NOTE 34. Fair value of financial assets and liabilities

Fair value is based on listed market prices if available; otherwise fair value is determined based on cash-flow discounting techniques. Cash flows for the different instruments are calculated according with its financial characteristics and discount rates used include both the market interest rate curve and the current risk levels of the respective issuer.

Therefore, the fair value obtained is influenced by parameters used in the evaluation model that, necessarily have some degree of judgment and reflect exclusively the value attributed to different financial instruments.

As at 31 December 2018 and 2017, the Bank's fair value of financial assets and liabilities is analysed as follows:

(Thousands of AOA)

		Measured at Fair Value				
	Amortized Cost	Market prices	Valuation models with observable market parameters	Valuation models with para- meters not observa- ble in the market	Total book value	Fair value
		(Level 1)	(Level 2)	(Level 3)		
31 December 2018						
Assets						
Cash and deposits at central banks	159,372,252	-	-	-	159,372,252	159,372,252
Loans and advances to credit institutions repayable on demand	26,739,729	-	-	-	26,739,729	26,739,729
Financial assets and liabilities at fair value through profit or loss	-	-	6,903,601	19,716,843	26,620,444	26,620,444
Financial assets at fair value through other comprehensive income	-	-	197,781,944	337,782	198,119,726	198,119,726
Financial assets at amortised cost						
Debt securities	274,968,716	-	-	-	274,968,716	272,409,571
Loans and advances to customers	420,264,577	-	-	-	420,264,577	418,456,722
Other loans and advances to credit institutions	13,312,565	-	-	-	13,312,565	13,312,565
Financial assets	894,657,839	-	204,685,545	20,054,625	1,119,398,009	1,115,031,009
Deposits from central banks and other credit institutions	160,054,580	-	-	-	160,054,580	160,054,580
Deposits from customers	1,042,924,548	-	-	-	1,042,924,548	1,042,924,548
Financial liabilities	1,202,979,128	-	-	-	1,202,979,128	1,202,979,128

(Thousands of AOA)

	Amortized cost	V	alued at Fair \			
		Market prices	Valuation models with observable market parameters	Valuation models with parameters not observable in the market	Total book value	Fair value
		(Level 1)	(Level 2)	(Level 3)		
31 December 2017						
Cash and deposits at central banks	133,610,160	-	-	-	133,610,160	133,610,160
Loans and advances to credit institutions repayable on demand	4,510,199	-	-	-	4,510,199	4,510,199
Other loans and advances to central banks and credit institutions	31,234,743	-	-	-	31,234,743	31,234,743
Financial assets and liabilities at fair value through profit or loss						
Financial assets held for trading						
Securities						
Bonds issued from public entities	-	-	772,702	-	772,702	772,702
Derivatives						
Exchange rates	-	-	2,943,770	-	2,943,770	2,943,770
Financial assets available for sale						
Bonds issued from public entities	-	-	79,373,734	-	79,373,734	79,373,734
Bonds issued from other entities	-	-	3,589,867	-	3,589,867	3,589,867
Shares	581,269	-	-	-	581,269	581,269
Other variable income securities			14,230,624	379,617	14,610,241	14,610,241
Held-to-maturity investments	219,034,443				219,034,443	218,259,685
Loans and advances to customers	395,712,862	-	-	-	395,712,862	393,525,473
Financial assets	565,649,233	-	100,910,697	379,617	666,939,547	664,752,158
Deposits from central banks and other credit institutions	117,181,364	-	-	-	117,181,364	117,181,364
Deposits from customers	801,365,710	-	-	-	801,365,710	801,365,710
Financial liabilities	918,547,074	-	-	-	918,547,074	918,547,074

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The Bank uses the following hierarchy for fair value with 3 levels in the evaluation of financial instruments (assets and liabilities), which reflects the level of judgment, the observability of the data used and the importance of the parameters used in determining the fair value measurement of the instrument, as referred in IFRS 13:

Level 1: Fair value is determined based on unadjusted quoted prices, captured in transactions in active markets involving identical instruments to the ones being valued. If there is more than one active market for the same financial instrument, the relevant price is what prevails in the main market of the instrument, or most advantageous market for which there is access;

Level 2: Fair value is determined based on evaluation techniques supported by observable inputs in active markets, being direct data (prices, rates, spreads, etc.) or indirect data (derivatives), and evaluation assumptions similar to what an unrelated party would use in estimating the fair value of that financial instrument. It also includes instruments whose valuation is obtained through quotations disclosed by independent entities but whose markets have the lowest liquidity; and

Level 3: Fair value is determined based on unobservable inputs in active markets, using techniques and assumptions that market participants would use do evaluate the same instruments, including assumptions about the inherent risks, the evaluation technique used and inputs used and review processes to test the accuracy of the values obtained.

The Bank considers an active market for a given financial instrument at the measurement date, depending on the volume of business and liquidity of the transactions carried out, the relative volatility of quoted prices and the readiness and availability of the information, and the following conditions should apply:

- Existence of frequent daily prices trading in the last year;
- The above quotations are exchanged regularly;
- There are executable quotes from more than one entity.

A parameter used in a valuation technique is considered observable in the market, if the following conditions are met:

- If its value is determined in an active market;
- If there is an OTC market and it is reasonable to assume that the conditions of an active market are met, with the exception of the condition of trading volumes; and
- The parameter value can be obtained by the inverse calculation of prices of financial instruments or derivatives where the remaining parameters required for initial assessment are observable in a liquid market or an OTC market that comply with the preceding paragraphs.

The main methodologies and assumptions used in estimating the fair value of financial assets and liabilities recorded in the balance sheet at amortised cost are analysed as follows:

Cash and deposits at central banks, Loans and advances to credit institutions and Other loans and advances to central banks and credit institutions

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

Financial assets at fair value through profit and loss and Financial assets at fair value through other comprehensive income

These financial instruments are measured at fair value for the Angolan public debt securities. Fair value is based on market prices (BODIVA), whenever these are available; otherwise, fair value is estimated through numerical models based on cash-flow discounting techniques, using the interest rate curve adjusted for factors associated, predominantly the credit risk and liquidity risk, determined in accordance with the market conditions and time frame.

Interest rates are determined based on information disseminated by financial content providers and BNA. Interest rates for specific periods of the cash flows are determined by appropriate interpolation methods. The same interest rate curves are also used in the projection of the non-deterministic cash flows, such as indexes.

For investment funds, the best fair value estimate considered is the financial statements of these bodies at the Bank's balance sheet date and, where possible, with the Auditor's Report.

Financial assets at amortised cost

The fair value of these instruments is based on market prices, whenever these are available; otherwise, fair value is estimated through the update of expected cash-flows of future capital and interest for these instruments.

For disclosure purposes, Treasury Bills have short-term residual maturities and Treasury Bonds in foreign currency bear interest rates in line with the comparable market rates in force, and therefore their carrying amount represents substantially the fair value of these assets.

Loans and advances to customers

The fair value of loans and advances to customers is calculated based on the update of expected principal and interest future cash flows, considering that the payments of the instalments occur in the contractually defined dates. The expected future cash flows of homogeneous credit portfolios, such as mortgage loans, are estimated on a portfolio basis. The discount rates used are the current rates charged for loans with similar characteristics.

Deposits from central banks and other credit institutions

The fair value of loans and advances to customers is calculated based on the update of expected principal and interest future cash flows, considering that the payments of the instalments occur in the contractually defined dates.

Deposits from customers

The fair value of these financial instruments is calculated based on the expected principal and interest future cash flows. The discount rate used reflects the rates charged for deposits with similar characteristics at the balance sheet date. Considering that the applicable interest rates are renewed for periods of less than one year, there are no material differences in their fair value.

Exchange rates

Concerning the exchange rates, the Bank uses in its valuation models the spot rate observed in the market at the time of the valuation.