The analysis of hedging derivatives portfolio by maturity as at 31 December 2018 is as follows:

					(TI	nousands of euros	
	2018						
	Notional (remaining term)				Fair value		
	Up to	3 months to	Over 1				
	3 months	1 year	year	Total	Assets	Liabilities	
Fair value hedging derivatives related to							
interest rate risk changes:							
OTC Market:							
Interest rate swaps	-	24,500	2,738,774	2,763,274	12,372	60,882	
Cash flow hedging derivatives related to							
interest rate risk changes:							
OTC Market:							
Interest rate Swaps	-	-	11,880,000	11,880,000	80,519	7,604	
Total derivatives traded by:							
OTC Market	-	24,500	14,618,774	14,643,274	92,891	68,486	

23. Investments in subsidiaries and associated companies

This balance is analysed as follows:

	(Thousands of euros)		
	2019	2018	
Portuguese credit institutions	128,205	388,440	
Foreign credit institutions	805,385	792,877	
Other Portuguese companies	1,963,132	1,760,363	
Other foreign companies	2,757,657	2,756,639	
	5,654,379	5,698,319	
Impairment for investments in:			
Subsidiary companies	(2,484,269)	(2,532,289)	
Associated and other companies	(34,461)	(18,057)	
	(2,518,730)	(2,550,346)	
	3,135,649	3,147,973	

The balance Investments in subsidiaries and associated companies is analysed as follows:

		ousands of euros)
	2019	2018
Banco ActivoBank, S.A.	128,205	128,205
Banco de Investimento Imobiliário, S.A.	-	260,235
Bank Millennium S.A.	651,959	645,678
Banque BCP, S.A.S.	33,210	30,203
Banque Privée BCP (Suisse) S.A.	120,216	116,996
BCP África, S.G.P.S., Lda.	683,032	683,032
BCP Capital - Sociedade de Capital de Risco, S.A.	29,773	29,773
BCP International B.V.	1,203,262	1,203,262
BCP Investment, B.V.	1,534,842	1,534,842
Cold River's Homestead, S.A.	20,211	20,210
Interfundos Gestão de Fundos de Investimento Imobiliários, S.A.	1,500	1,500
Millenniumbcp Ageas Grupo Segurador, S.G.P.S., S.A.	355,475	355,475
Millennium bcp - Escritório de representações e Serviços, S/C Lda.	19,553	18,535
Millennium bcp Imobiliária, S.A.	359,683	341,088
Millennium bcp Participações, S.G.P.S., Sociedade Unipessoal, Lda.	493,940	327,653
Millennium bcp Teleserviços - Serviços de Comércio Electrónico, S.A.	885	885
Millennium bcp - Prestação de Serviços, A.C.E.	18,000	-
Planfipsa S.G.P.S., S.A.	-	1
Projepolska, S.A.	633	633
Servitrust - Trust Management Services S.A.	-	100
Sicit - Sociedade de Investimentos e Consultoria em Infra-Estruturas de Transportes, S.A.		13
	5,654,379	5,698,319
Impairment for investments in subsidiary and associated companies		
Banco de Investimento Imobiliário, S.A.	-	(50,704)
BCP África, S.G.P.S., Lda.	(92,726)	(92,726)
BCP Capital - Sociedade de Capital de Risco, S.A.	(26,161)	(26,117)
BCP International B.V.	(145,988)	(145,988)
BCP Investment, B.V.	(1,530,314)	(1,529,200)
Cold River's Homestead, S.A.	(4,689)	-
Millennium bcp - Escritório de representações e Serviços, S/C Lda.	(19,553)	(18,535)
Millenniumbcp Ageas Grupo Segurador, S.G.P.S., S.A.	(22,537)	(18,057)
Millennium bcp Imobiliária, S.A.	(348,321)	(341,088)
Millennium bcp Participações, S.G.P.S., Sociedade Unipessoal, Lda.	(327,049)	(327,049)
Millennium bcp Teleserviços - Serviços de Comércio Electrónico, S.A.	(782)	(782)
Projepolska, S.A.	(610)	-
Servitrust - Trust Management Services S.A.	-	(100)
	(2,518,730)	(2,550,346)
	3,135,649	3,147,973
	-,:,- 13	-,,

During 2019, the Bank sold 51% of Planfipsa S.G.P.S (as referred in note 5) and settled Imábida - Imobiliária da Arrábida, S.A. and Servitrust - Trust Management Services S.A. The Banco de Investimento Imobiliário, S.A. was merged into Banco Comercial Português, S.A. (merger by incorporation).

During 2018, were included the subsidiaries Planfipsa S.G.P.S., S.A. and Cold River's Homestead, S.A., and also included the associated companies PNCB - Plataforma de Negociação Integrada de Créditos Bancários, A.C.E and Projepolska, S.A.

During 2018, the Bank also liquidated S & P Reinsurance Limited and closed ACT-C-Indústria de Cortiças, S.A.

The movements for Impairment for investments in subsidiary and associated companies are analysed as follows:

		(Thousands of euros)	
	2019	2018	
Impairment for investments in subsidiary and associated companies:			
Balance on 1 January	2,550,346	2,389,051	
Transfer to merge reserve resulting from the merger of BII on BCP (note 53)	(50,704)	-	
Transfers	12,425	-	
Impairment charge for the year (note 12)	11,944	177,104	
Write-back for the year (note 12)	(4,540)	-	
Loans charged-off	(750)	(15,809)	
Exchange rate differences	9	-	
Balance at the end of the year	2,518,730	2,550,346	

As at 31 December 2019, the caption Impairment for investments in subsidiaries and associated companies – Loans charged-off results from the liquidation/dissolution of Servitrust – Trust Management Services S.A. As at 31 December 2018, the caption Impairment for investments in subsidiaries and associated companies – Loans charged-off results from the liquidation/dissolution of ACT – C – Indústria de Cortiças, S.A. and S&P Reinsurance Limited.

The Bank analysed the impairment related to the investments made in subsidiaries and associated as described in note 1 F). The Bank's subsidiaries and associated companies are presented in note 54.

Regarding holding companies, namely BCP International B.V., BCP Investment B.V., Millenniumbcp Ageas Grupo Segurador, S.G.P.S., S.A. and Millennium bcp Participações, S.G.P.S., Sociedade Unipessoal, Lda., the impairment analysis was performed considering the recoverable amount of the business controlled by each one of those companies.

The recoverable amounts, as described in note 1 F), was determined based on the higher between the fair value amount less costs to sell and the value in use.

The value in use was determined based on: (i) the business plan approved by each company board for the period from 2019 to 2022 and (ii) the following assumptions depending on the nature of the companies activities and correspondent geography:

		2019			2018		
	Discount rate	Discount rate	Growth rate	Discount rate	Discount rate	Growth rate	
	Explicit period	Perpetuity	Perpetuity	Explicit period	Perpetuity	Perpetuity	
Portugal	9.065%	9.250%	0.000%	5,500% a 10,000%	10.561%	0.000%	
Poland	8.565%	8.750%	2.800%	9.250%	9.250%	2.600%	
Angola	19.000%	19.000%	n.a.	19.000%	19.000%	n.a.	
Mozambique	21.000%	21.000%	4.750%	20.500%	20.500%	3.940%	
Switzerland	9.065%	9.250%	0.000%	9.250%	9.811%	0.000%	

Based on the analysis made, the Bank recognised in 2019 impairment for a group of companies, as follows:

		Impairment			(Thousands of euros) Exchange		
	Balance on 1 January	charge (note 12)	Loans charged-off (1)	Transfers	rate differences	Balance on 31 December	
Banco de Investimento Imobiliário, S.A.	50,704	-	(50,704)	-	-	-	
BCP África, S.G.P.S., Lda.	92,726	-	-	-	-	92,726	
BCP Capital - Sociedade de Capital							
de Risco, S.A.	26,117	44	-	-	-	26,161	
BCP International B.V.	145,988	-	-	-	-	145,988	
BCP Investment B.V.	1,529,200	1,114	-	-	-	1,530,314	
Cold River's Homestead, S.A.	-	4,689	-	-	-	4,689	
Millennium bcp - Escritório de representações							
e Serviços, S/C Lda.	18,535	1,009	-	-	9	19,553	
Millenniumbcp Ageas							
Grupo Segurador, S.G.P.S., S.A.	18,057	4,480	-	-	-	22,537	
Millennium bcp Imobiliária, S.A.	341,088	(4,540)	(650)	12,423	-	348,321	
Millennium bcp Participações, S.G.P.S.,							
Sociedade Unipessoal, Lda.	327,049	-	-	-	-	327,049	
Millennium bcp Teleserviços - Serviços de							
Comércio Electrónico, S.A.	782	-	-	-	-	782	
Projepolska, S.A.	-	610	-	-	-	610	
Servitrust - Trust Management							
Services S.A.	100	-	(100)	-	-	-	
	2,550,346	7,406	(51,454)	12,423	9	2,518,730	

⁽¹⁾ Includes transfer to the BII merger reserve