As at 31 December 2018, the caption Other loans and advances to credit institutions - Purchase transactions with resale agreement refers in its entirety to operations with Banco de Investimento Imobiliário, S.A.

This balance is analysed by the period to maturity, as follows:

	(T)	housands of euros)
	2019	2018
Up to 3 months	504,117	499,597
3 to 6 months	-	13,000
6 to 12 months	560	26,587
1 to 5 years	10,000	1,506,727
Undetermined		669
	514,677	2,046,580

The changes occurred in impairment for other loans and advances to credit institutions are analysed as follows:

	(Thous	ands of euros)
	2019	2018
Balance on 1 January	1,850	-
Adjustments due to the implementation of IFRS 9 (note 51)	-	703
Impairment charge for the year (note 10)	55	1,383
Reversals for the year (note 10)	(863)	(128)
Loans charged-off	(674)	(108)
Balance at the end of the year	368	1,850

# 19. Loans and advances to customers

The analysis of loans and advances to customers, by type of credit, is as follows:

	(Thousands of euros	
	2019	2018
Discounted bills	259,281	249,139
Current account credits	1,343,276	1,366,648
Overdrafts	319,750	388,603
Loans	9,614,819	9,729,298
Mortgage loans	17,320,899	15,833,481
Factoring operations	1,945,732	1,863,179
Finance leases	2,336,499	2,271,961
	33,140,256	31,702,309
Overdue loans - less than 90 days	28,305	48,665
Overdue loans - Over 90 days	1,079,684	1,530,850
	34,248,245	33,281,824
Impairment for credit risk	(1,861,894)	(2,293,486)
	32,386,351	30,988,338

The balance Loans and advances to customers, as at 31 December 2019, is analysed as follows:

(Thousands of euros) 2019 Outstanding Overdue Gross Net **Impairment** loans loans amount amount Public sector 554,047 554,049 (1,137)552,912 Asset-backed loans 20,037,965 692,956 20,730,921 (1,233,215)19,497,706 Other guaranteed loans 3,286,023 108,088 3,394,111 (189,536)3,204,575 Unsecured loans 3,288,027 142,659 3,430,686 (148,735)3,281,951 Foreign loans 1,691,963 125,073 1,817,036 (188,380)1,628,656 Factoring operations 14,806 1,960,538 1,945,732 (30.303)1.930.235 Finance leases 2,336,499 24,405 2,360,904 (70,588)2,290,316 33,140,256 1,107,989 34,248,245 (1,861,894)32,386,351

The balances Asset-backed loans and Other guaranteed loans follow the subsequent types of guarantees considered:

- Asset-backed loans: Financial collaterals, physical collaterals (movable or immovable) and amounts receivable (income consignment);
- Other guaranteed loans: First-demand guarantees issued by banks or other entities with an internal risk level of "7" or better; personal guarantees, when the guarantors are classified as having an internal risk level of "7" or better.

The balance Loans and advances to customers, as at 31 December 2018, is analysed as follows:

				(Th	ousands of euros)
			2018		
	Outstanding loans	Overdue loans	Gross amount	Impairment	Net amount
Public sector	598,007	1	598,008	(1,336)	596,672
Asset-backed loans	18,953,094	962,864	19,915,958	(1,491,170)	18,424,788
Other guaranteed loans	3,055,244	165,922	3,221,166	(250,860)	2,970,306
Unsecured loans	3,277,917	294,994	3,572,911	(257,351)	3,315,560
Foreign loans	1,682,907	113,660	1,796,567	(174,066)	1,622,501
Factoring operations	1,863,179	7,740	1,870,919	(27,771)	1,843,148
Finance leases	2,271,961	34,334	2,306,295	(90,932)	2,215,363
	31,702,309	1,579,515	33,281,824	(2,293,486)	30,988,338

As at 31 December 2019, the balance Loans and advances to customers includes the amount of Euros 11,778,334,000 (31 December 2018: Euros 11,415,253,000) regarding credits related to mortgage loans issued by the Bank.

The Bank, as part of the liquidity risk management, holds a pool of eligible assets that can serve as collateral in funding operations with the European Central Bank, which include loans and advances to customers.

As referred in note 46, the Bank provides loans and/or guarantees to qualifying shareholders holding individually or together with their affiliates, 2% or more of the share capital identified in the Board of Directors report and in note 37.

As at 31 December 2019, the Bank granted credit to qualifying shareholders and entities controlled by them, in the amount of Euros 99,774,000 (31 December 2018: Euros 101,350,000), as referred in note 46 A). The amount of impairment recognised for these contracts amounts to Euros 210,000 (31 December 2018: Euros 650,000).

The business conducted between the company and qualifying shareholders or natural or legal persons related to them, pursuant to article 20 of the Securities Code, regardless of the amount, is always subject to appraisal and deliberation by the Board of Directors, through a proposal by the Credit Committee and the Executive Committee, supported by an analysis and technical opinion issued by the Internal Audit Division, and after a prior opinion has been obtained from the Audit Committee.

The balance Loans and advances to customers includes the following amounts related to finance leases contracts:

	(The	ousands of euros)
	2019	2018
Amount of future minimum payments	2,738,951	2,637,129
Interest not yet due	(402,452)	(365,168)
Present value	2,336,499	2,271,961

The amount of future minimum payments of lease contracts, by maturity terms, is analysed as follows:

	(Thousands	
	2019	2018
Up to 1 year	469,949	363,406
1 to 5 years	995,541	1,010,400
Over 5 years	1,273,461	1,263,323
	2,738,951	2,637,129

The analysis of the maturing component of financial lease contracts, by type of client, is presented as follows:

	(The	ousands of euros)
	2019	2018
Individuals		
Home	56,084	49,774
Consumer	30,585	30,937
Others	92,309	105,922
	178,978	186,633
Companies		
Equipment	438,944	420,825
Real estate	1,718,577	1,664,503
	2,157,521	2,085,328
	2,336,499	2,271,961

Regarding operational leasing, the Bank does not present relevant contracts as leasor.

The analysis of loans and advances to customers, as at 31 December 2019, by sector of activity, is as follows:

			201	9		
	Outstanding loans	Overdue loans	Gross amount	Impairment	Net amount	% Gross amount
Agriculture and forestry	299,991	4,545	304,536	(3,992)	300,544	0.89%
Fisheries	24,938	29	24,967	(576)	24,391	0.07%
Mining	27,612	1,110	28,722	(4,228)	24,494	0.08%
Food, beverage and tobacco	482,581	5,478	488,059	(9,927)	478,132	1.43%
Textiles	350,066	8,028	358,094	(17,695)	340,399	1.05%
Wood and cork	118,609	2,637	121,246	(1,801)	119,445	0.35%
Paper, printing and publishing	135,206	1,085	136,291	(14,079)	122,212	0.40%
Chemicals	448,963	14,928	463,891	(17,104)	446,787	1.35%
Machinery, equipment						
and basic metallurgical	651,436	15,117	666,553	(18,268)	648,285	1.95%
Electricity and gas	213,989	122	214,111	(1,015)	213,096	0.63%
Water	155,240	332	155,572	(8,952)	146,620	0.45%
Construction	1,254,853	142,644	1,397,497	(230,698)	1,166,799	4.08%
Retail business	921,187	30,030	951,217	(41,708)	909,509	2.78%
Wholesale business	1,095,396	31,119	1,126,515	(71,203)	1,055,312	3.29%
Restaurants and hotels	1,093,086	36,372	1,129,458	(79,359)	1,050,099	3.30%
Transports	643,697	18,483	662,180	(27,563)	634,617	1.93%
Post offices	3,489	118	3,607	(72)	3,535	0.01%
Telecommunications	159,079	3,749	162,828	(4,786)	158,042	0.48%
Services						
Financial intermediation	1,561,425	133,458	1,694,883	(492,447)	1,202,436	4.95%
Real estate activities	1,365,548	92,603	1,458,151	(107,166)	1,350,985	4.26%
Consulting, scientific						
and technical activities	935,741	17,416	953,157	(167,445)	785,712	2.78%
Administrative and support						
services activities	376,218	12,369	388,587	(67,776)	320,811	1.13%
Public sector	776,378	2	776,380	(1,136)	775,244	2.27%
Education	107,859	933	108,792	(5,899)	102,893	0.32%
Health and collective service activities	253,152	923	254,075	(3,240)	250,835	0.74%
Artistic, sports						
and recreational activities	263,806	989	264,795	(66,438)	198,357	0.77%
Other services	101,069	242,548	343,617	(186,390)	157,227	1.00%
Consumer loans	1,904,231	105,028	2,009,259	(78,700)	1,930,559	5.87%
Mortgage credit	16,943,057	68,287	17,011,344	(48,736)	16,962,608	49.67%
Other domestic activities	989	272	1,261	(82)	1,179	0.00%
Other international activities	471,365	117,235	588,600	(83,413)	505,187	1.72%
	33,140,256	1,107,989	34,248,245	(1,861,894)	32,386,351	100.00%



The analysis of loans and advances to customers, as at 31 December 2018, by sector of activity, is as follows:

			201	8		
	Outstanding loans	Overdue loans	Gross amount	Impairment	Net amount	% Gross amount
Agriculture and forestry	263,971	7,348	271,319	(6,190)	265,129	0.82%
Fisheries	19,765	40	19,805	(644)	19,161	0.06%
Mining	36,101	2,463	38,564	(9,036)	29,528	0.12%
Food, beverage and tobacco	447,825	12,716	460,541	(10,900)	449,641	1.38%
Textiles	335,913	13,603	349,516	(21,390)	328,126	1.05%
Wood and cork	118,183	4,800	122,983	(4,513)	118,470	0.37%
Paper, printing and publishing	154,853	4,778	159,631	(17,608)	142,023	0.48%
Chemicals	410,247	37,358	447,605	(39,825)	407,780	1.34%
Machinery, equipment						
and basic metallurgical	612,441	37,621	650,062	(30,192)	619,870	1.95%
Electricity and gas	262,276	336	262,612	(755)	261,857	0.79%
Water	150,204	603	150,807	(10,371)	140,436	0.45%
Construction	1,319,627	313,319	1,632,946	(380,825)	1,252,121	4.91%
Retail business	862,113	71,138	933,251	(76,110)	857,141	2.80%
Wholesale business	1,104,710	58,427	1,163,137	(68,233)	1,094,904	3.49%
Restaurants and hotels	1,097,001	31,680	1,128,681	(77,426)	1,051,255	3.39%
Transports	706,814	11,049	717,863	(17,191)	700,672	2.16%
Post offices	2,290	135	2,425	(351)	2,074	0.01%
Telecommunications	177,598	5,590	183,188	(14,168)	169,020	0.55%
Services						
Financial intermediation	1,491,652	106,707	1,598,359	(373,751)	1,224,608	4.80%
Real estate activities	1,148,673	203,228	1,351,901	(146,857)	1,205,044	4.06%
Consulting, scientific						
and technical activities	1,218,963	22,696	1,241,659	(350,959)	890,700	3.73%
Administrative and support						
services activities	387,244	29,102	416,346	(71,293)	345,053	1.25%
Public sector	829,986	1	829,987	(1,336)	828,651	2.49%
Education	109,784	1,267	111,051	(7,007)	104,044	0.33%
Health and collective service activities	243,729	1,722	245,451	(3,220)	242,231	0.74%
Artistic, sports						
and recreational activities	282,078	5,915	287,993	(75,887)	212,106	0.87%
Other services	96,972	245,811	342,783	(175,649)	167,134	1.03%
Consumer loans	1,735,949	162,566	1,898,515	(137,229)	1,761,286	5.70%
Mortgage credit	15,602,096	97,900	15,699,996	(82,731)	15,617,265	47.19%
Other domestic activities	984	378	1,362	(302)	1,060	0.00%
Other international activities	472,267	89,218	561,485	(81,537)	479,948	1.69%
	31,702,309	1,579,515	33,281,824	(2,293,486)	30,988,338	100.00%



The analysis of loans and advances to customers, by maturity and by sector of activity as at 31 December, 2019 is as follows:

(Thousands of euros) 2019 Outstanding loans Due within **Total** Overdue 1 year to Over loans % 1 year 5 years 5 years Outstanding **Total** Agriculture and forestry 4,545 0.89% 105,011 69,353 125,627 299,991 304.536 14,740 Fisheries 4,935 5,263 24,938 29 24,967 0.07% Mining 13,104 10,813 3,695 27,612 1,110 28,722 0.08% Food, beverage and tobacco 300,692 115,593 66,296 482,581 5,478 488,059 1.43% **Textiles** 176,953 91,456 81,657 350,066 8,028 358,094 1.05% Wood and cork 53,231 36,518 28,860 118,609 2,637 121,246 0.35% Paper, printing and publishing 59,407 33,168 42,631 135,206 1,085 136,291 0.40% Chemicals 161,411 175,657 111,895 448,963 14,928 463,891 1.35% Machinery, equipment and basic metallurgical 280,952 214,439 156,045 651,436 15,117 666,553 1.95% Electricity and gas 30,720 40,043 143,226 213,989 122 214,111 0.63% Water 18,481 15,646 121,113 155,240 332 155,572 0.45% Construction 361,937 336,747 556,169 1,254,853 142,644 1,397,497 4.08% Retail business 456,021 231,571 233,595 921,187 30,030 951,217 2.78% Wholesale business 589,889 275,308 230,199 1,095,396 31,119 1,126,515 3.29% Restaurants and hotels 136,849 197,960 758,277 1,093,086 36,372 1,129,458 3.30% Transports 167,924 151,468 324,305 643,697 18,483 662,180 1.93% Post offices 1,930 1,121 438 3,489 118 3,607 0.01% Telecommunications 86,615 45,452 27,012 159,079 3,749 162,828 0.48% Services Financial intermediation intermediation 190,274 450,293 920,858 1,561,425 133,458 1,694,883 4.95% Real estate activities 266,381 349,018 750,149 1,365,548 92,603 1,458,151 4.26% Consulting, scientific and technical activities 301,178 155,619 478,944 935,741 17,416 953,157 2.78% Administrative and support services activities 144,295 121,828 110,095 376,218 12,369 388,587 1.13% Public sector 160,688 366,611 249,079 776,378 776,380 2.27% Education 33,542 15,587 58,730 107,859 933 108,792 0.32% Health and collective service activities 92,056 66,828 94,268 253,152 923 254,075 0.74% Artistic, sports and 0.77% recreational activities 30,931 28,137 204,738 263,806 989 264,795 Other services 31,613 30,577 38,879 101,069 242,548 343,617 1.00% Consumer credit 529,509 594,544 780,178 1,904,231 105,028 2,009,259 5.87% Mortgage credit 7,890 247,882 16,687,285 16,943,057 68,287 17,011,344 49.67% Other domestic activities 154 282 553 989 272 1,261 0.00% Other international activities 159,919 110,405 201,041 471,365 117,235 588,600 1.72% 4,954,492 4,585,187 23,600,577 33,140,256 1,107,989 34,248,245 100.00%



The analysis of loans and advances to customers, by maturity and by sector of activity as at 31 December, 2018 is as follows:

(Thousands of euros) 2018 Outstanding loans Overdue **Total** Due within 1 year to Over Outstanding loans % 1 year 5 years 5 years Total Agriculture and forestry 90,219 75,213 98,539 263,971 7,348 271,319 0.82% 4,077 Fisheries 7,097 8,591 19,765 40 19,805 0.06% Mining 21,981 7,823 6,297 36,101 2,463 38,564 0.12% Food, beverage and tobacco 288,071 94,332 65,422 447,825 12,716 460,541 1.38% Textiles 160,712 88,220 86,981 335,913 13,603 349,516 1.05% Wood and cork 62,438 34,430 21,315 118,183 4,800 122,983 0.37% Paper, printing and publishing 86,169 20,306 48,378 154,853 4,778 159,631 0.48% Chemicals 109,696 410,246 197,311 103.239 37,359 447,605 1.34% Machinery, equipment and basic metallurgical 280,242 188,506 612,441 650,062 1.95% 143,693 37,621 Electricity and gas 24,026 48,959 189,291 262,276 336 262,612 0.79% Water 18,300 120,366 150,204 603 150,807 0.45% 11,538 Construction 378,358 349,358 591,911 1,319,627 313,319 1,632,946 4.91% Retail business 428,866 211,238 222,009 862,113 71,138 933,251 2.80% Wholesale business 605,468 263,609 235,633 1,104,710 58,427 1,163,137 3.49% Restaurants and hotels 61,391 278,602 757,008 1,097,001 31,680 1,128,681 3.39% **Transports** 223,848 140,200 342,767 706,815 11,048 717,863 2.16% Post offices 1,365 815 110 2,290 135 2,425 0.01% Telecommunications 87,968 42,566 47,064 177,598 5,590 183,188 0.55% Services Financial intermediation intermediation 195,140 312,179 984,332 1,491,651 106,708 1,598,359 4.80% Real estate activities 249,140 249,874 649,659 1,148,673 203,228 1,351,901 4.06% Consulting, scientific and technical activities 274,209 379,196 565,558 22,696 3.73% 1,218,963 1,241,659 Administrative and support services activities 167,335 112,752 107,157 387,244 29,102 416,346 1.25% Public sector 120,850 409,470 299,666 829,986 829,987 2.49% 111,051 Education 34,590 18,377 56,817 109,784 1,267 0.33% Health and collective service activities 96,659 62,042 85,028 243,729 1,722 245,451 0.74% Artistic, sports and recreational activities 212,937 5,915 287,993 0.87% 40.857 28,284 282,078 Other services 96,972 245,811 1.03% 25,582 33,286 38,104 342,783 Consumer credit 493,443 559,301 683,206 1,735,950 162,565 1,898,515 5.70% Mortgage credit 7,828 211,047 15,383,221 15,602,096 97,900 15,699,996 47.19% Other domestic activities 152 409 423 984 378 1,362 0.00% Other international activities 185,593 111,596 175,078 472,267 89,218 561,485 1.69% 4,915,208 4,457,301 22,329,800 31,702,309 1,579,515 33,281,824 100.00%



The analysis of loans and advances to customers, by type of credit and by maturity, as at 31 December 2019, is as follows:

					(Th	ousands of euros)
			2019			
		Outstandir	ng loans			
	Due within	1 year to	Over	Total	Overdue	
	1 year	5 years	5 years	Outstanding	loans	Total
Public sector	74,517	47,688	431,842	554,047	2	554,049
Asset-backed loans	746,596	1,301,489	17,989,880	20,037,965	692,956	20,730,921
Other guaranteed loans	1,174,234	1,268,319	843,470	3,286,023	108,088	3,394,111
Unsecured loans	1,091,972	756,879	1,439,176	3,288,027	142,659	3,430,686
Foreign loans	126,868	338,567	1,226,528	1,691,963	125,073	1,817,036
Factoring operations	1,614,674	331,058	-	1,945,732	14,806	1,960,538
Finance leases	125,631	541,187	1,669,681	2,336,499	24,405	2,360,904
	4,954,492	4,585,187	23,600,577	33,140,256	1,107,989	34,248,245

The analysis of loans and advances to customers, by type of credit and by maturity, as at 31 December 2018, is as follows:

					(Th	ousands of euros)
_			2018			
_		Outstandir	ng loans			
	Due within	1 year to	Over	Total	Overdue	
	1 year	5 years	5 years	Outstanding	loans	Total
Public sector	80,731	34,940	482,336	598,007	1	598,008
Asset-backed loans	760,794	1,305,397	16,886,903	18,953,094	962,864	19,915,958
Other guaranteed loans	1,233,524	1,045,739	775,981	3,055,244	165,922	3,221,166
Unsecured loans	1,133,553	698,832	1,445,532	3,277,917	294,994	3,572,911
Foreign loans	155,737	408,732	1,118,438	1,682,907	113,660	1,796,567
Factoring operations	1,475,160	388,019	-	1,863,179	7,740	1,870,919
Finance leases	75,709	575,642	1,620,610	2,271,961	34,334	2,306,295
	4,915,208	4,457,301	22,329,800	31,702,309	1,579,515	33,281,824

The balance Total credit portfolio, which includes further than loans and advances to customers, the guarantees granted, is analysed as

	(Thousands o	of euros)
	2019	2018
Total credit	38,252,575 37,10	3,767
Stage 1		
Gross amount	27,748,411 24,82	22,341
Impairment	(24,036) (2	25,649)
	27,724,375 24,79	96,692
Stage 2		
Gross amount	6,869,096 7,10	06,433
Impairment	(139,432) (12	26,007)
	6,729,664 6,98	30,426
Stage 3		
Gross amount	3,635,068 5,17	74,993
Impairment	(1,792,847) (2,29	97,325)
	1,842,221 2,87	77,668
	36,296,260 34,65	54,786

The total credit portfolio includes, as at 31 December 2019, loans and advances to customers in the amount of Euros 34,248,245,000 (31 December 2018: Euros: 33,281,824,000) and guarantees granted and commitments to third parties balance (note 40), in the amount of Euros 4,004,330,000 (31 December 2018: Euros 3,821,943,000).

The balances of Impairment were determined in accordance with the accounting policy described in note 1 B1.5, including the provision for guarantees and other commitments to third parties (note 35), in the amount of Euros 102,068,000 (31 December 2018: Euros 155,495,000).

The analysis of the exposure covered by collateral associated with loans and advances to customers' portfolio, by stage, considering the fair value of collaterals, is as follows:

	(Th	ousands of euros)
	2019	2018
Stage 1		
Securities and other financial assets	1,448,903	1,457,913
Residential real estate	14,164,780	12,534,313
Other real estate	2,357,206	1,943,930
Other guarantees	4,496,322	3,458,849
	22,467,211	19,395,005
Stage 2		
Securities and other financial assets	289,904	286,281
Residential real estate	2,582,831	2,485,674
Other real estate	1,195,427	1,080,481
Other guarantees	864,638	657,722
	4,932,800	4,510,158
Stage 3		
Securities and other financial assets	301,578	377,235
Residential real estate	634,662	962,400
Other real estate	607,618	985,848
Other guarantees	578,057	458,333
	2,121,915	2,783,816
	29,521,926	26,688,979

The balance Other guarantees include debtors, assets subject to leasing transactions and personal guarantees, among others. Considering the policy of risk management of the Bank (note 48), the amounts presented do not include the fair value of the personal guarantees provided by clients with lower risk rating. When considered, the fair value of the personal guarantees corresponds to the quaranteed amount.

The Bank is applying physical collaterals and financial guarantees as instruments to mitigate the credit risk. The physical collaterals are mainly mortgages on residential buildings for the mortgage portfolio and other mortgages on other types of buildings related to other types of loans. In order to reflect the market value, these collaterals are regularly reviewed based on independent and certified valuation entities or through the application of revaluation coefficients that reflect the market trends for each specific type of building and geographical area. The financial guarantees are reviewed based on the market value of the respective assets, when available, with the subsequent application of haircuts that reflect the volatility of their prices. Considering the current real estate and financial markets conditions, the Bank continued to negotiate additional physical and financial collaterals with its customers.

The loan to customers' portfolio includes contracts that resulted in a formal restructuring with the customers and the consequent establishment of a new funding to replace the previous. The restructuring may include in a reinforce of guarantees, liquidation of part of the credit as well as changes in the payment plan and / or in interest rate. The analysis of the restructured loans, by sector of activity, is as follows:

		2019			2018	8		
	Restructured loans	Impairment	Net amount	Restructured loans	Impairment	Net amount		
Agriculture and forestry	10,706	(548)	10,158	23,168	(1,604)	21,564		
Fisheries	6,134	(454)	5,680	6,141	(543)	5,598		
Mining	5,485	(3,275)	2,210	9,337	(5,751)	3,586		
Food, beverage and tobacco	13,361	(3,706)	9,655	14,616	(4,402)	10,214		
Textiles	13,898	(4,225)	9,673	15,512	(6,008)	9,504		
Wood and cork	5,207	(324)	4,883	9,470	(1,676)	7,794		
Paper, printing and publishing	16,218	(12,185)	4,033	19,010	(12,552)	6,458		
Chemicals	19,007	(4,577)	14,430	25,624	(11,907)	13,717		
Machinery, equipment								
and basic metallurgical	26,109	(8,325)	17,784	39,206	(10,660)	28,546		
Electricity and gas	379	(5)	374	389	(8)	381		
Water	51,469	(7,046)	44,423	16,654	(2,510)	14,144		
Construction	224,953	(134,169)	90,784	390,721	(209,104)	181,617		
Retail business	47,711	(17,150)	30,561	84,963	(45,495)	39,468		
Wholesale business	36,213	(7,903)	28,310	45,487	(13,232)	32,255		
Restaurants and hotels	87,261	(14,527)	72,734	107,543	(18,650)	88,893		
Transports	4,015	(1,490)	2,525	52,957	(3,812)	49,145		
Post offices	126	(9)	117	63	(8)	55		
Telecommunications	17,971	(1,184)	16,787	11,522	(1,144)	10,378		
Services	,		,	•	, , ,	· · · · · · · · · · · · · · · · · · ·		
Financial intermediation	532,983	(340,890)	192,093	396,917	(242,292)	154,625		
Real estate activities	157,517	(42,968)	114,549	245,365	(46,738)	198,627		
Consulting, scientific								
and technical activities	162,833	(92,367)	70,466	226,308	(154,872)	71,436		
Administrative and								
support services activities	77,634	(56,618)	21,016	82,356	(58,456)	23,900		
Public sector	5,811	(746)	5,065	7,023	(56)	6,967		
Education	19,739	(4,605)	15,134	20,148	(5,513)	14,635		
Health and collective service activities	10,021	(948)	9,073	4,125	(920)	3,205		
Artistic, sports and	·							
recreational activities	89,969	(40,498)	49,471	116,230	(46,221)	70,009		
Other services	243,589	(176,395)	67,194	245,119	(172,306)	72,813		
Consumer credit	115,214	(19,554)	95,660	168,454	(51,672)	116,782		
Mortgage credit	485,933	(10,455)	475,478	566,855	(18,199)	548,656		
Other domestic activities	22	(1)	21	6	-	6		
Other international activities	28,005	(22,546)	5,459	28,033	(22,828)	5,205		
Sans. International delivities	2,515,493	(1,029,693)	1,485,800	2,979,322	(1,169,139)	1,810,183		

The restructured loans are subject to an impairment analysis resulting from the revaluation of expectation to meet new cash flows inherent to the new contract terms and considering new collaterals.

The Bank has implemented a process for marking operations restructured due to clients' financial difficulties. This marking is part of the credit analysis process, being in charge of the respective decision-making bodies, according to the corresponding competencies, established in the regulations in force.

The information on operations restructured due to financial difficulties is available in the Bank's information systems, having a relevant role in the processes of credit analysis, in the marking of customers in default and in the process of determining impairment. In particular:

- there are several default triggers related to restructurings due to financial difficulties (restructuring with loss of value, recidivism of restructuring, default on customers with restructured operations);
- in the process of individual impairment analysis, in addition to the existence of operations restructured due to financial difficulties, is a reason for customer selection, the loss inherent to the change in the conditions resulting from the restructuring is determined;

The demarcation of an operation can only take place at least 2 years after the date of marking, provided that a set of conditions exist that allow to conclude by the improvement of the financial condition of the client. In the case of credits marked as NPE, this 2-year period will only start on the date of classification of the credit as performing.

The definition of Non Performing Loans for more than 90 days (NPL> 90) incorporates total credit (past due + outstanding) associated with past due operations for more than 90 days. As at 31 December 2019, the amount calculated is Euros 1,678,232,000 (31 December 2018: Euros 2,451,122,000).

Every client or operation that meet the following conditions is marked and identified as Non Performing Exposures (NPE):

- a) total exposure of defaulted customers;
- b) total exposure of customers with signs of impairment;
- c) total exposure of customers whose overdue value for more than 90 days represents more than 20% of their total on-balance sheet exposure;
- d) total exposure of non-retail customers with at least one overdue operation for more than 90 days;
- e) retail operations overdue for more than 90 days;
- f) operations restructured due to financial difficulties overdue for more than 30 days.

As at 31 December 2019, the NPE amounts to Euros 3,234,081,000 (31 December 2018: Euros 4,607,653,000).

The changes occurred in impairment for credit risks are analysed as follows:

	(Tho	ousands of euros)
	2019	2018
Balance on 1 January	2,293,486	2,742,244
Adjustments due to the implementation of IFRS 9		
Remeasurement under IFRS 9 (note 51)	-	153,917
Transfer resulting from the merger of BII on BCP	49,179	-
Charge for the year in net income interest (note 2)	29,308	31,026
Other transfers	67,579	(56,880)
Impairment charge for the year (note 10)	454,520	460,589
Reversals for the year (note 10)	(169,181)	(57,643)
Loans charged-off	(863,099)	(979,967)
Exchange rate differences	102	200
Balance at the end of the year	1,861,894	2,293,486

As at 31 December 2019, the balance Other transfers includes the amount of Euros 64,588,000 related to provisions for guarantees and other commitments, which were transferred to impairment for credit risks due to the fact that the guarantees granted were converted into loans and advances to customers.

In 2018, the balance Other transfers refered to impairments that, as at 31 December 2017, were accounted in loans to customers. In the context of the financial restructuring of a group of customers occurred in 2018, the associated credits were liquidated, and the Bank received a set of assets in kind and the related impairment of these assets.

The analysis of loans charged-off, by sector of activity, is as follows:

	(Tho	usands of euros)
	2019	2018
Agriculture and forestry	3,751	4,797
Fisheries	4	152
Mining	3,844	3,295
Food, beverage and tobacco	6,013	1,792
Textiles	7,172	15,498
Wood and cork	2,710	16,757
Paper, printing and publishing	6,160	1,911
Chemicals	28,607	5,137
Machinery, equipment and basic metallurgical	23,343	22,558
Water	230	4,856
Construction	265,909	235,786
Retail business	74,013	28,393
Wholesale business	29,068	41,974
Restaurants and hotels	11,939	27,272
Transports	5,916	4,791
Post offices	6	14
Telecommunications	17,402	1,715
Services		
Financial intermediation	20,608	244,339
Real estate activities	61,841	77,095
Consulting, scientific and technical activities	167,111	88,173
Administrative and support services activities	5,781	10,609
Education	373	755
Health and collective service activities	551	452
Artistic, sports and recreational activities	3,448	787
Other services	1,496	2,439
Consumer credit	109,207	132,126
Mortgage credit	4,035	5,328
Other domestic activities	2,561	1,132
Other international activities	-	34
	863,099	979,967

In compliance with the accounting policy described in note 1 B1.3, loans and advances to customers are charged-off when there are no feasible expectations, of recovering the loan amount and for collateralised loans, the charge-off occurs when the funds arising from the execution of the respective collaterals are effectively received. This charge-off is carried out by the utilization of impairment losses when they refer to 100% of the loans that are considered unrecoverable.

The analysis of loans charged-off, by type of credit, is as follows:

		usands of euros)
	2019	2018
Unsecured loans	853,957	958,835
Factoring operations	2,926	5,093
Finance leases	6,216	16,039
	863,099	979,967

The analysis of recovered loans and interest occurred during the 2019 and 2018 by sector of activity, is as follows:

	(Tho	usands of euros)
	2019	2018
Agriculture and forestry	61	13
Fisheries	-	24
Mining	-	1
Food, beverage and tobacco	198	128
Textiles	384	121
Wood and cork	41	112
Paper, printing and publishing	292	170
Chemicals	484	206
Machinery, equipment and basic metallurgical	127	154
Construction	1,514	1,614
Retail business	1,322	426
Wholesale business	628	724
Restaurants and hotels	19	25
Transports	60	61
Telecommunications	5	27
Services		
Financial intermediation	749	2,236
Real estate activities	1,217	179
Consulting, scientific and technical activities	2	58
Administrative and support services activities	169	438
Health and collective service activities	2	15
Artistic, sports and recreational activities	257	3
Other services	6	41
Consumer credit	953	2,520
Mortgage credit	1	
Other domestic activities	200	55
Other international activities	<u> </u>	20
	8,691	9,371

The analysis of recovered loans and interest occurred during 2019 and 2018, by type of credit, is as follows:

	ands of euros)
2019	2018
8,521	8,566
9	691
161	114
8,691	9,371
	<b>2019</b> 8,521 9 161

The caption Loans and advances to customers includes the effect of synthetic securitization. The characterization of these operations is described in note 1 C).

### Traditional securitizations

The traditional securitization operations carried out by the Group concern mortgage loan portfolios and were carried out through credit securitization funds (FTCs) and special purpose entities (SPEs).

### Magellan Mortgages No. 2

The Magellan 2 securitization operation was repaid on 18 October 18 2019, through a Clean-Up Call exercise, following the repurchase of loans to Magellan 2, with an increase in gross credit and POCI's of approximately Euros 90 million and Euros 3 million respectively.

## Synthetic securitizations

The Bank has two operations in progress which form structures of synthetic securitization.

### Caravela SME No. 3

Caravela SME No.3, supports an operation started on 28 June 2013, based on a medium and long term loans portfolio of current accounts and authorized overdrafts granted by BCP, mainly to small and medium companies. The legal maturity date of the operation is 25 March of 2036 and the operation amounts to Euros 800,801,000 as at 31 December 2019. The fair value of the relative Credit Default Swap (CDS) is recorded as a positive amount of Euros 203,646,000 and the registered cost in 2019 amounts to Euros 5,169,000.

### Caravela SME No. 4

Caravela SME No.4 is a similar operation, initiated on 5 June 2014, which portfolio contains car, real estate and equipment leasing granted between the Bank and a group of clients that belong to the same segment (small and medium companies). The legal maturity date is 21 September of 2043 and as at 31 December 2019, the operation amounts to Euros 884,659,000. The fair value of the relative CDS is recorded as a positive amount of Euros 64,101,000 and their registered cost in 2019 amounts to Euros 906,000.

In both operations, the Bank hired a CDS with a Special Purpose Vehicle (SPV), buying by this way the protection for part of the credit risk inherent to the referenced portfolio. Both cases, the synthetic securitizations, the same CDS, the risk of the respective portfolios were divided in 3 classes: senior, mezzanine and equity. The mezzanine and part of the equity (20%) were placed in the market through an SPE, and the subscription by investors, the Credit Linked Notes (CLN). The Bank retained the senior risk and part of the equity remaining (80%). The product of the CLN issue was invested by the referred SPE the constitution of a deposit that collateralizes, in full, their responsibilities towards its creditors under the operation, including the Group under the CDS context.

These operations involve the Bank's to reduce the risk-weighted assets associated with the credit portfolios supporting the operations, but it did not transfer to third parties most of the rights and obligations arising from the credits included in them, thus not meeting the derecognition criteria in the accounting policy presented in note 1B.1.3.

### 20. Debt securities

The balance Debt securities is analysed as follows:

		(Thousands of euros	
	2019	2018	
Debt securities held associated with credit operations			
Portuguese issuers			
Bonds	155,567	176,751	
Commercial paper	1,871,985	2,024,762	
Foreign issuers			
Bonds	32,356	34,671	
Commercial paper	25,233	19,704	
	2,085,141	2,255,888	
Overdue securities - over 90 days	1,799	55,353	
	2,086,940	2,311,241	
Impairment	(12,431)	(39,921)	
	2,074,509	2,271,320	
Debt securities held not associated with credit operations			
Bonds issued by public entities			
Portuguese issuers (*)	137,330	47,377	
Foreign issuers	8,173	4,891	
Bonds issued by other entities			
Portuguese issuers	178,067	254,662	
Foreign issuers	50,854	63,325	
	374,424	370,255	
Impairment	(532)	(284)	
	373,892	369,971	
	2,448,401	2,641,291	

(\*) Includes the amount of Euros 856,000 related to adjustments resulting from the application of fair value hedge accounting.

As at 31 December 2019, the balance Debt securities held not associated with credit operations - Bonds issued by other entities includes the amount of Euros 138,752,000 (31 December 2018: Euros 213,772,000) related to public sector companies.