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1. Fair value measurements

As a broker dealer, we record all assets classified as Financial instruments and other inventory positions owned and all liabilities in Financial instruments and other inventory positions sold but not yet purchased at fair value, with unrealized gains and losses reflected in Principal transactions in our Consolidated Statement of Income. We also record certain other assets and liabilities (e.g., structured notes included in long-term debt) at fair value. Our balance sheet and footnotes detail which items are recorded at fair value.

This policy addresses how we apply SFAS 157 when we measure assets and liabilities at fair value. SFAS 157 does not specify which assets and liabilities are measured at fair value. "Which" is determined by other US GAAP pronouncements. Rather, SFAS 157 specifies **how** to arrive at a fair value measurement and applies to both financial and non-financial assets and liabilities.

Definition of fair value

SFAS 157 defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value represents an exit price, not an entry price (i.e., the transaction price). Exit and entry prices may be identical in many cases. However, we cannot (and do not) presume the entry price represents the fair value of an asset, liability, or commitment upon initial recognition.

Exit price. We determine the exit price from the perspective of market participants broadly and not from our own perspective. A market participant is a hypothetical composite of all buyers and sellers in the principal (or the most advantageous) market for the asset or liability who are independent of Lehman, knowledgeable, able and willing to transact, and are not forced or compelled to transact.

Principal and most advantageous markets. The principal market is the market with the greatest volume and level of activity for the asset or liability. The most advantageous market is the market in which we would receive the highest price for selling an asset or pay the lowest price to transfer the liability after considering transaction costs. We use the principal market to determine fair value and only use the most advantageous market when there is no principal market.

In contrast to the determination of the exit price, the principal or most advantageous market is determined from our perspective and not from the perspective of market participants. In addition, different Lehman operating units (e.g., U.S.-based operating units versus Asia-based operating units) may have different principal markets for the same asset or liability. As a result, different Lehman operating units may determine different fair values for the same asset or liability if they have different principal markets.

In each region, Front Office personnel determine the principal or most advantageous market for each class of asset and liability (or groups of assets and liabilities). Product Control reviews the Front Office determinations and ensures they are reasonable.

Transaction costs

The price in the principal market is not adjusted to reflect transaction costs (e.g., commissions, due diligence costs). Transaction costs are incremental direct costs to sell the asset or transfer the liability in the principal (or the most advantageous) market and are not included in the fair value measurement of the asset or liability. SFAS 157 states that transaction costs should be accounted for in accordance with the provisions of other US GAAP pronouncements.

We often incur transaction costs prior to acquiring a financial asset (e.g., due diligence costs related to acquiring a non-performing loan portfolio) or transferring/extinguishing a financial liability. These costs must be recognized in contra revenue as incurred. They cannot be deferred as an asset on our balance sheet. If a transaction is not completed (i.e., it is a "busted deal"), the costs recognized in contra revenue are reclassified to appropriate non-personnel expenses.

See "Transaction costs presented as contra revenue in the income statement" in this Accounting Policy Manual for a list of transaction costs we classify in contra revenue.

Unit of account

Determining whether an asset or liability that is measured at fair value is either (i) a stand-alone asset or liability or (ii) a group (portfolio) of assets

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and/or liabilities depends on the unit of account. The unit of account determines the level at which an asset or liability is aggregated or disaggregated for determining fair value. SFAS 157 states that unit of account should be determined in accordance with the provisions of other US GAAP pronouncements. The unit of account for an unrestricted asset or liability with a quoted price in an active market always is the individual instrument and the fair value is always the quoted price multiplied by the quantity held.

Front Office personnel are responsible for determining the unit of account. Product Control reviews the Front Office determinations and ensures they are reasonable.

Fair value of an asset

The fair value of an asset is based on its highest and best use from the perspective of market participants that would maximize our cash flows.

- *Fair value in use*. The highest and best use of an asset is "in use" if the asset would provide maximum value to market participants principally through its use with other assets as a group (for example, non-financial assets such as a group of machines in an assembly line).
- *Fair value in exchange*. The highest and best use of an asset is "in exchange" if the asset would provide maximum value to *market* participants principally on a stand-alone basis (for example, most financial assets).

Front Office personnel determine whether the highest and best use of an asset is in use or in exchange. Typically, the highest and best use of a financial asset is in exchange. Product Control reviews the Front Office determinations and ensures they are reasonable.

Fair value of a liability

The fair value of a liability assumes the liability is transferred to a market participant at the measurement date and the nonperformance risk relating to the liability is the same before and after its transfer. Nonperformance risk is the risk the debtor will not pay what is owed and affects the value at which the liability is transferred. Nonperformance risk includes but is not necessarily limited to our own credit risk. Accordingly, the fair value of a liability reflects the effect of our own credit standing (i.e., our credit spread) but is not affected by how we intend to settle the liability (i.e., in cash, in exchange for financial or non-financial assets, by issuing a new liability, etc.). Instead, the fair value of a liability reflects market participants' measure of expected discounted future cash flows for the liability which includes their expectations about nonperformance by the debtor. In assessing the effect of nonperformance risk, we consider collateral and other credit enhancements specified in the contract for the liability. For example, if we issued long-term debt that is fully collateralized by a pool of AAA-rated financial assets, the value of those assets would be considered by a market participant in determining the fair value of the debt and because that AAA-rated collateral has a higher rating than Lehman debt our credit spread would not factor into the fair value determination.

Treasury personnel are responsible for determining the fair value of any of our long- and short-term debt (including structured notes) that is recorded at fair value and Front Office personnel are responsible for determining the fair value of our trading liabilities. Product Control reviews the Treasury and Front Office determinations and ensures they are reasonable.

Valuation techniques

There are three generally-recognized approaches to measuring fair value:

- *Market approach.* This approach uses observable prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities. The fair value measure is based on the value those transactions indicate.
- *Income approach*. This approach uses valuation techniques to convert future amounts (e.g., cash flows or earnings) to a single, discounted amount. The fair value measure is based on the value indicated by market expectations about the future amounts. The income approach includes present-value techniques. Option-pricing models, such as the Black-Scholes-Merton formula and lattice models and the multi-period excess-earnings method.

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- *Cost approach.* This approach is based on the amount that currently would be required to replace the service capacity of an asset and often is referred to as current replacement cost. The approach assumes the fair value would not exceed what it would cost a market participant to acquire or construct a substitute asset of comparable utility, adjusted for obsolescence.

In all cases, fair value can be measured by using a valuation technique (or a combination of valuation techniques) that is appropriate in the given circumstances and for which sufficient data is available. When multiple valuation techniques are used to measure fair value, the results to determine a single best fair value measure should be evaluated and weighted based on the reliability of the valuation techniques and the inputs that are used in the techniques.

Valuation techniques used to measure fair value must be applied consistently. It is acceptable to revise valuation techniques. A change in the valuation technique or its application is accounted for as a change in an accounting estimate in either (i) the period of change, if the change affects that period only, or (ii) the period of change and future periods, if the change affects both.

Front Office or Treasury personnel are responsible for determining which valuation technique to use for each class of asset and liability (or groups of assets and liabilities) and when to revise those techniques. Product Control reviews the Front Office and Treasury determinations and ensures they are reasonable.

Private equity valuation. Some companies that invest in the equity of privately-held companies historically determined the fair value of those investments by reference to a third-party event (e.g., a financing or an initial public offering). That is, the fair value of these investments was assumed to be the same as their initial cost until a third-party event occurred to support an increase in the carrying value of the investment. The carrying basis of an investment was reduced if a third-party event occurred which justified a decrease in the carrying basis or if the realizable value of the investment otherwise was determined to be less than the carrying value. This approach to measuring fair value is not acceptable under SFAS 157.

Under SFAS 157, the fair value of private equity investments is determined by considering a range of factors including, but not limited to, the price at which the investment was acquired, the nature of the investment, local market and industry conditions, trading values on public exchanges for comparable securities, current and projected operating performance, and financing transactions subsequent to the acquisition of the investment.

The Private Equity Valuation Committee of our Investment Management Division (IMD), which consists of Finance and Front Office personnel, meets at least quarterly to review IMD's on-balance sheet private equity investments and determine their fair values in accordance with the requirements of SFAS 157. If a business other than IMD owns private equity investments, fair value is determined by that business using the guidelines above and Product Control reviews the Front Office determinations and ensures they are reasonable.

Restricted securities. When we own a security that has restrictions on its sale or transferability (i.e., a restricted security), we base the measurement of fair value on the fair value of an identical unrestricted security adjusted for the amount marketplace participants would demand to assume the risk resulting from the inability to access a public market for the security during the specified period.

The business that owns the restricted security is responsible for determining the discount and fair value, both of which are reviewed by Product Control to ensure they are reasonable.

Blocks. When we own a block of a financial instrument that has a quoted price in an active market the fair value of the block is computed as the quoted price for an individual trading unit multiplied by the quantity held. The quoted price cannot be adjusted to reflect a blockage factor. In contrast, we may adjust a quoted price in an inactive market (see "Fair value hierarchy–Level II" below) for inactivity, a blockage factor, or both.

Valuation inputs

Valuation inputs broadly refers to the assumptions market participants use to make pricing decisions, including assumptions about risk.

SFAS 157 distinguishes between (i) observable inputs, which are based on market data obtained

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from independent parties, and (ii) unobservable inputs, which reflect our own assumptions about the assumptions market participants would use.

A fair value measurement should maximize observable inputs and minimize unobservable inputs, regardless of whether the market approach, income approach, or cost approach is used. We should only use unobservable inputs when there is little, if any, market activity for the asset or liability.

Markets in which inputs might be observable for assets and liabilities include the following:

- *Exchange market*. In an active exchange market, closing prices are *both* readily available and representative of fair value (e.g., the New York Stock Exchange.)
- *Dealer market*. In a dealer market, dealers stand ready to trade for their own account, thereby providing liquidity by using their capital to hold an inventory of the items for which they make a market. Typically, bid prices and ask prices are more readily available than closing prices. Dealer markets exist for assets and liabilities such as financial instruments, commodities, and some physical assets.
- *Brokered market*. In a brokered market, brokers attempt to match buyers with sellers, do not stand ready to trade *for* their own account, and do not use their capital to hold an inventory of the items for which they make a market.
- *Principal-to-principal market*. Principal-to-principal transactions (both originations and resales) are negotiated *independently*, with no intermediary. Often, very little information about these transactions is publicly available.

Fair value hierarchy

SFAS 157 defines three broad levels to the hierarchy of inputs to fair value.

Level I. Level I inputs are observable inputs that reflect quoted prices (unadjusted) for identical assets or liabilities in active markets.

An active market is one in which transactions for the asset or liability occur with sufficient frequency and volume to provide pricing information on an ongoing basis. Determining whether a market is active involves focusing on the trading activity related to the asset or liability being measured and not on the market on which it trades. Therefore, a security quoted on the National Association of Securities Dealers Automated Quotation system (NASDAQ) could be considered to be traded in an inactive market if it is traded infrequently.

An inactive market is characterized by any of the following factors:

- Few transactions for the asset or liability.
- Prices that are not current.
- Price quotations that vary substantially either over time or among market makers.
- Little information is released publicly.

A market is not inactive simply because of low trading volume relative to the size of our position.

A quoted price for an identical asset or liability in an active market provides the most reliable fair value measure and, whenever available, is used to measure fair value, provided (i) the market is the principal (or the most advantageous) market, and (ii) we have the ability to access the principal (or the most advantageous) market.

Level II. Level II inputs are inputs other than quoted prices included in Level I that are observable for the asset or liability through corroboration with observable market data. Level II inputs include the following:

- Quoted prices for similar assets or liabilities in active markets.
- Quoted prices for identical or similar assets or liabilities in markets that are inactive.
- Inputs other than quoted prices that are observable for the asset or liability (e.g., interest rates and yield curves observable at commonly quoted intervals, volatilities, prepayment speeds, and default rates).
- Inputs derived principally from or corroborated by other observable market data through correlation or by other means.

For example, assume the Argentinean interest rate yield curve is correlated to the Chilean interest rate yield curve. Also assume the Argentinean yield curve is observable for three years but the Chilean

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yield curve is only observable for two years. We could extrapolate the third year of the Chilean yield curve based on the extrapolation of the Chilean yield curve from years one and two and the correlation of the third year Argentinean yield curve.

Adjustments of Level II inputs should reflect factors specific to the transaction and/or to the asset or the liability, including factors such as the condition and/or location of the asset or the liability on the measurement date and the volume and level of activity in the markets within which the inputs are observed. An adjustment that is significant to the fair value measure might move the measure from Level II to Level III.

If there is a large number of similar assets and liabilities that should be measured at fair value (e.g., debt securities), a quoted price in an active market might not be readily accessible for each of those assets and liabilities. In that case, we measure fair value using an alternative pricing method (for example, matrix pricing) as a practical expedient, provided the method replicates actual prices. Matrix pricing is a mathematical technique generally used to value debt securities by relying on the securities' relationship to other benchmark quoted prices. Use of a practical expedient is limited to situations in which we choose, for practical reasons, not to use obtainable, individual price quotes. If an alternative pricing method is used as a practical expedient, the resulting measure is a Level II input, not a Level I input.

Level III. Level III inputs are unobservable inputs (e.g., our own data, inputs derived through extrapolation and interpolation that are not corroborated by observable market data).

A fair value measurement using unobservable inputs within Level III considers the assumptions that market participants would use in pricing the asset or liability, including assumptions about the amount market participants would demand to assume the uncertainty inherent in the unobservable inputs.

Our own data used to develop Level III inputs is adjusted to exclude factors specific to us if information is available that indicates market participants would use different assumptions.

We consider the risk inherent in a particular valuation technique (e.g., an option pricing model) and/or the risk inherent in the inputs to the valuation technique. Accordingly, a valuation technique includes an adjustment for risk if market participants would include such an adjustment in pricing a specific asset or liability.

A Level III input includes inputs that are not observable and cannot be corroborated by observable market data at commonly quoted intervals or otherwise for substantially their full term For example, a long-dated OTC currency swap whose term is longer than the period for which the interest rate in that currency is quoted is a Level III item

A Level III input includes historical volatility (i.e., the volatility for the shares derived from the shares' historical prices) because historical volatility does not represent current market participant expectations about future volatility, even if it is the only information available to price an option.

Bid and ask prices. If an input within the fair value hierarchy is based on bid and ask prices, the fair value measure should represent the price within the bid/ask spread at which market participants would transact on the measurement date. SFAS 157 allows a practicability exception to this principle, specifying that current valuation practices (including mid-market pricing and other pricing conventions) of investment companies and broker-dealers under the guidance in SEC Accounting Series Release No. 118 are acceptable under SFAS 157, provided they are applied on a consistent basis. Accordingly, the use of bid prices for long positions (assets) and ask prices for short positions (liabilities) is permitted under SFAS 157.

Fair value measurements involving multiple inputs that fall in different levels. Many fair value measurements incorporate multiple inputs that fall in different fair value hierarchy levels. When this occurs, we classify the instrument based on the lowest level input that is significant to the fair value measurement in its entirety. For example, an instrument that includes inputs from Levels II and III (both with significant effect) would be classified in its entirety in Level III because Level III is the lowest-level input with a significant effect. We define significant for this purpose to be an input that affects the fair value measurement of the asset or liability in its entirety by more than 10%. The 10%

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threshold is based on the fair value of the entire instrument and not on the fair value of a particular component of the instrument (e.g., an embedded derivative) or to the income-statement effect of the measurement. That is, determining significance is based on the balance sheet. For example, when evaluating whether an unobservable input to a valuation model used to value a structured note carried at fair value is significant to the overall fair value measurement for the structured note, we consider the significance of the unobservable input in relation to the structured note in its entirety and not solely to the embedded option.

Product Control, in consultation with the Front Office, is responsible for determining the Level in which our fair value measurement inputs are classified, the bid/ask spread convention we use, and the resulting Level into which each class of asset and liability (or groups of assets and liabilities) falls.

Technical references
FASB Statement No. 157, *Fair Value Measurements*–*http://www.fasb.org/pdf/fas157.pdf*
AICPA Audit and Accounting Guide, *Brokers and Dealers in Securities*
SEC Accounting Series Release No. 118, *Accounting for Investment Securities by Registered Investment Companies*
E&Y Financial Reporting Developments booklet on SFAS 157–*PDF Files Linked in the Accounting Policy Manual\E&Y FRD on SFAS 157.pdf*
PwC Dataline 2006-25, *FASB Standard on Fair Value Measurements–An Overview of the Standard's Key Provisions and Its Implementation*–*PDF Files Linked in the Accounting Policy Manual\PwC Dataline on SFAS 157.pdf*
PwC Dataline 2007-12, *Implementation of FASB Statement No. 157–Fair Value Measurements Questions and Interpretive Guidance*–*PDF Files Linked in the Accounting Policy Manual\PwC Booklet on SFAS 157.pdf*

Last updated
November 21, 2007

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