

48. FAIR VALUE

Fair value is based on market prices, whenever these are available. If market prices are not available, as occurs regarding many products sold to clients, fair value is estimated through internal models based on cash-flow discounting techniques. Cash-flows for the different instruments sold are calculated according to its financial characteristics and the discount rates used include both the market interest rate curve and the current conditions of the Group's pricing policy.

Thus, the fair value obtained is influenced by the parameters used in the evaluation model that have some degree of judgment and reflects exclusively the value attributed to different financial instruments. However it does not consider prospective factors, as the future business evolution. Therefore the values presented cannot be understood as an estimate of the economic value of the Group.

The main methods and assumptions used in estimating the fair value for the financial assets and financial liabilities are presented as follows:

CASH AND DEPOSITS AT CENTRAL BANKS, LOANS AND ADVANCES TO CREDIT INSTITUTIONS REPAYABLE ON DEMAND

Considering the short term of these financial instruments, the amount in the balance sheet is a reasonable estimate of its fair value.

LOANS AND ADVANCES TO CREDIT INSTITUTIONS, DEPOSITS FROM CREDIT INSTITUTIONS AND ASSETS WITH REPURCHASE AGREEMENTS

The fair value of these financial instruments is calculated discounting the expected principal and interest future cash flows for these instruments, considering that the payments of the instalments occur in the contractually defined dates. This update is made based on the prevailing market rate for the term of each cash flow plus the average spread of the production of the most recent 3 months of the same. For the elements with signs of impairment, the net impairment of these operations is considered as a reasonable estimate of their fair value, considering the economic valuation that is realized in the determination of this impairment.

For resources from Central Banks it was considered that the book value is a reasonable estimate of its fair value, given the nature of operations and the associated short-term. The rate of return of funding with the European Central Bank is 0.00% as at 31 December 2017 (31 December 2016: 0.00%).

For the remaining loans and advances and deposits, the discount rate used reflects the current conditions applied by the Group on identical instruments for each of the different residual maturities (rates from the monetary market or from the interest rate swap market).

LOANS AND ADVANCES TO CUSTOMERS AND DEPOSITS REPAYABLE ON DEMAND WITHOUT DEFINED MATURITY DATE

Considering the short maturity of these financial instruments, the conditions of the portfolio are similar to conditions used at the date of the report. Therefore the amount in the balance sheet is a reasonable estimate of its fair value.

LOANS AND ADVANCES TO CUSTOMERS WITH DEFINED MATURITY DATE

The fair value of these instruments is calculated by discounting the expected principal and interest future cash flows for these instruments, considering that the payments of the instalments occur in the contractually defined dates. For loans with signs of impairment, the net impairment of these operations is considered as a reasonable estimate of their fair value, considering the economic valuation that is realized in the determination of this impairment.

The discount rate used is the one that reflects the current rates of the Group for each of the homogeneous classes of this type of instruments and with similar residual maturity. The discount rate includes the market rates for the residual maturity date (rates from the monetary market or from the interest rate swap market, at the end of the period) and the spread used at the date of the report, which was calculated from the average production of the three most recent months compared to the reporting date.

RESOURCES FROM CUSTOMERS AND OTHER LOANS

The fair value of these financial instruments is calculated by discounting the expected principal and interest future cash flows for the referred instruments, considering that payments occur in the contractually defined dates. The discount rate used reflects the current conditions applied by the Group in similar instruments with a similar maturity. The discount rate includes the market rates of the residual maturity date (rates of monetary market or the interest rate swap market, at the end of the period) and the actual spread of the Group. This was calculated from the average production of the three most recent months compared to the reporting date.

As at 31 December 2017, the average discount rates for Loans and advances to credit institutions, Loans and advances to customers, Resources from credit institutions and Resources from customers are analysed as follows:

	Loans and advances to credit institutions	Loans and advances to customers	Resources from credit institutions	Resources from customers
EUR	0.67%	3.70%	0.28%	0.08%
AOA	20.91%	n.a.	n.a.	n.a.
AUD	n.a.	n.a.	n.a.	2.08%
CAD	n.a.	1.66%	n.a.	1.90%
CHF	n.a.	2.67%	-0.11%	-0.42%
CNY	n.a.	n.a.	n.a.	3.95%
DKK	n.a.	n.a.	n.a.	-0.02%
GBP	0.80%	3.39%	n.a.	0.77%
HKD	n.a.	1.51%	n.a.	1.16%
MOP	n.a.	1.25%	n.a.	1.51%
MZN	22.26%	42.48%	n.a.	32.48%
NOK	0.80%	4.36%	n.a.	1.25%
PLN	1.91%	6.24%	1.90%	1.69%
SEK	n.a.	n.a.	n.a.	0.02%
USD	1.99%	16.76%	2.08%	3.21%
ZAR	7.28%	29.12%	n.a.	17.11%
Average discount rate	3.27%	4.60%	0.45%	1.44%

FINANCIAL ASSETS AND LIABILITIES HELD FOR TRADING (EXCEPT DERIVATIVES) AND FINANCIAL ASSETS AVAILABLE FOR SALE

These financial instruments are accounted for at fair value. Fair value is based on market prices ("Bid-price"), whenever these are available. If market prices are not available, fair value is estimated through numerical models based on cash-flow discounting techniques, using the market interest rate curve adjusted for factors associated, predominantly credit risk and liquidity risk, determined in accordance with the market conditions and time frame.

Market interest rates are determined based on information released by the suppliers of financial content - Reuters and Bloomberg - more specifically as a result of prices of interest rate swaps. The values for the very short-term rates are obtained from similar sources but regarding interbank money market. The interest rate curve obtained is calibrated with the values of interest rate short-term futures. Interest rates for specific periods of the cash flows are determined by appropriate interpolation methods. The same interest rate curves are used in the projection of the non-deterministic cash flows such as indexes.

When optionality is involved, the standard templates (Black-Scholes, Black, Ho and others) are used considering the volatility areas applicable. Whenever there are no references in the market of sufficient quality or that the available models do not fully apply to meet the characteristics of the financial instrument, specific quotations supplied by an external entity are applied, typically a counterparty of the business.

FINANCIAL ASSETS HELD TO MATURITY

These financial instruments are accounted at amortised cost net of impairment. Fair value is based on market prices, whenever these are available. If market prices are not available, fair value is estimated through numerical models based on cash-flow discounting techniques, using the market interest rate curve adjusted for factors associated, predominantly credit risk and liquidity risk, determined in accordance with the market conditions and time frame.

HEDGING AND TRADING DERIVATIVES

All derivatives are recorded at fair value. In case of derivative contracts that are quoted in organised markets their market prices are used. As for derivatives traded "Over-the-counter", it is applied methods based on numerical cash-flow discounting techniques and models for assessment of options considering variables of the market, particularly the interest rates on the instruments in question, and where necessary, their volatilities.

Interest rates are determined based on information disseminated by the suppliers of financial content - Reuters and Bloomberg - more specifically those resulting from prices of interest rate swaps. The values for the very short-term rates are obtained from a similar source but regarding interbank money market. The interest rate curve obtained is calibrated with the values of interest rate short-term futures. Interest rates for specific periods of the cash flows are determined by appropriate interpolation methods. The interest rate curves are used in the projection of the non-deterministic cash flows such as indexes.

DEBT SECURITIES ISSUED AND SUBORDINATED DEBT

For these financial instruments the fair value was calculated for components for which fair value is not yet reflected in the balance sheet. Fixed rate instruments for which the Group adopts "hedge-accounting", the fair value related to the interest rate risk is already recognised.

For the fair value calculation, other components of risk were considered, in addition to the interest rate risk already recorded. The fair value is based on market prices, whenever these are available. If market prices are not available, fair value is estimated through numerical models based on cash-flow discounting techniques, using the market interest rate curve adjusted by associated factors, predominantly credit risk and trading margin, the latter only in the case of issues placed on non-institutional customers of the Group.

As original reference, the Group applies the curves resulting from the market interest rate swaps for each specific currency. The credit risk (credit spread) is represented by an excess from the curve of interest rate swaps established specifically for each term and class of instruments based on the market prices on equivalent instruments.

For own issued debts placed among non institutional costumers of the Group, one more differential was added (commercial spread), which represents the margin between the financing cost in the institutional market and the cost obtained by distributing the respective instrument in the owned commercial network.

The average of the reference rates of the yield curve obtained from the market prices of the different currencies used in the determination of the fair value of the issues is analysed as follows:

	2017		2016		
	EUR	PLN	EUR	PLN	USD
Placed in the institutional market					
Subordinated (not considering CoCos in 2016)	6.42%	-	8.54%	-	-
Senior (including guaranteed by the State and mortgage)	0.13%	2.45%	0.65%	4.19%	-
Placed in retail					
Subordinated	2.01%	-	3.03%	-	-
Senior and collateralised	1.06%	2.92%	1.28%	2.83%	4.52%

For debt securities, the fair value calculation focused on all the components of these instruments, as a result the difference determined is a negative amount of Euros 14,199,000 (31 December 2016: a negative amount of Euros 20,752,000), and includes a payable amount of Euros 10,272,000 (31 December 2016: a payable amount of Euros 5,916,000) which reflects the fair value of embedded derivatives and are recorded in financial assets and liabilities held for trading.

As at 31 December 2017, the following table presents the interest rates used in the definition of the interest rate curves of main currencies, namely EUR, USD, GBP and PLN used to determine the fair value of the financial assets and liabilities of the Group:

	Currencies			
	EUR	USD	GBP	PLN
1 day	-0.43%	1.42%	0.47%	1.47%
7 days	-0.43%	1.50%	0.51%	1.47%
1 month	-0.42%	1.63%	0.50%	1.55%
2 months	-0.39%	1.65%	0.56%	1.58%
3 months	-0.38%	1.70%	0.61%	1.62%
6 months	-0.32%	1.83%	0.72%	1.71%
9 months	-0.27%	1.90%	0.81%	1.72%
1 year	-0.26%	1.88%	0.88%	1.80%
2 years	-0.15%	2.06%	0.78%	2.03%
3 years	0.01%	2.15%	0.89%	2.22%
5 years	0.31%	2.23%	1.03%	2.50%
7 years	0.57%	2.30%	1.14%	2.70%
10 years	0.89%	2.38%	1.27%	2.94%
15 years	1.25%	2.47%	1.41%	3.25%
20 years	1.42%	2.51%	1.46%	3.37%
30 years	1.50%	2.52%	1.43%	3.37%

The following table shows the fair value of financial assets and liabilities of the Group, as at 31 December 2017:

	2017				
	Fair value through profit or loss	Fair value through reserves	Amortised cost	Book value	Fair value
Assets					
Cash and deposits at Central Banks	-	-	2,167,934	2,167,934	2,167,934
Loans and advances to credit institutions					
Repayable on demand	-	-	295,532	295,532	295,532
Other loans and advances	-	-	1,065,568	1,065,568	1,064,736
Loans and advances to customers (i)	-	-	47,633,492	47,633,492	45,287,607
Financial assets held for trading	897,734	-	-	897,734	897,734
Other financial assets held for trading					
at fair value through profit or loss	142,336	-	-	142,336	142,336
Financial assets available for sale	-	11,471,847	-	11,471,847	11,471,847
Assets with repurchase agreement	-	-	-	-	-
Hedging derivatives (ii)	234,345	-	-	234,345	234,345
Held to maturity financial assets	-	-	411,799	411,799	406,335
	1,274,415	11,471,847	51,574,325	64,320,587	61,968,406
Liabilities					
Resources from credit institutions	-	-	7,487,357	7,487,357	7,441,083
Resources from customers (i)	2,902,392	-	48,285,425	51,187,817	51,178,257
Debt securities (i)	941,253	-	2,066,538	3,007,791	2,993,592
Financial liabilities held for trading	399,101	-	-	399,101	399,101
Hedging derivatives (ii)	177,337	-	-	177,337	177,337
Subordinated debt (i)	-	-	1,169,062	1,169,062	1,331,397
	4,420,083	-	59,008,382	63,428,465	63,520,767

(i) - The book value includes the effect of the adjustments resulting from the application of hedge accounting;

(ii) - Includes a portion that is recognized in reserves in the application of accounting cash flow hedge.

The following table shows the fair value of financial assets and liabilities of the Group, as at 31 December 2016:

(Thousands of euros)					
2016					
	Fair value through profit or loss	Fair value through reserves	Amortised cost	Book value	Fair value
Assets					
Cash and deposits at Central Banks	-	-	1,573,912	1,573,912	1,573,912
Loans and advances to credit institutions					
Repayable on demand	-	-	448,225	448,225	448,225
Other loans and advances	-	-	1,056,701	1,056,701	1,054,536
Loans and advances to customers (i)	-	-	48,017,602	48,017,602	45,692,179
Financial assets held for trading	1,048,797	-	-	1,048,797	1,048,797
Other financial assets held for trading					
at fair value through profit or loss	146,664	-	-	146,664	146,664
Financial assets available for sale	-	10,596,273	-	10,596,273	10,596,273
Assets with repurchase agreement	-	-	20,525	20,525	20,525
Hedging derivatives (ii)	57,038	-	-	57,038	57,038
Held to maturity financial assets	-	-	511,181	511,181	493,219
	1,252,499	10,596,273	51,628,146	63,476,918	61,131,368
Liabilities					
Resources from credit institutions	-	-	9,938,395	9,938,395	9,984,427
Resources from customers (i)	2,985,741	-	45,811,906	48,797,647	48,692,203
Debt securities (i)	785,664	-	2,727,156	3,512,820	3,492,068
Financial liabilities held for trading	547,587	-	-	547,587	547,587
Hedging derivatives (ii)	383,992	-	-	383,992	383,992
Subordinated debt (i)	-	-	1,544,555	1,544,555	1,745,871
	4,702,984	-	60,022,012	64,724,996	64,846,148

(i) - The book value includes the effect of the adjustments resulting from the application of hedge accounting;
(ii) - Includes a portion that is recognized in reserves in the application of accounting cash flow hedge.

The Group classified the financial instruments recorded in the balance sheet at fair value in accordance with the hierarchy established in IFRS 13.

The fair value of financial instruments is determined using quotations recorded in active and liquid markets, considering that a market is active and liquid whenever its stakeholders conduct transactions on a regular basis giving liquidity to the instruments traded. When it is verified that there are no transactions that regularly provide liquidity to the traded instruments, valuation methods and techniques are used to determine the fair value of the financial instruments.

LEVEL 1 - WITH QUOTATION IN ACTIVE MARKET

In this category are included, in addition to financial instruments traded on a regulated market, bonds and units of investment funds valued on the basis of prices disclosed through trading systems.

The classification of the fair value of level 1 is used when:

- i) - There is a firm daily enforceable quotation for the financial instruments concerned, or;
- ii) - There is a quotation available in market information systems that aggregate multiple prices of various stakeholders, or;
- iii) - Financial instruments have been classified in level 1, at least 90% of trading days in the year (at the valuation date).

LEVEL 2 - VALUATION METHODS AND TECHNIQUES BASED ON MARKET DATA

Financial instruments, when there are no regular transactions in the active and liquid markets (level 1), are classified in level 2, according to the following rules:

- i) - Failure to comply with the rules defined for level 1, or;
- ii) - They are valued based on valuation methods and techniques that use mostly observable market data (interest rate or exchange rate curves, credit curves, etc.).

Level 2 includes over-the-counter derivative financial instruments contracted with counterparties with which the Bank maintains collateral agreements (ISDAs with Credit Support Annex (CSA)), in particular with MTA (Minimum Transfer Amount) which contributes to the mitigation of the counterparty credit risk, so that the CVA (Credit Value Adjustment) component is not significant. In addition, derivative financial instruments traded in the over-the-counter market, which, despite not having CSA agreements, the non-observable market data component (eg internal ratings, default probabilities determined by internal models, etc.) incorporated in valuation of CVA is not significant in the value of the derivative as a whole. In order to assess the significance of this component, the Bank defined a quantitative relevance criterion and performed a qualitative sensitivity analysis on the valuation component that includes unobservable market data.

LEVEL 3 - VALUATION METHODS AND TECHNIQUES BASED ON DATA NOT OBSERVABLE IN THE MARKET

If the level 1 or level 2 criteria are not met, financial instruments should be classified in level 3, as well as in situations where the fair value of financial instruments results from the use of information not observable in the market, such as:

- financial instruments which are not classified as level 1 and which are valued using evaluation methods and techniques without being known or where there is consensus on the criteria to be used, namely:

- i) - They are valued using comparative price analysis of financial instruments with risk and return profile, typology, seniority or other similar factors, observable in the active and liquid markets;
- ii) - They are valued based on performance of impairment tests, using performance indicators of the underlying transactions (e.g. default probability rates of the underlying assets, delinquency rates, evolution of the ratings, etc.);
- iii) - They are valued based on NAV (Net Asset Value) disclosed by the management entities of securities/real estate/other investment funds not listed on a regulated market.

Level 3 includes over-the-counter derivative financial instruments that have been contracted with counterparties with which the Bank does not maintain collateral exchange agreements (CSAs), and whose unobservable market data component incorporated in the valuation of CVA is significant in the value of the derivative as a whole. In order to assess the significance of this component, the Bank defined a quantitative relevance criterion and performed a qualitative sensitivity analysis on the valuation component that includes unobservable market data.

The following table shows, by valuation levels, the fair value of financial assets and liabilities of the Group, as at 31 December 2017:

	(Thousands of euros)			
	2017			
	Level 1	Level 2	Level 3	Total
Assets				
Cash and deposits at Central Banks	2,167,934	-	-	2,167,934
Loans and advances to credit institutions				
Repayable on demand	295,532	-	-	295,532
Other loans and advances	-	-	1,064,736	1,064,736
Loans and advances to customers (i)	-	-	45,287,607	45,287,607
Financial assets held for trading	149,910	442,373	305,451	897,734
Other financial assets held for trading at fair value through profit or loss	142,336	-	-	142,336
Financial assets available for sale	8,224,992	1,946,229	1,300,626	11,471,847
Assets with repurchase agreement	-	-	-	-
Hedging derivatives (ii)	-	234,345	-	234,345
Held to maturity financial assets	192,710	133,009	80,616	406,335
	11,173,414	2,755,956	48,039,036	61,968,406
Liabilities				
Resources from credit institutions	-	-	7,441,083	7,441,083
Resources from customers	-	-	51,178,257	51,178,257
Debt securities	763,919	-	2,229,673	2,993,592
Financial liabilities held for trading	1,019	387,157	10,925	399,101
Hedging derivatives	-	177,337	-	177,337
Subordinated debt	-	-	1,331,397	1,331,397
	764,938	564,494	62,191,335	63,520,767

The following table shows, by valuation levels, the fair value of financial assets and liabilities of the Group, as at 31 December 2016:

(Thousands of euros)				
	2016			Total
	Level 1	Level 2	Level 3	
Assets				
Cash and deposits at Central Banks	1,573,912	-	-	1,573,912
Loans and advances to credit institutions				
Repayable on demand	448,225	-	-	448,225
Other loans and advances	-	-	1,054,536	1,054,536
Loans and advances to customers	-	-	45,692,179	45,692,179
Financial assets held for trading	194,943	239,634	614,220	1,048,797
Other financial assets held for trading at fair value through profit or loss	146,664	-	-	146,664
Financial assets available for sale	8,239,244	1,060,858	1,296,171	10,596,273
Assets with repurchase agreement	-	-	20,525	20,525
Hedging derivatives (ii)	-	57,038	-	57,038
Held to maturity financial assets	54,623	337,790	100,806	493,219
	10,657,611	1,695,320	48,778,437	61,131,368
Liabilities				
Resources from credit institutions	-	-	9,984,427	9,984,427
Resources from customers	-	-	48,692,203	48,692,203
Debt securities	585,516	-	2,906,552	3,492,068
Financial liabilities held for trading	234	459,309	88,044	547,587
Hedging derivatives	-	383,992	-	383,992
Subordinated debt	-	-	1,745,871	1,745,871
	585,750	843,301	63,417,097	64,846,148

For financial assets classified at level 3 recorded in the balance sheet at fair value, the movement occurred during the year 2017 is presented as follows:

(Thousands of euros)					
	2017				
	Financial assets				Financial liabilities held for trading (*)
	held for trading	available for sale	Held to maturity	Total	
Balance on January 1	614,220	1,296,171	100,806	2,011,197	63,816
Gains / (losses) recognised in profit or loss					
Results on financial operations	43,980	2,823	-	46,803	30
Net interest income	-	1,859	-	1,859	-
Impairment and other provisions	-	(63,150)	-	(63,150)	-
Transfers from investments in associated companies	-	1,536	-	1,536	-
Transfers between levels	(346,406)	-	14,185	(332,221)	(55,695)
Purchases	5,308	276,822	-	282,130	10,825
Sales, repayments or amortizations	(11,651)	(227,509)	(40,902)	(280,062)	(8,051)
Gains / (losses) recognised in reserves	-	6,289	-	6,289	-
Gains / (losses) not recognised	-	-	1,582	-	-
Exchange differences	-	4,902	4,142	9,044	-
Accruals of interest	-	883	803	1,686	-
Balance as at December 31	305,451	1,300,626	80,616	1,685,111	10,925

(*) Does not include short sales, which at 31 December 2016 amounted to Euros 24,228,000 (note 36).

For financial assets classified at level 3 recorded in the balance sheet at fair value, the movement occurred during the year 2016 is presented as follows:

(Thousands of euros)				
2016				
Financial assets				
	held for trading	available for sale	Held to maturity	Total
Balance on January 1	198,001	1,680,544	-	1,878,545
Gains / (losses) recognised in profit or loss				
Results on financial operations	73,845	106,079	-	179,924
Impairment and other provisions	-	(261,682)	-	(261,682)
Transfers changes in structure	(7,447)	(19,582)	-	(27,029)
Transfers between levels	332,859	13,525	100,806	447,190
Purchases	82,343	75,965	-	158,308
Sales, repayments or amortizations	(65,381)	(222,793)	-	(288,174)
Gains / (losses) recognised in reserves	-	(76,439)	-	(76,439)
Exchange differences	-	(622)	-	(622)
Accruals of interest	-	1,176	-	1,176
Balance as at December 31	614,220	1,296,171	100,806	2,011,197

49. POST-EMPLOYMENT BENEFITS AND OTHER LONG TERM BENEFITS

The Group assumed the liability to pay to their employees pensions on retirement or disability and other obligations, in accordance with the accounting policy described in note 1 w).

As at 31 December 2017 and 2016, the number of participants in the Pension Fund of Banco Comercial Português covered by this pension plan and other benefits is analysed as follows:

(Thousands of euros)		
	2017	2016
Number of participants		
Pensioners	16,711	16,524
Former Attendees Acquired Rights	3,375	3,386
Employees	7,368	7,537
	27,454	27,447

In accordance with the accounting policy described in note 1 w), the Group's pension obligation and other benefits and the respective coverage for the Group based on the projected unit credit method are analysed as follows:

(Thousands of euros)		
	2017	2016
Projected benefit obligations		
Pensioners	1,993,181	1,959,977
Former attendees acquired rights	206,687	221,860
Employees	849,702	910,812
	3,049,570	3,092,649
Pension fund value	(3,166,351)	(3,124,330)
Net (assets) / liabilities in balance sheet (notes 32)	(116,781)	(31,681)
Accumulated actuarial losses and changing assumptions effect recognised in Other comprehensive income	3,191,607	3,220,601