own funds requirements for CVA risk' and following the recommendation made in the CVA Report, the EBA will continue to monitor the impact of transactions exempted from the CVA risk charge in the 2016 CVA risk monitoring exercise it is initiating today.

1. General

1.1 Participation

A total of 171 EU banks, representing 28 EU Member States and 1 EEA member country, participated in the 2015 CVA risk monitoring exercise (Figure 1). Banks included in the EBA list of institutions, for which the EBA receives COREP submissions, were required to participate in the monitoring exercise.

Figure 1. Distribution of banks by country



The submission of data was conducted in two stages, whereby banks showing data quality issues were requested to answer general and specific comments and resubmit their contribution. The data quality was very significantly increased as a result of this process.

1.2 Requested data

Banks were requested to provide data as of 30 September 2015 or 31 December 2015.

The requested data included:

- the total exposure value for derivative transactions, excluding transactions with a qualifying CCP, expressed in terms of EAD;
- the current total CVA risk charge, expressed in terms of RWA;
- the hypothetical CVA risk charge, expressed in terms of RWA, that the institution would face if currently exempted transactions were reintegrated into the scope of the CVA risk charge.

Various hypothetical scenarios were tested, aiming to assess:

- the impact of a removal of all exemptions excluding the intragroup exemption;
- the impact of a removal of all exemptions including the intragroup exemption;
- the impact of Policy Recommendations No 7 (proxy spread) and No 8 (LGD_{MKT}) for institutions currently using the advanced method.

1.3 Main assumptions

All reported values were converted to euros.

Only institutions applying the advanced method for CVA risk were considered when assessing the impact of Policy Recommendations No 7 and No 8 of the EBA Report on CVA.

Hypothetical CVA risk figures were taken into account only if greater than current CVA risk figures.

Regarding intragroup transactions, hypothetical CVA risk figures including intragroup transactions were taken into account only if greater than hypothetical CVA risk figures excluding intragroup transactions.

The figures for impact on CET1 ratio were calculated based on CET1 COREP data provided by competent authorities, since the total CET1 of institutions was not requested in the template⁶.

⁶ This has been corrected and total CET1 is requested as part of the 2016 CVA risk monitoring exercise.

2. Materiality of CVA risk

The materiality of CVA risk was assessed based on two broad indicators: an absolute indicator expressed in terms of exposure value (EAD) and a relative indicator expressed in terms of the ratio of current CVA risk charge to total Pillar 1 capital.

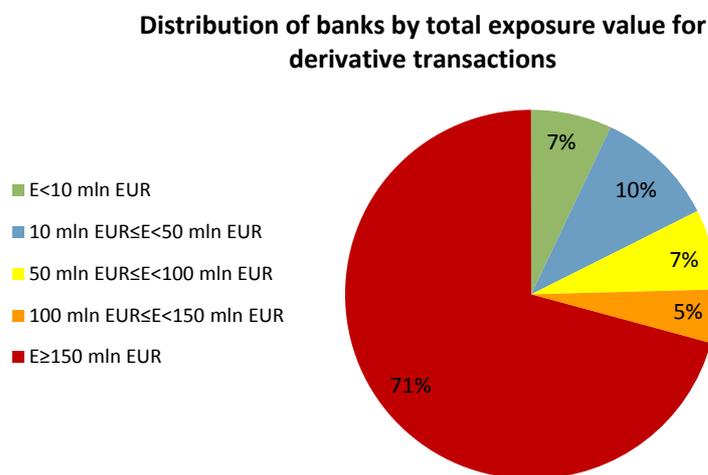
Both indicators are naturally unable to reflect accurately the materiality of CVA risk. On the one hand, the exposure value simply does not measure CVA risk. On the other hand, the ratio of current CVA risk charge to total Pillar 1 capital does not take into account the transactions that, in the EU, are currently exempted from the scope of the CVA risk charge.

Nonetheless, those indicators provide a broad overview of the materiality of risks stemming from non-centrally cleared derivative transactions for the sample of banks considered.

2.1 Total derivative exposure value

In absolute terms, 71% of the banks in the sample have a portfolio of derivatives generating an exposure value greater than EUR 150 million (Figure 2).

Figure 2. Distribution of banks by total exposure value for derivative transactions



The distribution of banks in the sample by total exposure value is set out more precisely in the table below (Figure 3).

Figure 3. Distribution of banks by total exposure value

	Total exposure value (EUR)
Observations	171
Minimum	145 762
25th percentile	125 159 526
50th percentile	482 000 000
75th percentile	4 426 877 000
Maximum	114 474 076 515

2.2 Current CVA risk

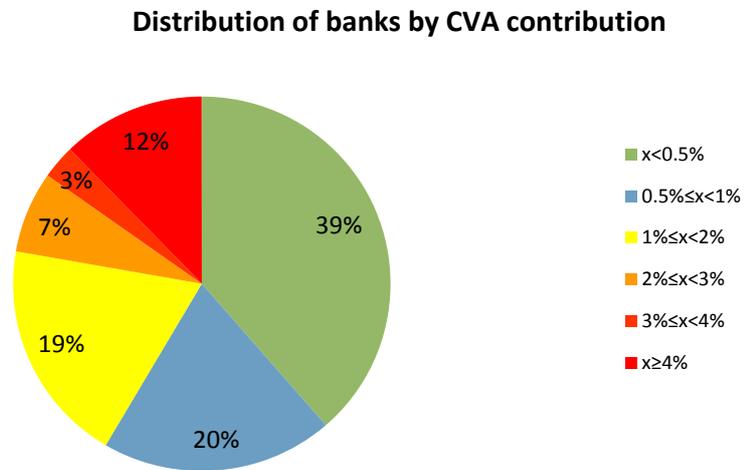
The materiality of CVA risk for banks was also assessed based on the ratio of current CVA risk charge to total Pillar 1 own fund requirements (OFR). Current X is defined as follows:

$$\text{Current } X = \frac{\text{Current own funds requirements for CVA risk}}{\text{Current total Pillar 1 own funds requirements}}$$

Current X does not reflect the transactions currently excluded from the scope of the CVA risk charge due to EU exemptions.

Figure 4 shows that, for more than half of the sample, Current X is below 1%. However, for 12% of the banks, Current X is already above 4%, despite the CVA risk charge not reflecting exempted transactions.

Figure 4. Distribution of banks by CVA contribution to total OFR (Current X)



The quartiles of the distribution are shown in the table below (Figure 5).

Figure 5. Distribution of banks by CVA contribution to total OFR (Current X)

	Current X
Observations	171
Minimum	0.00%
25th percentile	0.26%
50th percentile	0.74%
75th percentile	1.87%
Maximum	30.77%

As shown in Figure 5, for the vast majority of banks Current X is below 2%, with an outlier value at around 30%.

3. Impact figures excluding intragroup transactions

For the purposes of this section, the impact of intragroup transactions is disregarded, i.e. intragroup transactions are not reintegrated into the scope of the CVA risk charge.

Therefore, on top of the institution's transactions already in scope, only the following transactions are reintegrated:

- EU and non-EU non-financial counterparties (NFCs) that are currently excluded under Article 382(4)(a) of the CRR;
- pension funds counterparties that are currently excluded under Article 382(4)(c) of the CRR;
- sovereign counterparties that are currently excluded under Article 382(4)(d) of the CRR.

Only banks with hypothetical CVA risk greater than Current CVA risk are considered.

3.1 Impact on CVA risk charge

In the following, banks were requested to compute the hypothetical CVA risk charge they would be subject to if all the transactions above were reintegrated into the scope of the CVA risk charge.

The computation was requested for two scenarios: (i) EBA Policy Recommendations No 7 (allowing firms to use alternative approaches based on a more fundamental analysis of credit risk to proxy the spread of those counterparties for which no time series of credit spreads are available) and No 8 (allowing institutions to reflect the seniority of the netting set in LGD_{MKT}) have been implemented; and (ii) Policy Recommendations No 7 and No 8 have not been implemented:

- CVA Report Policy Recommendations No 7 and No 8 are implemented, in which case:

$$CVA\ Impact_{PR7-8} = \frac{Hypothetical\ CVA\ risk_{PR7-8}}{Current\ CVA\ risk}$$

- CVA Report Policy Recommendations No 7 and No 8 are not implemented, in which case:

$$CVA\ Impact_{noPR7-8} = \frac{Hypothetical\ CVA\ risk_{noPR7-8}}{Current\ CVA\ risk}$$

According to Figure 6, which shows data from banks applying both advanced and standardised CVA approaches, the median bank would see its current CVA risk charge multiplied by 2.77 as a result of the reintegration of exempted transactions. The maximum value reported (i.e. 1 394.17 times the current CVA charge), which is a clear outlier, was confirmed by the bank concerned, and

therefore has been kept in this report. It reflects the fact that the bank has a large portfolio of, almost exclusively, currently exempted derivative transactions.

Figure 6. CVA impact excluding intragroup — all banks

	PR 7 and PR 8 implemented⁷	PR 7 and PR 8 not implemented
Observations	127	127
Minimum	↓1	↓1
25th percentile	1.48	1.48
50th percentile	2.77	2.77
75th percentile	4.77	5.23
Maximum	1 394.17	1 394.17

Looking now at Figure 7, which shows the results solely for those banks that apply the advanced method for CVA, it can be observed that, for the median bank, the current CVA risk charge would be multiplied by 2.59 if EBA Policy Recommendations No 7 and 8 on proxy spread and LGD_{MKT} were implemented, and by a higher factor of 2.69 in the alternative scenario.

Figure 7. CVA impact excluding intragroup – banks using the advanced method for CVA risk

	PR 7 and PR 8 implemented	PR 7 and PR 8 not implemented
Observations	10	10
Minimum	1.15	1.15
25th percentile	1.69	1.95
50th percentile	2.59	2.69
75th percentile	4.27	5.24
Maximum	18.78	18.78

⁷ Policy Recommendations No 7 and No 8 would impact only banks using the advanced method.

It would seem that the implementation of Policy Recommendations No 7 and No 8 would not lead to a material impact, although it might generally lead to a slight decrease in the amount of CVA risk charge calculated.

3.2 Impact on ratio of CVA risk to total Pillar 1

As was done for the Current X ratio (i.e. current CVA contribution to current total OFR), the relative importance of the hypothetical CVA charge (i.e. which would be computed if all exempted transactions were included) over the hypothetical total OFR (i.e. which would be computed using the hypothetical CVA instead of the current CVA) was also assessed. This Hypothetical X ratio is defined as follows:

$$\text{Hypothetical } X = \frac{\text{Hypothetical own funds requirements for CVA risk}}{\text{Hypothetical total Pillar 1 own funds requirements}}$$

Where hypothetical total Pillar 1 = current total Pillar 1 – current CVA risk + hypothetical CVA risk.

Figure 8. Hypothetical X excluding intragroup — all banks

	PR 7 and PR 8 implemented	PR 7 and PR 8 not implemented
Observations	127	127
Minimum	0.00%	0.00%
25th percentile	1.11%	1.11%
50th percentile	2.67%	2.67%
75th percentile	5.74%	5.81%
Maximum	24.52%	24.52%

Figure 9. Hypothetical X excluding intragroup — banks using the advanced method for CVA risk

	PR 7 and PR 8 implemented	PR 7 and PR 8 not implemented
Observations	10	10
Minimum	1.84%	2.31%
25th percentile	3.80%	4.06%
50th percentile	4.91%	5.48%
75th percentile	8.58%	9.54%
Maximum	14.20%	14.20%

When Figure 9 is compared with Figure 5 (i.e. Current X), it can be seen that the integration of exempted transactions into the scope of the CVA risk charge increases for the sample the materiality of CVA risk in the total Pillar 1 OFR as measured by Hypothetical X.

3.3 Impact on capital

The CVA capital charge has been designed to stand against losses stemming from deterioration in the creditworthiness of an institution's counterparties. As a key part of the monitoring exercise, the EBA has assessed the potential undercapitalisation resulting from the current Pillar 1 exemptions. In this regard, various scenarios were tested in which a proportion Y% of the hypothetical CVA risk is capitalised, thus identifying a capital need defined as follows:

$$\text{Capital Addon} = \max\{0, y\% \cdot \text{Hypothetical CVA risk charge} - \text{Current CVA risk charge}\}$$

Figure 10 shows the distribution of banks by size of capital add-ons in the scenario where Policy Recommendations No 7 and No 8 are not implemented. The starting sample is the full sample of 171 banks.

If 50% of the hypothetical CVA risk were to materialise, this would result on average in a capital need of EUR 118 million for 76 banks. The remaining banks in the sample would not be impacted because their current CVA risk charge is already greater than 50% of their hypothetical CVA risk. The aggregated additional capital needed across the sample would amount to almost EUR 9 billion.

If 70% of the hypothetical CVA risk were to materialise, the number of impacted banks would increase to 97 (out of 171 banks), with the median bank of this sub-sample of 97 banks being subject to an individual capital need of almost EUR 35 million. The maximum individual add-on would reach EUR 1.8 billion.

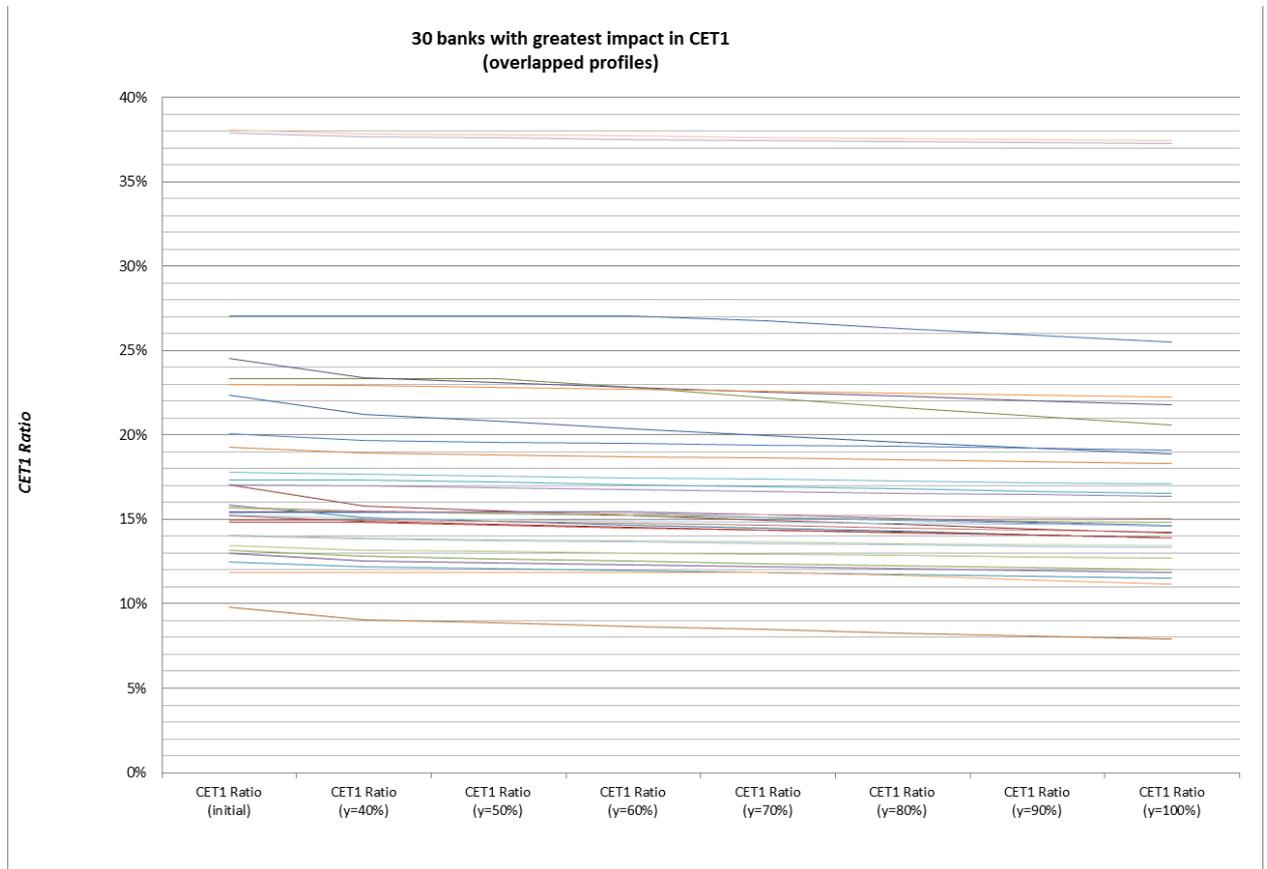
Figure 10. Capital add-ons for various values of Y% excluding intragroup

	Add-on for Y = 40%	Add-on for Y = 50%	Add-on for Y = 60%	Add-on for Y = 70%
Observations	68	76	84	97
Minimum	95	175	256	336
25th percentile	2 254 673	3 828 034	4 359 523	3 777 048
50th percentile	16 025 138	27 364 392	45 354 026	34 749 734
75th percentile	95 314 934	137 818 812	182 284 587	217 976 000
Maximum	739 668 687	1 093 378 900	1 447 089 112	1 800 799 324
Sum	5 690 753 842	8 978 923 544	12 758 147 666	16 875 289 783
Average	83 687 557	118 143 731	151 882 710	173 972 060

3.4 Impact on CET1 ratio

Figure 11 below shows data for the sub-sample of the 30 banks most affected in terms of basis points of CET1 ratio by the capitalisation of 100% of their hypothetical CVA risk.

For this sub-sample of 30 banks, the impact on the initial CET1 ratio is shown for the various scenarios of capitalisation of Y% corresponding to the capital add-on needed.

Figure 11. Impact on CET1 ratio for various values of γ % excluding intragroup

As shown in Figure 11, the decrease in the CET1 ratio compared with the initial CET1 ratio amounts for 4 banks to more than 200 bp. In some cases, the decrease is mitigated by a relatively comfortable initial situation (e.g. an initial CET1 ratio above 20%). However, some banks with lower initial CET1 ratios are clearly more exposed.

4. Impact figures including intragroup transactions

For the purposes of this section, the impact of intragroup transactions is included. However, only some intragroup transactions would be reintegrated into the scope of the CVA risk charge, since intragroup exposures with counterparties that meet all the conditions set out under Article 113(6) of the CRR would remain exempt.

Therefore, on top of the institution's transactions already in scope, the following transactions are reintegrated:

- EU and non-EU NFCs that are currently excluded under Article 382(4)(a) of the CRR;
- pension funds counterparties that are currently excluded under Article 382(4)(c) of the CRR;
- sovereign counterparties that are currently excluded under Article 382(4)(d) of the CRR;
- intragroup transactions that are currently excluded under Article 382(4)(b) of the CRR, except for intragroup exposures with counterparties that meet all the conditions set out under Article 113(6) of the CRR, which remain exempt.

Only banks with hypothetical CVA risk including intragroup transactions greater than hypothetical CVA risk excluding intragroup transactions are considered. As a general issue, data quality seems to be much more questionable when intragroup transactions are included⁸. In addition, the size of the sample of banks that provided acceptable data is smaller than in Section 3.

4.1 Impact on CVA risk charge

In the following, banks were requested to compute the hypothetical CVA risk charge they would be subject to if all the transactions above (i.e. including intragroup) were reintegrated into the scope of the CVA risk charge.

As previously, the computation was requested for two scenarios:

- CVA Report Policy Recommendations No 7 and No 8 are implemented, in which case:

$$CVA\ Impact_{PR7-8} = \frac{Hypothetical\ CVA\ risk_{PR7-8}}{Current\ CVA\ risk}$$

- CVA Report Policy Recommendations No 7 and No 8 are not implemented, in which case:

⁸ The instructions of the 2016 CVA risk monitoring exercise include some clarification regarding the computation of the impact of intragroup transactions, in order to achieve more comparable results across banks.

$$CVA\ Impact_{noPR7-8} = \frac{Hypothetical\ CVA\ risk_{noPR7-8}}{Current\ CVA\ risk}$$

According to Figure 12, the median bank would see its current CVA risk charge multiplied by almost 4 as a result of the reintegration of exempted transactions, including intragroup transactions.

Figure 12. CVA impact including intragroup — all banks

	PR 7 and PR 8 implemented⁹	PR 7 and PR 8 not implemented
Observations	61	61
Minimum	1.023	1.023
25th percentile	2.287	2.371
50th percentile	3.989	3.989
75th percentile	11.998	11.998
Maximum	3 165.623	3 165.623

According to Figure 13, for the median bank using the advanced method the current CVA risk charge would be multiplied by 2.68 if EBA Policy Recommendations No 7 and No 8 on proxy spread and LGD_{MKT} were implemented, and by a higher factor of around 3 in the alternative scenario.

Figure 13. CVA impact including intragroup — banks using the advanced method for CVA risk

	PR 7 and PR 8 implemented	PR 7 and PR 8 not implemented
Observations	8	8
Minimum	1.151	1.151
25th percentile	1.629	1.674
50th percentile	2.683	3.097

⁹ Policy Recommendation No 7 and No 8 would impact only banks using the advanced method.

75th percentile	5.513	6.200
Maximum	18.868	18.868

4.2 Impact on ratio of CVA risk to total Pillar 1

Another element assessed as part of the monitoring exercise was the potential impact of the inclusion of intragroup transactions in the CVA calculation. To this end, as above, a 'Hypothetical X' ratio, taking into account the inclusion of intragroup transactions both in the numerator and denominator, was defined as follows:

$$\text{Hypothetical } X = \frac{\text{Hypothetical own funds requirements for CVA risk}}{\text{Hypothetical total Pillar 1 own funds requirements}}$$

Figure 14. Hypothetical X including intragroup – all banks

	PR 7 and PR 8 implemented	PR 7 and PR 8 not implemented
Observations	62	62
Minimum	0.02%	0.02%
25th percentile	1.66%	1.66%
50th percentile	4.11%	4.29%
75th percentile	8.65%	8.65%
Maximum	28.12%	28.12%

Figure 15. Hypothetical X including intragroup – banks using the advanced method for CVA risk

	PR 7 and PR 8 implemented	PR 7 and PR 8 not implemented
Observations	8	8
Minimum	1.87%	2.34%
25th percentile	4.11%	4.41%
50th percentile	8.41%	8.40%

75th percentile	11.10%	12.23%
Maximum	14.25%	14.25%

When Figures 14 and 15 are compared with Figures 8 and 9, it can be seen that the integration of intragroup transactions into the scope of the CVA risk charge increases further the materiality of CVA risk in the total Pillar 1 OFR.

4.3 Impact on capital

Like Figure 10, Figure 16 shows the distribution of banks by size of capital add-ons in the scenario where Policy Recommendations No 7 and No 8 are not implemented. The starting sample is a sample of 62 banks.

If 50% of the hypothetical CVA risk were to materialise, this would result on average in a need for a capital add-on of EUR 138 million for 48 banks. The remaining banks in the sample would not be impacted because their current CVA risk charge is already greater than 50% of their hypothetical CVA risk. The aggregated additional capital needed across the sample would amount to almost EUR 6.6 billion.

Figure 16. Capital add-ons for various values of Y% including intragroup

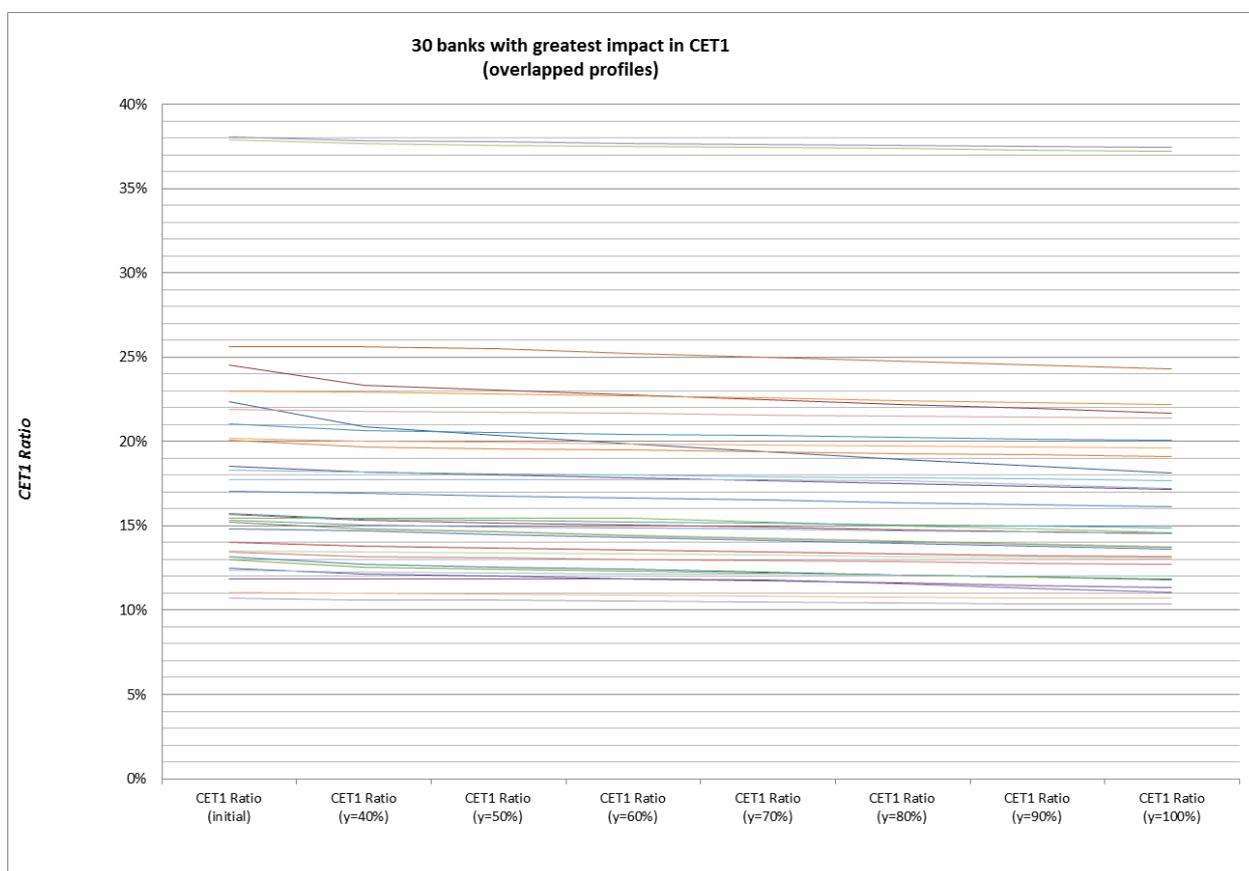
	Add-on for Y = 40%	Add-on for Y = 50%	Add-on for Y = 60%	Add-on for Y = 70%
Observations	46	48	49	56
Minimum	2 368	6 720	11 072	15 424
25th percentile	2 464 219	3 181 071	4 806 626	4 358 116
50th percentile	9 285 555	17 157 865	24 165 894	29 921 641
75th percentile	109 308 430	138 900 311	186 085 251	158 917 165
Maximum	942 135 327	1 346 462 200	1 750 789 072	2 155 115 944
Sum	4 642 544 813	6 633 149 908	8 634 648 231	10 828 646 207
Average	100 924 887	138 190 623	176 217 311	193 368 682

4.4 Impact on CET1 ratio

Figure 17 below shows data for the sub-sample of the 30 banks most affected in terms of basis points of CET1 ratio by the capitalisation of 100% of their hypothetical CVA risk, when intragroup transactions are included in the scope of the hypothetical CVA risk charge.

For this sub-sample of 30 banks, the impact on the initial CET1 ratio is shown for the various scenarios of capitalisation of $Y\%$ corresponding to the capital add-on needed.

Figure 17. Impact on CET1 ratio for various values of $Y\%$ including intragroup



As shown in Figure 17, the decrease in the CET1 ratio amounts for one bank to around 400 bp and for another to around 300 bp, compared with initial levels above 20% for those two banks.

It should be reiterated that the data quality is much more questionable when it comes to intragroup transactions and that, therefore, the results of this section should be treated with caution.



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