BANCA D'ITALIA
EUROSISTEMA

Notes on Financial Stability and Supervision

No. 32
December 2022

Table of contents

ISSN 2284-4198 (online)

Bad loan recovery rates in 2021

*A. L. Fischetto - I. Guida - A. Rendina - G. Santini**

1. Introduction and main conclusions

This note:

- updates to 2021 the estimated bad loan recovery rates already published in the previous issues of the *Notes on Financial Stability and Supervision* since 2017;
- illustrates the results of the yearly survey on NPL sales, conducted by the Bank of Italy starting from 2016.[1]

The analysis reached the following main conclusions.

The reduction in the stock of bad loan positions

- **In 2021, €17 billion worth of bad loan positions were closed (i.e. derecognized from the banks financial statements)**. This amount, despite being lower than what was recorded in the previous years (€25 billion in 2020)[2], is more than double that of newly-classified bad loans (€7 billion) and, as a percentage of bad loans outstanding at the end of the previous year, is higher than the figure for 2020 (42 against 38 per cent).
- **The decrease from 2020** is mainly attributable to the lower sales volumes on the market (from €20 billion to €14 billion) and **broadly reflects the contraction in the stock of these loans on the banks' balance sheets**.

1 The data, together with some detailed breakdowns that are commented on but not reproduced in this text, are available in digital format.

2 The amount does not consider, as it cannot be configured as a sale, the partial non-proportional spin-off of a business unit carried out by Monte dei Paschi di Siena in favor of AMCO (Hydra project), which involved an amount of bad loans for about €5 billion. Positions closed by financial companies and/or banks specialized in leasing or recovery activities are also excluded; in 2020, a major securitization was carried out, which involved approximately €1.5 billion in real estate leasing bad loans.

* Directorate General for Financial Supervision and Regulation.

- **The improvements regarding the time taken to dispose of bad loans, underway since 2015, are continuing** and reflect the progress achieved by the banks in terms of a more proactive management of these loans. For the positions classified as bad loans in 2015, the share of loans closed within six years was equal to 94 per cent of the total, the highest value recorded in the survey period; the increase in the number of positions closed within one or two years from becoming bad loans was especially significant, rising to 61 and 71 per cent respectively.

- **The Guarantee on Securitization of Bank Non Performing Loans (GACS) assisted all the main transactions** (€9.3 billion, 88 per cent of the securitized bad loans).[3]

- **The amount of loans classified as unlikely-to-pay sold on the market was €5.7 billion** (€6.7 billion in 2020).[4]

<u>Recovery rates of bad loans closed</u>

- **Compared with 2020, the average recovery rate for the positions sold on the market decreased** (from 33 to 29 per cent); the decline is mainly attributable to a limited number of large-amount transactions involving bad loans with high vintage and low quality of the underlying assets, which recorded lower than average recovery rates. **For the positions closed using standard recovery procedures, the average recovery rate remained broadly unchanged (45 per cent)**.

- **The average recovery rate for bad loans secured by collateral decreased to 38 per cent** (40 per cent in 2020), exclusively due to the reduction observed on the positions sold (from 38 to 34 per cent), while it increased on internally managed positions (from 48 to 50 per cent). **For unsecured positions, the average recovery rate was 25 per cent**, down from 26 per cent a year earlier, both on bad loans sold to third parties (from 23 to 22 per cent) and on those closed using standard recovery procedures (from 38 to 35 per cent).

<u>Disposal prices of non-performing loans</u>

- **The price of the bad loans sold in 2021**, calculated on the basis of the annual survey conducted since 2016 on a very large sample of transactions, **was equal to 20 per cent of the gross book value at the time of sale, down from 24 per cent in 2020**. The decrease, as already highlighted for the corresponding recovery rate, is attributable to a limited number of large-amount transactions which mainly concerned bad loans secured by collateral, for which the price fell to

3 The amount refers to the gross book value at the time of the sale based on information from the yearly survey on NPL sales conducted by the Bank of Italy. Disposals also include leasing and factoring receivables, which are excluded from recovery rate estimates.

4 In the calculation, as indicated in footnote 2, the partial non-proportional spin-off of a business unit carried out by Monte dei Paschi di Siena in favor of AMCO (Hydra project) is not considered, as it cannot be identified as a sale; it included an amount of non-performing loans other than bad loans of approximately €2.8 billion.

29 per cent (35 per cent in 2020). For unsecured bad loans, the price increased to 11 per cent from 10 per cent in 2020.

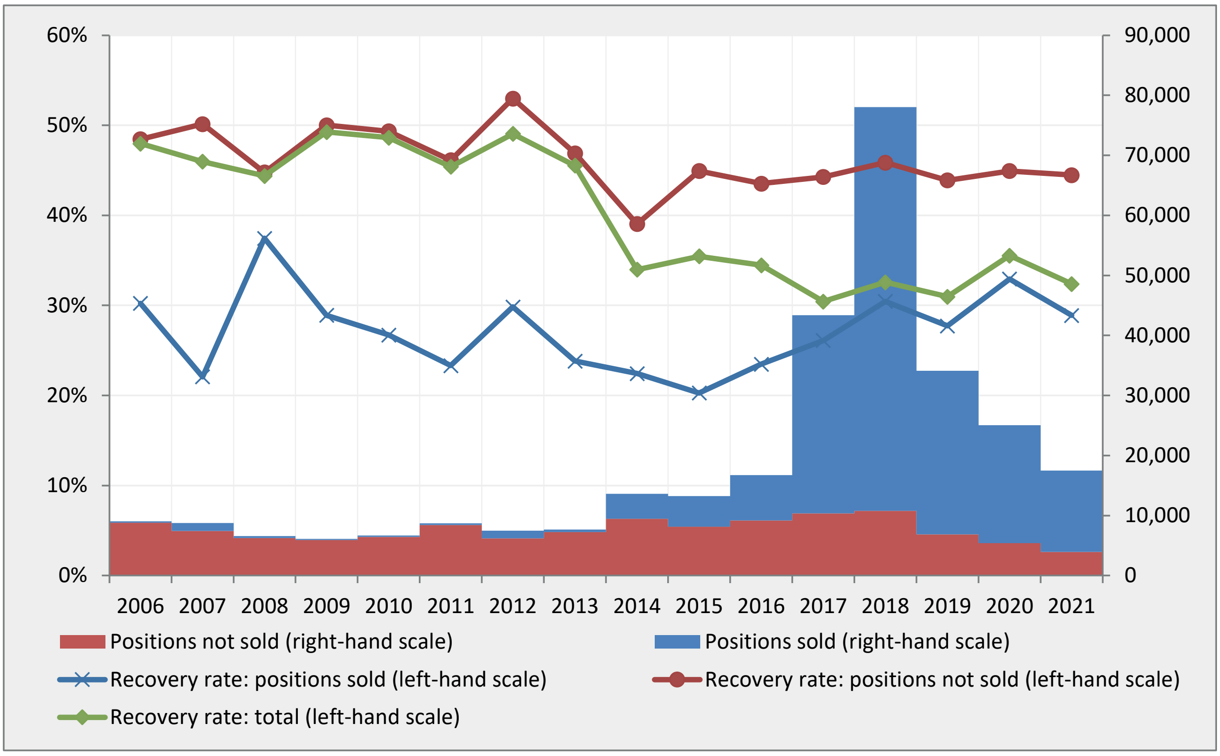
- **The disposal price of non-performing loans other than bad loans was equal to 40 per cent**, in line with the price observed in 2020.

2. Bad loan recovery rates[5]

In 2021, the total amount of bad loans closed falls due to fewer sales on the market

In 2021 the total amount of bad loan positions closed decreased compared with the previous year (from €25 billion to €17 billion), mainly due to lower sales on the market (from €20 billion to €14 billion; Figure 1 and Table 1). This trend reflects the contraction in outstanding bad loans on banks' balance sheets (from 2016 to 2020 bad loans went from €192 billion to €42 billion). The share of disposals over total positions closed remains predominant (78 per cent; Figure 1 and Table 1 and Table A1 in the electronic appendix). As in previous years, recourse to securitizations with GACS for larger transactions continued to be high in 2021.

Figure 1 - Bad loan recovery rates and value by year and type of closure
(per cent and amounts in millions of euros)



Source: Based on Central Credit Register data.

5 The yearly figures for closed bad loans shown in the tables may not correspond to the figures reported in other Bank of Italy publications, as explained in the Methodological Appendix to 'Bad loan recovery rates', Banca d'Italia, *Notes on Financial Stability and Supervision*, No. 7, January 2017.

The reduction in the amount of bad loans closed almost exclusively involved the exposures towards firms (Table A4) and focused on those secured by collateral (Table A6 and A10). Conversely, exposures towards households recorded an increase compared with the previous year (+ €0.4 billion; Table A5) due to the higher volume of sales on the market (+ €0.6 billion).

In 2021, the share of positions secured by collateral[6] closed declined further: their incidence over the total was 60 per cent, compared with 67 per cent in 2020 and 73 per cent in 2019 (Table A1). With regard to the breakdown between firms and households, in 2021 the share of bad loans to households closed was 22 per cent, up from 14 per cent in 2020 (Table A4), due to the higher recourse to sales on the market for this type of debtor (see *infra*; Tables A5 and A9).

Table 1 - Recovery rate by type of closure: standard procedures or sales on the market
(number of positions, millions of euros and per cent)

Year of closure	TOTAL			of which: positions that were not sold			of which: positions sold to third parties		
	Recovery rate (%)	Positions closed: Amount (€/mln)	Positions closed: Number	Recovery rate (%)	Positions closed: Amount (€/mln)	Positions closed: Number	Recovery rate (%)	Positions closed: Amount (€/mln)	Positions closed: Number
2006	48.0	9,039	198,588	48.4	8,803	183,345	30.2	236	15,243
2007	46.0	8,742	161,209	50.1	7,443	135,983	22.1	1,299	25,226
2008	44.4	6,580	123,615	44.8	6,225	110,509	37.4	355	13,106
2009	49.3	6,109	133,976	50.0	5,893	117,707	28.9	216	16,269
2010	48.6	6,667	128,168	49.3	6,454	108,591	26.7	213	19,577
2011	45.4	8,718	145,538	46.1	8,442	127,922	23.3	276	17,616
2012	49.0	7,472	128,653	53.0	6,207	102,510	29.8	1,266	26,143
2013	45.5	7,683	112,331	46.9	7,229	96,714	23.8	454	15,617
2014	34.0	13,613	287,685	39.0	9,463	241,056	22.4	4,150	46,629
2015	35.4	13,258	257,965	44.9	8,157	180,898	20.3	5,101	77,067
2016	34.5	16,712	278,584	43.5	9,155	99,925	23.5	7,557	178,659
2017	30.4	43,360	370,741	44.3	10,349	110,205	26.1	33,011	260,536
2018	32.6	78,017	441,621	45.9	10,794	92,919	30.4	67,223	348,702
2019	31.0	34,123	281,630	43.9	6,849	62,203	27.7	27,275	219,427
2020	35.5	25,022	212,617	44.9	5,408	67,176	32.9	19,614	145,441
2021	32.4	17,484	206,963	44.5	3,919	59,139	28.9	13,565	147,824
Total		**302,599**	**3,469,884**		**120,790**	**1,896,802**		**181,809**	**1,573,082**
Average	**35.5**	**18,912**	**216,868**	**46.0**	**7,549**	**118,550**	**28.6**	**11,363**	**98,318**

Source: Based on Central Credit Register data.

6 Loans secured by collateral are those secured - in full or in part - by the following forms of collateral recorded in the Central Credit Register: pledges, mortgages and liens. Unsecured loans include those secured by personal guarantees or those without guarantees.

In 2021, the recovery rate for positions sold on the market decreased by more than 4 percentage points compared with the previous year (from 33 to 29 per cent). The decline concerned mainly the component secured by collateral (from 38 to 34 per cent; Table A2), but also the unsecured component (from 23 to 22 per cent) and can be observed both in the household sector (which went from 39 to 32 per cent; Table A9) and in the firms sector (which went from 32 to 28 per cent; Table A10). As already noted, the reduction is mostly attributable to a limited number of transactions carried out by large intermediaries involving high vintage exposures which, therefore, recorded lower-than-average sale prices and recovery rates; moreover, the higher share of unsecured positions over total sales had an impact.

Similar evidence emerged from the yearly survey on NPL sales conducted by the Bank of Italy (see the box 'The prices of bad loan sales in 2021'):[7] in 2021, the price, expressed as a percentage of the gross book value at the time of sale, was slightly higher than in 2019 at 20 per cent, 4 percentage points less than in 2020.

THE PRICES OF BAD LOAN SALES IN 2021

In order to collect information on the sale prices of bad loans, the Bank of Italy has conducted an annual survey on a representative sample of banks since 2016. In the latest survey, the respondent banks accounted overall for around 93 per cent of the gross book value of NPLs in the Italian banking system at the end of 2020.

In 2020, the average price of the bad loans sold was 20 per cent of the gross book value at the time of sale, lower than in 2020 (24 per cent); the price of bad loans secured by collateral decreased from 35 to 29 per cent, while it increased for unsecured positions (from 10 to 11 per cent; Table A).

Table A - The sale prices of bad loans by type of guarantee
(per cent)

	TOTAL	Positions secured by collateral	Unsecured positions
2016	**14.9**	30.5	9.1
2017	**16.5 (*)**	26.2(*)	9.9 (*)
2018	**23.1**	33.8	10.0
2019	**23.3**	31.2	11.8
2020	**23.5**	35.2	10.4
2021	**20.1**	29.1	11.2

(*) Net of the FINO operation concluded by UniCredit, the average prices of positions secured by collateral and unsecured were respectively equal to 33 and 9 per cent of the gross book value; the average price overall was 20.4 per cent.

7 The recovery rates for positions sold on the market differ from sale prices, because recovery rates (which are higher) also take account of the cash flows ('partial' recoveries) collected in the period before the position is closed. The information available in the Central Credit Register does not distinguish between the recoveries made during the life of the loan and the actual sale price. Overall, the results of this survey are in line with those of the Central Credit Register data.

The average vintage of bad loans sold was 4.3 years,[1] slightly decreasing compared with what was observed in 2020 and 2019 (4.5 and 4.6 years respectively). As in previous years, the sale price decreases as the average vintage of the positions rises, and depending on whether or not the position is secured by collateral. In particular, for sales of exposures secured by collateral, the price generally decreases as the average vintage increases, while for those not secured by collateral the difference in prices by vintage is less material.

Table B - Sale prices between 2017 and 2020 for secured and unsecured positions by vintage
(per cent)

	Total positions			Positions secured by collateral			Unsecured positions		
Vintage (years)	**0-2 years**	**3-5 years**	**>5 years**	**0-2 years**	**3-5 years**	**> 5 years**	**0-2 years**	**3-5 years**	**>5 years**
2017	32.3	16.1	11.3	61.1(*)	24.8	21.9	17.6	9.8	6.8
2018	29.6	26.4	19.5	35.9	33.9	33.5	17.9	14.0	7.5
2019	17.0(**)	26.0	17.7	36.3	32.3	25.1	12.4	12.9	8.9
2020	18.5	24.9	16.2	28.5	36.7	26.5	13.9	10.4	7.9
2021	22.8	19.3	21.4	34.5	31.2	22.4	13.4	9.2	14.3

(*) The higher price recorded in 2017 for positions with a vintage of 0-2 years was due to the disposal of some prestigious real estate properties. (**) For disposals with a vintage of less than 2 years, the price reduction is attributable to the different composition of the portfolios sold, with a greater weight for the exposures not backed by collateral.

The GACS assisted all the main bad loan sales (€9.3 billion, 88% of the securitized bad loans).

In 2021, the amount of non-performing loans other than bad loans sold on the market was €5.7 billion (€6.7 billion in 2020). While the share of portfolio sales increased, single name sales[2] still account for a large share of the total (around 30 per cent) and are attributable to a growing number of intermediaries.

The average sale price of non-performing loans other than bad loans was 40 per cent, in line with the value recorded in 2020. The average vintage of these positions (computed since their classification as non-performing loans) was 4.6 years, higher than in 2020 (4.2 years). Exposures secured by collateral reported a sale price higher than that of unsecured exposures by about 8 percentage points.

1 In this case, the vintage is calculated as the weighted average vintage of each portfolio sold and does not consider the vintage of each position sold.

2 Single name sales are characterized by very heterogeneous amounts, and in case of transactions involving significant amounts, it is common to use companies specialized in the management of unlikely-to-pay positions.

The recovery rate for positions closed using standard recovery procedures remained broadly unchanged (45 per cent), even though it increased from 48 to 50 per cent for positions secured by collateral and it decreased from 38 to 35 per cent for those unsecured (Table A2).

The gap between the recovery rate recorded for positions closed using standard procedures and positions sold increased from 12 to 16 percentage points, close to the average value recorded in the period 2017-2020 (15 percentage points), and is mainly due to the higher recovery rate of the positions sold to third parties.

The recovery rates for bad loans secured by collateral remain significantly higher than those for the other positions

2.1 Positions secured by collateral versus other positions. – The average recovery rate for bad loans secured by collateral decreased to 38 per cent (40 per cent in 2020; Table A3), mainly due to the decrease in the recovery rate obtained on the sales component (34 per cent in 2021, from 38 per cent in 2020; Table A2). For unsecured positions, the decline in the recovery rate was limited overall (from 26 to 25 per cent).

2.2 Loans to firms and households. – In 2021, the recovery rate of bad loans to firms decreased to 31 per cent (from 34 per cent in 2020; Table A4), due to the reduction in the recovery rates for the positions sold (from 32 to 28 per cent; Table A6). The recovery rate of exposures towards households decreased significantly (from 44 to 36 per cent), both for positions sold on the market and those closed using standard recovery procedures (Table A7 and A9).

The recovery rates for bad loans closed using standard recovery procedures decrease as the vintage increases

2.3 Recovery rate by vintage of bad loans. – As for selling prices, also for positions closed using standard recovery procedures the recovery rate generally decreases as the average vintage of classification as bad loans rises (Table 2).[8] The average recovery rate for positions secured by collateral closed using standard recovery procedures and with a vintage of classification as bad loans of up to 2 years was 24 percentage points higher than the recovery rate recorded for positions with a vintage of over 5 years (65 per cent against 41 per cent). In the case of unsecured positions, the gap in recovery rates based on the vintage was 11 percentage points (40 per cent against 29 per cent). The share of positions closed using standard recovery procedures with a vintage higher than 5 years (whether secured by collateral or unsecured) remained particularly high at around 52 per cent.

8 This phenomenon also takes account of the impact of discounting the amounts recovered. In this regard, the tables do not represent real recovery curves as a function of the vintage of the position. The Central Credit Register provides information about how much is recovered on average on positions closed after a certain number of years, but not about the recovery timeline. It is worth recalling that the recovery rates by vintage cluster are, in any event, comparable because they are all discounted.

Table 2 - Recovery rate for positions not sold by vintage of classification as a bad loan and by type of guarantee
(millions of euros and per cent)

Year of closure	Vintage[1]	Positions secured by collateral		Unsecured positions	
		Amount (€/mln)	**Recovery rate (%)**	**Amount (€/mln)**	**Recovery rate (%)**
2021	0-2 years	539	64.8	413	40.0
	3-5 years	630	57.7	302	41.2
	>5 years	1,308	40.7	727	28.6
	Total	**2,477**	**50.3**	**1,442**	**34.5**
2020	0-2 years	741	64.0	473	50.2
	3-5 years	895	51.8	442	46.2
	>5 years	1.937	41.0	921	27.9
	Total	**3,572**	**48.5**	**1,836**	**38.0**
2019	0-2 years	996	61.2	648	46.6
	3-5 years	1,506	52.6	512	33.3
	>5 years	2,174	38.8	1,014	28.4
	Total	**4,675**	**48.0**	**2,173**	**35.0**

Source: Based on Central Credit Register data.
(1) The distribution of the closed positions by vintage cluster is determined by rounding the values of the recovery time (time taken to close the position) to the nearest integer year, e.g. the '3-5 years' cluster includes all the positions whose recovery time was between 2.5 and 5.5 years.

3. Closed bad loan positions: amounts and times to recovery

In 2021, positions newly classified as bad loans continue to decline

In 2021, the number of positions closed[9] decreased compared with 2020, standing at around 207,000, in line with the reduction of the amount (Table 3). The amount of positions that were newly classified as bad loans, which reached its lowest level since 2009 (€7 billion),[10] remains significantly lower than the amount of bad loans closed (€17 billion).

9 The number of positions is calculated as the number of debtors at banking group level, which are no longer reported to the Central Credit Register after the closing of the position. Consequently, this number does not represent the number of credit lines opened or closed during the period.

10 It should be remembered that only reports from individual banks and from banking and financial institutions belonging to banking groups participating in the Central Credit Register are used in this note. Foreign bank subsidiaries, financial companies and banks specialized in leasing or in recovery activities, and banks under resolution or in comparable situations are not included.

The share of positions that are closed each year, calculated as the ratio of the amount of positions closed to the total outstanding at the beginning of the period, increased by 4 percentage points, to 42 per cent.

Table 3 - Number and amount of closed and outstanding bad loan positions
(annual data; numbers, amounts in millions of euros and per cent)

Year	**Positions closed** *(by year of closure)*		**New positions** *(by year of classification)*		**Positions outstanding at the end of the previous year**		**Positions closed/ outstanding at the end of the previous year**	
	Number	Amount	Number	Amount	Number	Amount	Number	Amount
2006	198,588	9,039	196,212	10,482	580,568	46,922	34.2%	19.3%
2007	161,209	8,742	202,515	8,649	578,192	48,365	27.9%	18.1%
2008	123,615	6,580	185,319	12,593	619,498	48,273	20.0%	13.6%
2009	133,976	6,109	240,441	21,668	681,202	54,285	19.7%	11.3%
2010	128,168	6,667	257,067	22,096	787,667	69,844	16.3%	9.5%
2011	145,538	8,718	228,639	24,531	916,566	85,273	15.9%	10.2%
2012	128,653	7,472	246,428	25,029	999,667	101,086	12.9%	7.4%
2013	112,331	7,683	229,739	31,831	1,117,442	118,642	10.1%	6.5%
2014	287,685	13,613	283,987	34,322	1,234,850	142,789	23.3%	9.5%
2015	257,965	13,258	307,554	31,146	1,231,152	163,499	21.0%	8.1%
2016	278,584	16,712	273,338	27,019	1,280,741	181,387	21.8%	9.2%
2017	370,741	43,360	254,228	23,495	1,275,495	191,69[4]	29.1%	22.6%
2018	441,621	78,017	238,709	19,004	874,1401	157,7211	50.5%	49.5%
2019	281,630	34,123	177,628	12,459	630,490	98,052	44.7%	34.8%
2020	212,617	25,022	112,585	7,915	495,330	65,420	42.9%	38.2%
2021	206,963	17,484	120,078	7,248	367,774	41,986	56.3%	41.6%
Total	**3,469,884**	**302,599**	**3,554,467**	**319,488**				
Average	**216,868**	**18,912**	**222,154**	**19,968**	**854,423**	**100,952**	**27.9%**	**19.3%**

Source: Based on Central Credit Register data.
(1) The data for 2018 are impacted by the transfer of bad loans to publicly owned companies.

The time taken to dispose of bad loans continues to improve

The improvements observed since 2015 in terms of time taken to dispose of bad loans are continuing, mainly thanks to the sales on the market. For positions classified as bad loans in 2015, those closed within six years accounted for 94 per cent of the total (Table 4), the highest value recorded in the survey period. The increase in the number of positions closed within one or two years after becoming bad loans (positions classified as bad loans in 2019 and 2020) was especially significant, their share having risen by 15 and 8 percentage points, to 61 per cent and 71 per cent respectively.

Table 4 - Share of positions closed within 1, 2 … 6 years of classification as a bad loan
(per cent; by number of positions)

Year of classification	within 1 year[1]	within 2 years	within 3 years	within 4 years	within 5 years	within 6 years
2006	47	59	66	71	73	76
2007	41	53	58	65	66	69
2008	32	39	49	54	56	60
2009	30	41	50	56	65	72
2010	24	34	40	54	62	65
2011	24	39	48	56	60	76
2012	20	34	43	47	66	79
2013	21	38	42	64	80	89[2]
2014	26	32	65	79	87[2]	93
2015	38	58	74	81[2]	89	94
2016	38	67	77[2]	86	92	
2017	47	64[2]	82	92		
2018	42[2]	63	84			
2019	46	71				
2020	61					

Source: Based on Central Credit Register data.
(1) The distribuiton of the positions closed closed within 1, 2 … 6 years of classification as a bad loan by vintage cluster is calculated by converting the recovery time needed to close the position into the nearest integer year (e.g. cluster 'within 1 year' includes all the positions that have been closed within 1.5 years of classification as a bad loan; the cluster 'within 2 years' includes all the positions that have been closed within 2.5 years of classification as a bad loan). – (2) For positions closed in 2019, the updated figure is shown following the recalculation of the denominator.