## Note 43

## Fair values of financial assets and liabilities

Fair value reflects the amount for which an asset could be exchanged or a liability settled, between knowledgeable, willing parties in an arm's length transaction. Quoted prices or rates are used to determine fair value where an active market exists. If the market for a financial instrument is not active, fair values are estimated using present value or other valuation techniques, using inputs based on market conditions prevailing on the measurement date.

The values derived from applying these techniques are affected by the choice of valuation model used and the underlying assumptions made regarding inputs such as timing and amounts of future cash flows, discount rates, credit risk, volatility and correlation.

Financial instruments measured at fair value are categorised in their entirety, in accordance with the levels of the fair value hierarchy as outlined below:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2: inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices); and
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The appropriate level for an instrument is determined on the basis of the lowest level input that is significant to the fair value measurement.

The following methods and significant assumptions have been applied in determining the fair values of financial instruments:

- trading portfolio assets and liabilities, financial assets and liabilities at fair value through profit or loss, derivative financial instruments and other transactions undertaken for trading purposes are measured at fair value by reference to quoted market prices when available (e.g. listed securities). If quoted market prices are not available, then fair values are estimated on the basis of pricing models or other recognised valuation techniques;
- investment securities classified as available for sale are measured at fair value by reference to quoted market prices when available (e.g. listed securities). If quoted market prices are not available, then fair values are estimated on the basis of pricing models or other recognised valuation techniques. Unrealised gains and losses, excluding impairment write-downs, are recorded in the available for sale reserve in equity until the asset is sold, collected or otherwise disposed of;
- fair values of fixed rate loans and issued debt classified as at fair value through profit or loss is estimated by reference to current market rates offered on similar loans;

- for financial instruments carried at fair value the determination of fair value includes credit risk (i.e. the premium over the basic interest rate). Counterparty credit risk inherent in these instruments is factored into their valuations via credit valuation adjustments (CVA). This amount represents the estimated market value of protection required to hedge credit risk from counterparties, taking into account expected future exposures, collateral, and netting arrangements. CVA is determined when the market price (or parameter) is not indicative of the credit quality of the specific counterparty. Where financial instruments are valued using an internal model that utilises observable market parameters, market practice is to quote parameters equivalent to an interbank credit rating (that is, all counterparties are assumed to have the same credit quality). Consequently, a CVA calculation is necessary to reflect the credit quality of each derivative counterparty to arrive at fair value; and
- the Consolidated Entity's own credit risk is factored into the valuations of liabilities measured at fair value via debit valuation adjustments (DVA). This is because credit risk affects what the transaction price of the liability would have been in an arm's length exchange motivated by normal business considerations (e.g. it affects the value at which liabilities could be repurchased or settled, the observed market price of quoted debt securities and the contract interest rate offered when debt is initially raised). Consequently, changes in the credit quality of the Consolidated Entity are reflected in valuations where the credit risk would be considered by market participants and excludes fully collateralised transactions and other instruments for which it is established market practice not to include an entity-specific adjustment for own credit. The methodology to determine the adjustment is consistent with CVA and incorporates the Consolidated Entity's credit spread, for the term of the liability measured, as observed through the credit default swap market. This amount represents the estimated difference in the market value of identical obligations.

Where valuation techniques are used to determine fair values, they are validated and periodically reviewed by qualified personnel independent of the area that created them. All models are certified before they are used, and models are calibrated periodically to test that outputs reflect prices from observable current market transactions in the same instrument or other available observable market data. To the extent possible, models use only observable market data (e.g. for over-the-counter derivatives), however management is required to make assumptions for certain inputs that are not supported by prices from observable current market transactions in the same instrument, such as, volatility and correlation.