Fair Value Fundamentals – Business Combinations and Asset Impairments

(FVFA4)

KAPLAN

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FAIR VALUE FUNDAMENTALS – BUSINESS COMBINATIONS AND ASSET IMPAIRMENTS (FVFA4)

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CONTENTS

UNIT 1 FAIR VALUE – TOPIC 820: FUNDAMENTALS 1

Learning Objectives 1
Topic 820 – Fair Value – Introduction 1
Topic 820 – Fair Value – Framework 4
Topic 820 – Fair Value – The Concept of "Inputs" and the Fair Value Hierarchy 21
Topic 820 – Fair Value Disclosures 34

UNIT 2 FAIR VALUE (TOPIC 820) AND BUSINESS COMBINATIONS (TOPIC 805) 45

Learning Objectives 45
Topic 805 – Business Combinations 45
Definition of a Business 46
Acquisition Method 48
Recognition and Measurement 57
Goodwill 64
Business Combinations – General Disclosures 66
Business Combinations – Disclosures for Assets Acquired, Liabilities Assumed, and Non-Controlling Interest 68
Business Combinations – Disclosures for Goodwill or Gain from Bargain Purchase, Including Consideration Transferred 69
Business Combinations 71

UNIT 3 FAIR VALUE (TOPIC 820) AND ASSET IMPAIRMENTS (TOPICS 350 AND 360) 75

Learning Objectives 75
Introduction 75
Topic 350 – Intangible Asset Impairments 77
Topic 360 – Tangible Asset Impairments 85
Assets Held for Sale 90

NOTES

Course Description

Fair Value Fundamentals – Business Combinations and Asset Impairments is Part 1 of two four-hour fair value courses. Part 2 is *Fair Value Fundamentals – Financial Instruments, Derivatives and Hedging*. In Part 1, we provide a detailed review of Topic 820, *Fair Value Measurement*, then expanding the fair value discussion to fair value applications in *Business Combinations* (Topic 805) and *Asset Impairments* (Topics 350 and 360). Fair value, business combination, and asset impairments examples are included throughout the course.

NOTES

UNIT 1

Fair Value – Topic 820: Fundamentals

LEARNING OBJECTIVES

At the conclusion of this unit, participants will be able to:

- *Describe fair value fundamentals.*
- *Apply the fair value framework.*
- *Recognize and measure accounting fair values.*
- *Apply the fair value hierarchy.*
- *Prepare fair value disclosures.*

TOPIC 820 – FAIR VALUE – INTRODUCTION

This course explains GAAP fair value standards. It generally follows the FASB's published Topic 820 and its published examples, but many examples come from public business entities (PBEs) because of their SEC filings accessibility.

Fair value is defined 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.

An awareness of two overriding principles in the fair value standards will simplify their implementation:

1. Topic 820 impacts the **"how"** of fair value accounting, not the **"when."**

   When other GAAP requires or permits fair value measurements, Topic 820 guides how to apply valuation measurement and disclosures. A question often asked is whether long-term debt or unimpaired property must now be presented at fair value. The answer is "no", because these accounts were never routinely carried at fair value; that is, the "when" for fair value did not change.

   With the "when," because GAAP fair value principles apply to numerous ASC Topics and financial statement components, preparers must incorporate all relevant guidance when

measuring, reporting, and making fair value disclosures. Using FASB's Codification site can be challenging because the guidance can be fractured and unwieldy.

Following are Topics with fair value subject matter.

- Topic 320 – Debt Investments
- Topic 321 – Equity Investments
- Topic 350 – Goodwill and Intangibles
- Topic 360 – Property, Plant, and Equipment – Impairment
- Topic 410 – Asset Retirement and Environmental Obligations
- Topic 420 – Exit and Disposal Costs
- Topic 460 – Guarantees
- Topic 470-60 – Troubled Debt Restructurings
- Topic 480 – Distinguishing Debt from Equity
- Subtopic 610-20 – Derecognition of Non-financial Assets
- Topic 715 – Compensation: Retirement Benefits
- Subtopic 718-40 – Stock-Based Compensation for ESOPs
- Topic 805 – Business Combinations
- Topic 815 – Derivatives and Hedging
- Topic 825 – Financial Instruments
- Topic 845 – Non-monetary Transactions
- Topic 860 – Transfers and Servicing
- Topic 960 – Plan Accounting: Defined Benefit Pension Plans

2. Topic 820 distinguishes between assets and liabilities measured at fair value on a **recurring** basis and those measured at fair value on a **non-recurring** basis.

   Recurring fair values relate to financial instruments that are marked-to-market at every balance sheet date, such as marketable securities or derivatives.

   Non-recurring fair values are generally used only upon the occurrence of certain events, such as impairments or business combinations. Non-recurring fair values tend to involve non-financial assets and liabilities. Examples are assets and liabilities that are not financial instruments.

A fair value measurement does not consider management's intent to sell the asset or transfer the liability at the measurement date. Instead, it represents a market-based measurement assuming a hypothetical transaction between market participants.

A fair value measurement objective remains the same, regardless of the reason for the fair value measurement or the nature of measurement inputs. Different reasons may be non-recurring asset impairment or a recurring fair value for financial instruments. Different measurement input nature may be more-reliable observable market transactions or less-reliable unobservable inputs.

Fair value guidance is principles-based and does not stipulate specific rules nor methods. Thus, applying fair value guidance requires significant management judgment.

Scope

Topic 820 applies to all accounting pronouncements that require or permit fair value measurements. Exceptions are that:

- It does not apply to share-based payment transactions, such as stock options, in Topics 505 and 718.

  This may be somewhat confusing because measuring certain equity-based payment arrangements under Topic 718 and Subtopic 505-50 are based on a different fair value approach that is not consistent with the exit price requirement in Topic 820. The difference is that Topic 718 excludes items that would be included in Topic 820 fair value measurement. Examples are service conditions, performance conditions, or other restrictions that apply during the requisite service period; reload features; and contingent features that may require the employee to return the equity instruments.

  Topic 820 excludes all equity-based payments to non-employees accounted for under Subtopic 505-50 and share-based payment transactions accounted for under Topic 718. Subtopic 718-40, covering stock compensation in employee stock ownership plans (ESOP), does have a fair value component consistent with Topic 820.

- It does not affect statements that involve values that are similar to fair value, but not intended to be actual fair values, such as the determination of "market" for inventories carried at the lower of cost or market.

  After adopting Topic 606, *Revenue from Contracts with Customers,* Topic 820 will not apply to measuring standalone selling price, which is the price at which an entity would sell a promised good or service separately to a customer. Under Topic 606, a reporting entity is required to allocate consideration to the identified performance obligations based on their relative standalone selling prices. In practice, although the measurement principles contained in Topic 606 are meant to maximize the use of observable inputs, they may result in values that are substantially different from a measurement of fair value under Topic 820. This is because Topic 606 allows for the consideration of certain entity-specific factors that are not considered under Topic 820.

- Topic 820 is applicable for determining the fair value of an underlying asset in a lease arrangement for purposes of lease classification and measurement (Topic 842). Topic 820 does not apply when estimating the residual value of leased property.

  Topic 805, *Business Combinations*, requires measuring assets and liabilities acquired at fair value. For example, if an acquirer assumes lease obligations with terms that are more or less favorable than current market terms, this would produce an intangible asset or liability measured at fair value as defined in Topic 820.

  Another example is lease assets acquired or lease liabilities assumed in a business combination. Topic 805 requires these to be measured at fair value, which should be determined in accordance with Topic 820.

  In addition, Topic 820 must be applied in evaluating a right of use (RoU) lease asset for potential impairment under Topic 360, *Property, Plant, and Equipment*. Finally, Topic 820 must be applied to determine a lease-related liability fair value under Topic 420, *Restructuring and Exit Activities*.

- Topic 450, *Contingencies*, loss contingency measurement objective does not require fair value; thus, Topic 820 does not apply to Topic 450. The measurement differences between Topics 820 and 450 result from more than the time value of money. Often, loss contingencies are not adjusted for the time value of when payments will occur. In other words, the expected cash flows are not discounted.

The fundamental difference between both Standards is due to the consideration type and uncertainty. Topic 450 uses uncertainty to determine liability recognition, whereas Topic 820 uses uncertainty in the fair value measurement of the recognized liability. As a result, because uncertainty determines Topic 450 liability recognition and does not measure the amount, loss contingencies that meet the probability threshold and become recognized are not measured at fair value.

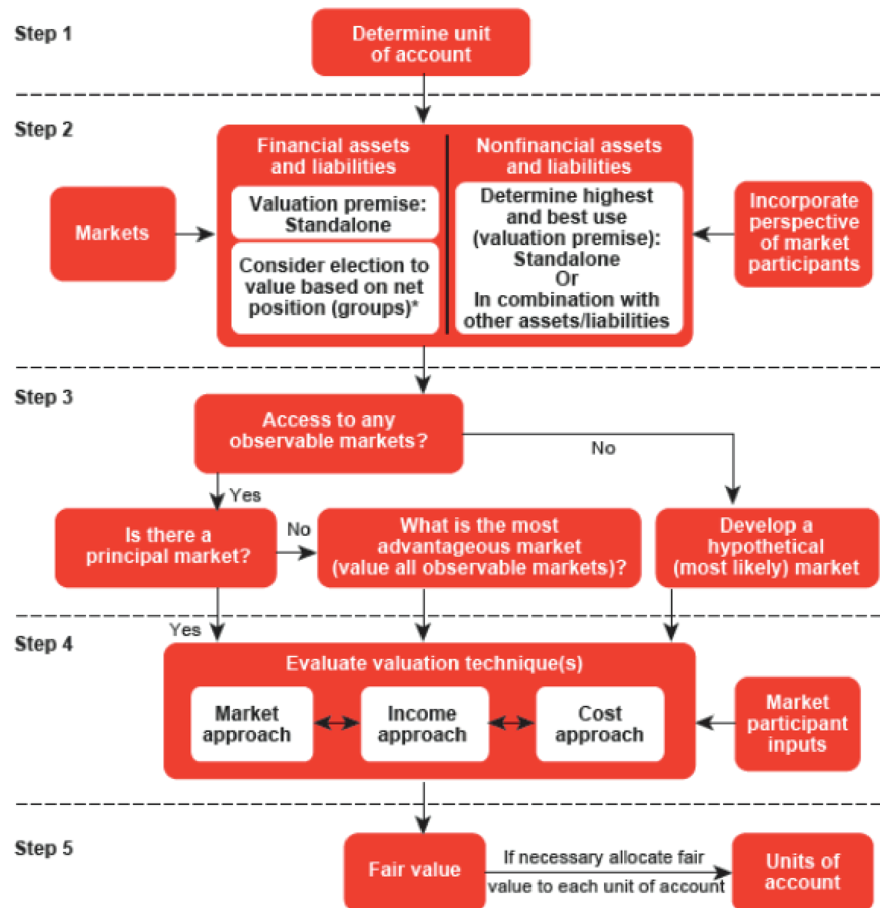
The measurement differences become greater when the reasonable estimate of a loss contingency falls within a range, and no amount within the range is a better estimate than any other amount. In this situation, Topic 450 requires recording the minimum amount in the range. Instead, if there is an amount within the range that is a better estimate than any other amount within the range, Topic 450 requires this amount would be accrued.

TOPIC 820 – FAIR VALUE – FRAMEWORK

The fair value framework applies both to the initial and subsequent measurements in guidance that requires or permits fair value measurements.

The fair value framework contains five steps. Following is PwC's fair value framework diagram.

Framework for application of the fair value standards



Step 1: Determine the Unit of Account

The reporting entity first determines what is being measured, which is the unit of account. Determine the unit of account from other Topics, except as required in Topic 820. Examples are: the unit of account for a derivative is the contract, and the unit of account for the first step of a goodwill impairment analysis under U.S. GAAP is the reporting unit.

How the fair value measurement applies to an asset or a liability depends on the unit of account. Because Topic 820 guides how to measure fair value and not what is being measured, Topic 820 does not change the unit of account prescribed by other standards.

Regarding asset or liability attributes, fair value is asset or liability specific. This means that factors such as the condition, location, sale or use restrictions, etc., as of the measurement date are factored into the valuation.

In some cases, the fair value measurement will be applied to a standalone asset or liability, such as for a financial instrument or a non-financial asset, or a group of related assets and/or liabilities, such as a business or a reporting unit.

The unit of account may not always be clear because it is uncommon for the unit of account to be explicitly defined. Often, it is inferred from the recognition or measurement guidance in the applicable standard or from industry practice. For example, it is clear that the unit of account for evaluating goodwill impairment is the reporting unit. On the other hand, the guidance on accounting for securities by investment companies is not explicit as to the unit of account. In addition, there are times when the unit of account varies depending on whether one is considering recognition, initial measurement, or subsequent measurement, including impairments.

According to PwC, a prominent example of when the application of unit of account has been problematic relates to the fair value of investments in listed subsidiaries and associates (referred to as the "P*Q" issue). The problem specifically is whether the unit of account is the investment as a whole or each share.

EXAMPLE

Location of a tangible asset is an attribute that might affect its fair value. If the principal or most advantageous market is in another country, the cost to transport the asset would be incorporated into its fair value (but a commission to affect the sale would not).

Step 2: Determine the Valuation Premise

The valuation premise depends on the nature of the asset or liability being measured and is different for non-financial and financial assets.

A non-financial asset's fair value is based on its highest and best use. The highest and best use is determined based on the market participants' perspective, even if the reporting entity intends a different use. Consideration of the highest and best use for a non-financial asset is an integral part of the identification of potential markets in which the asset can be sold and establishes the valuation premise. The valuation premise may be for the asset to be used on a standalone basis, in combination with other assets or other liabilities.

Non-financial Assets: Highest and Best Use Assumption

Because fair value is based on the exit price, fair value measurements for non-financial assets (or group of non-financial assets and non-financial liabilities) are based on their highest and best use by market participants, so long as such use is reasonably probable, justifiable, legal, and financially feasible. Highest and best use is how a market participant would use an asset to maximize its value, regardless of the reporting entity's intended use.

PRACTICE POINT

A very common situation using the highest and best use assumption is when a reporting entity acquires a non-financial asset for defensive purposes, such as to prevent a competitor from using the asset to compete against the reporting entity.

Highest and best use considers both

1. The different ways of utilizing the individual asset, such as a factory or residential use
2. The valuation premise, such as whether the maximum value is on a standalone basis or in combination with other assets.

EXAMPLE

A reporting entity may intend to operate a property as a bowling alley, while market participants would pay a higher price to use the asset as a parking lot; and zoning requirements allow for this change in use. In this case, the property's fair value is based on its highest and best use in the principal or most advantageous market as a parking lot.

EXAMPLE

An entity acquires a trademark in a business combination that it intends to phase out over a short-term period and then retire it in order to deny other market participants' access to the trademark. Its value upon acquisition would be based on its highest and best use, even if that would involve long-term use of the trademark.

Non-financial Assets: Unit of Account for Highest and Best Use

Unit of account is the level at which an asset or liability is aggregated or disaggregated for accounting recognition. It represents what is being measured at fair value. When applying the concepts of both aggregation and disaggregation, the valuation should be allocated to the individual components such that the ultimate valuation relates solely to the unit of account.

A unit of account may be grouped with other units of account to achieve the highest and best use. The market participants' perspective determines whether the highest value comes from asset groupings or on a standalone basis.

In considering potential markets, a reporting entity may consider different non-financial asset groupings to determine which provides the highest value from the market participants' perspective. Of course, a unit of account may not be included in more than one group. In addition, the market participant already owns, or has access to, the other assets in the group.

Disaggregation is determining the unit of account fair value based on the individual sale of the group components. This is applicable if a unit of account can be sold in components that would maximize the overall value of the unit of account from the perspective of market participants. As with asset groupings, the reporting entity must have access to the market into which unit of account components would be sold.

The unit of account for non-financial assets may differ from the unit of measurement. If an asset's highest and best use is when it is combined with other assets, the fair value is determined for the asset in combination with those other assets. This may require allocating the group value among the components in a systematic and rational manner.

> **EXAMPLE**
>
> A business is assets and liabilities used in combination. Separate assets often work together or complement each other. Liabilities associated with the complementary assets can include liabilities that fund working capital. However, liabilities used to fund assets other than those within the group of assets cannot be included in the valuation.

A financial assets' fair value must be measured on a standalone basis, and the concept of "highest and best use" does not apply to financial assets. Topic 820 has a "portfolio exception" to the standalone requirement for reporting entities that manage market risk and/or counterparty credit risk exposure within a portfolio of financial instruments on a net basis. If elected, the portfolio exception allows measuring the fair value of those financial investment assets or liabilities to be based on the net position of the portfolio. This is the price that would be received to sell a net long position or transfer a net short position for a particular market or credit risk exposure, rather than the individual positions within the portfolio.

Financial and non-financial liabilities fair value is measured based on the transfer of the liability to a market participant on the measurement date. Reporting entities must still consider market participant assumptions relative to the transfer of the liability.

> **EXAMPLE**
>
> An example is a liability held by another party as a financial asset. This liability should be valued using the assumptions of the market participants that hold the asset, assuming they have access to the same markets, whether or not the asset has a quoted market price.

Step 3: Determine the Markets for the Valuation Basis

Topic 820 presents the concepts of principal market and most advantageous market. Once a reporting entity has considered the unit of account, potential markets, market participants, and the valuation premise, it must evaluate its access to any observable markets. If observable market access is available, a reporting entity must consider the following:

- Is there a principal market for the asset or liability?

  The principal market is the market with the greatest volume and level of activity for the asset or liability transactions. The reporting entity cannot consider potentially more advantageous markets in its fair value measurements when it has a principal market. If more than one market exists, the fair value measurement is based on the price in the principal market, even if the price in another market is potentially more advantageous.

  Unless there is contrary evidence, the market in which the reporting entity would normally sell the asset or transfer the liability is presumed to be the principal market.

- What is the most advantageous observable market?

  If the reporting entity does not have a principal market, it determines the most advantageous observable market for asset sale or liability transfer. To do this, it considers all observable markets that it can access and can reasonably obtain inputs. Potentially, multiple markets can exist that the reporting entity needs to evaluate to determine the most advantageous market.

The observable market that results in the highest asset sale value or the lowest liability transfer amount (after transaction costs) is the most advantageous market.

For non-financial assets, determining the highest and best use and the fair value measurement depends on market participant assumptions in markets to which the reporting entity has access.

If there are no observable markets for the asset or liability or the market is not active, the reporting entity must develop a hypothetical market based on the assumptions of potential market participants.

A transaction measured at fair value should take place either in:

- The principal market, that is the market with the greatest volume and level of activity for the asset or liability

  The principal market is not necessarily the market with the greatest volume of activity for the particular reporting entity. This concept emphasizes the importance of considering the market participant's perspective.

  OR

- In the absence of a principal market, the most advantageous market

  The most advantageous market is the market that maximizes the amount that would be received to sell the asset or minimizes the amount that would be paid to transfer the liability, after subtracting account transaction costs and transportation costs.

  Although transaction costs are subtracted when determining the most advantageous market, the fair value measurement price is not adjusted for those costs. Transportation costs continue to be subtracted.

The principal or most advantageous markets are only markets that the reporting entity can access at the measurement date.

If there is a principal market for the asset or liability, the fair value should be based on the price in that market, even if the price in a different market is potentially more advantageous at the measurement date. Only in the absence of a principal market should a reporting entity use the most advantageous market.

To determine the principal market, a reporting entity evaluates the activity level in various markets. However, a reporting entity does not have to undertake an exhaustive search of all possible markets to identify the principal or most advantageous market; it should consider all information that is readily available. In the absence of evidence to the contrary, the market in which an entity normally transacts is presumed to be the principal market, or the most advantageous market in the absence of a principal market.

The following examples from PwC illustrate the framework for identifying the principal or most advantageous market.

EXAMPLE

Market Identification

In a territory, there are two available markets for soybeans:

1. Export – this is the market in which higher prices are available for the producer. However, there are limitations in the volumes that can be sold in this market because the government sets a limit on the volume of exports, and each producer needs to get an authorization to export its production. It is rare for the government to authorize more than 25% of the production for export.

2. Domestic – the prices are lower in this market as compared to the export market, but there are no restrictions in terms of volume (other than the demand for the product by purchasers).

Producers intend to sell all of the production they can in the export market and, when they do not have any further authorization to export, will sell the remaining production in the domestic market.

What is the principal market?

Although the most advantageous market is the export market in that it gives the higher benefits to the producers, the domestic market is the principal market as it can handle all of the volume that producers have to sell.

In many cases, the transaction price (the price paid for a particular asset or the price paid for a particular liability) represents the fair value of that asset or liability at initial recognition, but not presumptively. This example illustrates when the price in a transaction involving a derivative instrument might (and might not) equal the fair value of the financial instrument at initial recognition.

EXAMPLE

Entity A (retail counterparty) enters into an interest rate swap in a retail market with Entity B (a dealer) for no initial consideration (the transaction price is zero). Entity A can access only the retail market. Entity B can access both the retail market (with retail counterparties) and the dealer market (with dealer counterparties).

From Entity A's perspective, the retail market in which it initially entered into the swap is the principal market for the swap. If Entity A were to transfer its rights and obligations under the swap, it would do so with a dealer counterparty in that retail market. In that case, the $0 transaction price would represent the fair value of the swap to Entity A at initial recognition. This is the price that Entity A would receive to sell or pay to transfer the swap in a transaction with a dealer counterparty in the retail market (exit price). That price would not be adjusted for any incremental (transaction) costs that would be charged by that dealer counterparty.

From Entity B's perspective, the dealer market (not the retail market) is the principal market for the swap. If Entity B were to transfer its rights and obligations under the swap, it would do so with a dealer in that market. Because the market in which Entity B initially entered into the swap is different from the principal market for the swap, the $0 transaction price would not necessarily represent the fair value of the swap to Entity B at initial recognition.

Secondary markets exist when investors trade among themselves, rather than investing directly through the issuer of a financial instrument in the primary market. In secondary markets, the financial instrument issuer is not involved in the transaction because it previously issued the financial instrument.

EXAMPLE

The New York Stock Exchange (NYSE) is a type of liquid secondary market for stocks of publicly traded companies. Other secondary markets exist, such as markets for private equity investments, where both current funded private equity investments as well as any remaining unfunded commitments are traded. This private secondary market tends to be less liquid than the NYSE.

As a result, similar to any other asset or liability, when determining the fair value measurement of an instrument traded in a secondary market with limited activity, it is necessary to consider all available trade data in developing market participant assumptions, including from thinly traded secondary markets.

EXAMPLE

A thinly traded investment is traded on two exchanges with different prices. The reporting entity has access to and can trade in either market. On Exchange 1, the investment would trade for $100 less transaction costs of $12. On Exchange 2, it would trade for $96 less transaction costs of $4.

If Exchange 1 is the principal market for the investment, i.e., having the greatest volume and level of activity, its fair value would be used – $100 (not $88, as fair value is not reduced for transaction costs).

If both exchanges have comparable volume and activity (neither is the principal market), then the most advantageous market is assumed in determining fair value. In this case, Exchange 2 is the most advantageous, because the net proceeds would be $92. However, the fair value measured would be $96.

In other words, transaction costs can affect which market is the most advantageous; but it does not affect the fair value measurement.

EXAMPLE

Principal (or Most Advantageous) Market

This example from the FASB illustrates using Level 1 inputs to measure the fair value of an asset that trades in different active markets at different prices.

An asset is sold in two different active markets at different prices. A reporting entity enters into transactions in both markets and can access the price in those markets for the asset at the measurement date. In Market A, the price that would be received is $26, transaction costs in that market are $3, and the costs to transport the asset to that market are $2 (the net amount that would be received is $21). In Market B, the price that would be received is $25, transaction costs in that market are $1, and the costs to transport the asset to that market are $2 (that is, the net amount that would be received in Market B is $22).

	Market A	Market B
Price received	$ 26	$ 25
Transportation costs	(2)	(2)
Subtotal	**24**	23
Transaction costs	(3)	(1)
Net price received	**$ 21**	**$ 22**

If Market A is the **principal market** for the asset (the market with the greatest volume and level of activity for the asset), the fair value of the asset would be measured using the $24 price that would be received in that market, after considering transportation costs.

If neither market is the principal market for the asset, the fair value of the asset would be measured using the price in the **most advantageous market**. The most advantageous

> market is the market that maximizes the amount that would be received to sell the asset after considering transaction costs and transportation costs (the net amount that would be received in the respective markets).
>
> Because the reporting entity would maximize the net amount that would be received for the asset in Market B ($22), the fair value of the asset would be measured using the price in that market ($25), less transportation costs ($2), resulting in a fair value measurement of $23. Although transaction costs are considered when determining which market is the most advantageous market, the price used to measure the fair value of the asset is not adjusted for those costs (although it is adjusted for transportation costs).

Working with Inactive Markets and Adjusting Observable Market Inputs

There may be no observable market for an asset or liability, or a reporting entity may not have access to existing markets. One example is for sales of intangible assets. In such cases, the reporting entity should identify potential market participants. This could be done by constructing a hypothetical market for the asset based on the reporting entity's own assumptions about what market participants would consider in negotiating an asset sale or liability transfer.

Another example is an existing market for buying and selling internet domain names.

Although no principal or most advantageous market may exist for a reporting entity, if the reporting entity has no principal market, the market may provide other data for domain name valuation.

A reporting entity should determine the market participant characteristics that it would hypothetically sell the asset if it were seeking to do so. Once determined, the reporting entity would identify the assumptions that those market participants would consider when pricing the asset. Examples are strategic or financial buyers.

If there are no apparent exit markets or if the reporting entity does not have access to known observable markets, activity in these inaccessible-but-known markets may be considered in developing the inputs that would be used in determining a hypothetical market. It is acceptable to adjust the observable market inputs to account for any differences in the asset or liability characteristics being measured and for the observed market price.

Some common characteristics that may prevent a reporting entity from accessing a particular price within a market are:

- A reporting entity's need to transform the asset or liability in some way to match the asset or liability in the observable market
- Restrictions that may be unique to the reporting entity's asset or liability that are not embedded in the asset or liability in the observable market
- Marketability or liquidity differences between the asset or liability in the observable market relative to the reporting entity's asset or liability

The fair value of an asset or liability might be affected when there has been a significant decrease in the volume or activity level in relation to normal market activity. This means the market is not orderly, and, as a result, pricing inputs may be less relevant.

For example, when certain markets that were previously active became inactive or disorderly during the economic downturn in 2009, quoted market prices resulted in fair values that were considered by some – especially financial institutions – to be unrealistic. This is because, when

credit markets collapsed, observable transactions were often distress sales and/or the prices were outdated due to lack of activity.

Topic 820 permits a reporting entity to adjust observed values when it can demonstrate that the relevant market is inactive or disorderly. Any adjustments would not change valuation methods used. Topic 820 does not prescribe methods for making adjustments to quoted market prices, but rather provides a list of factors to consider in determining whether market conditions justify using subjective valuation methods instead of observable transactions.

For example, indicators that a market is inactive include:

- Few recent transactions exist.
- Price quotes are based on non-current information.
- Price quotes, indexes, yields, bid-ask spreads, etc., do not follow "normal" market correlations or patterns. As an example, price quotations may vary substantially either over time in markets or among market makers in brokered markets.
- Indices that once were highly correlated with specific asset or liability fair values are now demonstrably uncorrelated with recent indications of that asset or liability fair value.
- There are significant increases in implied liquidity risk premiums, yields, or performance indicators (such as delinquency rates or loss severities) for observed transactions or quoted prices. This is compared with the reporting entity's estimate of expected cash flows, considering all available market data about credit and other non-performance risk for the asset or liability.
- There is wide bid-ask spread or significant increases in the bid-ask spread.
- There is a lack of available pricing information.

If a reporting entity concludes that there has been a significant decrease in the volume or level of activity in the market for an asset or liability, it should analyze the observed transactions or quoted prices in that market. For example, by itself, a significant decrease in activity is not definitive that the market is not orderly. Further analysis may conclude that market prices may need adjustments.

If the asset's or liability's market activity exhibits a significant decrease, the reporting entity may need to change its valuation technique or may need to apply multiple valuation techniques, such as from both a market approach and an income approach.

When using multiple fair value indications, evaluate the reasonableness of the range of fair value indications to determine the point within that range that is most representative of fair value under current market conditions. One approach to selecting a point within a range of fair value indications would be to weight the multiple indications. However, a wide range of fair value measurements might indicate that different fair value indications are needed.

A reporting entity must consider price quotes when markets are inactive, including quotes obtained from pricing services and broker quotes, if it determines the quotes reflect orderly transactions.

A reporting entity may conclude that the inputs are Level 2 in the fair value hierarchy even though a market is inactive. Reporting entities may adjust observed market prices for the activity decrease. When reporting entities develop valuation inputs, they should reconcile the resulting fair value measurement when a significant difference exists between a valuation technique and an observable price.

Working with Non-Orderly Transactions

An **orderly transaction** means a sale that has occurred after a reasonable period of marketing activities that are usual and customary for similar transactions and is used to differentiate the presumed sale from a forced transaction such as a distress sale. A distressed sale or forced liquidation is not allowable inputs into a fair value determination.

Determining whether market transactions are orderly should be based on the weight of the available evidence. Even if there has been a significant market volume or activity level decrease compared with normal market activity for an asset or liability, this does not mean that all market transactions for that asset or liability are not orderly. Reporting entities must perform analysis and use judgment to determine whether a transaction is orderly, which means it provides relevant input into the valuation technique.

Forced Sales

Topic 820 lists (non-comprehensive) indicators of a non-orderly transaction:

- Sales lacked a usual and customary marketing period. This means there was inadequate market exposure before the measurement date to allow for usual and customary marketing activities for transactions involving the asset or liability.
- There was a usual and customary marketing period; however, the seller marketed the asset or liability to a single market participant.
- Forced sales. The seller is in or near bankruptcy or was forced to sell to meet regulatory or legal requirements. All divestiture requirements, however, do not indicate a forced sale if they occur with sufficient time and marketing effort to result in an orderly disposal.
- The transaction price is an outlier when compared with other recent transactions for the same (or a similar) asset or liability.

EXAMPLE

The normal lead-time for an operating asset's sale is three months, which allows for marketing and sufficient due diligence by market participants. If a company incurred a liquidity crisis and needed to raise cash quickly, it may agree to a distressed sale of operating assets at lower-than-market prices.

These transactions would not be representative of the assets' fair value because it occurred in a forced liquidation.

Determining whether market transactions are orderly becomes more difficult when there has been a significant decrease in the volume and level of activity for the asset or liability. Topic 820 provides guidance in evaluating observable transaction prices under orderly and non-orderly transactions:

- Transaction is non-orderly – when evidence indicates a non-orderly transaction, a reporting entity must place little, if any, weight (compared with other fair value indications) on that observable transaction price when estimating fair value.
- Transaction is orderly – when evidence indicates the transaction is orderly, a reporting entity must consider that transaction price when estimating fair value. The weight placed on that transaction price (when compared with other fair value indications) depends on the transaction's facts and circumstances and the nature and quality of other available inputs.

If a reporting entity lacks sufficient information to conclude whether an observed transaction is orderly, it must consider that transaction price when estimating fair value. However, that

transaction price should not be the sole or primary basis for estimating fair value. Less weight should be placed on transactions in which a reporting entity has insufficient information to conclude whether the transaction is orderly when compared with other transactions that are known to be orderly.

Step 4: Apply the Appropriate Valuation Technique

Topic 820 recognizes three valuation techniques:

1. Market approach
2. Cost approach
3. Income approach

The reporting entity must consider and apply each valuation approach and technique that is appropriate in the circumstances and for which market participant pricing inputs can be obtained without undue cost and effort. For example, a reporting entity should consider market conditions, non-performance risk, risks and uncertainties, and other attributes and inputs that would impact the fair value measurement.

Market Approach

This approach uses observable market prices and other information from market transactions involving identical or comparable assets or liabilities (including a business). This approach would obviously include observable market prices for financial assets and liabilities (such as for publicly traded securities) and for real estate. It also includes less obvious measures, such as certain businesses customarily valued using multiples of revenues or earnings, where the multiplier is derived using observable market factors for comparable transactions.

It can be used to value equity components such as non-controlling interests. It may also be used to validate income approach valuations. Matrix pricing is a market approach valuation technique that can be used to value debt securities by relying on the securities' relationship to other benchmark quoted prices. Thus, it is commonly used to price corporate and municipal bonds.

Income Approach

The income approach is based on calculating the present value of a future stream of cash flows or income. The valuation reflects current market expectations about those future amounts. This approach includes present value techniques, option pricing models, and multi-period excess earnings models (used for intangibles).

A discounted cash flow (DCF) analysis uses the following steps:

1. Estimating future cash flows for a certain discrete projection period
2. Estimating the terminal value, when appropriate. A terminal value represents the present value at the end of the projection period of all subsequent cash flows to the end of the life of the asset or into perpetuity if the asset has an indefinite life.
3. Discounting the amounts in (1) and (2) to present value at a rate of return that considers the relative risk of the cash flows and the time value of money

Income approaches are non-market observable prices used most often to value liabilities, intangible assets, businesses, and financial instruments that are not traded in an active market.

Topic 820 does not require a specific present value technique. The guidance says a reporting entity should use the appropriate technique based on facts and circumstances specific to the asset or liability being measured and the market in which they are transacted.

Topic 820 lists key market participant perspectives that should be captured in developing a present value fair value measurement:

a. An estimate of future cash flows for the asset or liability being measured
b. Expectations about possible variations in the amount and timing of cash flows representing uncertainty inherent in the cash flows
c. The time value of money, represented by the rate on risk-free monetary assets that have maturity dates or durations that coincide with the period covered by the cash flows and pose neither uncertainty in timing nor risk of default to the holder. This is commonly referred to as a risk-free interest rate.
d. The price for bearing the uncertainty inherent in the cash flows. This is commonly referred to as a risk premium.
e. Other factors that market participants would consider in the circumstances
f. For a liability, the non-performance risk relating to that liability, including the reporting entity's (obligor's) own credit risk

Topic 820 lists general present value fair value measurement principles:

a. Cash flows and discount rates should reflect assumptions that market participants would use when pricing the asset or liability.
b. Cash flows and discount rates should consider only the factors attributable to the specific asset or liability being measured.
c. To avoid double counting or omitting risk factor effects, discount rates should reflect assumptions that are consistent with those inherent in the cash flows.

   For example, a discount rate that reflects the uncertainty in expectations about future defaults is appropriate if using contractual cash flows of a loan. This is a discount rate adjustment technique.

   That same rate should not be used if using expected (probability-weighted) cash flows because the expected cash flows already reflect uncertainty in future defaults. Instead, use a discount rate that is commensurate with the risk inherent in the expected cash flows.
d. Assumptions about cash flows and discount rates should be internally consistent.

   For example, nominal cash flows, which include the effect of inflation, should be discounted at a rate that includes the effect of inflation. The nominal risk-free interest rate includes the effect of inflation.

   Real cash flows, which exclude the effect of inflation, should be discounted at a rate that excludes the effect of inflation.

   Similarly, after-tax cash flows should be discounted using an after-tax discount rate, and pretax cash flows should be discounted at a rate consistent with those cash flows.
e. Discount rates should be consistent with the underlying economic factors of the currency in which the cash flows are denominated.

PwC mentions that in practice, adjusting the expected cash flows to reflect systematic risk is often difficult. As a result, for non-financial assets the discount rate applied to cash flows incorporates systematic or non-diversifiable risk, which is often represented by a weighted-

average cost of capital that would be required by a marketplace participant. There is concern in practice that adjustments discount rates tend to underweight risk. Additionally, the discount rate is a single point estimate, while expected cash flows are weighted by different probabilities of occurrence in the future.

Cost Approach

This approach is essentially replacement cost, i.e., the cost to replace the service capacity of an asset. Because Topic 820 uses an exit, or sale price, this approach amounts to the price that would be received based on the cost for a buyer to acquire or construct assets of comparable utility, adjusted for obsolescence.

This approach assumes that a market participant buyer would not pay more for an asset than the amount for which it could replace the service capacity of that asset. Obsolescence includes "physical deterioration, functional (technological) obsolescence, and economic (external) obsolescence." Therefore, in using a replacement cost approach, a reporting entity would need to consider the impact of product improvements.

The cost approach is most commonly used to value assets that can easily be replaced such as property, plant, and equipment.

Valuation Approach – Overall

With all valuation techniques, Topic 820 requires maximizing the use of relevant observable inputs and minimizing the use of unobservable inputs.

The selection of appropriate valuation techniques may be affected by the input reliability or availability or by the type of asset or liability being valued. In some cases, one valuation technique may provide the best indication of fair value. An example is using a market approach to value an actively traded equity security. In other cases, multiple valuation techniques may be appropriate. An example is valuing a reporting unit or cash-generating unit for purposes of Step 1 of a goodwill impairment test.

Applying each of the three valuation techniques will most likely produce different fair value estimates. These estimates may not be equally representative of the fair value due to the valuation assumptions or the input quality. One approach is using multiple valuation techniques to check on these assumptions and inputs. The reporting entity should carefully evaluate the inputs and assumptions used if the range of values is wide. Fair value should be based on the most representative point within the range considering the specific circumstances.

Depending on circumstances, fair value may be determined using only one or a combination of these techniques. The fair value techniques used should be consistently applied. It is acceptable, however, to revise them to reflect changing circumstances. Examples are new markets developing, new information becoming available, information previously used is no longer available, valuation techniques improve, or market conditions change.

Such changes are considered changes in estimates, with the change impacting the current and future periods. Subtopic 820-10-50-7, however, exempts such revisions from the related disclosures in Topic 250, *Accounting Changes and Error Corrections.*

The following example demonstrates the use of multiple valuation approaches.

EXAMPLE

In this FASB example, Mark Company (reporting entity), in a business combination, acquires a machine that will be held and used in its operations. The acquired company originally purchased the machine from an outside vendor and customized it for use in its operations. The customization was not extensive.

Mark determines that the machine would provide maximum value to market participants through its use in combination with other assets or with other assets and liabilities (as installed or otherwise configured for use). There is no evidence to suggest that the current use of the machine is not its highest and best use. Therefore, the machine's highest and best use is its current use in combination with other assets or with other assets and liabilities.

The income approach is not used because the machine does not have a separately identifiable income stream from which to develop reliable estimates of future cash flows.

Furthermore, information about short-term and intermediate-term lease rates for similarly used machinery that otherwise could be used to project an income stream (that is, lease payments over remaining service lives) is not available.

Mark determines that sufficient data are available to apply both the cost approach and (because the machine customization was not extensive) the market approach. Mark applies the market and cost approaches as follows:

The market approach uses quoted prices for similar machines adjusted for differences between the machine (as customized) and the similar machines. The measurement reflects the price that would be received for the machine in its current condition (used) and location (installed and configured for use). This market approach fair value ranges from $40,000 to $48,000.

The cost approach estimates the amount that would be required currently to construct a substitute (customized) machine of comparable utility. The estimate considers the machine's condition and the environment in which it operates, including physical wear and tear, improvements in technology (functional obsolescence), conditions external to the machine's condition such as a decline in the market demand for similar machines (economic obsolescence), and installation costs. This cost approach fair value ranges from $40,000 to $52,000.

Mark determines that the higher end of the range indicated by the market approach is most representative of fair value and, therefore, ascribes more weight to it. Mark's determination is based on the relative subjectivity of the inputs, consider the degree of comparability between the machine and the similar machines. In particular:

- The inputs used in the market approach (quoted prices for similar machines) require fewer and less subjective adjustments than the inputs used in the cost approach.
- The range indicated by the market approach overlaps with, but is narrower than, the range indicated by the cost approach.
- There are no known unexplained differences (between the machine and the similar machines) within that range.

Accordingly, Mark determines that the fair value of the machine is $48,000.

Instead, Mark would apply the cost approach if:

- The machine customization was extensive.
- There were not sufficient data available to apply the market approach. For example, because market data reflect transactions for machines used on a standalone basis (such

as a scrap value for specialized assets) rather than machines used in combination with other assets or with other assets and liabilities.

When an asset is used in combination with other assets or with other assets and liabilities, the cost approach assumes the sale of the machine to a market participant buyer with the complementary assets and the associated liabilities. The price received for the sale of the machine (exit price) would not be more than either of the following:

- The cost that a market participant buyer would incur to acquire or construct a substitute machine of comparable utility.
- The economic benefit that a market participant buyer would derive from the use of the machine.

Step 5: Determine the Fair Value

The market determination and the valuation technique application together produce the fair value measurement. If a non-financial asset is valued in combination with other assets, the fair value is calculated based on the assumption that the market participant already owns the other assets. Sometimes, the total calculated value must be allocated to each unit of account in an asset grouping.

Fair Value Definition

Fair value is defined 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."**

Several of these terms in the definition have specific meaning.

Price

The price is the amount that would be received to sell the asset or paid to transfer the liability – often referred to as the **"exit price"**. Exit price is different from acquisition price, which is an entry price or historical cost. Thus, fair value is determined from the point of view of the transferor, not the transferee. For example, one way to visualize this for assets is to think of realizable value upon sale rather than replacement cost.

Transaction costs

Transaction costs are directly attributable to the disposal of the asset or the transfer of the liability and both:

- Result directly from and are essential to that transaction and
- Would not have been incurred if the decision were not made to sell the asset or transfer the liability. This definition is similar "costs to sell" defined in Topic 360 – *Property, Plant, and Equipment*.

The price in the principal (or most advantageous) market used to measure the fair value of the sold asset or transferred liability shall not be adjusted for transaction costs. Instead, transaction costs are accounted for in accordance with other Topics. While transaction costs are not included in the fair value measurement, they are included when assessing the net transaction proceeds to determine the most advantageous market.

Transportation costs

If location is a characteristic of the asset or liability being measured (e.g., in the case of a physical commodity), the fair value measurement should incorporate transportation costs. The cost of transporting a physical asset from its current location to the market should be considered in the computation of fair value that is based on the price in that market.

> **EXAMPLE**
>
> An example is a physical commodity. A reporting entity intends to sell corn by using a corn futures contract on the Chicago Board of Trade. The contract calls for physical delivery to the Chicago Switching Yard; therefore, because the corn's location is a contract attribute, the company deducts from its fair value measurement the cost of physically transporting the corn to the sale location.

Bid and Ask Prices

Bid-ask prices are common in securities and commodities markets. In these markets, market participants stand ready to buy at the bid price and sell at the ask price. For inputs based on bid and ask prices, the fair value measurement represents the price within the bid-ask spread that market participants would pay on the measurement date.

A reporting entity may establish an accounting policy to use bid prices for long positions (assets) and ask prices for short positions (liabilities). Alternatively, it may use the midpoint (mid-market convention) between the bid and the ask prices or other pricing convention that is used by market participants within the bid-ask spread as a practical expedient for fair value.

According to PwC, many reporting entities use the mid-market convention as a **practical expedient** because it simplifies calculations and the reporting entity can use the same quotes and prices when calculating both asset and liability fair values. The downside is that the mid-market convention may produce a less-precise measurement of the actual trade. Fortunately, Topic 820 does not require mid-market pricing users to evaluate differences of where the price would actually trade within the bid-ask range.

Using bid-ask pricing or the mid-market practical expedient is most appropriate for inputs within a bid-ask spread that fall within Level 1 of the fair value hierarchy. (As this document will soon present, Level 1 is unadjusted observable quoted prices for identical assets or liabilities).

Generally, the less observable the input, the less probable it is subject to a bid-ask spread and, therefore, the less likely that use of bids, asks, or a mid-market convention would be appropriate. For example, it may not be appropriate to apply bid-ask pricing or a mid-market convention when the bid-ask spread is wide. A wide bid-ask spread could indicate the inclusion of a pricing element other than transaction costs. In this situation, other valuation techniques would generally be more appropriate.

Market Participants

Under Topic 820, buyers in the principal (or most advantageous) market are called **market participants**. The fair values derived by a reporting entity would therefore presume that the transferee (market participant) has these characteristics. Market participants are:

- Independent of the reporting entity. They are not related parties per Topic 850, *Related Parties*.
- Knowledgeable about the transactions and the assets or liabilities to be transferred. This knowledge assumes the use of all available information, including due diligence efforts that would be normal in the circumstances.

- Able to make the purchase or sale.
- Willing parties that are motivated but not forced to make the purchase or sale.

Fair value measurements are based on market participant assumptions and not entity-specific measurements. A reporting entity is not required to identify specific market participants but rather to develop a profile of potential market participants.

Determining potential market participants is a critical step in the overall fair value determination because of the emphasis on market participant assumptions. Market participant identification is often straightforward, as there may be general knowledge of entities that transact in a particular market.

This is not always true, however, because a reporting entity may need to make assumptions about the type of market participant that may be interested in a particular asset or liability. Determining the appropriate market and market participants can have a significant effect on fair value measurement.

The identified market participants may change over time. Thus, a reporting entity should periodically re-evaluate market participants. For example, a reporting entity may have previously identified financial buyer market participants in a previous fair value measurement because the financial buyers were active in a specific market. Subsequently, strategic buyers may have become active in acquiring the same type of assets or liabilities. As a result, the strategic buyers may now be appropriate market participants to consider in the fair value measurement as it becomes more likely that they would transact in the current market.

Initial Fair Value Measurement

When an asset is acquired or a liability is assumed in an exchange transaction, the transaction price is the **entry price,** i.e., "what you paid." Under Topic 820, the basis for fair value measurement is the **exit price,** i.e., "what you could sell it for." Consequently, the intuitive conclusion that the "cost" is the same as fair value on the acquisition date will not always be correct. For example, the transaction price may not equal the fair value of an asset or liability if:

- The transaction was between related parties.
- The transaction was "forced" or entered into under duress. An example is an asset acquired from a seller in financial difficulty.
- The "unit of account" inherent in the transaction is different from that used in measuring fair value. This can occur, for example, in a "basket" purchase of assets and liabilities, or if the transaction includes rights and privileges (or obligations) that must be measured separately.
- The market in which the transaction occurred is not the principal or most advantageous market.

In such cases, there will be an adjustment upon initial measurement for assets or liabilities required to be carried at fair value. (As a practical matter, this would occur at the first subsequent reporting period.)

TOPIC 820 – FAIR VALUE – THE CONCEPT OF "INPUTS" AND THE FAIR VALUE HIERARCHY

The data availability needed to develop inputs represents the assumptions that market participants would use when pricing the asset or liability and the fair value hierarchy level by which the inputs are categorized.

Inputs is the term that Topic 820 uses to describe market participant assumptions to determine fair value. Valuation input examples are risk factors, interest rates, cash flow timing, effects of attributes on an asset's fair value, etc. **Topic 820 distinguishes between inputs that are based on observable market data and inputs that are based on subjective judgments by the reporting entity.**

Inputs based on independent market data – which are more likely to be reliable and verifiable – are called **observable inputs**. Those based on the entity's own assumptions, using the best information available, are called **unobservable inputs**. For obvious reasons, the standard prefers the use of observable inputs over unobservable inputs.

These inputs are classified into three broad levels to establish a fair value hierarchy to prioritize the valuation technique inputs. Valuations using Level 1 inputs are a higher priority and considered "better" than those using Level 2 inputs, which are, in turn, a higher priority and considered better than values based on Level 3 inputs. **The fair value hierarchy** and some characteristics of each level are:

- Level 1: observable inputs that reflect unadjusted quoted prices for identical assets or liabilities in active markets
- Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or liability either directly or indirectly

  Examples are:

  - Quoted prices for similar items in active markets
  - Quoted prices for identical/similar items with no active market
  - Liabilities traded as assets in inactive markets
- Level 3: unobservable inputs (e.g., a reporting entity's or other entity's own data)

  Examples are:

  - Unobservable inputs using the reporting entity's or other entity's data
  - Market participant (not entity specific) perspective is still required

Level 1 Inputs

Level 1 inputs are unadjusted quoted prices for identical assets and liabilities in active markets that the reporting entity has *access* to and provides the most reliable fair value measurement. If available, this should be used to measure fair value in that specific market. For example:

- An equity security traded on a major exchange
- If there is no direct access to wholesale prices, do **not** use published wholesale prices as a Level 1 input. Quoted market prices are the most reliable basis for fair value, and generally must be used whenever they are available. (There are limited exceptions to this.)

Regardless of the investment size, quoted market prices should *not* be adjusted for a "blockage factor." Use the number of units times the quoted market price per unit, without adjustment, even though a presumed sale of the amount owned could affect market prices.

In practical terms, the list of instruments that likely qualify as Level 1 fair value measurements are fairly narrow. It includes:

- Listed equity securities traded in active, deep markets (e.g., NYSE, NASDAQ)
- London Metal Exchange futures contract prices
- On-the-run (current issue) Treasury bills, notes, and bonds
- Exchange-traded futures and options
- Open-ended mutual funds with published daily NAV at which investors can freely subscribe to or redeem from the fund

These are investments that do not use NAV as a practical expedient and, therefore, are still required to be leveled in the fair value hierarchy – unlike funds that use NAV as a practical expedient.

- Closed-ended registered mutual funds (e.g., exchange-traded funds) traded on active markets (the exchange price may represent a Level 1 input)
- Many government-backed to-be-announced securities (TBAs)

Large Number of Similar Assets and Liabilities

Topic 820 provides a practical expedient for the fair value measurement of a large number of similar assets or liabilities, such as debt securities, for which quoted prices in active markets are available, but not readily accessible. A reporting entity may measure fair value by using an alternative pricing method, such as matrix pricing, instead of obtaining quoted prices for each individual security, provided that the reporting entity demonstrates that the method replicates actual prices. If an alternative pricing method is used as a practical expedient, the resulting fair value measurement will be Level 2; not Level 1 as it would have been had the quoted prices been used.

According to PwC, a common misconception is that securities that are "less risky" should be categorized in Level 1. For instance, many might perceive U.S. Treasury securities as essentially risk-free, and, therefore, should be considered Level 1 in the fair value hierarchy. However, certain Treasury securities may more appropriately be categorized in Level 2 because they do not trade in an active market.

Level 2 Inputs

Level 2 inputs are observable inputs other than quoted market prices. They include:

- Quoted prices for <u>similar</u> assets or liabilities in active markets
- Quoted prices for identical or similar assets in a market that is not considered active. A non-active market has few transactions, prices may be subject to substantial variation, or available price information may be outdated
- Inputs other than quoted prices that are observable, such as interest rates, default rates, or commodity prices
- Inputs derived from or corroborated by observable market data

Level 2 inputs typically include:

- A non-liquid security dealer quote (when the dealer is ready and able to transact)
- Posted or published clearing prices (when corroborated with market transactions)
- Vendor or broker provided indicative prices (when reporting entity due diligence indicates the prices were developed using observable market data)

Financial instruments that are typically valued at Level 2 include:

- Most U.S. company public debt
- Short-term cash instruments
- Certain derivative products
- U.S. Treasury bills, bonds and notes that that have been previously issued before the most recent issue and are still outstanding (off-the-run)

Adjustments to Level 2 inputs should include factors such as the condition and/or location of the asset/liability on the measurement date. An adjustment that is significant to the fair value measurement may place the measurement in Level 3 in the fair value hierarchy.

If the observable inputs in this hierarchy level are adjusted using subjective judgments that cannot be corroborated by observable market data, the resulting measurement is relegated to a Level 3. One way to think of Level 1 and Level 2 inputs is that they are "auditable" against information outside the reporting entity.

EXAMPLE

This is an example from PwC. The interest rate yield curve for index A has historically been correlated to the interest rate yield curve for index B, and market participants believe the indexes will continue to be correlated. The interest rate yield curve for index A is observable for three years, but the interest rate yield curve for index B is only observable for two years.

A reporting entity could extrapolate the third year of the interest rate yield curve for index B based on years one and two and the correlation of the third year of interest rate yield curve for index A.

The interest rate yield for index B for year three would be a Level 2 input.

Level 3 Inputs

Level 3 uses unobservable inputs to measure fair value if relevant observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at the measurement date. The goal is still to develop a reliable exit price and must still reflect assumptions that market participants would be likely to follow, so long as such information can be derived without undue cost and effort by the reporting entity.

Level 3 unobservable inputs should reflect the assumptions that market participants would use when pricing the asset or liability, including assumptions about risk.

Level 3 inputs may include information derived through extrapolation or interpolation that cannot be directly corroborated by observable market data. Reporting entities must take into account all reasonably available information and does not need to conduct exhaustive efforts to obtain market participant information. As a result, a reporting entity developing Level 3 inputs from its own data should adjust that data if reasonably available information indicates market participants would use different assumptions.

> **EXAMPLE**
>
> Asset retirement obligations are recorded at fair value upon acquisition of the asset. In most cases, this fair value is estimated using the present value of the future cash outlays expected to retire the asset.
>
> Management's estimates of future cash flows will result in a Level 3 fair value.

> **EXAMPLE**
>
> If a fair value measurement incorporates a published interest rate on a treasury bond (Level 2) that is adjusted for an entity's credit risk, the resulting interest rate used would be a Level 3 input.

Inputs that are typically unobservable and considered Level 3 include:

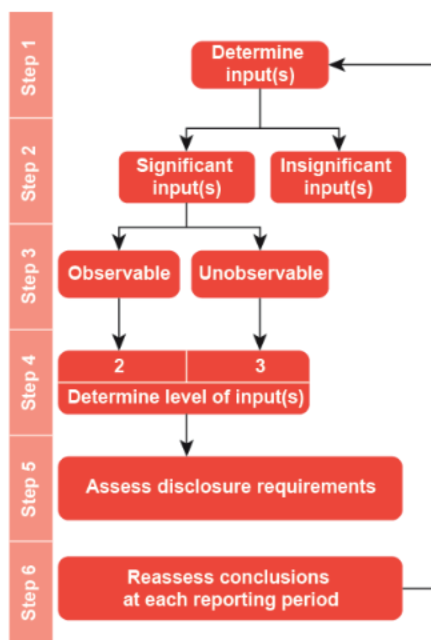
- Indicative broker quotes. These quotes are neither firm nor can be transacted. They also are not corroborated with market transactions.
- Management assumptions that cannot be corroborated with observable market data
- Vendor-provided prices not corroborated by market transactions

Financial instruments with Level 3 values are:

- Complex instruments. An example is longer-dated interest rate swaps and currency swaps, as well as structured derivatives.
- Fixed income asset-backed securities. There may be different tranches, valuation models, and observable inputs.
- Impairment testing of goodwill or indefinite-lived intangible assets
- Contingent consideration

The following figure from PwC shows four steps to differentiate Level 2 and Level 3 fair value measurements in the fair value hierarchy. The figure excludes Level 1 fair value measurements because they have Level 1 prices for the entire unit of account.

Fair value hierarchy framework (for Levels 2 and 3)



Following is an explanation for each step:

Step 1: Determine All Inputs to Valuation Techniques

Inputs are information that market participants use to make pricing decisions, including assumptions about risk. Inputs may include price information, revenue growth, profitability changes, volatility factors, specific and broad credit data, liquidity statistics, and all other factors that have more than an insignificant effect on the fair value measurement.

Reporting entities should use observable inputs when available.

Step 2: Determine Which Inputs Are Significant

In some cases, a valuation technique used to measure fair value may include inputs from multiple levels of the fair value hierarchy. The asset or liability is categorized in its entirety on the lowest level of a significant input. For example, one significant unobservable input results in the entire asset or liability being classified in Level 3. Therefore, the reporting entity needs to identify all significant inputs when determining the appropriate classification within the hierarchy.

Assessing the significance of a particular input to the fair value measurement requires judgment, and reporting entities should consider factors specific to the asset or liability. Topic 820 offers no bright lines for determining significance. A reporting entity should develop and consistently apply an accounting policy for assessing significance.

In assessing the significance of unobservable inputs to an asset or liability's fair value, a reporting entity should both:

1. Consider the sensitivity of the asset or liability's overall value to changes in the input
2. Assess the likelihood of variability in the input over the life of the asset or liability.

An input could be unobservable and have little impact on the valuation at initial recognition, but the same input could have a significant remeasurement impact if markets and related assumptions change.

Additionally, reporting entities should perform the significance assessment on both an individual input level and an aggregate input level, considering aggregation of inputs when more than one item of unobservable data is used to measure the fair value of an asset or liability.

Step 3: Determine If Significant Inputs Are Observable or Unobservable

Observable inputs include both Level 1 and Level 2 inputs and include:

- Prices or quotes from exchanges or listed markets such as New York Mercantile Exchange, Chicago Board of Trade, London Stock Exchange, or New York Stock Exchange, in which there is sufficient activity.
- Proxy observable market data that is proven to be highly correlated and has a logical, economic relationship with the instrument being valued. An example is electricity prices in two different locations or "zones" that are highly correlated.
- Other direct and indirect market inputs that are observable in the marketplace.

Determining what constitutes observable inputs requires significant judgment. The following characteristics (not all have to be met) would provide evidence that an input is derived from observable market data:

- Supported by market transactions

  Although data need not be traced directly to a "live" or a "perfectly offsetting" transaction, there should be strong evidence that:

  1. The data sources draw their information from actual market transactions between other market participants

     or

  2. Market participants use the information to price actual market transactions. The reporting entity will normally need to perform a degree of review and/or verification of the data supporting the quote.

- Not proprietary

  Observable data incorporated into a valuation technique input comes from sources other than within the reporting entity making the determination. In addition, the data should be distributed broadly and not limited in its distribution to only the entity making the determination or to a small group of users. The data should be available to and regularly used by participants in the relevant market/product sector as a basis for pricing transactions or verifying such prices. Even an internally developed assumption may be an observable input if it can be corroborated to an external source.

- Readily available

  Market participants should be able to obtain access to the data, although the supplier of the information could impose a reasonable fee for access.

- Regularly distributed

  The term "regular distribution" means that the data are made available in a manner that is timely enough to allow the data to be meaningful in pricing decisions. Further, there should be procedures in place to verify that changes between intervals that would render the data meaningless have not occurred. In addition, the distributed information should indicate its effective date to ensure that data received is not stale.

- Transparent

  The people/sources providing and/or distributing the data and their role in a particular product/market should be transparent and known to be reliable. In addition, it needs to be clear to the people who provide the data that market participants use this information to price/verify transactions.

- Verifiable

  There should be evidence that users are, in fact, regularly verifying the data. For example, people who are independent of a particular reporting entity should be able to contact the third-party data provider directly in order to verify the data that are obtained and used. It also should be possible for people to verify the data by comparing it with data that is obtained from other reliable sources.

- Reliable

  The data should reflect actual market parameters and be subject to certain levels of periodic testing and monitoring. These controls should exist both at the entity providing the data and at the entity using the data. Reporting entities should test and review the reliability of a source's data on an ongoing basis before actually using that source as a basis

for determining or disclosing a fair value measurement and its level within the fair value hierarchy.

- Based on consensus

  The data or inputs that are provided by multiple sources should be comparable within a reasonably narrow range before a reporting entity can regard the information as demonstrating a market consensus. If particular sources produce price outliers, the reporting entity should understand them and how they impact the data. Due diligence should be performed to confirm that the consensus was derived from different sources.

- Provided by sources actively involved in the relevant market

  The data should originate from a source that is an active participant with respect to the relevant product and within the relevant market. Further, the reporting entity that is using the data should periodically demonstrate that the source of the data provides reliable information on a consistent basis. Although there are instances in which market forces could help ensure that a data source provides reliable information, such assurance may need to be supplemented with other evidence, such as the results of back-testing applied to verify the consistency and reliability of a particular source's data.

Assessing the Level of Market Activity to Determine if Inputs Are Observable

The activity level in the asset or liability's principal market will contribute to the determination of whether an input is observable or unobservable. Topic 820 defines an active market as one in which transactions for the asset or liability being measured takes place with sufficient frequency and volume to provide ongoing pricing information. An observable input that may otherwise be a Level 1 input will become Level 2 if the information relates to a market that is not active.

EXAMPLE

To determine the level of the inputs within the hierarchy, the reporting entity should consider recent activity supporting the quote and trading volume trends.

A security that has aggregate broker data is published on occasion, and trading does not occur on a regular basis. As a result, the quote is no longer a Level 1 input, and would become Level 2 or 3.

Topic 820 provides observable market input examples for some financial instrument assets and liabilities. Reporting entities must evaluate the specific facts and circumstances of each market input when assessing whether a specific market input is observable. The Topic 820 Glossary lists each market:

- Exchange markets, such as NYSE or London Stock Exchange, closing prices are both readily available and representative of fair value.
- Dealer market "market makers" use their own capital to hold inventory of the items for which they make a market. Thus, they provide market liquidity by standing ready to trade at an executable bid or ask price for their own account. Assets and liabilities, other than securities, also exist in dealer markets, such as financial instruments, commodities, and physical assets. A market example is over-the-counter (OTC).

  Dealer quotes are observable only if the dealer stands ready and willing to transact at that price. Brokers, on the other hand, report what they see in the market but usually are not ready and willing to transact at that price. In order for broker quotes to be observable, they need to be corroborated by other market events or data.

- Brokered market brokers attempt to match buyers with sellers. The difference versus market makers is market brokers do not stand ready to trade and do not use their own capital to hold an inventory of the items for which they make a market. Instead, they provide indicative valuations for their own account.

  For an observable market broker quote, a reporting entity needs to know how the quote is created and whether the broker stands ready to execute. The specific valuation technique used may not be available, as broker quotes can be derived from models or based on market observable transactions. A reporting entity may determine the implied inputs used, such as a discount rate or yield, and tie these implied inputs to market observable trade information.

  A broker quote may be a Level 2 input if observable market information exists for comparable assets and/or the dealer is willing and able to transact in the security at that price. In many cases, a single broker quote may be Level 3 if no market comparable prices exist and the quote contains no commitment to actually transact at that price.
- Principal-to-principal market transactions (both originations and resales) are negotiated independently, with no intermediary. Often, very little information about these transactions is publicly available, and as such, the markets are generally not considered observable.

Third-party pricing services also provide market quotes. Examples are Bloomberg, Interactive Data Corporation, Thomson Reuters, Markit, Standard and Poor's, and brokers. Reporting entities must determine that these third parties develop quoted prices consistent with Topic 820 requirements. This means understanding how the pricing information is developed to establish where financial instruments reside in the fair value hierarchy.

Pricing service quotes could result in a financial instrument falling into any level in the fair value hierarchy, depending on the inputs and methods used. For example, a pricing service could provide quoted prices for an actively traded equity security, which, if corroborated by the reporting entity, would be considered Level 1 inputs. The same pricing service may also provide a corporate bond price quotes based on matrix pricing, which may be Level 2 or Level 3 inputs.

When performing additional procedures, reporting entities should clearly document the assessment and conclusion. PwC recommends that without additional supporting information, prices obtained from single or multiple brokers or a third-party pricing service are generally Level 3 inputs.

EXAMPLE

A reporting entity may obtain a price from a broker or pricing service for a municipal security. The reporting entity may be fully aware of the depth and activity of the security's trading in the marketplace based on its historical trading experience. In addition, the pricing methodology for the security may be common and well understood (e.g., matrix pricing). Thus, the reporting entity may be able to perform less due diligence.

This conclusion may not be appropriate for a reporting entity that obtains a price from a broker or pricing service for a collateralized debt obligation that is not frequently traded and may not be as easily subject to common, well-understood pricing methodologies (e.g., matrix pricing). In this case, the reporting entity may need to perform more due diligence.

Valuation Models

Reporting entities commonly use proprietary models to calculate certain fair value measurements. Examples are some long-term derivative contracts, financial instrument impairment, and illiquid investments such as real estate. Reporting entities determine the fair value hierarchy level based on the inputs to the valuation, not on the methodology or complexity of the model. However, certain valuations may require the use of complex models to develop forward curves and other inputs; therefore, the models and inputs are frequently inextricably linked.

Using a proprietary valuation model does not automatically result in a Level 3 fair value measurement. A standard valuation model that uses all observable inputs may result in a measurement classified as Level 2.

> **EXAMPLE**
>
> Measuring a financial asset that is not actively traded. The reporting entity performs the valuation using a proprietary model incorporating inputs provided by brokers. While the financial asset is not actively traded, the reporting entity assumes the broker providing the inputs is standing ready to transact at the quoted price and/or the reporting entity obtains sufficient corroborating data. Provided the model does not include management assumptions used to adjust the data, it may be reasonable to conclude that the inputs are observable, and thus the measurement would be classified as Level 2.

If adjustments or interpolations are made to Level 2 inputs in an otherwise standard model, the measurement may fall into Level 3, depending on whether the adjusted inputs are significant to the measurement. Further, if a reporting entity uses a valuation model that is proprietary and relies on significant unobservable inputs, the resulting fair value measurement will be categorized as Level 3.

Step 4: Determine Hierarchy Level of the Significant Inputs

The significant inputs evaluation determines asset or liability fair value hierarchy classification.

Step 5: Assess Disclosure Required by the Fair Value Standard

Two disclosure requirements are:

1. The fair value of the entire asset or liability and
2. The significant inputs to the fair value measurement.

Step 6: Reassess

A financial instrument's fair value hierarchy level categorization may change over time. As markets evolve, liquidity may increase or decrease, and inputs may become more or less observable. As a result, the fair value hierarchy level could change, which makes it important to evaluate the continued appropriateness of the levels in which fair value measurements are categorized at each reporting date.

Market activity fluctuations often drive pricing technique changes. Thus, reporting entities should perform ongoing review procedures. PwC identified additional corroboration procedures:

- Use of liquidity or transparency information and metrics provided by the vendor which may include the liquidity score and depth of the quotes informing the price

- Review vendor valuation methodology documentation
- Discussions with pricing services, dealers, or other companies to obtain additional prices of identical or similar assets to corroborate the price
- Back-testing prices to determine historical accuracy against actual transactions. While this analysis provides more evidence on the accuracy/reliability of historical prices provided, it may also provide an initial indication of whether pricing uses observable data inputs. It is likely that additional corroboration would be necessary to determine the use of observable market data.
- Comparisons to other external or internal valuation model outputs and their corroboration with observable market data

The investigation level is highly dependent on the facts and circumstances, such as the asset's or liability's type and complexity being measured, its market observability, and the market activity level. As financial instruments become more specialized or market activity decreases, reporting entities need more review procedures to corroborate the price to support classification as a Level 2 input.

Financial Instruments Valuation Adjustment Factors

There should never be adjustment to Level 1 inputs. The fair value of an investment in a financial instrument in an active market is calculated by multiplying the quoted price for the individual instrument times the number of units held (referred to as "P times Q"). If a quoted price in an active market (Level 1 input) exists for an asset or liability, a reporting entity shall use that quoted price without adjustment for measuring fair value.

Topic 820 does permit certain premiums or discounts for financial instruments classified as Level 2 or 3 fair value measurements. In this event, reporting entities should consider:

- Market participant assumptions
- The unit of account as defined by other guidance for the asset or liability being measured
- The unit of measurement
- Whether the premium or discount is related to the relative size of the entity's financial instrument investment or a specific investment terms
- Whether the premium or discount impact is already included in the valuation

  Topic 820 restricts adjusting financial instruments fair value for premiums and discounts due to the investment size. The guidance distinguishes between valuation premiums or discounts due to investment size and specific investment terms:
- Relative investment size

  An example of relative size is a blockage factor for an equity investment classified as available for sale. A blockage factor is a discount applied that reflects the holder's inability to trade a large block of the security because the active market for the security cannot trade the entire block at one time without adversely affecting the quoted market price. When measuring the fair value of a financial instrument that trades in an active market, Topic 820 prohibits a blockage factor discount.

  However, when using the **portfolio exception** in Topic 820 (discussed later in the course), because the unit of measurement is the net position of the portfolio, size is a portfolio attribute of the portfolio being fair valued. As a result, a premium or discount based on size is appropriate if market participants include it.

- Specific investment terms

  An example of specific investment terms is a **control premium**, which is an amount above the current market price that a buyer is willing to pay to get a controlling interest. Guidance permits a fair value premium or discount under certain circumstances but not for Level 1 measurements.

  A **restricted asset** has restrictions on its sale or transferability, and the fair value measurement should be adjusted to reflect any discount that a market participant would require as a result of the restriction. The restriction's impact on the asset's sale or use depends on whether the restriction is part of the instrument itself. If it is, then market participants would consider the restriction in valuing the asset.

EXAMPLE

Restriction on the Sale of an Equity Instrument

In this FASB example, a reporting entity holds an equity instrument financial asset that is legally or contractually restricted for a specified period. An example is a restriction that limits sales to qualifying investors in accordance with Rule 144 or similar rules of the Securities and Exchange Commission.

The restriction is a characteristic of the instrument and, therefore, would be transferred to market participants. Thus, the fair value of the instrument is measured on the basis of the quoted price for an otherwise identical unrestricted equity instrument of the same issuer that trades in a public market, adjusted to reflect the effect of the restriction.

The valuation adjustment would reflect the amount market participants would demand because of the risk relating to the inability to access a public market for the financial instrument for the specified period. The adjustment will vary depending on all of the following:

- The restriction's nature and duration
- The extent to which buyers are limited by the restriction. For example, there might be a large number of qualifying investors.
- Qualitative and quantitative factors specific to both the instrument and the issuer

EXAMPLE

Restriction on an Asset's Use

In this FASB example, a donor contributes land in an otherwise developed residential area to a not-for-profit neighborhood association. The land is currently used as a playground. The donor specifies that the land must continue to be used by the association as a playground in perpetuity; however, the association is not restricted from selling the land.

Upon review of relevant legal documentation, the association determines that the fiduciary responsibility to meet the donor's restriction would not be transferred to market participants if the association sold the asset. This means the donor restriction on the land's use is specific to the association.

Without the restriction on the use of the land by the association, the land could be used as a site for residential development. In addition, the land is subject to an easement (a legal right that enables a utility to run power lines across the land). Following is an

analysis of the land's fair value measurement effect from the restriction and from the easement:

Donor restriction on land use. Because the donor restriction on the land's use is specific to the association, the restriction would not be transferred to market participants. Therefore, the land's fair value would be the higher of its fair value used as a playground (maximize the asset's fair value through its use by market participants in combination with other assets or with other assets and liabilities) and its fair value as a site for residential development (the asset's fair value would be maximized through its use by market participants on a standalone basis), regardless of the restriction on the land's use by the association.

Easement for utility lines. Because the utility line easement is specific to (a characteristic of) the land, it would be transferred to market participants with the land. Therefore, the land's fair value measurement would include the easement's effect, regardless of whether the highest and best use is as a playground or as a site for residential development.

The donor restriction, which is legally binding on the association, would be indicated through classification of the associated net assets and disclosure of the nature of the restriction in accordance with GAAP guidance in Topic 958.

Measuring Liabilities at Fair Value

Topic 820 developed specific fair value guidance for liabilities, because liabilities are rarely traded in the marketplace due to contractual or other legal restrictions. Topic 820 still relies on an orderly transaction between market participants as the basis for measuring fair value.

EXAMPLE

A private company's notes payable are not transferable, while a public company's bonds are actively traded. Consequently, these two liabilities require different approaches toward determining fair value.

A liability's fair value is based on the price to transfer the obligation to a market participant at the measurement date, assuming the liability will continue in its current form. Most all liabilities have transfer restrictions; however, transfer restrictions do not impact liability accounting fair value.

There is a difference between an asset transfer restriction and a liability transfer restriction.

Liability Transfer Restriction

This relates to the terms of its performance (obligor cannot be changed to someone that is less likely to perform in making principal and interest payments). Liability restrictions are already factored into its fair value. A liability's credit enhancement, such as a third-party guarantee, is excluded from the liability's fair value.

The liability fair value should not incorporate the effect of any restriction preventing the sale of the corresponding asset. There should be no separate inputs or adjustments to existing inputs for restrictions on liability transfers in the fair value measurement. The rationale is two-fold. First, liability transfer restrictions relate to the liability's performance; whereas, asset transfer restrictions relate to its marketability. Second, nearly all liabilities include a transfer restriction, whereas most assets do not. As a result, the effect of a liability transfer restriction would be the same (theoretically) for all liabilities. On the other hand, this differs from the treatment of assets with restrictions.

Asset Transfer Restriction

This relates to the holder's ability to sell it, and this restriction may change in a transfer.

Use the following techniques to determine liability fair value. In applying these techniques, reporting entities must maximize the use of relevant observable inputs and minimize the use of unobservable inputs.

1. First – If a quoted price in an active market for the identical liability is available, it should be used. (Level 1 input.)
2. Second – If a Level 1 input is not available, one of the following valuation techniques should be used:
   i. Measure the liability at either the quoted price for the identical liability when traded as an asset, quoted prices for similar liabilities, or similar liabilities when traded as assets (Level 2 inputs). The reporting entity should not adjust the quoted price of the assets for the effect of a restriction preventing its sale (as this would have nothing to do with the performance of the asset).
   ii. Note that the quoted price of a liability when traded as an asset may be adjusted for factors specific to the asset that do not apply to the liability, such as: the quoted price of an asset relates to a similar (but not identical) liability traded as an asset, the unit of account is not the same as the liability, or the asset includes a third party guarantee.
   iii. Use a market or income approach based on the amount the reporting entity would pay to transfer the identical liability or would receive to enter into an identical liability at the measurement date (Level 2 or 3 inputs). The liability is presumed to continue and not be settled with the counterparty. The liability's non-performance risk would be the same both before and after the hypothetical transfer.

EXAMPLE

An example of 2(i) would be measuring fair value of a company's bonds payable by looking to the market price of the bonds. An example of 2(ii) would be measuring the fair value of a guarantee based on what the company would have to pay to get someone else to assume the obligation.

In the absence of an observable market for the liability transfer, the liability fair value becomes based on the "corresponding asset" held by a market participant. A corresponding asset is an asset whose features mirror those of the liability, assuming an exit from both positions in the same market. If the market is inactive or transactions are not orderly, follow guidance in this course, which used Subtopic 820-10-35 as a source.

Liability fair value from the viewpoint of investors and issuers should be the same in an efficient market. However, market inefficiencies could create price arbitrage because the asset is liquid, but the liability is not. The asset holder could easily sell the asset to another party, whereas the liability will be more difficult to transfer to another party.

The fair value of the liability may not be the same as the fair value of the corresponding asset in certain circumstances, such as when the pricing includes a bid-ask spread. In such cases, the liability should be valued based on the price within the bid-ask spread that is most representative of fair value for the liability. This may not be the same as the price within the bid-ask spread that is most representative of the corresponding asset fair value.

Liabilities: Non-performance Risk Remains Unchanged

Liability transfers are rare. In practice, most liabilities are settled with the holder or may be extinguished through execution of an offsetting contract. As a result, measuring the liability transfer value is difficult because settlement has historically been the primary means for exit and there is no market for the corresponding asset.

Reporting entities are required to consider non-performance risk in valuing a liability. Fair value measurements for liabilities assume the risk of non-performance by the primary obligor will be the same before and after the transfer. It includes (but may not be limited to) the reporting entity's own credit risk. In determining a liability's fair value, the reporting entity can assume that an acquiree's non-performance risk would be the same as its own.

Non-performance risk can be different for different types of liabilities. Unlike a financial liability, which requires only a cash transfer for settlement, satisfying a performance obligation may require the use of other operating assets. For example, an entity's credit risk for a liability to be settled in cash could be different from its risk for a liability to be settled in goods and/or services.

A performance obligation may be contractual or non-contractual, which affects the risk that the obligation is satisfied. These differences affect the variability and magnitude of risks and uncertainties that can influence the settlement or satisfaction of the obligation and its fair value. Therefore, it is important to be aware of these differences when measuring the fair value of performance obligations. This is particularly critical when considering future cash flow estimates and applicable discount rates when using the **income method** to measure fair value.

Topic 820 provides guidance for using the income method for measuring certain liabilities at fair value. The compensation that a market participant would require for taking on the obligation includes the return that the market participant would require for both:

1. Undertaking the activity, which represents the value of fulfilling the obligation. The market participant could be using resources that could be used for another purpose
2. Assuming the risk associated with the obligation. The return for assuming the risk represents the value associated with the risk that cash outflows may ultimately differ from expectations.

TOPIC 820 – FAIR VALUE DISCLOSURES

The objective of the fair value disclosure requirements are to provide users of financial statements with information about assets and liabilities measured at fair value in the statement of financial position or disclosed in the notes to the financial statements including:

- The valuation techniques and inputs that a reporting entity uses to arrive at its measures of fair value, including judgments and assumptions that the entity makes
- The measurement uncertainty in the fair value measurements as of the reporting date
- How changes in fair value measurements affect an entity's performance and cash flows

Expanded disclosures are required for Level 3 fair values, because they involve unobservable inputs and subjective judgments. Further, all quantitative disclosures are required to be presented in tabular format.

The breakdown of fair value disclosures is now required for each *class* of assets and liabilities, rather than each *major category.* Classes may be characterized by shared activity or business sector, vintage, geographic concentration, credit quality, or other economic characteristics. (In contrast, major categories are limited to stocks, corporate debt, government obligations, etc.)

Topic 820 requirements are broken down between disclosures for items measured at fair value on a *recurring* basis—generally certain financial instruments—and items measured at fair value on a *non-recurring* basis, usually impairments of non-financial assets, such as property or goodwill, or assets and liabilities acquired in a business combination.

The following disclosures are required for each annual and interim period, separately for each *class* of assets and liabilities measured at fair value on a **recurring** basis:

1. The fair value measurement at the end of the reporting period
2. The level of the fair value hierarchy where the fair value measurements are categorized in their entirety (Level 1, 2, or 3)
3. For fair value measurements categorized within Level 2 and Level 3 of the fair value hierarchy, a description of the valuation technique(s) and the inputs used in the fair value measurement
4. When a change in either or both a valuation approach and a valuation technique, the reporting entity must disclose that change and the reasons for making it
5. For fair value measurements categorized in Level 3 of the fair value hierarchy, a reporting entity must provide quantitative information about the significant unobservable inputs used in the fair value measurement. This quantitative information must include the range and weighted average (median or arithmetic average) of significant unobservable inputs used to develop Level 3 fair value measurements. (Note: range and weighted average not required for non-public entities)
6. For fair value measurements categorized in Level 3 of the fair value hierarchy, a reconciliation from the opening balances to the closing balances, disclosing separately the following:
   - Total gains or losses for the period recognized in earnings and/or other comprehensive income and the line item(s) in the statement of income or other comprehensive income which these gains or losses are recognized
   - Purchases, sales, issues, and settlements each disclosed separately
   - The amount of any transfers into or out of Level 3 of the fair value hierarchy and the reasons for those transfers. Transfers into Level 3 must be disclosed and discussed separately from transfers out of Level 3
7. For fair value measurements categorized in Level 3 of the fair value hierarchy, the amount of the total gains or losses for the period included in earnings and included in other comprehensive income that is attributable to the change in unrealized gains or losses relating to those assets and liabilities held at the end of the reporting period, and the line item(s) in the statement of comprehensive income which those unrealized gains or losses are recognized. (Note: not required by non-public entities)
8. For fair value measurements categorized in Level 3 of the fair value hierarchy, a narrative description of the measurement uncertainty of the fair value measurement from the use of significant unobservable inputs if those inputs reasonably could have been different at the reporting date. (Note: not required by non-public entities)
9. If the highest and best use of a non-financial asset differs from its current use, a reporting entity must disclose that fact and why the non-financial asset is being used in a manner that differs from its highest and best use
10. For each class of assets and liabilities not measured at fair value in the statement of financial position but fair value is disclosed, a reporting entity must disclose the information required by 2, 3, and 9 above

EXAMPLE

Note X: Assets and Liabilities – Fair Value Information:

Assets measured at fair value on a recurring basis at December 31, 20XX were as follows:

	Fair Value at Reporting Date (in 000s)			
Description	12/31/XX	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Trading securities:				
Equity securities – retail industry	$ 75	$ 75		
Equity securities – other	30	30		
Total trading securities	105	105		
Available-for-sale securities:				
Residential mortgage-backed securities	90			$90
Collateralized debt obligations	20			20
Corporate bonds	85	85		--
Total available-for-sale debt securities	195	85		110
Available-for-sale equity securities:				
Construction industry	110	110		
Distribution industry	45	45		
Other	50	50		
Total available-for-sale equity securities	205	205		
Total available-for-sale securities	400	290		
Private equity funds	70		$70	
Futures contracts	35		--	35
Total	$610	$395	$70	$145

In addition to quoted market prices in active markets, valuation techniques used were:

Level 2 – Private equity funds are valued based on net asset values provided by the fund managers.

Level 3 – Residential mortgage-backed securities and collateralized debt obligations were valued based on trading prices of comparable debt. Futures contracts held as hedges of commodity prices (see Note X) are valued based on the net present value of expected cash flows based on externally provided inputs.

There were no changes in valuation techniques used to measure fair values during the period.

Note: The above example includes only assets. Liabilities would be shown the same way, but separately from assets.

The following example illustrates the expanded disclosures required within the Level 3 fair value roll forward table.

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)		
	Available-for-Sale Securities		
	Residential Mortgage-Backed Securities	Collateralized Debt Obligations	Futures Contracts
Beginning balance	$100	-	($10)
Transfers into Level 3		$30	
Transfers out of Level 3	-	-	-
Total gains or losses			
Included in earnings (or changes in net assets)	(30)	5	
Included in other comprehensive income	(10)	-	20
Purchases, issuances, sales, and settlements			
Purchases	50	-	(40)
Issuances	-	-	-
Sales	(20)	-	-
Settlements	-	(15)	65
Ending balance	$90	$20	$35

The amount of total gains or losses for the period included in earnings attributable to the change in unrealized gains or losses relating to assets still held at the reporting date. $9

Changes in unrealized gains or losses for the period included in other comprehensive income for assets held at the end of the reporting period $14

Valuation Techniques and Inputs (In part):

	Fair Value	Valuation Technique	Unobservable Input	Range (Weighted Average)
Residential Mortgage Backed Security	$90	DCF	Prepayment Rates Probability of Default Loss severity	4%–5% (4.5%) 5%–20% (12%) 60%–100% (75%)
Collateralized Debt Obligation	$20	Consensus Pricing	Offered Quotes Comparability AJEs	20%–40% (30%) 4%–9%) (7%)
Futures Contracts	$35	Option Model	Changes in the Underlying Assets/ Liabilities	10%–20% (15%)

For assets and liabilities measured at fair value on a non-recurring basis, annual and interim disclosures must include by class of asset and liability, the following information:

1. The fair value measurement at the relevant measurement date and the reasons for the measurement
2. The level of the fair value hierarchy where the fair value measurements are categorized in their entirety (Level 1, 2, or 3)
3. For fair value measurements categorized within Level 2 and Level 3 of the fair value hierarchy, a description of the valuation technique(s) and the inputs used in the fair value measurement
4. When a change in either or both a valuation approach and a valuation technique, the reporting entity must disclose that change and the reasons for making it

   For fair value measurements categorized in Level 3 of the fair value hierarchy, a reporting entity must provide quantitative information about the significant unobservable inputs used in the fair value measurement.
5. This quantitative information must include the range and weighted average (or median or arithmetic average) of significant unobservable inputs used to develop Level 3 fair value measurements. (Note: range and weighted average not required for non-public entities)
6. If the highest and best use of a non-financial asset differs from its current use, a reporting entity must disclose that fact and why the non-financial asset is being used in a manner that differs from its highest and best use
7. For each class of assets and liabilities not measured at fair value in the statement of financial position but fair value is disclosed, a reporting entity must disclose the information required by 2, 3, and 6 above

The Topic also encourages combining these disclosures with the fair value disclosures for Topic 825 and providing comparable information for other similar measurements, such as how "market" was derived for inventories that have been written down.

EXAMPLE

Note 4: Asset Impairments:

During 20XX, the following impairment losses were recorded on assets of the Company and included in income from continuing operations:

As a result of decreased utilization of certain distribution facilities, long-lived assets held and used with a carrying amount of $525,000 were written down to their fair value of $375,000, resulting in an impairment loss of $150,000. The estimate of fair value is based on having the facilities fully utilized as a distribution center, which is their highest and best use.

Due to increased competition and decreased demand for the products of Subsidiary X, goodwill with a carrying amount of $300,000 was written down to its implied fair value of $200,000, resulting in an impairment loss of $100,000.

In connection with its restructuring plan, the Company's operations in Bangor, Maine were moved to a facility in Worcester, Massachusetts. The vacated facility is currently held for sale and has been written down from its carrying value of $600,000 to its fair value of $400,000 less estimated costs to sell of $50,000, resulting in a loss of $250,000.

These non-recurring fair value measurements were based on inputs as follows:

$(000)s

Description	Year Ended 12/31/XX	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Gains (Losses)
Long-Lived assets held and used	**$375**		**$375**		**$(150)**
Goodwill	**200**			**$200**	**(100)**
Long-lived assets held for sale	**350**		**350**		**(250)**
					$(500)

Valuation techniques for impaired assets were based on:

- Assets held and used and held for sale – appraisal values based on sales of similar assets.
- Goodwill – management's estimate based on the present value of forecasted earnings for the reporting unit.

Note: Valuation techniques and inputs, as noted above, are also required.

Fair Value

General Electric

December 31, 2021 Annual Report

NOTE 19. FAIR VALUE MEASUREMENTS Our assets and liabilities measured at fair value on a recurring basis include debt securities mainly supporting obligations to annuitants and policyholders in our run-off insurance operations, our equity interests in AerCap and Baker Hughes, and derivatives.

ASSETS AND LIABILITIES MEASURED AT FAIR VALUE ON A RECURRING BASIS

	Level 1		Level 2		Level 3(a)		Netting adjustment(d)		Net balance(b)	
December 31	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
Investment securities	$ 11,434	$ 7,319	$ 35,849	$ 36,684	$ 7,222	$ 5,866	$ —	$ —	$ 54,506	$ 49,869
Derivatives	—	—	1,357	3,061	17	8	(691)	(2,582)	684	487
Total assets	$ 11,434	$ 7,319	$ 37,207	$ 39,745	$ 7,239	$ 5,874	$ (691)	$ (2,582)	$ 55,189	$ 50,356
Derivatives	$ —	$ —	$ 891	$ 1,114	$ 1	$ 7	$ (681)	$ (752)	$ 212	$ 369
Other(c)	—	—	863	780	—	—	—	—	863	780
Total liabilities	$ —	$ —	$ 1,754	$ 1,894	$ 1	$ 7	$ (681)	$ (752)	$ 1,075	$ 1,149

(a) Included $4,228 million of U.S. corporate debt securities, $1,427 million of Mortgage and asset-backed debt securities, and the $993 million AerCap note at December 31, 2021. Included $4,185 million of U.S. corporate debt securities and $976 million of Mortgage and asset-backed debt securities at December 31, 2020.
(b) See Notes 3 and 20 for further information on the composition of our investment securities and derivative portfolios.
(c) Primarily represents the liabilities associated with certain of our deferred incentive compensation plans.
(d) The netting of derivative receivables and payables is permitted when a legally enforceable master netting agreement exists. Amounts include fair value adjustments related to our own and counterparty non-performance risk.

LEVEL 3 INSTRUMENTS. The majority of our Level 3 balances comprised debt securities classified as available-for-sale with changes in fair value recorded in Other comprehensive income.

	Balance at January 1	Net realized/ unrealized gains(losses)(a)	Purchases(b)	Sales & Settlements	Transfers into Level 3	Transfers out of Level 3	Balance at December 31
2021							
Investment securities	$ 5,866	$ (261)	$ 2,589	$ (943)	$ 6	$ (35)	$ 7,222
2020							
Investment securities	$ 5,210	$ 357	$ 1,301	$ (958)	$ 2	$ (45)	$ 5,866

(a) Primarily included net unrealized gains (losses) of $(288) million and $323 million in Other comprehensive income for the years ended December 31, 2021 and 2020, respectively.
(b) Included $1,084 million and $745 million of Mortgage and asset-backed debt securities for the years ended December 31, 2021 and 2020, respectively, and the $1,000 million AerCap senior note received as partial consideration on the completion of the GECAS transaction.

These Level 3 securities are primarily fair valued using non-binding broker quotes or other third-party sources that utilize a number of different unobservable inputs not subject to meaningful aggregation.

NOTE 20. FINANCIAL INSTRUMENTS. The following table provides information about assets and liabilities not carried at fair value and excludes finance leases, equity securities without readily determinable fair value and non-financial assets and liabilities. Substantially all of these assets are considered to be Level 3 and the vast majority of our liabilities' fair value are considered Level 2.

		December 31, 2021		December 31, 2020	
		Carrying amount (net)	Estimated fair value	Carrying amount (net)	Estimated fair value
Assets	Loans and other receivables	$ 2,706	$ 2,853	$ 2,904	$ 3,125
Liabilities	Borrowings (Note 10)	$ 35,186	$ 41,207	$ 74,902	$ 86,001
	Investment contracts (Note 11)	1,909	2,282	2,049	2,547

Assets and liabilities that are reflected in the accompanying financial statements at fair value are not included in the above disclosures; such items include cash and equivalents, investment securities and derivative financial instruments.

DERIVATIVES AND HEDGING. Our policy requires that derivatives are used solely for managing risks and not for speculative purposes. We use derivatives to manage currency risks related to foreign exchange, and interest rate and currency risk between financial assets and liabilities, and certain equity investments and commodity prices.

We use cash flow hedges primarily to reduce or eliminate the effects of foreign exchange rate changes, net investment hedges to hedge investments in foreign operations as well as fair value hedges to hedge the effects of interest rate and currency changes on debt it has issued. We also use derivatives not designated as hedges from an accounting standpoint (and therefore we do not apply hedge accounting to the relationship) but otherwise serve the same economic purpose as other hedging arrangements. We use economic hedges when we have exposures to currency exchange risk for which we are unable to meet the requirements for hedge accounting or when changes in the carrying amount of the hedged item are already recorded in earnings in the same period as the derivative making hedge accounting unnecessary. Even though the derivative is an effective economic hedge, there may be a net effect on earnings in each period due to differences in the timing of earnings recognition between the derivative and the hedged item.

FAIR VALUE OF DERIVATIVES	December 31, 2021			December 31, 2020		
	Gross Notional	All other assets	All other liabilities	Gross Notional	All other assets	All other liabilities
Interest rate contracts	$ 2,071	$ 75	$ 4	$ 20,500	$ 1,912	$ 7
Currency exchange contracts	7,214	114	122	7,387	164	125
Derivatives accounted for as hedges	$ 9,285	$ 188	$ 126	$ 27,886	$ 2,076	$ 132
Interest rate contracts	$ 1,369	$ 5	$ 1	$ 346	$ 8	$ (1)
Currency exchange contracts	64,097	794	756	65,379	767	918
Other contracts	1,674	387	10	2,036	218	71
Derivatives not accounted for as hedges	$ 67,140	$ 1,186	$ 767	$ 67,761	$ 993	$ 989
Gross derivatives	$ 76,425	$ 1,374	$ 893	$ 95,647	$ 3,069	$ 1,121
Netting and credit adjustments		$ (637)	$ (639)		$ (647)	$ (647)
Cash collateral adjustments		(54)	(42)		(1,935)	(104)
Net derivatives recognized in statement of financial position		$ 684	$ 212		$ 487	$ 369
Net accrued interest		$ 10	$ 5		$ —	$ —
Securities held as collateral		(2)	—		(2)	—
Net amount		$ 691	$ 217		$ 484	$ 369

In conjunction with the completion of the debt tender in the fourth quarter of 2021, we terminated a significant portion of interest rate contracts that were in fair value hedge relationships with our borrowings.

It is standard market practice to post or receive cash collateral with our derivative counterparties in order to minimize counterparty exposure. Included in cash, cash equivalents and restricted cash was total net cash collateral received on derivatives of $66 million (comprising $176 million received and $110 million posted) at December 31, 2021 and $3,289 million (comprising $4,203 million received and $914 million posted) at December 31, 2020. Of these amounts, $84 million and $1,968 million at December 31, 2021 and December 31, 2020, respectively, were received on interest rate derivatives traded through clearing houses, which are recorded as a reduction of derivative assets.

Also included in total net cash collateral received are amounts presented as cash collateral adjustments in the table above, amounts related to accrued interest on interest rate derivatives presented as a reduction of Net accrued interest of $11 million and $292 million at December 31, 2021 and December 31, 2020, respectively, and excess net cash collateral posted of $41 million (comprising $27 million received and $68 million posted) at December 31, 2021, and $802 million (comprising $3 million received and $805 million posted) at December 31, 2020, which are excluded from cash collateral adjustments in the table above.

FAIR VALUE HEDGES. We use derivatives to hedge the effects of interest rate and currency exchange rate changes on our borrowings. At December 31, 2021, the cumulative amount of hedging adjustments of $2,072 million (including $2,073 million on discontinued hedging relationships) was included in the carrying amount of the hedged liability of $16,819 million. At December 31, 2020, the cumulative amount of hedging adjustments of $5,687 million (including $2,248 million on discontinued hedging relationships) was included in the carrying amount of the hedged liability of $29,374 million. The cumulative amount of hedging adjustments was primarily recorded in long-term borrowings.

CASH FLOW HEDGES AND NET INVESTMENT HEDGES.

	Gain (loss) recognized in AOCI		
	2021	2020	2019
Cash flow hedges(a)	$ (86)	$ (61)	$ 25
Net investment hedges(b)	487	(675)	120

(a) Primarily related to currency exchange and interest rate contracts.
(b) The carrying value of foreign currency debt designated as net investment hedges was $4,061 million and $8,348 million at December 31, 2021 and 2020, respectively. The total reclassified from AOCI into earnings was $(87) million, zero, and $7 million for the years ended December 31, 2021, 2020 and 2019, respectively.

Changes in the fair value of cash flow hedges are recorded in AOCI and recorded in earnings in the period in which the hedged transaction occurs. The total amount in AOCI related to cash flow hedges of forecasted transactions was a $14 million loss at December 31, 2021. We expect to reclassify $17 million of gain to earnings in the next 12 months contemporaneously with the earnings effects of the related forecasted transactions. The total reclassified from AOCI into earnings was $(79) million, $(7) million, and $(60) million for the years ended December 31, 2021, 2020 and 2019, respectively. At December 31, 2021, the maximum term of derivative instruments that hedge forecasted transactions was approximately 13 years.

The table below presents the gains (losses) of our derivative financial instruments in the Statement of Earnings (Loss):

	2021					2020				
	Revenues	Debt Extinguishment Costs	Interest Expense	SG&A	Other(a)	Revenues	Debt Extinguishment Costs	Interest Expense	SG&A	Other(a)
	$ 74,196	$ 6,524	$ 1,876	$11,707	$56,719	$ 75,833	$ 301	$ 2,068	$12,592	$69,267
Effect of cash flow hedges	$ 27	$ —	$ (40)	$ 1	$ (67)	$ 15	$ —	$ (40)	$ 1	$ 17
Hedged items		$ 70	$ 1,413				$ —	$(1,775)		
Derivatives designated as hedging instruments		(66)	(1,549)				—	1,743		
Effect of fair value hedges		$ 3	$ (135)				$ —	$ (31)		
Interest rate contracts(a)	$ 1	$ 52	$ (3)	$ —	$ (1)	$ (1)	$ —	$ (11)	$ —	$ (18)
Currency exchange contracts	(6)	(16)	(18)	(127)	44	—	—	—	129	(293)
Other	—	—	—	183	193	—	—	—	86	(46)
Effect of derivatives not designated as hedges	$ (5)	$ 35	$ (22)	$ 56	$ 235	$ (1)	$ —	$ (11)	$ 215	$ (357)

(a) Amounts are inclusive of cost of sales and other income.

COUNTERPARTY CREDIT RISK. Our exposures to counterparties (including accrued interest), net of collateral we held, was $564 million and $392 million at December 31, 2021 and December 31, 2020, respectively. Counterparties' exposures to our derivative liability (including accrued interest), net of collateral posted by us, was $159 million and $307 million at December 31, 2021 and December 31, 2020, respectively.

NOTES

UNIT 2

Fair Value (Topic 820) and Business Combinations (Topic 805)

LEARNING OBJECTIVES

At the conclusion of this unit, participants will be able to:

- Recognize, measure, present, and disclose fair value accounting for business combinations.
- Determine business combination fair value.
- Apply GAAP fair value guidance in Topic 805 – *Business Combinations*.

TOPIC 805 – BUSINESS COMBINATIONS

Introduction

This unit addresses applying Topic 820, *Fair Value Measurement*, guidance to accounting practice issues in Topic 805, *Business Combinations*.

A business combination is a transaction or other event in which an acquirer obtains control of one or more businesses. Transactions sometimes referred to as true mergers or mergers of equals also are business combinations. The objective of Topic 805, *Business Combinations,* is to improve the relevance, representational faithfulness, and comparability of the information that a reporting entity provides in its financial reports about a business combination and its effects.

Topic 805 requires that acquisitions (net assets) be recorded based on their **fair values**. Following this guidance, the acquirer in a business combination must identify and determine fair value for all identifiable assets acquired, liabilities assumed, and non-controlling interests, as well as consideration paid at the acquisition date.

In the simplest terms, an acquirer purchases a business for an agreed-upon price and pays with cash or other consideration, such as stock. The assets and liabilities acquired (net assets) are recorded at their fair values. Any non-controlling interests (ownership not acquired) is also recognized at its fair value. Goodwill results if the price paid is greater than the fair value of the net assets acquired. A gain results if a bargain purchase occurs if the price paid is less than the

fair value of the net assets acquired. Numerous potential **complicating factors** in accounting for business combinations exist, such as:

- Determining whether the acquirer has actually purchased a business or a group of assets.
- Recording fair values for assets or liabilities acquired that were not recognized on the acquiree's balance sheet prior to the transfer. This category includes certain internally generated intangibles, contingencies, favorable or unfavorable contracts, or a purchase price that is dependent on future events;
- Dealing with subsequent changes in fair values recorded, such as when amounts collected on receivables differs from the fair value recorded for them; and
- Accounting for a controlling financial interest acquired in stages.

DEFINITION OF A BUSINESS

Introduction

If a reporting entity purchases assets from another entity, the accounting treatment depends on whether the transaction qualifies as a business acquisition or merely a purchase of assets. An acquisition requires business combination accounting, including identifying and recognizing identifiable intangible assets and goodwill. For a purchase, the price paid is allocated proportionately to the assets purchased, based on their relative fair values.

A business is an integrated set of activities and assets that is capable of being conducted and managed for the purpose of providing a return in the form of dividends, lower costs, or other economic benefits directly to investors or other owners, members, or participants. To be considered a business, an integrated set must include, at a minimum, inputs and a substantive process that together significantly contribute to the ability to create output.

A business has three elements as follows:

1. Inputs – An **input** is any economic resource that creates, or has the ability to contribute to the creation of, outputs when one or more processes are applied to it. Examples include long-lived assets (including intangible assets or rights to use long-lived assets), intellectual property, the ability to obtain access to necessary materials or rights, and employees.
2. Processes – A **process** is any system, standard, protocol, convention, or rule that when applied to an input or inputs, creates or has the ability to contribute to the creation of outputs. Examples include strategic management processes, operational processes, and resource management processes. Processes may be documented or result from the intellectual capacity of a skilled workforce. Administrative functions like accounting, billing, or payroll are not processes.
3. Outputs – An **output** is the result of inputs and processes applied to those inputs that provide goods or services to customers, investment income (such as dividends or interest), or other revenues.

The inputs comprise the resources (assets, employees, etc.) that go into processes that create the outputs that are sold. An integrated group of assets and processes that make up a business are referred to as a "set" in Topic 805.

Topic 805 provides a **framework** to help determine whether the required inputs and processes are present, as well as numerous illustrative examples. Although outputs are not required for a set to be a business, outputs are generally a key element of a business. The framework is broken down into two approaches; one applies to cases where there are outputs and the other

when there are no outputs. The criteria for a business are more stringent when there are no outputs.

1. If a set **does** have outputs that result in revenues before and after the transaction, it will qualify as a business if any of the following are present:
   – An organized workforce with necessary skills, knowledge, or experience to convert inputs and processes to outputs.
   – An acquired contract that provides access to such a workforce.
   – An acquired process (or group of processes) that contributes to the ability to create outputs from inputs and processes and either (a) could not be replaced without significant cost, effort or delay, or (b) is considered unique or scarce.
   – The continuation of revenues does not on its own ensure that both an input and substantive process have been acquired. As a result, acquired contractual arrangements, such as customer contracts, customer lists, or leases should be excluded in evaluating the processes that have been acquired.
2. If a set does **not** have outputs, such as a start-up company with no revenues, it is considered to meet the definition of a business **only if** it includes (a) employees that form an organized workforce and (b) inputs that the workforce could develop or convert to outputs. The analysis must include consideration of whether such workforce has the necessary skills and is actually performing a substantive process.

Topic 805 also:

- Explains that the acquisition of liabilities along with assets may occur for either acquisitions of assets or a business
- Points out that the presence of goodwill may suggest that an acquired process is substantive, and the acquired set is a business. However, a business need not have goodwill. (In other words, the absence of goodwill does not automatically mean the acquired set is not a business.)

EXAMPLE

Rhino Inc. purchases a manufacturing facility idled by Panther Co., a producer of complex robotic manufacturing equipment. Rhino also intends to acquire the idled employees from the facility.

The purchase includes the building and equipment but no intellectual property, inventories, customer contracts or lists, or other inputs.

Since the equipment is easily separable from the real estate and has alternate uses, the single asset "screen" does not apply, and Rhino must perform further analysis to determine whether the purchase involves a business.

The facility was idle when acquired, so there are currently no outputs. Therefore, Rhino must determine if there is (a) an organized skilled workforce and (b) the inputs necessary for them to produce outputs. Because Rhino did not acquire the intellectual property to produce the equipment previously produced by Panther, the acquired set meets criterion (a) but not (b). In other words, the acquired equipment cannot be used to produce complex robotic equipment absent the intellectual property that was not acquired.

Therefore, the set is not a business. The transaction will be accounted for as an asset purchase. (In essence, Rhino purchased a manufacturing facility that will be used for a different purpose than before.)

(Adapted from implementation guidance example in Topic 805).

ACQUISITION METHOD

A reporting entity must determine whether a transaction or other event is a business combination by determining if the assets acquired and liabilities assumed constitute a business. If the assets acquired are not a business, the reporting entity will account for the transaction or other event as an asset acquisition.

A business combination can be structured many different ways. According to Topic 805, **examples of business combinations can occur in the following ways**:

- One or more businesses become subsidiaries of an acquirer, or the net assets of one or more businesses are legally merged into the acquirer.
- One combining entity transfers its net assets, or its owners transfer their equity interests to another combining entity or its owners.
- All of the combining entities transfer their net assets, or the owners of those entities transfer their equity interests to a newly formed entity.
- A group of former owners of one of the combining entities obtains control of the combined entity.

As of the acquisition date, the acquirer should recognize, separately from goodwill, the identifiable assets acquired, the liabilities assumed, and any non-controlling interest in the acquiree. Identifiable assets are defined as either:

- Separable, that is capable of being separated or divided from the entity and sold, transferred, licensed, rented, or exchanged, either individually or together with a related contract, identifiable asset or liability, regardless of whether the entity intends to do so

OR

- Arising from contractual or other legal rights, regardless of whether those rights are transferable from the entity or from other rights or obligations

At the acquisition date, the acquirer will classify or designate the identifiable assets acquired and liabilities assumed as necessary to subsequently apply other GAAP. The acquirer should make those classifications or designations on the basis of contractual terms, economic conditions, its operating or accounting policies, and other pertinent conditions as they exist at the acquisition date.

Entities are required to account for each business combination by applying the **acquisition method**.

The acquisition method requires all of the following steps as required by Topic 805:

1. **Identify the acquirer** – the entity that obtains control either through voting rights or as a primary beneficiary. In a business combination effected primarily by transferring cash or other assets or by incurring liabilities, the acquirer usually is the entity that transfers the cash or other assets or incurs the liabilities. When equity interests are exchanged, the following facts and circumstances should be considered:
   - The relative voting rights in the combined entity after the business combination. The acquirer usually is the combining entity whose owners as a group retain or receive the largest portion of the voting rights in the combined entity. In determining which group of owners retains or receives the largest portion of the voting rights, an entity should consider the existence of any unusual or special voting arrangements and options, warrants, or convertible securities.
   - The existence of a large minority voting interest in the combined entity if no other owner or organized group of owners has a significant voting interest. The acquirer

usually is the combining entity whose single owner or organized group of owners holds the largest minority voting interest in the combined entity.

- The composition of the governing body of the combined entity. The acquirer usually is the combining entity whose owners have the ability to elect or appoint or to remove a majority of the members of the governing body of the combined entity.
- The composition of the senior management of the combined entity. The acquirer usually is the combining entity whose former management dominates the management of the combined entity.
- The terms of the exchange of equity interests. The acquirer usually is the combining entity that pays a premium over the pre-combination fair value of the equity interests of the other combining entity or entities.

2. **Determine the acquisition date** – the date on which the acquirer obtains control of the acquiree. This is typically the "closing" date, when title passes.

   It is possible for the acquirer to obtain control on a date that is either earlier or later than the closing date. For example, the acquisition date precedes the closing date if a written agreement provides that the acquirer obtains control of the acquiree on a date before the closing date. An acquirer should consider all pertinent facts and circumstances in identifying the acquisition date.

   Dates of convenience may not be used.

3. **Determine the acquisition price** – this will consist of the fair value of the consideration given and any contingent consideration that is to be recognized.
4. **Recognize and measure at fair value the identifiable assets acquired, the liabilities assumed, and any non-controlling interest as of the acquisition date.** This recognition is separate from goodwill.

   This typically results in identifying, recognizing, and measuring some intangible assets, which the acquiree did not recognize in its financial statements because these intangible assets were internally generated. Examples are brand names or customer relationships.

5. **Recognize and measure goodwill or a gain from a bargain purchase**. Goodwill is an asset representing the future economic benefits arising from other assets acquired that are not separately identified and recognized. The amount of goodwill is calculated as the fair value of the consideration paid less the fair value of the net assets acquired excluding goodwill.

Key terms defined in Topic 805 include

- **Acquirer.** The entity that obtains control of one or more businesses in a business combination.
- **Acquiree.** A business that an acquirer obtains control of in a business combination.
- **Acquisition date.** The date that the acquirer achieves control.
- **Acquisition price.** The acquisition price consists of the following:

  1. **The Consideration Given** – This would include:

     - Assets transferred to the previous owners at fair value at the acquisition date, including cash.
       – Assets transferred to owners with fair values different than their carrying amounts to the acquirer would give rise to a gain or loss; for example, non-monetary assets.

    - Assets or liabilities transferred to the acquiree, rather than the previous owners, would be valued at the acquirer's carrying value, and no gain or loss would be calculated since the asset or liability would still remain within the controlled group.

  - Amounts owed to previous owners at fair value such as a note payable.

  - Equity securities issued by the acquirer to previous owners. This would include any portion of share-based compensation deemed to be consideration.

2. **Any Contingent Consideration that is to Be Recognized** – Contingent consideration would include the obligation to transfer additional assets or equity interests if specified future events or conditions occur, such as achieving a specified sales target or share price. If booked, it is valued at fair value at the acquisition date.

   The classification of whether the contingent consideration paid is equity or a liability should be based on the criteria of Topic 480, *Distinguishing Liabilities from Equity.* Topic 480 would require classification as equity if essentially the consideration represents a put option written by the acquirer on the market price of its stock.

   Contingent consideration that could be returned to the acquirer would be classified as an asset.

   The value of contingent consideration may change subsequent to the acquisition for one of two reasons:

   1. The acquirer obtains additional information about facts and circumstances that existed at the acquisition date. These changes are considered "Measurement Period Adjustments" and would therefore adjust goodwill.

   2. Events occurring after the acquisition cause a change. These would include achieving sales levels, share price, or other measurable events and are not measurement period adjustments. These changes in value should be accounted for as follows:
      - If the contingent consideration was classified as equity, it would not be remeasured and any settlement would go through equity. For example, if a million additional shares were to be issued if a certain earnings level were achieved and the shares were valued at $1 each on the acquisition date but were worth $1.25 at the date they were issued, there would be no adjustment to the acquisition date value.
      - If the contingent consideration was classified as an asset or liability, it would continue to be remeasured at each reporting date until it is resolved. The changes in value would be recognized each period in earnings (comprehensive income, if it was a hedging transaction) until the amount is settled.

- **Acquisition-Related Costs.** Acquisition-related costs are costs the acquirer incurs to effect a business combination. In other words, they are costs that are incurred that would not have been incurred had a business combination not happened. Those costs include finder's fees; advisory, legal, accounting, valuation, and other professional or consulting fees; general administrative costs, including the costs of maintaining an internal acquisitions department; and costs of registering and issuing debt and equity securities. The acquirer should account for acquisition-related costs as expenses in the periods in which the costs are incurred and the services are received, with one exception. The costs to issue debt or equity securities should be recognized in accordance with other applicable GAAP.

When following the acquisition method, **certain transactions** related to the acquirer and acquiree must be evaluated to determine if they represent part of the acquisition or whether they should be accounted for as a separate transaction. For example:

- **Costs to be incurred subsequent to the acquisition**. These costs such as relocation, severance, etc., are not considered acquisition liabilities and should be recorded subsequent to the acquisition date, based on other GAAP.
- **Assets transferred or liabilities assumed as a result of a previous relationship between the parties**. For example, an intercompany note between the acquirer and the acquiree would not be revalued at fair value.
- **Assets and liabilities that were not previously recorded by the acquiree**. For example, an acquiree may have incurred internally generated costs to develop an intangible asset, such as a customer list, which could not have been capitalized on by the acquiree. However, such intangible assets would be recorded at fair value by the acquirer.
- **Transactions that settle conditions existing before the acquisition**. Gain or loss would be measured and recognized by the acquirer as follows:
  - Transactions not involving a contract such as the settlement of a claim or lawsuit would be valued at fair value.
  - Transactions involving contracts would be valued at the lesser of:
    - The contractual settlement amounts available to the party to whom the contract is unfavorable

      or
    - The amount by which the contract is favorable or unfavorable to the acquirer.

If the amount in 1) is less than the amount in 2), the difference is measured as part of the acquisition price.

EXAMPLE

1. ABC Inc. acquires XYZ Inc. for $5,000,000.
2. ABC currently purchases raw material products from XYZ under a 5-year contract.
3. The contract is currently unfavorable to ABC because the raw material product could be purchased for less in the open market.
4. The contract has a $1,230,000 prepayment penalty clause.
5. The supply contract has a current value of $800,000, consisting of the market value of the contract of $200,000 and an unfavorable component of $600,000.

ABC would recognize a loss of $600,000, which is the lesser of the prepayment penalty ($1,230,000) and the unfavorable component ($600,000). The market rate component of the contract value ($200,000) would wind up being included in goodwill.

EXAMPLE

Assume the same facts as above, except that under existing GAAP, XYZ had previously recognized a liability of $1,230,000 for the prepayment penalty. As a result, XYZ has a liability on its books for $1,230,000.

XYZ would recognize a settlement gain on the transaction of $630,000 at acquisition, which represents a settlement of the liability for $600,000, the unfavorable component.

- **Transactions that pay employees, including former owners, for services they will perform subsequent to the acquisition.** Often these payments are really a disguised portion of the acquisition price and, in the author's opinion, are often entered into for tax consideration reasons. In determining whether these payments are bona fide compensation or an adjustment to the acquisition price, the following should be considered:
  - Would the individual continue to receive payments if he/she was terminated? If the answer is yes, this would indicate that they are part of the acquisition price, not compensation.
  - If employment is required for as long as or longer than the contingent payment period, this may indicate that it is compensation.
  - If the salary to be paid is commensurate with other key employees, then contingent payments are more likely part of the acquisition price.
  - If contingent payments to selling shareholders who continue to be employed are greater than to those who do not, the payments are likely to be compensation, as opposed to part of the acquisition price.
  - If contingent payments are linked to future value or operating results, they are more likely part of the acquisition price.
  - If other contracts entered into with the selling shareholder(s) are below market, then the contingent payments are likely payment, at least in part, for the unfavorable nature of the contract and not part of the acquisition price.
- **Transactions that reimburse the acquiree or its former owners for acquisition related expenses of the acquirer**. Since the benefit would principally benefit the acquirer, such amounts would be treated as an expense of the acquisition and therefore should be expensed.
- **Uncertain tax positions should be provided in accordance with Topic 740, *Income Taxes*.** However, changes occurring within the measurement period relating to new information about facts and circumstances existing at the acquisition date should adjust goodwill. If goodwill is reduced to "0" as a result, any excess would be treated as a bargain purchase.

In Topic 805, an acquirer must be identified for each business combination. On the acquisition date, the acquirer must record **100% of the identifiable assets controlled and liabilities assumed**, along with any **non-controlling interests** in the acquiree. Furthermore:

- The identifiable assets controlled, liabilities assumed, non-controlling interests, and consideration must be measured at fair value in accordance with Topic 820, *Fair Value Measurements*.
- The acquirer may be required to recognize **goodwill** as an additional intangible asset or a **bargain-purchase gain** included in net income when the acquisition price differs from the fair value of net assets acquired.

EXAMPLE

Company X acquires 80% of the identifiable assets and liabilities of a business. Other parties retain a 20% interest in the acquired business. Company X's acquisition-date journal entry would be:

100% of Identifiable Assets Controlled	$XXXX	
Goodwill for 100% of the Acquiree	XXXX	
100% of the Acquiree's Liabilities		$XXXX

Consideration	XXXX	
Non-controlling Interests, at Fair Value		XXXX

The above example illustrates a business combination where the acquirer achieved a controlling financial interest when consideration was transferred on the acquisition date. A controlling financial interest can also be achieved in the following situations:

- **A business combination achieved in stages** – An acquirer obtains a controlling financial interest through two or more transactions over time. When the acquirer does obtain a controlling financial interest, the acquirer is required to remeasure its previously held equity interest in the acquiree at its acquisition date fair value and recognizes the resulting gain or loss, if any, in earnings.
- **A business combination achieved without the transfer of consideration** – This can occur when an acquiree repurchases some of its own shares, thus enabling an existing investor to obtain control or minority veto rights that existed to lapse, enabling the acquirer to obtain control of the acquire.

Measurement Period

Often, financial statements are required to be prepared subsequent to an acquisition but before all of the information is available to determine the fair value of assets or liabilities. Topic 805 contains guidance on adjustment of acquisition date fair values based on subsequent information obtained about facts or circumstances that existed on the acquisition date. This period is called the **measurement period** and extends until complete information can be obtained – but no longer than 1 year.

In determining whether a measurement period adjustment is required, the acquirer should consider:

- How soon after the acquisition date is the information obtained? For example, if an asset is sold or a liability is settled shortly after the acquisition date, and no subsequent event can be identified as causing the change, it is most likely an adjustment to the acquisition date fair value estimate.
- Can the reason for the change be identified as being uncertain at the acquisition date?

When adjustments to the values assigned occur during the measurement period, the acquirer should adjust the acquisition date values with a corresponding adjustment to goodwill.

The carrying value of provisional amounts recognized in business combinations are **adjusted in the reporting period during which the adjustments are determined.** These measurement-period adjustments to asset and liability values not only affect the amount of goodwill, but also earnings—which will reflect "catch-up" adjustments to depreciation, amortization, and other income accounts. The result is that all accounts are stated at amounts that would be on the books had the final values been known and recorded at the acquisition date, without having to retrospectively adjust any previously issued statements.

In the period such adjustments occur, disclosure is required of the "catch-up" amounts in each line item of the income statement.

Measurement Principle

The acquirer should measure the identifiable assets acquired, the liabilities assumed, and any non-controlling interest in the acquiree at their acquisition-date fair values.

There are certain limited exceptions to the recognition and measurement principles listed previously for certain topics where, due to the nature of the topic, the FASB Codification has specific guidance to address the unique nature of each. These topics include:

- Income taxes
- Employee benefits
- Indemnification assets
- Reacquired rights
- Assets held for sale
- Certain assets and liabilities arising from contingencies
- Leases
- Purchased financial assets with credit deterioration
- Share-based payment awards
- Contract assets and contract liabilities

Each of these topics is addressed:

- **Income taxes** – An acquirer should measure a deferred tax asset or deferred tax liability arising from the assets acquired and liabilities assumed in a business combination. Discounting deferred tax assets or liabilities is prohibited for temporary differences (except for leveraged leases) related to business combinations as it is for other temporary differences.

  The tax law, in some tax jurisdictions, may permit the future use of either combining entities' deductible temporary differences or carryforward to reduce taxable income or taxes payable attributable to the other entity after the business combination. If the combined entity expects to file a consolidated tax return, an acquirer may determine that as a result of the business combination its valuation for its deferred tax assets should be changed. For example, the acquirer may be able to utilize the benefit of its tax operating loss carryforward against the future taxable profit of the acquiree. In such cases, the acquirer reduces its valuation allowance based on the weight of available evidence. However, that reduction does not enter into the accounting for the business combination but is recognized as an income tax benefit.
- **Employee benefits** – Guidance on defined benefit pension plans requires an acquirer to recognize as part of a business combination an asset or a liability representing the funded status of a single-employer defined benefit pension or postretirement plan. In determining that funded status, the acquirer should exclude the effects of expected plan amendments, terminations, or curtailments that at the acquisition date it has no obligation to make. The projected benefit obligation assumed shall reflect any other necessary changes in assumptions based on the acquirer's assessment of relevant future events.
- **Indemnification assets** – Topic 805 requires that the acquirer recognize an indemnification asset at the same time that it recognizes the indemnified item, measured on the same basis as the indemnified item, subject to the need for a valuation allowance for uncollectible amounts.
- **Reacquired rights** – If the acquirer reacquires rights previously granted to the acquiree, those rights should be valued at fair value, recorded as an intangible asset and a gain or loss recorded.

EXAMPLE

Morgan LLC purchases component parts from Macklain LLC under a 5-year supply contract.

Currently the rates under the contract are higher than Morgan could pay elsewhere.

The contract allows Morgan to terminate the contract at any time before it expires for a payment of $300,000.

There are 3 years remaining on the contract.

Morgan acquires Macklain for $2,500,000.

The fair value of the contract based on market participants' willingness to acquire the contract is $400,000.

Of the $400,000, it is determined that based on market, $150,000 represents the fair value based on current market pricing and $250,000 is the fair value of the unfavorable component.

Morgan would recognize a $250,000 current loss (the lesser of the penalty amount or the fair value of the unfavorable component of the contract). The $150,000 would be included in goodwill.

- **Assets held for sale** – The acquirer should measure an acquired long-lived asset (or disposal group) that is classified as held for sale at the acquisition date at fair value less cost to sell.
- **Certain assets and liabilities arising from contingencies** – Initial measurement of contingent assets and liabilities should be at an amount that can be reasonably estimated by using the probable, possible, and remote guidance in Topic 450, Contingencies.
- **Leases** – For leases in which the acquiree is a **lessee**, the acquirer should measure the lease liability at the present value of the remaining lease payments, as if the acquired lease were a new lease of the acquirer at the acquisition date. The acquirer should measure the right-of-use asset at the same amount as the lease liability as adjusted to reflect favorable or unfavorable terms of the lease when compared with market terms.
- For leases in which the acquiree is a **lessor** of a sales-type lease or a direct financing lease, the acquirer should measure its net investment in the lease as the sum of both of the following (which will equal the fair value of the underlying asset at the acquisition date):
  - The lease receivable at the present value, discounted using the rate implicit in the lease, of the following, as if the acquired lease were a new lease at the acquisition date:
    - The remaining lease payments
    - The amount the lessor expects to derive from the underlying asset following the end of the lease term, that is guaranteed by the lessee or any other third party unrelated to the lessor
  - The unguaranteed residual asset is the difference between the fair value of the underlying asset at the acquisition date and the carrying amount of the lease receivable, as determined in accordance with the above at that date

  The acquirer should consider the terms and conditions of the lease in calculating the acquisition-date fair value of an underlying asset that is subject to a sales-type lease or a direct financing lease by the acquiree-lessor.
- **Purchased financial assets with credit deterioration** – An acquirer should record the allowance for credit losses for purchased financial assets with credit deterioration.

An acquirer should add the allowance for credit losses at the date of acquisition to the purchase price to determine the initial amortized cost basis for purchased financial assets with credit deterioration. Any non-credit discount or premium resulting from acquiring a pool of purchased financial assets with credit deterioration should be allocated to each individual asset. At the acquisition date, the initial allowance for credit losses determined on a collective basis should be allocated to individual assets to appropriately allocate any non-credit discount or premium.

- **Share-based payment awards –** The acquirer should measure a liability or an equity instrument related to the replacement of an acquiree's share-based payment awards with share-based payment awards of the acquirer. Topic 805 refers to the result of that method as the fair-value-based measure of the award.

  Employees of the acquiree with share-based payment awards might have their shares replaced with those of the acquirer. If the acquirer is obligated to or voluntarily replaces the acquiree share-based payment awards with the acquirer's share-based payment award program, then this cost will be considered part of the acquisition price.

  This is one of the more complicated accounting areas when looking at business combinations. The possible situations are:

  1. Replacement awards that require no services to be performed by the acquiree's employees subsequent to the acquisition that replaces awards for which the requisite services have been performed as of the acquisition date
  2. Replacement awards that require no services to be performed by the acquiree's employees subsequent to the acquisition date that replace awards for which all the requisite services have not been performed prior to the acquisition date
  3. Replacement awards that require services to be performed by the acquiree's employees subsequent to the acquisition date that replaces awards for which all the requisite services have been performed prior to the acquisition date
  4. Replacement awards that require services to be performed by the acquiree's employees subsequent to the acquisition date that replace awards for which all of the requisite services have not been performed prior to the acquisition date

  To determine the portion of the transaction that both represents part of the acquisition price, the acquirer must first measure both the acquire and the acquirer share-based payment awards in accordance with Topic 718, *Compensation-Stock Compensation*. The portion of the value that relates to the acquiree's pre-combination service is recorded as part of the acquisition price.

  The total service period is equal to the requisite service period completed before the acquisition date plus the post-acquisition service period. If employee services are required after the acquisition to achieve the replacement awards, then the post-acquisition fair value should be added to the acquisition price. This would reduce goodwill recognized as part of the acquisition.

- **Contract assets and contract liabilities –** Acquirers are required to apply Topic 606, *Revenue from Contracts with Customers*, to measure contract assets and contract liabilities in a business combination.

RECOGNITION AND MEASUREMENT

Recognition and Measurement of Selected Assets and Liabilities Acquired at Fair Value

In a business combination, the acquirer must consider all identifiable assets acquired and liabilities assumed, regardless of whether they are or are not included in the acquiree's financial statements. The following examples illustrate the factors that should be considered in evaluating the fair value of selected acquired assets and liabilities.

- **Accounts receivable** – In GAAP financial statements, accounts receivable are carried at cost less an allowance for credit losses. If the receivables are short-term in nature, the carrying value is not discounted for the time value of money. However, the fair value of the receivables is the price that market participants would be willing to pay for them. Market participants would typically take the following factors into consideration:
  - The creditworthiness of the debtors
  - Desired profit for entering into the transaction

  If there is a market for identical or similar receivables, then determining fair value using Level 1 or Level 2 inputs would be appropriate. If no market exists, then discounting the contractual amounts of the receivables for credit risk and profit margin using Level 3 inputs fair value would be appropriate.
- **Finished goods or merchandise inventory** – Fair value would be determined by using either a retail price to customers in a retail market, or a wholesale price to retailers in a wholesale market. The price in the wholesale market would then be adjusted upwards or downwards for the condition of the merchandise, location, and the required efforts for the wholesaler to complete the sale to a retail customer. Theoretically, the two values should be the same. No accumulated depreciation is recognized on the acquisition date.
- **Raw materials or work in-process inventory** – Fair value would be determined by using either replacement cost or the retail selling price adjusted for the costs of completing and delivering the merchandise to the retail buyer. The latter would require both Level 2 and Level 3 fair value inputs. The former would require Level 2 inputs. If a manufacturer were to sell in-process goods to other manufactures as raw materials or finished goods, which sell to end users, the acquirer would have to look to the principal or most advantageous market available to them.
- **Machinery and equipment** – The fair value should incorporate highest and best use in a similar business environment. The following approaches could be used to determine fair value:
  - **Market approach** – This would be based on appraisals, including delivery and installation, when an active market for used machinery and equipment exists.
  - **Income approach** – This could be used if the asset(s) could be used on a standalone basis or information could be obtained regarding lease terms of comparable equipment. The value would be based on estimated cash flows generated from the asset(s).
  - **Cost approach** – This would be the delivered and installed cost of a new machine adjusted for "wear and tear."

  The acquirer would have to determine which of the three approaches – and which specific value under that approach – is most representative of the assets' fair value. Future depreciation is based on the fair values applied and the remaining expected useful life of the asset.

- **Land** – Again, the fair value should assume that market participants would put the land to its highest and best use. For example, assume a company holds vacant land for the purpose of future expansion of its office space, but the site could be developed for residential housing. The company has no intention of selling or developing the land.

  Under this scenario, the fair value would be based on the higher value of the two uses: (a) the in-use value as expanded office space, or (b) the in-exchange value, assuming it would be sold for residential development. The valuation under either scenario may require fair value inputs from Levels 1, 2 or 3.

- **Identifiable Intangible Assets in General** – Under Topic 805, all identifiable intangibles should be separately recognized when either of the following applies:
  - They arise from contractual or other legal rights, regardless of whether such rights are transferable or separable from the entity or other rights or obligations.
  - They are separable, i.e., they can be separated from the entity and sold, licensed, transferred, rented, or exchanged – either on a standalone basis or with related contracts, assets, or liabilities – regardless of any intent to do so.

  These rules are designed to ensure intangibles that should be separately valued and recorded are not "lumped in" with goodwill.

  Examples of identifiable intangible assets include:
  - Trademarks and trade names
  - Newspaper mastheads
  - Internet domain names
  - Non-compete agreements
  - Customer lists
  - Customer contracts and related customer relationships
  - Order or production backlog
  - Franchise agreements
  - Employment contracts
  - Patented technology
  - Trade secrets

  NOTE: an identifiable intangible asset may be associated with a lease, which may be evidenced by market participant's willingness to pay a price for the lease even if it is at market terms.

- **Software** – Typically, generic operating software is licensed to a particular user. If the license can be transferred to a market participant or the reporting entity would continue to use it, then it would be valued at its current fair value. However, if the license cannot be transferred and the software would no longer be used by the reporting entity, it would have no value.

- **In-process research and development** – Intangibles that are in-process research and developments are recognized by the acquirer as assets and initially measured at fair value. Note that the cost of acquiring such assets would be capitalized rather than expensed.

  With regard to the fair value of in-process research and development, consider the following example. As part of a business acquisition, a drug company acquires inprocess research and development of a new drug that would directly compete with one of the company's existing drugs. The company has no intention of developing the acquired drug

further. For purposes of determining the fair value upon acquisition, the drug company should consider the following possibilities:

- A competitor (market participant) might want to purchase the in-process research and development in order to continue the research and development of the new drug with the intention of competing against other drug companies' products. This would be an in-use value.
- A competitor (market participant) might want to purchase the in-process research and development in order to prevent the new drug from being used to compete against their own drugs. This would also be an in-use value.
- Market participants might not be willing to purchase the in-process research and development if they could not effectively compete against other companies' existing drugs. In this instance, the in-use value to the acquirer is most likely "0" because they already have an existing product and have no intention of using the process. The inexchange value is also likely "0" because market participants would not purchase it.

- **Liabilities** – A liability is valued based on what market participants would have to be paid in order to assume the liability. This value is typically determined by discounting the contractual cash stream associated with the liability. It may also include a profit margin for the assuming party.

  Additionally, the discount rate would take into consideration the credit risk of the debtor. For example, if the reporting entity has an AAA credit rating, the discount rate would be less than one with a BBB rating. Thus, if the credit rating of the acquirer differs from that of the acquiree, the fair value of the assumed debt could differ from its previous carrying value.

  In the absence of a quoted price for the identical liability in an active market, the reporting entity may measure the fair value of the liability at the amount that it would receive as proceeds if it were to issue that liability at the measurement date.

Topic 326, *Credit Losses,* partially addresses assets with uncertain cash flows acquired in a business combination. It states that:

> *The acquirer shall not recognize a separate valuation allowance as of the acquisition date for assets acquired in a business combination that are measured at their acquisition-date fair values because the effects of uncertainty about future cash flows are included in the fair value measure, unless the assets acquired are financial assets.*
>
> *For* ***acquired financial assets*** *that are not purchased financial assets with credit deterioration, the acquirer shall record the purchased financial assets at the acquisition-date fair value. Additionally, for these financial assets within the scope of Topic 326, an allowance shall be recorded with a corresponding charge to credit loss expense as of the reporting date.*
>
> *For assets accounted for as purchased financial assets with credit deterioration, an acquirer shall recognize an allowance in accordance with Topic 326 with a corresponding increase to the amortized cost basis of the financial asset(s) as of the acquisition date.*

Acquired assets within the scope of Topic 326 include:

- Receivables
- Contract assets (Topic 606)
- Loans not held for sale
- Debt securities
- Net investments in leases (Topic 842)

Unique Recognition and Measurement Issues in a Business Combination

- **Assembled workforce** – When a company acquires a new business, one of the benefits is that they receive the existing workforce. This is clearly a benefit because if the acquirer started from scratch, there would clearly be costs incurred such as recruiting, training, supervision, etc. However, the value of an assembled workforce is not reported separately as a separate intangible asset, but instead, it is included in goodwill.
- **Asset with a restriction on sale** – Assuming the restriction would pass to the entity buying the asset, the asset would first be valued based on its value without the restriction. Then the restriction would be valued as the discount that market participants would apply based on the duration and other provisions of the restriction.
- **Asset with a restriction on use** – The valuation would depend on whether the use restriction would pass to a market participant upon transfer.
    - If the use restriction would pass to the acquirer (for example, a land parcel with a right-of-way restriction), then the valuation would have to take into consideration the discount that market participants would take due to the restriction.
    - If the use restriction would not pass to the acquirer (for example, an asset donated to a not-for-profit entity that can be used for only one program while it is held by the entity but that can be freely sold to another entity), then the asset would be valued without consideration of the restriction.
- **Contingent assets and liabilities** – The recognition guidance in Topic 805 applies to assets and liabilities meeting the following two conditions:

1. Assets acquired and liabilities assumed that would be within the scope of Topic 405, *Contingencies*, if not acquired or assumed in a business combination, and
2. Assets or liabilities arising from contingencies that are not otherwise subject to specific guidance elsewhere.

If the acquisition date fair value of the asset or liability arising from a contingency can be determined during the measurement period, that asset or liability should be recognized at the acquisition date. If the acquisition date, fair value of the asset, or liability arising from a contingency cannot be determined during the measurement period, an asset or a liability should be recognized at the acquisition date if both of the following criteria are met:

- Information is available before the end of the measurement period that indicates that it is **probable** that an asset existed or that a liability had been incurred at the acquisition date, and
- The amount of the asset or liability can be reasonably estimated.

Certain exceptions to the contingency guidance in Topic 805 exist in the areas of income taxes, employee benefits, indemnification assets, reacquired rights, share-based payment awards, and assets held for sale. If the recognition criteria above are not met at the acquisition date, using information that is available during the measurement period, then Topic 450's guidance referencing probable, possible, or remote would apply.

- **Contingent consideration** – Contingent consideration includes the obligation to transfer additional assets or equity interests if specified future events or conditions occur such as achieving a specified sales target or share price. If booked, it is valued at fair value at the acquisition date.

In some situations, it may not be clear whether these payments are part of the acquisition price or a transaction separate from the business combination. Topic 805 includes the following **indicators** that should be considered when evaluating contingent consideration:

- Continuing employment – Arrangements in which the contingent payments are not affected by future employment may indicate that the contingent payments are part of the acquisition price.
- Duration of continuing employment – If the period of required employment coincides with or is longer than the contingent payment period, that fact may indicate that the contingent payments are compensation.
- Level of compensation – Situations in which employee compensation other than the contingent payments is at a reasonable level in comparison to that of other key employees in the combined entity may indicate that the contingent payments are part of the acquisition price and not compensation.
- Incremental payments to employees – If these payments are higher to some selling shareholders than others, this may indicate that the higher payments are compensation.
- Linkage to the valuation – If the initial consideration transferred at the acquisition date is based on the low end of a valuation range and the contingent formula for additional payments relate to that valuation approach, this fact may suggest that the contingent payments are part of the acquisition price.
- Formula for determining compensation – The formula may be based on a multiple of earnings (part of the acquisition price) or a percentage of earnings (compensation).

The classification of whether the contingent consideration paid is equity or a liability should be based on the criteria of Topic 480, *Distinguishing Liabilities from Equity*. An arrangement required to be paid in cash or other assets would be classified as a liability. If payment is to be settled in shares, it may be either a liability or equity depending on how the number of shares is determined.

Topic 480 would require classification as equity if essentially the consideration represents a put option written by the acquirer on the market price of its stock.

The value of contingent consideration may change subsequent to the acquisition for one of two reasons:

1. The acquirer obtains additional information about facts and circumstances that existed at the acquisition date. These changes are considered "Measurement Period Adjustments" and would therefore adjust goodwill.
2. Events occurring after the acquisition date cause a change. These would include achieving sales levels, share price or other measurable events and are not measurement period adjustments. These changes in value should be accounted for as follows:
   - If the contingent consideration was classified as equity, it would not be re-measured and any settlement would go through equity. For example, if a million additional shares were to be issued if a certain earnings level were achieved and the shares were valued at $1 each on the acquisition date but were worth $1.25 at the date they were issued, there would be no adjustment to the acquisition date value.
   - If the contingent consideration was classified as an asset or liability, it would be continued to be re-measured at each reporting date until it is resolved. The changes in value would be recognized each period in earnings (comprehensive income, if it was a hedging transaction) until the amount is settled.

Topic 230, *Statement of Cash flows,* provides guidance on the proper placement of certain cash flows within operating, investing, or financing activities on the statement of cash flows. One of the eight items addressed is contingent on consideration payments made after a business combination. Normally, settlement of liabilities is classified as cash outflows from financing activities. Often, the liabilities were acquired as a result of a business combination. When contingent consideration liabilities are recognized under a business combination at fair value, and settled for a different amount shortly after, a gain or loss is recognized. Under the ASU, settlement payments made soon after the acquisition are accounted for differently than payments made later:

- Payments made soon after the acquisition date are classified as investing activities (same as the original acquisition).
- Cash payments up to the amount of the contingent consideration liability recognized at the acquisition date, not made soon after the acquisition date, are classified as cash flows for financing activities; any excess over the amount accrued should be included as cash flows for operating activities.

- **Favorable or unfavorable operating leases** - The basic presumption is that, with rare exception, an acquirer would not pay a premium for a lease at market terms because it could lease other comparable space in the market for the same terms. However, if the acquiree had a lease at below market, the lease would have value and the acquirer would record an intangible asset. Likewise, if the lease had unfavorable terms, the acquirer would record a liability.

EXAMPLE

ABC Inc. acquires the XYZ Medical Center LLC. XYZ has an operating lease requiring 50 remaining monthly payments of $10,000. Comparable leases in the area are leasing at $8,500.

Since the lease is above market (unfavorable), the acquirer would record a liability for the present value of $75,000 ($1,500 X 50 months).

Future journal entries are:

DB: Rent Expense	$8,500	
DB: Liability	1,500	
CR: Cash		$10,000

- Measuring **non-controlling interests at fair value** – In less than 100% business acquisitions, all of the assets and liabilities of the acquiree are included in the consolidated statements, along with an equity account for the non-controlling interest, measured at its fair value. Topic 805 specifically requires that any non-controlling interest in an acquiree be valued separately at fair value as opposed to a proportional amount of the consideration transferred. In addition, the goodwill recorded will include amounts attributable to the non-controlling interest.

EXAMPLE

Gladstone Inc. is publicly traded and has 4,000,000 shares outstanding. Morris purchases 2,500,000 shares of Gladstone stock on March 31, 2XX9, by paying $3,125,000 or $1.25 per share. On March 31, 2XX9, Gladstone's stock is trading in the open market at $1.00 per share.

Morris has paid a premium of $625,000 to acquire a controlling interest in Gladstone [2,500,000 X ($1.25 – $1.00 = $.25) = $625,000].

Topic 820 states fair value is the amount that a market participant would pay in an active market **without taking into consideration volume factors** such as control premiums or blockage discounts. Therefore, in this example, fair value is $1.00 per share. The non-controlling interest in Gladstone would be valued at $1,500,000 or 1,500,000 shares [4,000,000 – 2,500,000] at $1.00 each.

Topic 805 – Step Acquisitions

An acquirer sometimes obtains control of an acquiree in which it held an equity interest immediately before the acquisition date. For example, on December 31, 20X7 Entity A holds a 30 percent non-controlling equity interest in Entity B. On that date, Entity A purchases an additional 25 percent interest in Entity B, which gives it control of Entity B.

The acquirer must re-measure its previously held equity interest in the acquiree at its acquisition-date fair value and recognize the resulting gain or loss, if any, in earnings.

In prior reporting periods, with respect to its previously held equity method investment, the acquirer may have recognized amounts in other comprehensive income. If so, the amount that was recognized in other comprehensive income must be reclassified and included in the calculation of gain or loss as of the acquisition date.

If the business combination achieved in stages relates to a previously held equity method investment that is a foreign entity, then the amount of other accumulated comprehensive income that is reclassified and included in the calculation of gain or loss must include any foreign currency translation adjustment related to that previously held investment.

See the example following.

EXAMPLE

Ferla Inc. acquires a 30% interest in Jessey LLC on July 4, 20XX for $210,000. Assume no adjustments to the investment account since July 4, 20XX. Subsequent to the above date, Ferla acquired an additional 45% for $1,000,000. On the acquisition date, the 30% interest was fair valued at $ 666,667. The total fair value of net assets acquired was $2,000,000.

The fair value of the non-controlling interest was $555,556.

On the acquisition date, Ferla would record a gain on its equity investment of $ 456,667 ($ 666,667 – $210,000).

The consideration transferred in recording the acquisition date combination would be, $1,000,000 $.

The following journal entry is used to record the combination:

	DEBIT	CREDIT
DB: Net assets acquired	$2,000,000	
DB: Goodwill	$222,223	
CR: Cash		$1,000,000
CR: Gain		$456,667
CR: Equity investment		$210,000
CR: Non-controlling interest		$555,556

It is possible that after control is obtained, the acquirer may acquire additional interests so that its ownership position increases further. Such additional acquisitions would be recorded at fair value.

In some situations, changes in the investment might have previously been recorded in other comprehensive income (OCI); for example, if the investment was a debt security classified as available for sale, any amount previously recorded in other comprehensive income would be reclassified out of AOCI and would increase or decrease the gain or loss recorded above.

GOODWILL

Initial Measurement

Topic 805 requires that the acquirer should recognize goodwill as of the acquisition date, measured as the sum of:

- The fair value of the consideration transferred
- The fair value of any non-controlling interest
- The fair value of the acquirer's previously owned equity interest in a stage acquisition
- Less the net acquisition date fair value of assets and liabilities acquired in the acquisition

Intangibles in general are addressed in Topic 350, *Intangibles – Goodwill and Others*. Topic 805, *Business Combinations*, contains related guidance to properly measure the "cost" of intangibles acquired in a business combination.

The authoritative guidance for intangible assets is organized into two main categories:

- Intangibles (goodwill and other) that are considered to have an indefinite life – these assets are not amortized (unless a private company chooses the private company alternative to amortize goodwill) but they must be reviewed for impairment at least annually.
- Intangibles that have a definite life – these assets are amortized and are tested for impairment only if a triggering event occurs (similar to impairment of tangible property).

Many GAAP disclosures are also organized this way, including separate identification of intangibles in each category.

Goodwill is defined as "an asset representing the future economic benefits arising from other assets acquired in a business combination that are not individually identified and separately recognized." It results from paying more than the fair value of the identifiable assets and liabilities when acquiring a business.

Under Topic 805, if less than 100% of a business is acquired, the non-controlling interest is recorded at its fair value, and the goodwill recorded is not reduced for less than 100% ownership.

EXAMPLE

Mack Inc. is publicly traded company and has 15,000,000 shares outstanding. Finn previously purchased 4,000,000 shares of Mack. The carrying amount of the above investment is $550,000. Finn acquires from another investor another 6,000,000 shares on March 31, 2XX9 by paying $7,500,000 or $1.25 per share.

On March 31, 2XX9, Mack stock is trading in the open market at $1.00 per share.

Assume that the acquisition date fair value of all of the net assets acquired was $15,400,000

1) Finn has paid a premium of $1,500,000 to acquire the controlling interest [6,000,000 X ($1.25 – $1.00 = $.25) = $1,500,000]

2) Topic 820 states fair value is the amount that a market participant would pay in an active market without taking into consideration volume. Therefore, in our example, this is $1.00 per share.

3) Finn would calculate a gain on its existing equity investment as follows:

Fair value (4,000,000 @ $1.00)	$4,000,000
Carrying value of equity investment	$550,000
Gain	$3,450,000

4) The non-controlling interest would be valued at $5,000,000 or 5,000,000 shares [15,000,000 – (4,000,000 + 6,000,000)] at $1.00 each

5) The journal entry to record the transaction would be

DB: Net assets acquired	$15,400,000	
DB: Goodwill	$1,100,000	
CR: Cash		$7,500,000
CR: Equity investment		$550,000
CR: Non-controlling interest		$5,000,000
CR: Gain		3,450,000

If the amount paid is less than the fair value of assets and liabilities acquired, the resulting **negative goodwill** (bargain acquisition) is reported as a gain that flows through earnings in the period of the acquisition.

EXAMPLE

XYZ Inc. acquires a 90% interest in ABC Inc. for $900,000. The fair value of the assets acquired was $1,600,000. The fair value of the liabilities assumed was $500,000. The 10% non-controlling interest was valued at $75,000.

XYZ has reviewed the values and has determined that all assets and liabilities have been identified and properly valued.

A gain would be calculated and included in earnings as follows:

Fair value of assets acquired	$1,600,000	
Less: liabilities assumed	($500,000)	
	$1,100,000	
Fair value of consideration		($900,000)
Value of non-controlling interest		($75,000)
Gain on bargain purchase		$125,000

The transaction would be recorded as follows:

DB: Assets	$1,600,000	
CR: Cash		$900,000
CR: Liabilities		$500,000
CR: Non-controlling interest		$75,000
CR: Gain (in Earnings)		$125,000

Before determining that the acquisition is at a "bargain", the acquirer should check to ensure that the following were valued properly:

- All assets acquired and all liabilities assumed. Often negative goodwill has been recorded in the past because all liabilities assumed were not properly recognized because GAAP did not require them to be recognized on the acquiree's books. One example is litigation that did not meet the Topic 450 "probable" criteria but would meet the Topic 805 criteria.
- The fair value of the non-controlling interest.
- For businesses acquired in stages, the acquirer's previously owned equity interest.
- The consideration transferred.

BUSINESS COMBINATIONS – GENERAL DISCLOSURES

Subtopic 805-10-50-1 states that the acquirer should disclose information that enables users of its financial statements to evaluate the nature and financial effect of a business combination that occurs either:

- During the current reporting period

or

- After the reporting date but before the financial statements are issued or are available to be issued

To meet this objective, the acquirer should disclose the following information for each business combination that occurs during the reporting period:

- The name and a description of the acquiree
- The acquisition date
- The percentage of voting equity interests acquired
- The primary reasons for the business combination and a description of how the acquirer obtained control of the acquiree
- For any transactions that are recognized separately from the acquisition of assets and assumptions of liabilities in the business combination, all of the following:
  1. A description of each transaction
  2. How the acquirer accounted for each transaction
  3. The amounts recognized for each transaction and the line item in the financial statements in which each amount is recognized
  4. If the transaction is the effective settlement of a preexisting relationship, the method used to determine the settlement amount

The disclosure of separately recognized transactions should include the amount of acquisition-related costs, the amount recognized as an expense, and the line item or items in the income statement in which those expenses are recognized. The amount of any issuance costs not recognized as an expense and how they were recognized also should be disclosed.

- In a business combination achieved in stages, all of the following should be disclosed:
  1. The acquisition date fair value of the equity interest of the acquiree held by the acquirer immediately before the acquisition date
  2. The amount of any gain or loss recognized as a result of re-measuring to fair value the equity interest in the acquiree held by the acquirer immediately before the business combination and the line item in the income statement in which that gain or loss is recognized
  3. The valuation technique(s) used to measure the acquisition date fair value of the equity interest in the acquiree held by the acquirer immediately before the business combination
  4. Information that enables users of the acquirer's financial statements to assess the inputs used to develop the fair value measurement, of the equity interest in the acquiree, held by the acquirer immediately before the business combination
- If the acquirer is a public entity, the information above plus all of the following apply:
  1. The amounts of revenue and earnings of the acquiree since the acquisition date included in the consolidated income statement for the reporting period
  2. If comparative financial statements are not presented, the revenue and earnings of the combined entity for the current reporting period as though the acquisition date for all business combinations that occurred during the year had been as of the beginning of the annual reporting period (supplemental pro forma information)
  3. If comparative financial statements are presented, the revenue and earnings of the combined entity as though the business combination(s) occurred during the current year had occurred as of the beginning of the comparable prior annual reporting period (supplemental pro forma information)
     - For example, for a calendar year end entity, disclosures would be provided for a business combination that occurs in 20X2, as if it occurred on January 1, 20X1. Such disclosures would not be revised if 20X2 is presented for comparative purposes with the 20X3 financial statements (even if 20X2 is the earliest period presented)
  4. The nature and amount of any material, non-recurring pro forma adjustments directly attributable to the business combination(s) included in the reported pro forma revenue and earnings (supplemental pro forma information)

     If disclosure of any of the information required above is impracticable, the acquirer should disclose that fact and explain why the disclosure is impracticable.

For individually immaterial business combinations occurring during the reporting period that are material collectively, the acquirer should disclose the information required in the aggregate.

If the acquisition date of a business combination is after the reporting date but before the financial statements are issued, or are available to be issued, the acquirer should disclose the information required above unless the initial accounting for the business combination is incomplete at the time the financial statements are issued or are available to be issued. In that situation, the acquirer shall describe which disclosures could not be made and why they could not be made.

BUSINESS COMBINATIONS – DISCLOSURES FOR ASSETS ACQUIRED, LIABILITIES ASSUMED, AND NON-CONTROLLING INTEREST

The acquirer should disclose all of the following information for each business combination that occurs during the reporting period:

1. For indemnification assets, all of the following apply:
   - The amount recognized as of the acquisition date
   - A description of the arrangement and the basis for determining the amount of the payment
   - An estimate of the possible range of outcomes (undiscounted) or, if a range cannot be estimated, that fact and the reasons why a range cannot be estimated
   - If the maximum amount of the payment is unlimited, the acquirer should disclose that fact

   Note: an indemnification asset exists when the seller in a business combination contractually indemnifies the acquirer for the outcome of a contingency or uncertainty related to all or part of a specific asset or liability. The acquirer will recognize an indemnification asset at the same time that it recognizes the indemnified item, measured on the same basis as the indemnified item, subject to the need for a valuation allowance for uncollectible amounts.
2. For acquired receivables not subject to the codification guidance (Subtopic 310-30), *Loans and Debt Securities Acquired with Deteriorated Credit Quality*, all of the following by major class of receivable:
   - The fair value of the receivables
   - The gross contractual amounts receivable
   - The best estimate at the acquisition date of the contractual cash flows not expected to be collected
3. The amounts recognized as of the acquisition date for each major class of assets acquired and liabilities assumed
4. For any contingencies, the following disclosure should be included in the note that describes the business combination
   - For assets and liabilities arising from contingencies recognized at the acquisition date:
     - The amounts recognized at the acquisition date and the measurement basis applied
     - The nature of the contingencies
   - For contingencies that are not recognized at the acquisition date, the disclosures required by Topic 450, *Contingencies*
5. For each business combination which the acquirer holds less than 100% of the equity interests in the acquire at the acquisition date, both of the following:
   - The fair value of the non-controlling interest in the acquire at the acquisition date
   - The valuation technique(s) and significant inputs used to measure the fair value of the non-controlling interest

BUSINESS COMBINATIONS – DISCLOSURES FOR GOODWILL OR GAIN FROM BARGAIN PURCHASE, INCLUDING CONSIDERATION TRANSFERRED

Goodwill must be presented as a separate line item on the balance sheet. Likewise, any goodwill impairment loss, other than for discontinued operations, must be a separate line item before the subtotal "income from continuing operations" on the income statement.

The acquirer should disclose all of the following information for each business combination that occurs during the reporting period:

1. A qualitative description of the factors that make up goodwill recognized, such as the expected synergies from combining operations of the acquire and the acquirer, intangible assets that do not qualify for separate recognition, or other factors
2. The acquisition date fair value of the total consideration transferred and the acquisition date fair value of each major class of consideration, such as the following:
   - Cash
   - Other tangible or intangible assets, including a business or subsidiary of the acquirer
   - Liabilities incurred; for example, a liability for contingent consideration
   - Equity interests of the acquirer, including the number of instruments or interests issued or issuable and the method of determining the fair value of those instruments or interests
3. For contingent consideration arrangements, all of the following:
   - The amount recognized as of the acquisition date
   - A description of the arrangement and the basis for determining the amount of the payment
   - An estimate of the range of outcomes (undiscounted), or if a range cannot be estimated, that fact and the reasons why a range cannot be estimated
   - If the maximum amount is unlimited, the acquirer should disclose that fact
4. The total amount of goodwill that is expected to be deductible for tax purposes
5. If the acquirer is required to disclose segment information (public companies) the amount of goodwill by reportable segment
6. If a bargain acquisition both of the following are true:
   - The amount of any gain recognized and the line item in the income statement which the gain is recognized
   - A description of the reasons why the transaction resulted in a gain
7. For each reporting period after the acquisition date until the entity collects, sells, or otherwise loses the right to a contingent consideration asset, or until the entity settles a contingent consideration liability or the liability is cancelled or expires, all of the following:
   - Any changes in the recognized amounts, including any differences arising upon settlement
   - Any changes in the range of outcomes (undiscounted) and the reasons for those changes
   - The general disclosure requirements above
8. A reconciliation of the carrying amount of goodwill at the beginning and end of the reporting period

In addition to the business combination disclosures above found in Topic 805, Subtopic 350-30-50, *Intangibles-Goodwill and Other,* includes additional intangible asset disclosures associated with business combinations. For intangible assets acquired, either individually or as part of a group of assets, the following information should be disclosed in the period of acquisition:

1. For intangible assets subject to amortization, all of the following:
   - The total amount assigned and the amount assigned to any major intangible asset class
   - The amount of any significant residual value, in total and by major intangible asset class
   - The weighted average amortization period, in total and by major intangible asset class
2. For intangible assets with renewal or extension terms, the weighted average period before the next renewal or extension, by major intangible asset class

The following goodwill disclosures are also required in Topic 350:

1. For each period a balance sheet is presented, changes in the carrying amount of goodwill. Topic 350 requires the aggregate amount acquired, the aggregate impairment losses recorded, and any goodwill amounts included in the gain or loss on disposal of all or a portion of a reporting unit (discontinued operations).

   Topic 350 includes the following disclosures regarding changes in goodwill:
   - The gross amount and accumulated impairment losses at the beginning of the period
   - Additional goodwill recognized during the period, except goodwill included in a disposal group, that on acquisition, meets the criteria to be classified as held for sale
   - Adjustments during the period resulting from the recognition of subsequent deferred tax adjustments resulting from an acquisition
   - Goodwill included in a disposal group classified as held for sale in accordance with discontinued operations guidance and goodwill derecognized during the period without having previously reported in a disposal group classified as held for sale
   - Impairment losses recognized during the period
   - Net foreign exchange differences arising during the period
   - Any other changes in the carrying amounts during the period
   - The gross amount and accumulated impairment losses at the end of the period
2. Reporting entities that have one or more reporting units with zero or negative carrying amounts of net assets must disclose those reporting units with allocated goodwill and the amount of goodwill allocated to each and in the reporting segment (if public) that the reporting unit is included.
3. For each goodwill impairment loss recognized:
   - A description of the facts and circumstances leading to the impairment
   - The amount of the impairment loss and the method of determining the fair value of the associated reporting unit
   - If the recognized impairment loss is an estimate that has not yet been finalized then that fact, the reasons therefore, and in subsequent periods, the nature and amount of any significant adjustments, must be made to the initial estimate of the impairment loss.

Below is DowDupont Business Combination note disclosure for the period ending December 31, 2017.

BUSINESS COMBINATIONS

DowDupont Corporation

December 31, 2017 Annual Report

NOTE 3 - BUSINESS COMBINATIONS

Merger of Equals of Dow and DuPont

At the effective time of the Merger, each share of common stock, par value $2.50 per share, of Dow ("Dow Common Stock") (excluding any shares of Dow Common Stock that were held in treasury immediately prior to the effective time of the Merger, which were automatically canceled and retired for no consideration) was converted into the right to receive one fully paid and non-assessable share of common stock, par value $0.01 per share, of DowDuPont ("DowDuPont Common Stock"). Upon completion of the Merger, (i) each share of common stock, par value $0.30 per share, of DuPont ("DuPont Common Stock") (excluding any shares of DuPont Common Stock that were held in treasury immediately prior to the effective time of the Merger, which were automatically canceled and retired for no consideration) was converted into the right to receive 1.2820 fully paid and non-assessable shares of DowDuPont Common Stock, in addition to cash in lieu of any fractional shares of DowDuPont Common Stock, and (ii) each share of DuPont Preferred Stock $4.50 Series and DuPont Preferred Stock $3.50 Series (collectively, the "DuPont Preferred Stock") issued and outstanding immediately prior to the effective time of the Merger remains issued and outstanding and was unaffected by the Merger.

As provided in the Merger Agreement, at the effective time of the Merger, Dow stock options and other equity awards were generally automatically converted into stock options and equity awards with respect to DowDuPont Common Stock and DuPont stock options and other equity awards, after giving effect to the exchange ratio, were converted into stock options and equity awards with respect to DowDuPont Common Stock, and otherwise generally on the same terms and conditions under the applicable plans and award agreements immediately prior to the effective time of the Merger.

DowDuPont intends to pursue, subject to certain customary conditions, including, among others, the effectiveness of registration statements filed with the Securities and Exchange Commission and approval by the Board of Directors of DowDuPont, the separation of the combined Company's agriculture, materials science and specialty products businesses through one or more tax-efficient transactions ("Intended Business Separations").

Preliminary Allocation of Purchase Price

Based on an evaluation of the provisions of ASC 805, "Business Combinations" ("ASC 805"), Dow was determined to be the accounting acquirer in the Merger. DowDuPont has applied the acquisition method of accounting with respect to the assets and liabilities of DuPont, which have been measured at fair value as of the date of the Merger.

DuPont's assets and liabilities were measured at estimated fair values at August 31, 2017, primarily using Level 3 inputs. Estimates of fair value represent management's best estimate and require a complex series of judgments about future events and uncertainties. Third-party valuation specialists were engaged to assist in the valuation of these assets and liabilities.

The total fair value of consideration transferred for the Merger was $74,680 million. Total consideration is comprised of the equity value of the DowDuPont shares at August 31, 2017, that were issued in exchange for DuPont shares, the cash value for fractional shares, and the portion of DuPont's share awards and share options earned at August 31, 2017. The following table summarizes the fair value of consideration exchanged as a result of the Merger:

The total fair value of consideration transferred for the Merger was $74,680 million. Total consideration is comprised of the equity value of the DowDuPont shares at August 31, 2017, that were issued in exchange for DuPont shares, the cash value for fractional shares, and the portion of DuPont's share awards and share options earned at August 31, 2017. The following table summarizes the fair value of consideration exchanged as a result of the Merger:

Merger Consideration In millions (except exchange ratio)		
DuPont Common Stock outstanding at Aug 31, 2017		868.3
DuPont exchange ratio		1.2820
DowDuPont Common Stock issued in exchange for DuPont Common Stock		1,113.2
Fair value of DowDuPont Common Stock issued [1]	$	74,195
Fair value of DowDuPont equity awards issued in exchange for outstanding DuPont equity awards [2]		485
Total consideration	$	74,680

1. Amount was determined based on the price per share of Dow Common Stock of $66.65 on August 31, 2017.
2. Represents the fair value of replacement awards issued for DuPont's equity awards outstanding immediately before the Merger and attributable to the service periods prior to the Merger. The previous DuPont equity awards were converted into the right to receive 1.2820 shares of DowDuPont Common Stock.

The acquisition method of accounting requires, among other things, that identifiable assets acquired and liabilities assumed be recognized on the balance sheet at their respective fair value as of the acquisition date. In determining the fair value, DowDuPont utilized various forms of the income, cost and market approaches depending on the asset or liability being fair valued. The estimation of fair value required significant judgments related to future net cash flows (including net sales, cost of products sold, selling and marketing costs, and working capital/contributory asset charges), discount rates reflecting the risk inherent in each cash flow stream, competitive trends, market comparables and other factors. Inputs were generally determined by taking into account historical data, supplemented by current and anticipated market conditions, and growth rates.

The table below presents the preliminary fair value that was allocated to DuPont's assets and liabilities based upon fair values as determined by DowDuPont. The valuation process to determine the fair values is not yet complete. The Company estimated the preliminary fair value of acquired assets and liabilities as of the effective time of the Merger based on information currently available and continues to adjust those estimates upon refinement of market participant assumptions for integrating businesses, finalization of tax returns in the pre-merger period and application of push-down accounting at the subsidiary level. In the first quarter of 2018, DowDuPont made measurement period adjustments to reflect facts and circumstances in existence as of the effective time of the Merger. These adjustments primarily included a $282 million increase in goodwill, a $98 million decrease in property, an $80 million decrease in indefinite-lived trademarks and tradenames and customer-related assets, a $56 million increase in noncontrolling interests, a $28 million decrease in investments in nonconsolidated affiliates and a $16 million decrease in assets held for sale. The preliminary fair values are substantially complete with the exception of identifiable other intangible assets, property, income taxes and goodwill. As the Company finalizes the fair value of assets acquired and liabilities assumed, additional purchase price adjustments may be recorded during the measurement period, but no later than one year from the date of the Merger. The Company will reflect measurement period adjustments, if any, in the period in which the adjustments are recognized. Final determination of the fair values may result in further adjustments to the values presented in the following table:

DuPont Assets Acquired and Liabilities Assumed on Aug 31, 2017 In millions	*Estimated fair value adjusted*
Fair Value of Assets Acquired	
Cash and cash equivalents	$ 4,005
Marketable securities	2,849
Accounts and notes receivable - Trade	6,199
Accounts and notes receivable - Other	1,648
Inventories	8,807
Other current assets	360
Assets held for sale	3,732
Investment in nonconsolidated affiliates	1,626
Other investments	50
Noncurrent receivables	84
Property	11,843
Goodwill	45,387
Other intangible assets	27,141
Deferred income tax assets	284
Deferred charges and other assets	1,942
Total Assets	$ 115,957
Fair Value of Liabilities Assumed	
Notes payable	$ 4,046
Long-term debt due within one year	1,273
Accounts payable - Trade	2,346
Accounts payable - Other	939
Income taxes payable	261
Accrued and other current liabilities	3,517
Liabilities held for sale	125
Long-term debt	9,878
Deferred income tax liabilities	8,419
Pension and other postretirement benefits - noncurrent	8,056
Other noncurrent obligations	1,944
Total Liabilities	$ 40,804

Noncontrolling interests	473
Net Assets (Consideration for the Merger)	$ 74,680

Integration and Separation Costs

Integration and separation costs have been and are expected to be significant. The Company incurred "Integration and separation costs," reflected in "Income from continuing operations before income taxes" in the consolidated statements of income, of $457 million and $109 million for the three months ended March 31, 2018 and 2017, respectively. These costs to date primarily consisted of financial advisory, information technology, legal, accounting, consulting, and other professional advisory fees associated with the preparation and execution of activities related to the Merger, post-merger integration and separation, and ownership restructure of Dow Silicones. While the Company assumed that a certain level of expenses would be incurred, there are many factors that could affect the total amount or the timing of these expenses, and many of the expenses that will be incurred are, by their nature, difficult to estimate.

H&N Business

On March 31, 2017, DuPont entered into a definitive agreement (the "FMC Transaction Agreement") with FMC Corporation ("FMC") for FMC to acquire the assets related to DuPont's crop protection business and research and development organization (the "Divested Ag Business") that DuPont was required to divest in order to obtain European Commission approval of the Merger Transaction. In addition, under the FMC Transaction Agreement, DuPont agreed to acquire certain assets relating to FMC's Health and Nutrition segment, excluding its Omega-3 products (the "H&N Business") (the sale of the Divested Ag Business and acquisition of the H&N Business referred to collectively as the "FMC Transactions").

On November 1, 2017, DuPont completed the FMC Transactions through the acquisition of the H&N Business and the divestiture of the Divested Ag Business. The acquisition is being integrated into the Nutrition & Biosciences segment to enhance the Company's position as a leading provider of sustainable, bio-based food ingredients and allow for expanded capabilities in the pharma excipients space. DuPont accounted for the acquisition in accordance with ASC 805, which requires the assets acquired and liabilities assumed to be recognized on the balance sheet at their fair values as of the acquisition date. The purchase accounting and purchase price allocation for the H&N Business are substantially complete. However, the Company continues to refine the preliminary valuation of certain acquired assets, such as intangible assets, deferred income taxes and property, which could impact the amount of residual goodwill recorded. The Company will finalize the amounts recognized as it obtains the information necessary to complete the analysis, but no later than one year from the date of the acquisition. The preliminary fair value allocated to the assets acquired and liabilities assumed for the H&N Business at November 1, 2017 was $1,970 million. There were no material updates to the purchase accounting and purchase price allocation for the three months ended March 31, 2018. For additional information regarding the acquisition of the H&N Business, see Note 3 to the Consolidated Financial Statements in the Company's Annual Report on Form 10-K for the year ended December 31, 2017.

UNIT 3

Fair Value (Topic 820) and Asset Impairments (Topics 350 and 360)

LEARNING OBJECTIVES

At the conclusion of this unit, participants will be able to:

- Calculate goodwill impairments.
- Calculate asset impairments.
- Apply GAAP fair value guidance to Topic 350 – *Intangibles* and Topic 360 – *Property, Plant, and Equipment*.

INTRODUCTION

Fair value applies to non-financial assets when they are impaired. In these cases, fair value measurement is **non-recurring**, being applied only at the impairment date.

The approach used for asset impairments in Topic 350 – *Intangibles*, and Topic 360 – *Property*, depends on whether or not the assets are depreciated or amortized.

- Perform impairment tests on depreciated (or amortized) assets that are held and used only upon the occurrence of **triggering events** that suggest the assets may be impaired. When performed, the tests are "cash-flow based" because impairment exists when carrying values exceed undiscounted cash flows expected from those assets during their remaining economic life.

  This approach is appropriate for both fixed assets and definite-lived intangibles. It makes sense that impairment is addressed only when there are adverse events because these assets' carrying values already decline as they are depreciated or amortized.
- Goodwill and indefinite-lived intangibles are not amortized, so their original cost remains on the balance sheet indefinitely. As a result, value impairment is of greater concern over time, and Topic 350 requires that impairment possibility be addressed at least annually (more often if there are triggering events).

A simplified alternative approach for goodwill is available to non-public as well as not for profit entities since the issuance of ASU 2014-02, *Accounting for Goodwill*. This alternative results in goodwill being amortized and tested for impairment only when there are triggering events.

Property, plant, and equipment classified as held-for-sale is a special case. When these assets become classified as held for sale, an impairment loss is required if their carrying values exceed expected net proceeds from the sale ("fair value less costs to sell" or net realizable value). These write-downs are the only ones that may not be permanent; recovery in value is allowed to be recorded.

The common thread here is that **impaired long-term assets are carried at fair value**.

Some of the most common applications of non-recurring fair values include:

Assets – Certain non-financial assets are carried at cost unless, as a result of impairment, they must be written down to fair value. Generally, the write-down is permanent, and the fair value is treated as the "new" cost basis going forward (i.e., not repeatedly marked to market) – unless the asset becomes even further impaired.

For assets used in the business, such as property and equipment, possible impairment is not monitored continuously; rather, certain events and circumstances will trigger an impairment test. This approach is also used for intangible assets with definite lives, i.e., those that are amortized.

Assets held for sale are carried at the lower of cost or fair value less costs to sell. Any write-down will occur upon classification as "held for sale." This classification is intentionally restrictive, as it is prone to abuse because depreciation is not recorded on assets held for sale. Often, assets held for sale are related to either a discontinued operation or a business combination where the buyer intends to immediately sell off some of the acquired assets.

Intangible assets with indefinite lives – most notably (but not limited to) goodwill – are required to be monitored continuously for possible impairment. Practically speaking, these assets are of greater concern because they remain on the books indefinitely.

Liabilities – Certain liabilities are required to be recorded initially at fair value. The most common examples are probably guarantees and asset retirement obligations.

Fair values for liabilities such as these are generally based on an estimate of future cash flows (Level 3) due to the absence of any market for them.

Business Combinations – All assets and liabilities acquired must be initially measured at fair value. This is perhaps the most comprehensive application of non-recurring fair values because many assets and liabilities recorded in business combinations relate to items not reported on the acquiree's balance sheet.

In subsequent periods, amounts recorded are not marked to market unless the nature of the account is subject to recurring fair value rules.

Some Useful Generalities

- Non-recurring fair values tend to be the most challenging to measure because the assets and liabilities involved are not traded in an active market. Usually, appraisals, cash flow projections, and similar subjective techniques must be used.
- Non-recurring fair values are handled separately from recurring fair values in Topic 820 disclosure rules. However, because these fair value measurements result from other events

such as impairment, discontinued operations, or a business acquisition, there are many more required disclosures beyond those for fair value. Care is needed to ensure that all necessary disclosures are provided.

- Assets that must be measured at fair value if they are impaired must first undergo an impairment test; the test may conclude that the assets are not impaired and should remain at their previous values—making their fair values irrelevant.
- As mentioned earlier, there is no general requirement to report property, notes payable, and other non-financial assets and liabilities at fair value. Topic 820 prescribes how to determine fair value without widening its scope.

TOPIC 350 – INTANGIBLE ASSET IMPAIRMENTS

Intangible Assets

Intangibles are addressed in Topic 350, *Intangibles – Goodwill and Others*. Topic 805, *Business Combinations,* contains related guidance to properly measure the "cost" of intangibles acquired in a business combination.

The authoritative guidance for intangible assets is organized into two main categories:

1. Intangibles (goodwill and other) that are considered to have an indefinite life – these assets are *not* amortized but they must be reviewed for impairment at least annually.
2. Intangibles that have a definite life – these assets *are* amortized and are tested for impairment only if a triggering event occurs (similar to impairment of tangible property).

Many GAAP disclosures are also organized this way, including separate identification of intangibles in each category.

Goodwill

Goodwill is defined as "an asset representing the future economic benefits arising from other assets acquired in a business combination that are not individually identified and separately recognized". It results from paying more than the fair value of the identifiable assets and liabilities when acquiring a business.

Under Topic 805, *Business Combinations,* if less than 100% of a business is acquired, the non-controlling interest is recorded at its fair value, and the goodwill recorded is not reduced for the less-than-100% ownership.

If the amount paid is *less than* the fair value of assets and liabilities acquired, the resulting "negative goodwill" (i.e., bargain purchase) is reported as a gain that flows through earnings in the period of the acquisition.

The accounting for goodwill has been an evolving process going back many years. We have gone from amortizing goodwill over a 40-year period, to testing goodwill for impairment using a two-part test, to providing a private company alternative to (ASU 2014-02) and with the issuance of ASU 2017-04, *Simplifying the Test for Goodwill Impairment,* changed the previous two-part test to now a one-part test. The FASB also brought up the potential for amortization of goodwill again for public business entities, but then removed it from its Technical Agenda. In addition, ASU 2021-03, *Accounting Alternative for Evaluating Triggering*

Events, permits private companies and not-for-profit organizations to elect to perform its goodwill impairment triggering event evaluation only as of the end of each reporting period, whether the reporting period is an interim or annual period. That is, the entity would not evaluate goodwill impairment triggering events and measure any related impairment during the reporting period.

Today, goodwill impairment analysis is accounted for as follows:

- Evaluate qualitative factors existing at the time of the impairment test that may suggest that it is **more-likely-than-not** that the goodwill recorded amount on the balance sheet is impaired. If these qualitative factors suggest that the goodwill amount is impaired, then the quantitative impairment test must be performed.
- Quantitative impairment test consists of calculating the implied fair value of goodwill by comparing the **fair value of the reporting unit** to its carrying value and if the carrying value is greater than its fair value, write down goodwill by the difference – goodwill cannot be reduced below zero.

In evaluating whether it is **more-likely-than-not** that the fair value of a reporting unit is less than its carrying amount, a reporting entity should assess relevant events and circumstances. Examples of such events and circumstances include the following::

- Macroeconomic factors – deterioration in general economic conditions, access to capital, or foreign exchange rates, or other changes in equity and credit markets
- Industry/market factors – increased competition, industry downturn, change in the market for a company's products or services, decline in market-dependent multiples or metrics affecting valuation, adverse regulatory actions
- Cost factors – increased costs for materials, labor, etc., that adversely affect profitability or cash flows
- Financial performance – negative or declining cash flows, declines in actual or projected revenue or earnings compared with actual and projected results for prior periods
- Entity-specific – changes in management or key personnel, strategy, or customer base; litigation; consideration of filing for bankruptcy
- Assets – actual or contemplated major disposals; significant asset classes tested for impairment due to triggering events, recognition of goodwill impairments in subsidiaries of the reporting unit
- Share price – sustained decrease in share price (on a standalone basis or in relation to comparable companies)

None of these factors alone is "definite proof" that a goodwill impairment test must be performed. Rather, a company considers each type of event and circumstance, evaluates its relevance and significance to the company, incorporates mitigating factors, and reaches an overall MLTN conclusion. Published materials addressing this process emphasize the need to document each component of the analysis and provide reliable supporting quantitative data.

The **fair value of a reporting unit** refers to the price that would be received to sell the unit as a whole in an orderly transaction between market participants at the measurement date. Quoted market prices in active markets are the best evidence of fair value and shall be used as the basis for the measurement, if available. However, the market price of an individual equity security (and thus the market capitalization of a reporting unit with publicly traded equity securities) may not be representative of the fair value of the reporting unit as a whole.

Substantial value may arise from the ability to take advantage of synergies and other benefits that flow from control over another entity. Consequently, measuring the fair value of a collection of assets and liabilities that operate together in a controlled entity is different from measuring the fair value of that entity's individual equity securities. An acquiring entity often is willing to pay more for equity securities that give it a controlling interest than an investor would pay for a number of equity securities representing less than a controlling interest. That control premium may cause the fair value of a reporting unit to exceed its market capitalization. The quoted market price of an individual equity security, therefore, need not be the sole measurement basis of the fair value of a reporting unit.

In estimating the fair value of a reporting unit, a valuation technique based on multiples of earnings or revenue or a similar performance measure may be used if that technique is consistent with the objective of measuring fair value. Use of multiples of earnings or revenue in determining the fair value of a reporting unit may be appropriate, for example, when the fair value of an entity that has comparable operations and economic characteristics is observable and the relevant multiples of the comparable entity are known. Conversely, use of multiples would not be appropriate in situations in which the operations or activities of an entity for which the multiples are known are not of a comparable nature, scope, or size as the reporting unit for which fair value is being estimated. (Subtopic 350-20-35-22-24)

This impairment analysis is not an alternative that may be elected; it is the only way to perform the impairment analysis. The required frequency for performing the impairment test on goodwill is generally annually unless negative factors necessitate an interim test.

NOTE: Goodwill is tested for impairment after other assets.

Under ASU 2014-02, Accounting for Goodwill, entities that do not meet the definition of a public business entity may elect to amortize goodwill on a straight-line basis, generally over ten years, and to perform a one-step impairment test only when an event indicates that the fair value of the entity or reporting unit may be less than the carrying amount. This election must be disclosed either under summary of significant accounting policies or goodwill.

Goodwill Disclosures

Goodwill must be presented as a **separate line item** on the balance sheet. Likewise, any goodwill impairment loss, other than for discontinued operations, must be a separate line item before the subtotal "Income from Continuing Operations" on the Income Statement.

The following disclosures, in addition to Topic 820 fair value disclosures, are also required:

1. For each period a balance sheet is presented, changes in the carrying amount of goodwill. Topic 350 requires the aggregate amount acquired, the aggregate impairment losses recorded, and any goodwill amounts included in the gain or loss on disposal of all or a portion of a reporting unit (discontinued operations).

   Topic 350 includes the following disclosures regarding **changes in goodwill:**

   - The gross amount and accumulated impairment losses at the beginning of the period
   - Additional goodwill recognized during the period, except goodwill included in a disposal group, that on acquisition, meets the criteria to be classified as held for sale

- Adjustments during the period resulting from the recognition of subsequent deferred tax adjustments resulting from an acquisition
- Goodwill included in a disposal group classified as held for sale in accordance discontinued operations guidance and goodwill derecognized during the period without having previously reported in a disposal group classified as held for sale
- Impairment losses recognized during the period
- Net foreign exchange differences arising during the period
- Any other changes in the carrying amounts during the period
- The gross amount and accumulated impairment losses at the end of the period

2. Reporting entities that have one or more reporting units with zero or negative carrying amounts of net assets must disclose those reporting units with allocated goodwill and the amount of goodwill allocated to each and in which reporting segment (if public) the reporting unit is included.
3. For each goodwill impairment loss recognized:
   - A description of the facts and circumstances leading to the impairment
   - The amount of the impairment loss and the method of determining the **fair value** of the associated reporting unit
   - If the recognized impairment loss is an estimate that has not yet been finalized, that fact and the reasons therefor and, in subsequent periods, the nature and amount of any significant adjustments made to the initial estimate of the impairment loss.

Disclosures – Intangibles Other Than Goodwill

The following summarizes the presentation and disclosure requirements of Subtopic 350-30-50 for intangibles other than goodwill:

a. Intangible assets should be presented **separately** on the balance sheet, as either a single line item or several line items
b. Amortization expense and impairment losses should be presented within income from continuing operations and, if there is a measure of operations or performance indicator, as a part of that amount
c. In the year of acquisition:
   - For each major intangible asset class that is amortized, the amount assigned, the amount of any significant residual values, and the weighted average amortization period used for those assets that are amortized, both by major intangible asset class and in total.
   - For intangible assets **not** amortized, the amount assigned, in total and by major intangible asset class.
   - Amount of research and development assets acquired in a transaction other than a business combination and written off and the line item in the income statement that includes the write-off.
   - For intangible assets with renewal or extension terms, the weighted-average period before the next renewal or extension by major intangible asset class.

   Topic 805 requires the above information to be disclosed separately for each material business combination or in the aggregate if there are immaterial combinations that are material in the aggregate.

d. For each period for which a statement of financial position is presented:

   For intangible assets subject to amortization, the following:

   - Gross carrying amounts, in total and by major class.
   - Accumulated amortization expense for the period, in total and by major class
   - Aggregate amortization expense for each period presented and aggregate amortization expense for each of the succeeding 5 years

   For intangible assets not subject to amortization, the total carrying amount and the carrying amount for each major intangible asset class

   In addition, the reporting entity's accounting policy on the treatment of costs incurred to renew or extend the term of a recognized intangible asset

e. For intangible assets that have been renewed or extended in the reporting period, both of the following:

   - For reporting entities that capitalize renewal or extension costs, the total amount of costs incurred in the period to renew or extend the term of a recognized intangible asset, by major intangible asset class
   - The weighted-average period before the next renewal or extension, by major intangible asset class

f. For each intangible asset impairment loss recognized:

   - A description of the impaired intangible asset and the facts and circumstances leading to the impairment
   - The amount of the impairment loss and the method for determining **fair value**
   - The caption in the Income Statement or the Statement of Activities in which the impairment loss is aggregated
   - If applicable, the segment in which the impaired intangible asset is reported

Topic 820 fair value disclosures, which may also be required, are not illustrated in the following example.

EXAMPLE

Balance Sheet Excerpt

	20X2	20X1
Intangible Assets:		
Goodwill	$920,000	$400,000
Trademarks	807,500	
Customer lists, less accumulated amortization of $50,000	150,000	
Covenant not to complete, less accumulated amortization of $95,000	380,000	
	$2,257,500	$400,000

Note 5: Goodwill and Intangible Assets

The changes in carrying amount of goodwill for the year ended December 31, 20X2 are as follows:

Balance – January, 20X2	$400,000
Acquired goodwill	550,000
Impairment losses – 20X2	(30,000)
Balance – December 31, 20X2	$920,000

Due to increased competition, operating profits, and cash flows of the ABC division were lower than expected. Since the carrying value of the reporting unit exceeded its fair value based on the expected present value of future cash flows, a good will impairment loss of $30,000 was recognized in the current year.

At December 31, 20X2, intangible assets other than goodwill consisted of:

	Gross Carrying Amount	**Accumulated Amortization**
Amortized intangible assets:		
Customer lists	$200,000	$50,000
Covenant not-to-compete	475,000	95,000
Unamortized intangible assets:		
Trademarks	$807,500	

Amortization expense for the period ended December 31, 20X2, was $145,000.

The aggregate amortization expense for the next five years is:

20X3 145,000

20X4 145,000

20X5 145,000

20X6 95,000

20X7

Goodwill and Other Intangible Assets Disclosure

Kellogg

January 1, 2022, Annual Report

NOTE 4
GOODWILL AND OTHER INTANGIBLE ASSETS

Goodwill and Intangible Assets

Changes in the carrying amount of goodwill, intangible assets subject to amortization, consisting primarily of customer relationships, and indefinite-lived intangible assets, consisting of brands and distribution agreements, are presented in the following tables:

Carrying amount of goodwill

(millions)	North America	Europe	Latin America	AMEA	Consolidated
December 28, 2019	$ 4,422	$ 347	$ 213	$ 879	$ 5,861
Currency translation adjustment	1	20	(33)	(50)	(62)
January 2, 2021	$ 4,423	$ 367	$ 180	$ 829	$ 5,799
Acquisition	—	—	—	33	33
Currency translation adjustment	—	(17)	(9)	(35)	(61)
January 1, 2022	**$ 4,423**	**$ 350**	**$ 171**	**$ 827**	**$ 5,771**

Intangible assets

	2021			2020		
(millions)	**Gross Amount**	**Accumulated Amortization**	**Net Amount**	Gross Amount	Accumulated Amortization	Net Amount
Intangibles subject to amortization (a)	**$ 521**	**$ (143)**	**$ 378**	$ 544	$ (121)	$ 423
Intangibles not subject to amortization	**$ 2,031**	**$ —**	**$ 2,031**	$ 2,068	$ —	$ 2,068

(a) The currently estimated aggregate amortization expense for each of the next five succeeding fiscal periods is approximately $26 million per year through 2026.

The change in intangible asset values presented in the table above include the impact of foreign currency translation adjustments.

Annual impairment testing

At January 1, 2022, goodwill and other intangible assets amounted to $8.2 billion, consisting primarily of goodwill and brands. Within this total, approximately $2.0 billion of non-goodwill intangible assets were classified as indefinite-lived, including $1.7 billion related to trademarks, comprised principally of Pringles and cracker-related trademarks. The majority of all goodwill and other intangible assets are recorded in our North America reporting unit. The Company currently believes the fair value of goodwill and other intangible assets exceeds their carrying value and that those intangibles so classified will contribute indefinitely to cash flows. The Company's impairment testing performed through the fourth quarter of 2021 consisted of qualitative testing for all reporting unit goodwill and all indefinite-lived intangible assets, except for one brand, for which quantitative testing was performed. No heightened risk of impairment of individual intangible assets or reporting units was identified.

The Company has $184 million at January 1, 2022 related to one brand in the North America operating segment that primarily relates to snack category products. In performing the quantitative test of this brand, fair value was determined using a relief from royalty valuation method that includes estimates, and significant assumptions, of future cash flows to be generated from that asset based on estimates of future sales, royalty rate and discount rate consistent with rates used by market participants. The Company determined the fair value of this brand exceeds its carrying value and no heightened risk of impairment exists for the asset.

In the fourth quarter of 2020 management finalized a decision to reorganize part of its North America operating segment, including the RX reporting unit, effective at the beginning of fiscal 2021. The reorganization further integrated the RX business with the rest of the North American business and changed internal reporting provided to the segment manager. As a result of these changes, the Company re-evaluated its North American reporting units and determined that effective at the beginning of fiscal 2021, the RX reporting unit was combined with the North America reporting unit. The Company evaluated the related impacted reporting units for impairment on a before and after basis and concluded that the fair values of each reporting unit exceeded their carrying values.

TOPIC 360 – TANGIBLE ASSET IMPAIRMENTS

Testing Property, Plant and Equipment for Impairment (Topic 360)

The practice of recording long-lived assets at historical cost assumes their use will provide future benefits at least as great as their carrying values. The concept of writing down an impaired asset to some value less than carrying value is not new. Over the years, large companies did record such write-downs for impaired assets, but Topic 360, *Property, Plant, and Equipment,* provides authoritative guidance intended to ensure that the related measurement and reporting are consistent.

The guidance in Topic 360 addresses two separate (but similar) major areas:

1. Assets held and used, although impaired
2. Assets held for sale, which may or may not be connected with discontinued operations

The impairment rules in Topic 360 generally apply to all reporting entities, including not-for-profits, with specified exceptions that include:

- Specialized industry practices, such as those used by companies in the entertainment or regulated industries
- Assets whose valuation is addressed in other statements, such as deferred tax assets, financial instruments, and certain intangibles of financial institutions

Note that the methodology in Topic 360 also applies to finite-lived (i.e., amortizable) intangible assets.

Definite-lived assets are reviewed for impairment only when certain **triggering events** occur that indicate their values are likely to be impaired. Consequently, any "test" for impairment is not a routine evaluation performed annually or at each balance sheet date, but one "triggered" by events such as:

- Significant decrease in the market value of an asset
- Significant change in the way an asset is to be used
- Significant changes in the business or legal environment
- Significant cost overruns incurred for self-constructed assets
- Continued (or anticipated) operating losses and/or cash flow deficiencies associated with identifiable assets
- A current expectation that it is MLTN the asset will be sold or otherwise disposed of before the end of its useful life.

The impairment analysis for property, plant and equipment is a 2-step approach:

1. **Determine if Impaired.**

   An asset is impaired under Topic 360 when net future cash inflows expected to be generated by the asset (undiscounted and without subtracting any related interest charges) are less than the carrying value of the asset. Note that comparing these two amounts yields a "yes or no" determination of impairment; it does not measure the amount of impairment loss.

EXAMPLE

A jewelry manufacturer has a machine with a carrying value of $650,000, used exclusively to make one design of jewelry chain. Its remaining useful life is estimated at 5 years. Management noted that this product is contributing minimally to revenues, adding approximately $100,000 annually to cash flows (cash revenues less related cash costs, but excluding any interest.)

Because the carrying value of $650,000 exceeds future cash flows of $500,000 over the asset's remaining useful life, the asset is impaired.

1. **Determine Amount of Impairment Loss**.

   The amount of impairment loss to record is the excess of the asset's carrying value over its fair value.

EXAMPLE

Continuing the above example, if the fair value of the machine was $480,000, the impairment loss would be $170,000.

Additional Considerations

- It is important to note that this impairment write-down is permanent; in the example the $480,000 becomes the depreciable cost of this asset going forward. Subsequent recoveries in value are not recognized on impaired assets held and used.

  Further impairment of the same asset (or assets) can occur if the revised cash flows at some future date are less than the new carrying value and fair value is less than carrying value.

  Note that prohibiting future "write-ups" is really just an issue of timing, as impaired assets in use continue to be depreciated at some new, lower rate. If a recovery were recorded, depreciation would merely become proportionately higher. An impairment loss is almost like an irreversible, extra "chunk" of depreciation recorded at some point during an asset's useful life.
- The fair value for the machine in the preceding example was given, but in the "real world," this value can be hard to obtain. The guidance in Topic 820, Fair Value Measurement, should be applied when deriving fair value for an impaired asset, including maximizing the use of observable inputs.

  If there is not an active market or verifiable appraisal values available, an entity will probably rely on projected cash flows. In fact, Topic 360-10-35-36 states, "For long-lived assets (asset groups) that have uncertainties both in timing and amount, an expected present value technique will often be the appropriate technique with which to estimate fair value." In these cases, the entity may use undiscounted cash flows to test for impairment in Step 1, and then present-value the cash flows to derive a fair value for the write-down in Step 2. This approach results in a Level 3 fair value measurement.
- Topic 360 also states that, if an asset is "tested" and found not to be impaired, the depreciation policy may need to be re-evaluated. This is logical, because circumstances must have indicated that impairment was possible. If the calculations require no impairment loss, the asset still may have reduced usefulness, suggesting that a faster depreciation method or shorter useful life may be appropriate.
- Lastly, if assets are considered to have no service potential, they should be classified as either held-for-sale or to-be-abandoned. A long-lived asset to be abandoned is considered

disposed of when it ceases to be used. If a reporting entity anticipates abandoning an asset that it is currently still using, the asset's remaining depreciable life (and salvage value) should be adjusted to reflect the abandonment through a change in estimate.

Required Disclosures for Impaired Assets Held and Used

- A description of the assets impaired and the facts and circumstances leading to the impairment
- The amount of the impairment loss and how fair value was determined along with the caption in the income statement (or statement of activities) which includes the impairment loss, if the loss is not separately disclosed
- How **fair value** was determined (i.e., Level 1, 2 or 3)
- If the recognized impairment loss is an estimate that has not yet been finalized, that fact and the reasons why and, in subsequent periods, the nature and amount of any significant adjustments made to the initial estimate of the impairment loss.
- The business segments affected, if applicable

EXAMPLE

NOTE 8: PROPERTY AND EQUIPMENT (IN PART)

During 20X5, the Company determined that assets of its Seagull fishing gear division were impaired, due to lower than anticipated demand for premium quality fishing equipment. Based on appraised values of the division's assets, an impairment loss of $333,333 has been recorded.

Note: This example illustrates only the impairment disclosure. Other disclosures for fair value are required.

EXAMPLE

NOTE 4: ASSET IMPAIRMENTS

During 2XXX, the following impairments were recorded on assets of the Company:

In accordance with the provisions of Topic 360-10, long-lived assets held and used with a carrying amount of $810,000 were written down to their fair value of $650,000, resulting in an impairment charge of $160,000, which was included in earnings for the period.

In accordance with the provisions of Topic 350-20, goodwill with a carrying amount of $175,000 was written down to its implied fair value of $110,000, resulting in an impairment charge of $65,000, which was included in earnings for the period.

Note: This example illustrates only the impairments disclosure. Other disclosures for fair value are required.

Example Disclosure of Impairments of Long-Lived Assets and Costs Associated with Exit Activities

Sears Holdings Corporation

February 2, 2019 Annual Report

Impairment of Long-Lived Assets and Costs Associated with Exit Activities

In accordance with accounting standards governing the impairment or disposal of long-lived assets, the carrying value of long-lived assets, including property and equipment, is evaluated whenever events or changes in circumstances indicate that a potential impairment has occurred. Factors that could result in an impairment review include, but are not limited to, a current period cash flow loss combined with a history of cash flow losses, current cash flows that may be insufficient to recover the investment in the property over the remaining useful life, or a projection that demonstrates continuing losses associated with the use of a long-lived asset, significant changes in the manner of use of the assets, or significant changes in business strategies. An impairment loss is recognized when the estimated undiscounted cash flows expected to result from the use of the asset plus net proceeds expected from disposition of the asset (if any) are less than the carrying value of the asset. When an impairment loss is recognized, the carrying amount of the asset is reduced to its estimated fair value as determined based on quoted market prices or through the use of other valuation techniques. We recorded impairment charges with respect to long-lived assets of $2.1 million and $3.4 million in fiscal years 2018 and 2017, respectively, included in Impairment of property and equipment in the accompanying Consolidated Statements of Operations.

We account for costs associated with location closings in accordance with accounting standards pertaining to accounting for costs associated with exit or disposal activities and compensation. When management makes a decision to close a location we record a reserve as of that date for the expected inventory markdowns associated with the closing. We also record a liability for future lease costs (net of estimated sublease income) when we cease to use the location. As of February 2, 2019 and February 3, 2018, this liability was approximately $2.6 million and $4.7 million, respectively. See Note 15.

ASSETS HELD FOR SALE

Subtopic 360-45-10 addresses assets held for sale which are:

- Segregated from other long-lived assets on the balance sheet
- Carried at the lower of carrying value or fair value less costs to sell
- Not depreciated

Because abuse of this classification would permit manipulation of income (less asset depreciation), the following **conditions** must *all* be met as of the balance sheet date in order to apply the above provisions:

1. Management has committed to a plan to sell the asset
2. The asset is immediately available for sale in its present condition, subject only to "normal customary" sales terms
3. The company has begun an active program to locate a buyer
4. The sale is probable and the asset transfer is expected to qualify as a completed sale within 1 year. There is one exception when there is a firm purchase commitment that may take longer to consummate. In addition, the pronouncement includes a list of circumstances beyond the seller's control that may expand the time to sell beyond 1 year. In those cases, the company can still classify the asset as held for sale.
5. The asset is being actively marketed at a reasonable price
6. Significant changes to the sale plan are unlikely

If these conditions are met after the balance sheet date but before the financial statements are issued (or available to be issued), that fact is disclosed in a subsequent events footnote.

The following **disclosures**, in addition to Topic 820 fair value disclosures, are required for assets either held for sale or assets that have been sold. Note that they are equally applicable to situations where assets held for sale relate to discontinued operations.

1. The facts and circumstances leading to the expected disposal, the expected manner and disposal date, and the carrying amount of the major classes of assets and liabilities
2. The gain or loss, if any, resulting from changes in the carrying amount of the assets and if not shown separately, the caption in the Income Statement or Statement of Activities that includes the gain or loss
3. The amount of revenue and pre-tax profit or loss in discontinued operations
4. The business segment(s) in which assets to be disposed of are held (if applicable)

EXAMPLE

Note X: Property, Plant, and Equipment (In Part)

20X1, the Company decided to sell its Mid-Atlantic warehouse due to poor product sales in that region. The Company expects to sell the warehouse within the next 6 months. Accordingly, in 20X1, the carrying value of this asset was reduced by $300,000 to reflect its fair value less costs to sell of $2,000,000.

(Assumes $300,000 loss shown separately in the Income Statement).

NOTE: Previous example does not reflect Topic 820 fair value disclosures.

NOTES

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We are a leading provider of continuing professional education (CPE) courses to Fortune 500 companies across the globe, CPA firms of all sizes, and state CPA societies across the country, as well as CPA associations and other financial organizations. Our efficient and flexible approach offers an array of customized cutting-edge content to meet your needs and satisfy the priorities of your business. Select from live classes, live webinars, conferences, or online training, including Nano courses, based on your preferred method of learning.

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Ethics	**Business Management and Organization**
Information Technology	**Economics**
Governmental and Not-For-Profit	**Ethics**
Non-Technical (including Professional Development)	**Finance**
Tax	**Information Technology**
	Management Services and Decision Making
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—Debbie Y.

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