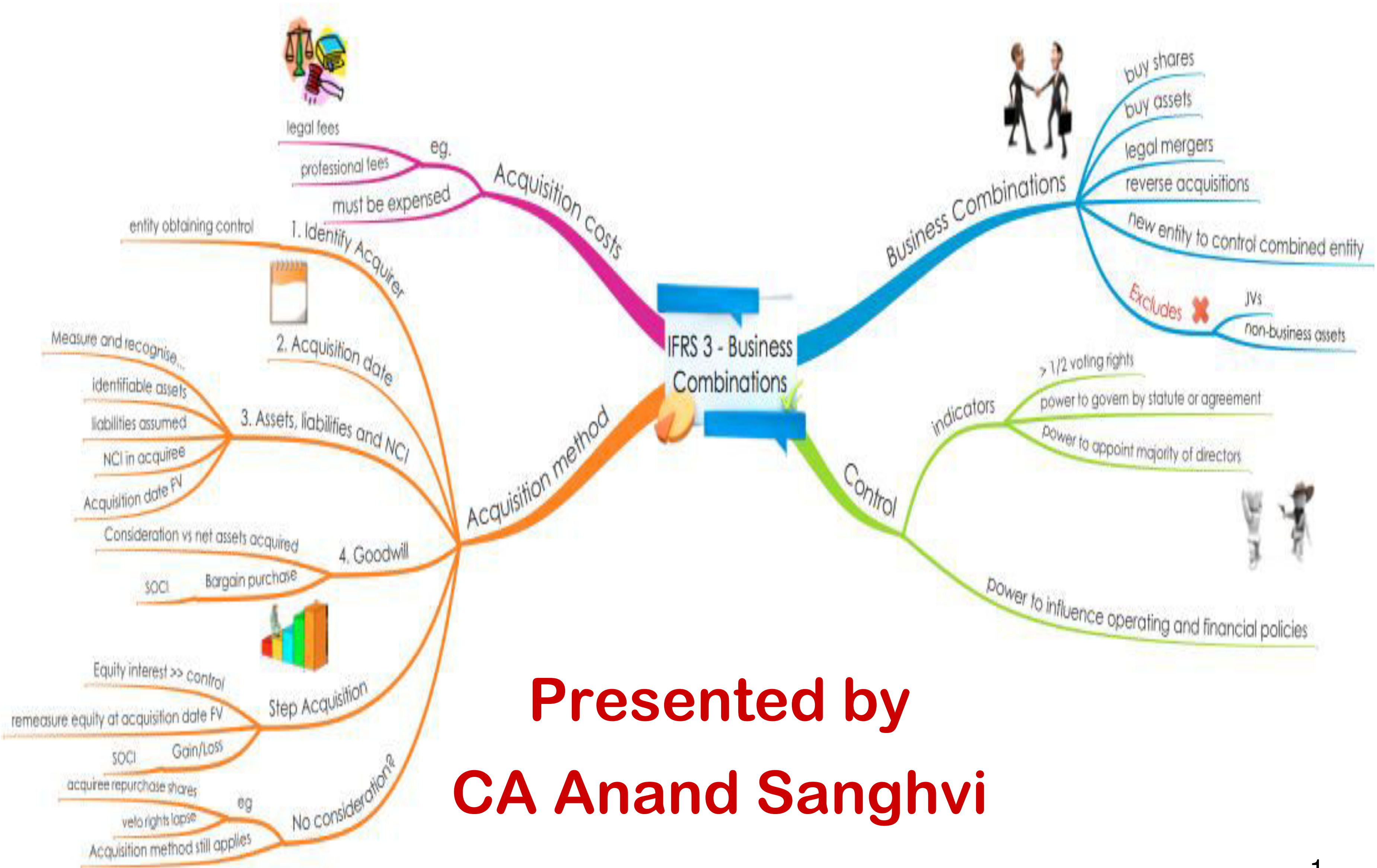
IFRS 3 - Business Combinations



Presented by

CA Anand Sanghvi

Agenda

A – Business & Business Combinations - Definition

B – Scope of Standards

C – Steps in Acquisition Accounting

D – Possible Structures in Business Combination

E – Recognition of an Asset or Liability

F – Commonly identifiable Intangible Assets

G – Measurement of Goodwill and Non Controlling Interest

H – Fair Valuation Methods and approaches specific to identified Intangible

I – Goodwill – Residual Value

J – Case Study

Standards relating to Business Combinations

International Financial Reporting Standards

- IFRS 3 – Business Combinations
- IAS 38 – Intangible Assets

U.S.

Generally Accepted Accounting Principles

- ASC 805 (formerly FAS 141R)

Business - Definition

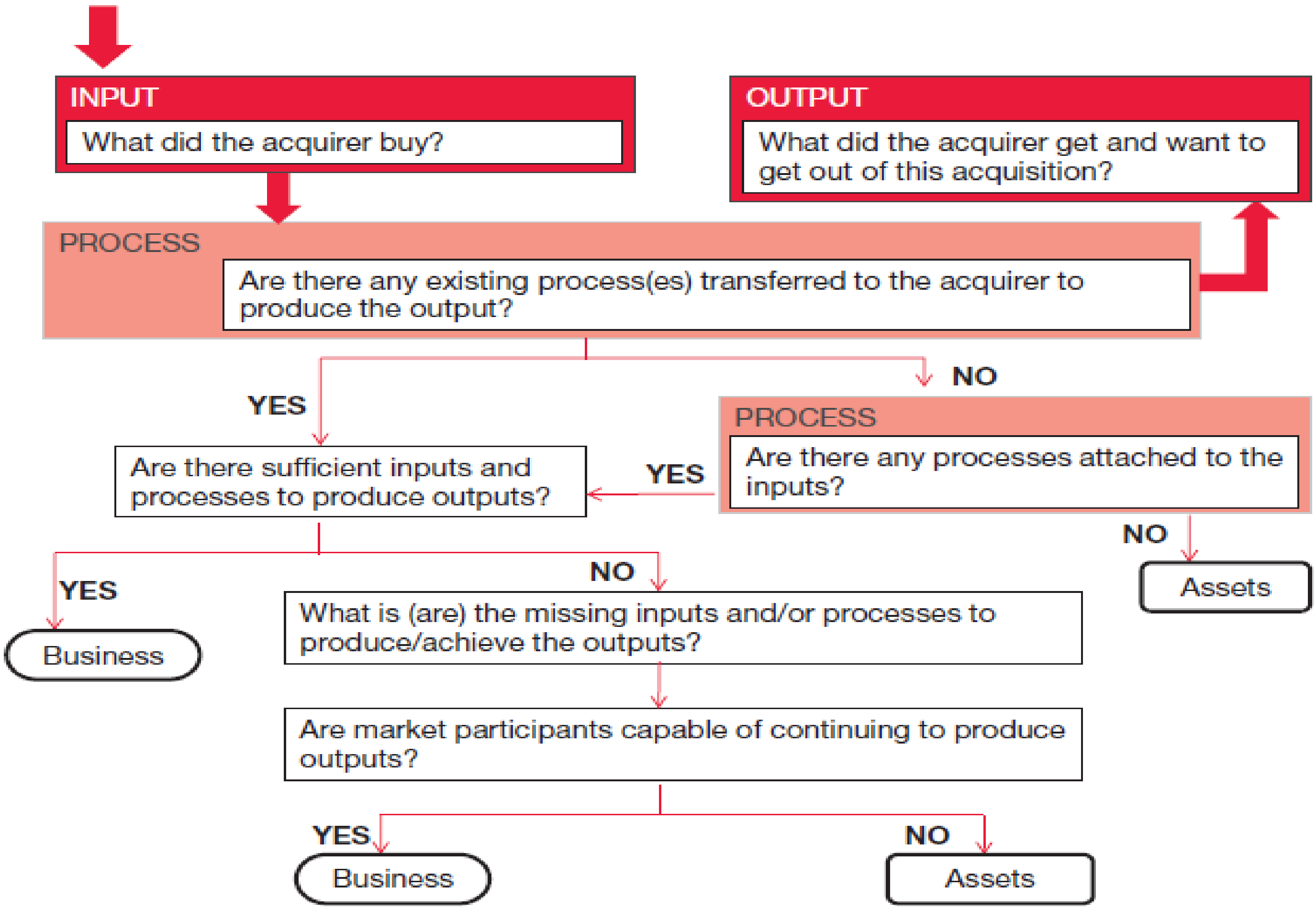
An **integrated set of activities & assets** that is capable of being conducted & managed to **provide a return to investors** by way of dividends, lower costs or other economic benefits

Framework

Step 1:
Identify elements in the acquired group

Step 2:
Assesses capability of the group to produce outputs

Step 3:
Market participants ability to produce output



Business - Definition

Example

E&P Co. A (Oil & Gas E & P Co.) acquires mineral interest from E&P Co. B on which it intends to perform exploration activities to determine if reserves exist. There have been no exploration activities performed so far on the said mineral property ***Input (Economic Resource) –*** ***Processes –*** ***Outputs –*** ***Conclusion***	E&P Co. A (Oil & Gas E & P Co.) acquires similar kind of property from E&P Co. B. except that Oil & Gas production activities are in place. E&P Co. A will take over the operations by using its own employees ***Input (Economic Resource) –*** ***Processes –*** ***Outputs –*** ***Conclusion –***

Business - Definition

Example

Biotech A acquires all of the outstanding shares in Biotech B, which is a development stage company with a license for a product candidate. Due to loss of funding, Biotech has no employees and no other assets. Neither clinical trials nor development are currently being performed. When additional funding is obtained, Biotech A plans to commence phase I clinical trials for the product candidate. ***Input (Economic Resource) –*** ***Processes –*** ***Outputs –*** ***Conclusion***	Biotech C acquires all of the outstanding shares in Biotech D, which is a development stage company with a license for a product candidate. Phase I clinical trials are being performed by Biotech D. Biotech D's admin & accounting functions are currently being performed by a contract employee. ***Input (Economic Resource) –*** ***Processes –*** ***Outputs –*** ***Conclusion –***

Business - Definition

Example

Video Game Software Company has been formed to design video games.

The current activities of the company include researching and developing its first product and creating a market for the product. Since its inception, the company has not generated any revenues and has received funding from third parties. With a workforce composed primarily of engineers, the company has the intellectual property needed to design the video game, as well as the software and fixed assets required to develop it. The company does not have commitments from customers to buy any games. The company is being purchased by a financial investor, a venture capital fund, which intends to take the company public.

Example

Company A purchases the organic food operations of Company B

Company B *is a large* multinational conglomerate, with the intent of continuing the organic food operations as a separate division. Company B is organized so that the organic food operations are separate legal entities in some countries and separate divisions in other countries. Management, employees, product distribution agreements, brand names, copyrights, and key systems (e.g., ordering, billing, and inventory) are included in the acquired organic food operations. However, the sales force that sells Company B's products is not part of the transaction.

Business Combinations - Definition

A transaction or other event in which an acquirer **obtains control** of one or more businesses

- By Transfer of cash, cash equivalents, or other assets
- By Issuance of equity interests.
- By Incurrence of liabilities
- By other means that may not involve transfer of consideration including by contract alone

Possible Structures

Possible Structures of Business Combination includes

1. One business becomes subsidiary of another
2. Two entities are legally merged into one entity
3. One entity transfers its net assets to another entity
4. An entity's owners transfer their equity interest to the owners of another entity etc.

Business Combinations - Definition

Acquiring control without transferring consideration

Share repurchase — Subsidiary X has 100 shares outstanding. Parent A holds a 48 percent interest in X and accounts for the interest as an equity method investment. Subsidiary X buys back 20 shares held by third parties, resulting in 80 shares outstanding. Parent A's proportional share has increased to 60 percent of the outstanding shares, thereby giving A control of X. Once control is obtained, a business combination has occurred. While A did not transfer consideration in the transaction, it would be the acquirer under the acquisition method of accounting.

Lapse of minority veto rights — Company A holds a majority interest in Company X, whereas Company D holds a noncontrolling interest as well as veto rights in Company X. Therefore, A is precluded from exercising control over X. On June 1, 20X0, the veto rights held by D expire, which gives A control over X. The expiration results in a business combination that should be accounted for under the acquisition method of accounting in which, all else being equal, A is the acquirer.

Contract alone — Company A and Company X enter into a contractual arrangement to merge their businesses; however, no consideration is exchanged. Company X will control the daily operations of the combined entity. The transaction would be a business combination accounted for under the acquisition method of accounting in which, all else being equal, X is the acquirer.

Scope of the Standards

Scope Excludes

- The formation of a joint venture
- The acquisition of an asset or a group of assets that does not constitute a business
- A combination of entities or businesses under common control – (TCS acquired Computational Research Lab)

Steps Applicable in Acquisition Accounting

Identify the Acquirer and the Acquisition Date

→

Determination of the consideration paid in the transaction

→

Recognition of assets acquired and liabilities assumed in the transaction

↓

Valuation Estimates for identified intangible assets and liabilities

←

Recognize and measure Goodwill, or a Gain in a Bargain Purchase

Identification of the Acquirer

Control of the board of directors/governing body

Ownership of more than 50% of the outstanding voting shares of another entity

Ability to sell, lease, or otherwise dispose of the investee's assets

Ability to change the operating or capital policies of the investee

Entity which has the **power to govern the financial & operating policies** of the other entity so as to obtain benefits from its activities.

Selecting, terminating, or setting the compensation of investee management

The investor has guaranteed the investee's debt, creating a presumption of control

The right to offer to buy out the other ownership interests in the investee

Identifying Acquirer

Example

A Newco is formed by various unrelated investors for the purpose of acquiring a business. Newco issues equity to the investors for cash. Using the cash received, Newco purchases 100 percent of the equity of a company.

Example

A Newco is formed by Company A to effect the combination of Company A and Company B. Newco issues 100 percent of its equity interests to the owners of the combining companies in exchange for all of their outstanding equity interests.

Identifying Acquirer

Example – Determination of Voting Rights

Company A acquires Company B in a business combination by exchanging equity interests. Company B has nonconvertible debt that Company A does not wish to assume in the acquisition. Company A reaches an agreement with Company B's nonconvertible debt holders to extinguish the debt for Company A's common shares. The nonconvertible debt holders hold no other financial interests in Company B. How to determine voting rights for this business combination transaction?

Example – Determination of Voting Rights

Company A acquires Company B in a business combination by exchanging equity interests. Company B has convertible debt. The conversion feature is "deep in the money" and the underlying fair value of the convertible debt is primarily based on the common shares into which the debt may be converted. Company A does not wish to assume the convertible debt in the acquisition. Company A reaches an agreement with Company B's convertible debt holders to exchange the convertible debt for Company A's common shares. How to determine voting rights for this business combination transaction?

Identification of the Acquisition Date

Control is obtained on the date on which an acquirer **legally transfers consideration** to a seller and **acquires the assets** and **assumes the liabilities** of the target company

Regulatory or shareholder approval

Acquisition date different from the closing date

An acquirer may obtain control over the target company on a date that either precedes or follows the closing date.

Example – Company A acquired 25% stake through fresh issue of equity shares in Company B and obtained control over the operations on 30th November 2010. Upon conclusion of the open offer on 31st March 2011, Company A became majority shareholder. **The acquisition date shall be 30th November 2010**.

Recognition of Assets Acquired and Liabilities Assumed

Identifiable Assets & Liabilities
(even if not recognized previously by the acquirer)
must:

Meet the definition of assets & liabilities as per the Framework for the Preparation and Presentation of Financial Statements at the acquisition date; and

An asset is a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity.
A liability is a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits.

Be exchanged as part of the business combination instead of as a separate transaction

Recognition of Assets Acquired and Liabilities Assumed

An Intangible Asset can be identified and recognized if:

It is **separable**, i.e. capable of being separated or divided from the entity and sold, transferred, licensed, rented or exchanged or

It arises from **contractual** or other legal rights, regardless of whether those rights are transferable or separable from the entity or from other rights & obligations.

IFRS 3 requires that most of the identifiable assets & liabilities acquired in a business combination are recorded by the acquirer at Fair Value

Fair Value is the amount for which an asset could be sold or a liability transferred between knowledgeable and willing parties in an arm's length transaction

Sources to detect identifiable intangibles

Various sources could be

1. Review of the business model
2. Review of historical & prospective financial info
3. Analysis of Product Portfolio – Core Technology if any
4. Relative importance of marketing or branding strategies
5. Analysis of Customer base / Customer contracts if any
6. Analysis of Supplier related agreement
7. Discussion with the management, auditor and Review of Due diligence Report
8. Investor Presentation published on the web site

Common Identifiable Intangible Assets

Customer List → Recognized as an Intangible if separability criteria matches

Customer Contracts & Relationship → It arises from contracts such as purchase or sales order

Registered Trademark and Brand → Recognized as an Intangible as it meets contractual legal criteria

Technology Know how → Recognized as an Intangible if either separability or legal criteria matches

Common Identifiable Intangible Assets

Assembled Workforce

Not recognized as an intangible asset separate from goodwill

Financial Instruments

Call / Put option as a part of Agreement with Promoters (Acquiree)

Operating Leases

Recognize
the favorable or unfavorable aspect
of the operating lease relative
to its market terms or prices
as an intangible asset

Non Compete Agreement

Recognize as an intangible asset using Difference in Cash flows “with” and “without” restrictive covenants of the Non-Compete Agreement

Recognition of Assets Acquired and Liabilities Assumed

Example – Contract Related Customer Relationship

An acquired business is a manufacturer of commercial machinery and related aftermarket parts and components. The acquiree's commercial machines, which comprise approximately 70 percent of its sales, are sold through contracts that are non cancellable. Its aftermarket parts and components, which comprise the remaining 30 percent of the acquiree's sales, are also sold through contracts. However, the customers can cancel those contracts at any time.

Example – Contract Related Customer Relationship

An acquiree is negotiating contracts with a number of new customers at the acquisition date for which the substantive terms, such as pricing, product specifications, and other key terms, have not yet been agreed to by both parties.

Recognition of Assets Acquired and Liabilities Assumed

Example – Favourable or Unfavourable Contract

Company N acquires Company O in a business combination. Company O purchases electricity through a purchase contract, which is in year three of a five year arrangement. At the end of the original term, Company O has the option at its sole discretion to extend the purchase contract for another five years. The annual cost of electricity per the original contract is CU80 per year and the annual cost for the five-year extension period is CU110 per year. The current annual market price for electricity at the acquisition date is CU200 and market rates are not expected to change in the future. For the purpose of this example, assume that Company N does not account for the contract as a derivative.

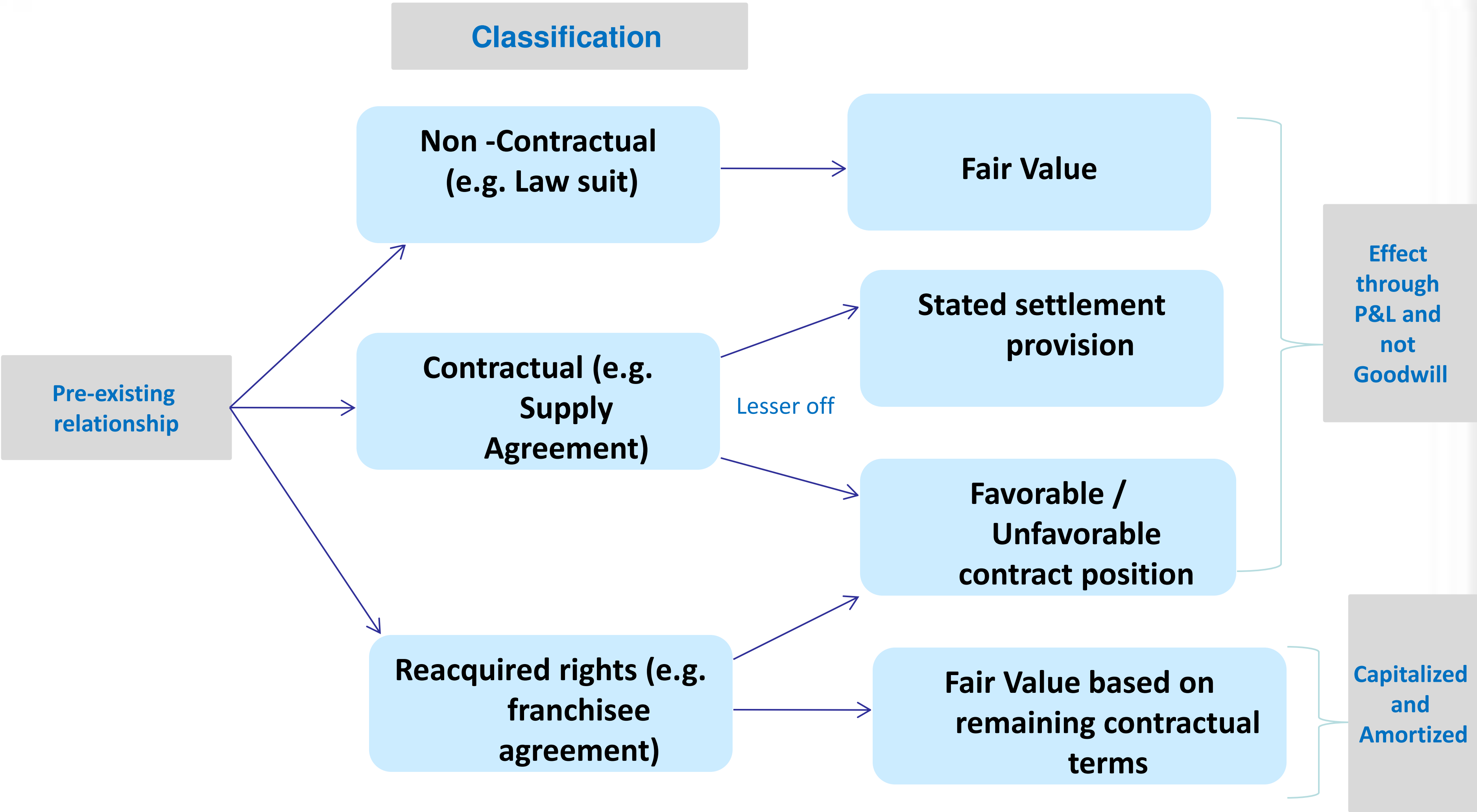
Recognition of Assets Acquired and Liabilities Assumed

Example – Employee Compensation Arrangement

Company D acquires Company E in a business combination. Company E has an existing employment agreement in place with one of its key employees that states that the employee will be paid CU1 million upon a change of control and termination of employment within 18 months following the acquisition date (sometimes referred to as a "dual trigger"). The employee receives the stated amount only if the employee is subsequently terminated without cause or leaves for good reason as defined in the employment contract. At the date of the business combination, Company D had determined it would not offer employment to the key employee of Company E, effectively terminating employment on the acquisition date, and would pay CU1 million to the former employee of Company E.

Whether this transaction will be a part of the Business Combination ?

Pre – existing relationship



Recognition of Assets Acquired and Liabilities Assumed

Example – Settlement of Pre-existing Relationship

Company A is a defendant in litigation relating to a patent infringement claim brought by Company B. Company A pays CU50 million to acquire Company B and effectively settles the lawsuit. The fair value of the settlement of the lawsuit is estimated to be CU5 million, and Company A had previously recorded a CU3 million litigation liability in its financial statements before the acquisition.

Example – Settlement of Pre-existing Relationship

Company C provides services to Company D. Since the inception of the contract, the market price for these services has increased. The terms in the contract are unfavorable compared to current market transactions for Company C in the amount of CU10 million. The contract contains a settlement provision that allows Company C to terminate the contract at any time for CU6 million. Company C acquires Company D for CU100 million.

Recognition of Assets Acquired and Liabilities Assumed

Example – Settlement of Pre-existing Relationship

Company E acquires Company F for CU100 million. Company E provides services to Company F. Since the inception of the services contract, the market price for these services has increased. The terms in the contract are unfavorable compared to current market transactions for Company E in the amount of CU10 million. The services contract is silent on a settlement provision in the event that either party terminates the contract.

Recognition of Assets Acquired and Liabilities Assumed

Example – Reacquired Right

Company A owns and operates a chain of retail coffee stores. Company A also licenses the use of its trade name to unrelated third parties through franchise agreements, typically for renewable five-year terms. In addition to on-going fees for cooperative advertising, these franchise agreements require the franchisee to pay Company A an up-front fee and an on-going percentage of revenue for continued use of the trade name.

Company B is a franchisee with the exclusive right to use Company A's trade name and operate coffee stores in a specific market. Pursuant to its franchise agreement, Company B pays to Company A a royalty rate equal to 6% of revenue. Company B does not have the ability to transfer or assign the franchise right without the express permission of Company A.

Company A acquires Company B for cash consideration. Company B has three years remaining on the initial five-year term of its franchise agreement with Company A as of the acquisition date. There is no unfavorable/favourable element of the contract.

Measurement Period Adjustment

Adjustment

In case accounting for Business combination is incomplete by the end of the reporting period, the acquirer shall report provisional amounts for the item for which accounting is incomplete

The measurement period shall not exceed a year from the acquisition date

Example – Measurement period adjustment

On 1 January 20X0, Company C acquires Company D. As part of the initial acquisition accounting, Company C recognizes CU50 million of goodwill and a CU5 million intangible asset for the customer relationship related to Company D's largest customer. The useful life of the customer relationship is deemed to be four years. On 30 June 20X0, Company D obtains an independent appraisal of the acquisition-date fair value of the customer relationship intangible asset. Based on the appraisal, the value of the customer relationship of Company D's largest customer is determined to be CU7 million, with a useful life of four years.

Reverse Acquisition

Reverse Acquisition

A Private companies wishes to go public but wants to avoid the cost and time associated with public offering. Hence, the private company arranges to be legally acquired by a publicly listed company.

The owners of the Private company are known as Accounting Acquirer as per the standard and Public company would be the legal acquirer

The legal acquirer is the surviving entity in a reverse acquisition and continues to issue financial statements.

Reverse Acquisition

Company B, a private company, acquires Company A, a public company, in a reverse acquisition. Immediately before the acquisition date:

- Company A has 100 shares outstanding.
- Company B has 60 shares outstanding.

On the acquisition date:

- Company A issues 150 shares in exchange for Company B's 60 shares.
- The shareholders of Company B own 60 percent (150/250) of the new combined entity.
- The shareholders of Company A own 40 percent (100/250) of the new combined entity.
- Market price of a share of Company A is CU16.
- Estimated fair value of a share of Company B is CU40.

Analysis

The fair value of the consideration effectively transferred should be measured based on the most reliable measure. Because Company B is a private company, the fair value of the Company A's shares is likely more reliably measurable. The consideration effectively transferred of CU1600 is measured using the market price of Company A's shares (100 shares times CU16).

Business Combination in Stages

Business Combination in Stages - Accounting

Fair Value Method

100% of the identifiable net assets are recognized

100% of Non controlling Interest (NCI) at Fair Value is recognized

Proportionate Share of Net Assets

NCI is measured at % share of identifiable net asset and hence Goodwill recognized is a partial Goodwill

100% of the identifiable net assets are recognized

Non Controlling Interest - Fair Valuation

Non Controlling Interest Measurement

- Measurement at Fair Value that would result in to recognition of " Full Goodwill"
- Measurement at Proportion of the Fair Value of Net Asset that would result in to recognition of "Partial Goodwill"

Non Controlling Interest - Fair Valuation

Determining the Fair Value of the Non-controlling Interest

Example (Listed Entity) -

- Company A acquires 60% (600,000 shares) of Company B for $6 million (or $10 per share). However, as of the acquisition date, the acquired entity's shares are trading at $7.50 per share. The acquirer acknowledges that a premium over market is paid because of synergies it believes it will be able to derive from the acquired business.
- Therefore, a conclusion that the fair value of the entire acquired entity is $10 million may not be reasonable. The fair value of the acquired entity might be $9 million, calculated as the $6 million paid plus $3 million for the non-controlling shares (400,000 shares × $7.50 per share).

Example (Unlisted Entity) -

- Company C acquires 75% (750,000 shares) of Company D, a privately held entity, for $15 million in cash (or $20 per share). An independent third-party valuation firm calculates the fair value of the entire acquired business (i.e., 100%) as $19 million using valuation techniques.
- Te fair value of the non-controlling interest shall be $4 million (or $16 per share), calculated as the fair value of the entire business ($19 million) less the fair value of the consideration transferred by C ($15 million), which includes a control premium.

Non Controlling Interest - Fair Valuation

Determining the Non-controlling Interest as Proportionate of Net Assets Method

Example –

- Company X acquires 80% (800,000 shares) of Company Y, a privately held entity, for $100 million in cash. The identifiable Net Assets of Company Y at fair value have been determined at $120 million (i.e., 100%).
- The fair value of the non-controlling interest shall be $24 million, calculated as the Proportionate interest in the identified Net Assets of Company Y.

Goodwill Computation

Goodwill is

Sum of

- Purchase Consideration
- Non – Controlling Interest measured at Fair Value
- Fair Value of Identifiable Liabilities assumed

Less

- Fair Value of Identifiable Assets acquired

OR

Sum of

- Purchase Consideration
- Non – Controlling Interest measured at Proportionate interest in the fair value of identifiable assets & liabilities
- Fair Value of Identifiable Liabilities assumed

Less

- Fair Value of Identifiable Assets acquired

If the acquirer has any interest already acquired prior to control acquisition, then it has to be remeasured at Fair Value and gain/loss has to be transferred to Profit and Loss Account

Allocation of Goodwill

Goodwill

Multiple Cash Generating Units (CGUs) – Goodwill is allocated among the identified CGUs on the basis of their **Enterprise Values**.

✗ **Amortization**

√ **Tested annually for impairment**

Negative Goodwill → Reassessment of identifiable assets, liabilities, and contingent liabilities shall be done. Any excess remaining after reassessment is recognized to the Profit & Loss Account

Goodwill Computation – Step Acquisition (100% Control)

Company A has a 40 percent previously held equity interest in Company B. The carrying value of the previously held equity interest is CU20 million. Company A purchases the remaining 60 percent interest in Company B for CU300 million in cash. The fair value of the 40 percent previously held equity interest is CU200 million.1 The net aggregate value of the identifiable assets and liabilities, as measured in accordance with the Standards, is determined to be CU440 million.

Solution

Dr Identifiable net assets	CU440[2]	
Dr Goodwill	CU 60[3]	
Cr Cash		CU300[4]
Cr Equity investment		CU 20[5]
Cr Gain on equity interest[1]		CU180[6]

The full amount of goodwill is recorded (in millions):

Fair value of consideration transferred	CU300
Fair value of the NCI	n/a*
Fair value of previously held equity interest	200
Subtotal (a)	500
Recognised value of 100 percent of the identifiable net assets, as measured in accordance with the Standards (b)	(440)
Goodwill recognised (a – b)	CU 60

Goodwill Computation – Step Acquisition with less than 100% acquisition

Company A has a 40 percent previously held equity interest in Company B with a carrying value of CU20 million. Company A purchases an additional 50 percent interest in Company B for CU250 million in cash. The fair value of Company A's 40 percent previously held equity interest is determined to be CU200 million. The fair value of the NCI is determined to be CU50 million. The net aggregate value of the identifiable assets and liabilities, as measured in accordance with the Standards, is determined to be CU440 million.

Solution

Dr Identifiable net assets	CU440[2]	
Dr Goodwill	CU 60[3]	
Cr Cash		CU250[4]
Cr Equity investment		CU 20[5]
Cr Gain on equity interest[1]		CU180[6]
Cr NCI[1]		CU 50[7]

The full amount of goodwill is recorded:

Fair value of consideration transferred	CU250
Fair value of the NCI	50
Fair value of previously held equity interest	200
Subtotal (a)	500
Recognised value of 100 percent of the identifiable net assets, as measured in accordance with the Standards (b)	(440)
Goodwill recognised (a – b)	CU 60

Goodwill Computation – Bargain Purchase with Partial Acquisition and NCI at Fair Value

Company A acquires Company B by purchasing 70 percent of its equity for CU150 million in cash. The fair value of the NCI is determined to be CU69 million. The net aggregate value of the identifiable assets and liabilities, as measured in accordance with the Standards, is determined to be CU220 million.

Solution

Recognised value of 100 percent of the identifiable net assets, as measured in accordance with the Standards (a)	CU220
Fair value of consideration transferred	(150)
Fair value of the NCI	(69)
Fair value of previously held equity interest	n/a*
Less: Subtotal (b)	(219)
Bargain purchase gain (a – b)	CU 1

Dr Identifiable net assets	CU220[2]	
Cr Cash		CU150[3]
Cr Gain on bargain purchase		CU 1[4]
Cr NCI[1]		CU 69[5]

Goodwill Computation – Step Acquisition with NCI at % of Net Assets Method

Company A has a 40 percent previously held equity interest in Company B, with a carrying value of CU20 million. Company A purchases an additional 50 percent interest in Company B for CU250 million in cash. The fair value of the 40 percent previously held equity interest is determined to be CU200 million. The net aggregate value of the identifiable assets and liabilities, as measured in accordance with the Standards, is determined to be CU440 million. Company A chooses to measure NCI using the proportionate share method for this business combination.

Solution

Dr Identifiable net assets	CU440[2]	
Dr Goodwill	CU 54[3]	
Cr Cash		CU250[4]
Cr Equity investment		CU 20[5]
Cr Gain on investment[1]		CU180[6]
Cr NCI		CU 44[7]

Fair value of consideration transferred	CU250
Proportionate share of the NCI (CU440 x 10%)	44
Fair value of previously held equity interest	200
Subtotal (a)	494
Less: Recognised value of 100 percent of the identifiable net assets, as measured in accordance with the Standards (b)	(440)
Goodwill recognised (a – b)	CU 54

Goodwill Computation – Change in Controlling Ownership Interest

Change in Ownership Interest	Result	Impact
Additional Interest Obtained—Control is Maintained	• Account for as an equity transaction.	• Do not recognise a gain or loss in the income statement. • Recognise the difference between the fair value of the consideration paid and the related carrying value of the NCI acquired in the controlling entity's equity. • Reclassify the carrying value of the NCI obtained from the NCI to the controlling entity's equity.
Reduction in Parent's Ownership Interest—Control is Maintained[1]	• Account for as an equity transaction.	• Do not recognise a gain or loss in the income statement. • Recognise the difference between the fair value of the consideration received and the related carrying value of the controlling interest sold in the controlling entity's equity. • Reclassify the carrying value of the controlling interest sold from the controlling entity's equity to the NCI.

Goodwill Computation – Change in Controlling Ownership Interest

Company A acquires Company B by purchasing 60 percent of its equity for CU300 million in cash. The fair value of NCI is determined to be CU200 million. The net aggregate value of the identifiable assets and liabilities, as measured in accordance with the Standards, is determined to be CU370 million.
Two years later, Company A purchases the outstanding 40 percent interest from the subsidiary's non controlling shareholders for CU300 million in cash. The goodwill of CU130 million from the acquisition of the subsidiary is assumed to not have been impaired. The carrying value of the 40 percent NCI is CU260 million (original value of CU200 million, plus CU60 million, assumed to be allocated to the NCI over the past two years for its share in the income of the subsidiary and its share of accumulated other comprehensive income).
Three years later, Company A sells a 20 percent interest in the subsidiary to outside investors for CU200 million in cash. Company A still maintains an 80 percent controlling interest in the subsidiary. The carrying value of the subsidiary's net assets is CU600 million, including goodwill of CU130 million from the initial acquisition of the subsidiary.

Goodwill Computation – Change in Controlling Ownership Interest

Solution

The journal entry recorded on the acquisition date for the 60 percent interest acquired is as follows (in millions):

Dr Identifiable net assets	CU370[2]	
Dr Goodwill	CU130[3]	
Cr Cash		CU300[4]
Cr NCI[1]		CU200[5]

The journal entry recorded for the 40 percent interest acquired is as follows (in millions):

Dr NCI	CU260[1]	
Dr Equity/APIC	CU 40[2]	
Cr Cash		CU300[3]

[1] Elimination of the carrying value of the 40 percent NCI on Company A's books.

[2] Difference in NCI: Consideration paid less the carrying value of NCI = (CU300 – CU260).

[3] Cash paid for the 40 percent interest acquired in the subsidiary.

A change in ownership interest that does not result in change of control is considered as an equity transaction

The journal entry recorded on the disposition date for the 20 percent interest sold is as follows (in millions):

Dr Cash	CU200[1]	
Cr NCI		CU120[2]
Cr Equity/APIC		CU 80[3]

[1] Cash received for the 20 percent interest sold.

[2] Recognition of the 20 percent NCI at its proportionate interest in the carrying value of the subsidiary = CU600 x 20%.

[3] Fair value of the consideration received less the recorded amount of the NCI = CU200 – (CU600 x 20%).

For subsequent changes in NCI, NCI is recorded at proportionate interest of the carrying value of subsidiary

Acquisition of Additional NCI through Business Combination

Company A owns a 90 percent controlling interest in Subsidiary B. Company C holds the 10 percent non controlling interest with a carrying value of CU70 million in Company A's consolidated financial statements and a fair value of CU100 million. Company A acquires Company C in a business combination for CU1,000 million, which includes the indirect acquisition of the non controlling interest in Subsidiary B for CU100 million.

Solution

Dr Identifiable net assets of Company C	CU900[1]	
Dr Noncontrolling interest of Subsidiary B	CU 70[2]	
Dr Equity/APIC	CU 30[3]	
Cr Cash		CU1,000[4]

[1] The value of 100 percent of the identifiable net assets of Company C is recorded, as measured in accordance with the standards.

[2] Elimination of the carrying value of the 10 percent NCI on Company A's books.

[3] Difference in NCI: Consideration paid less the carrying value of NCI = (CU100 – CU70).

[4] Cash paid for the 100 percent interest in Company C.

Control to Non Controlling Investment

Change in Ownership Interest	Result	Impact
Reduction in Parent's Ownership Interest—Control to Noncontrolling Investment[2]	• Change classification and measurement of investment. • Cease consolidation accounting and begin accounting for investment under other applicable guidance. • Recognise gain or loss on disposal and gain or loss on the retained noncontrolling investment in the income statement.	• Deconsolidate investment. • Remeasure any retained noncontrolling investment at fair value. • Recognise gain or loss on interest sold and gain or loss on the retained noncontrolling investment in the income statement.

Accounting for Changes in Interest if control is lost

Company A owns 100 percent of a subsidiary. Company A disposes of 60 percent of its interest in the subsidiary for CU360 million, and loses control of the subsidiary. At the disposal date, the fair value of the retained non controlling investment is determined to be CU240 million. The carrying value of the identifiable net assets is CU440 million, excluding goodwill. There is CU60 million of goodwill recorded related to the previously acquired interests in the subsidiary. Company A tested the goodwill and long-lived assets of the subsidiary prior to disposal and there was no impairment.

Steps

1. Derecognize the assets (including Goodwill) and Liabilities at their Carrying Amount
2. Derecognize the carrying amount of NCI
3. Recognize the fair value of proceeds
4. Recognize the retained non controlling interest at its fair value
5. Recognize any resulting difference as a gain or loss in Income Statement

Accounting for Changes in Interest if control is lost

Solution

Dr Cash	CU360[1]	
Dr Equity method investment	CU240[2]	
Cr Net assets		CU500[3]
Cr Gain on investment		CU100[4]

1 Cash received for the 60 percent interest sold.

2 Fair value of the 40 percent retained noncontrolling investment is recognised.

3 Deconsolidation of the subsidiary and removal of 100 percent of carrying value of the subsidiary's net assets, including an appropriately allocated portion of previously recorded goodwill.

4 Gain or loss on the interest sold and the retained noncontrolling investment is recognised in earnings [profit or loss]; calculated as follows:

Fair value of consideration	CU360
Fair value of retained noncontrolling investment	240
Carrying value of NCI	n/a*
Subtotal	600
Less: Carrying value of former subsidiary's net assets (CU440 net assets excluding goodwill + CU60 goodwill)	(500)
Gain on interest sold and retained noncontrolling investment	CU100

Gain / Loss on Balanced portion of Retained Non controlling investment

Fair value of retained noncontrolling investment	CU240
Percentage retained of carrying value of subsidiary ((CU440 + CU60) x 40%)	(200)
Gain on retained noncontrolling investment	CU 40

Valuation Methodologies

Valuation Approaches

- **Cost Approach** — *"mark – to – cost"*
  - Replacement Cost Method
  - Reproduction Cost Method
- **Market Approach** — *"mark – to – market"*
  - Market Pricing
  - Multiples
- **Income Approach** — *"mark – to – model"*
  - Relief from Royalty Method
  - Multi-period excess-earnings Method
  - With and Without Method

Apply most appropriate method considering economic benefits and valuation inputs available

Valuation Methodologies

Tangibles	Possible valuation methods
Real Property	Market Approach and Income Approach
Machinery	Depreciated Replacement costs, may also consider market approach for significant assets
Equipment	Depreciated Replacement costs, may also consider market approach for significant assets

Valuation Methodologies

Intangibles	Possible valuation methods
Brand & Trademarks	Relief from Royalty Method, Price-Premium Method or With and Without method –
Technology	Relief from Royalty Method, Incremental Cash Flow Method, would also consider Multi-period Excess-Earnings Method, if the technology is enabling
IPR&D	Multi-period Excess-Earnings Method (most prevalent)
Customer lists	Replacement Costs
Customer Contracts & relationships	Generally - Multi-period Excess-Earnings Method
Software	Relief from Royalty Method and Replacement Costs

Valuation Methodologies

Intangibles	Possible valuation methods
Reacquired Rights	Fair Value measurement doesn't take into account likelihood of renewal of the contract. If the reacquired rights are related to the patent or trademark then the same has to be valued accordingly
Operating Lease	Favorable or unfavorable Operating Lease contracts needs to fair valued as an asset or liability with either With or without approach or replacement cost method
Assembled workforce	Replacement cost method – Can not be recognized as an Intangible but Should be valued for Contributory Asset Charge Purposes

Tax Amortization Benefits (TAB)

Tax Amortization Benefit

- Fair value measurement under the income approach is usually based on PFI that reflects cash outflows net of income taxes. It, often, does not reflect the hypothetical benefit from amortizing the intangible asset for tax purposes.
- It is therefore usually incorporated in Fair Value calculation that are based on Income Approach
- Present Value of TAB is based on the discount rate used for the specific assets under consideration

Weighted Average Cost of Capital (WACC) and Weighted Average Rate of Return (WARA)

Measurement of WACC and Reconciliation with WARA

- Income approach methods generally require discount rates to estimate fair value. As a starting point for estimating asset-specific discount rates, the industry average Weighted Average Cost of Capital (WACC) is usually used in practice
- The use of ‘flat discount rate – WACC’ is not appropriate for every assets valued under Income approach
- Hence, different discount rate (Required Rate of return) needs to be estimated for every assets under consideration based on their risk and return profile
- WACC provides a point of reference to estimate the said discount rates
- As a general rule, the weighted average of returns used for the valuation of individual acquired assets should roughly equal to the WACC – Return Test

Contributory Asset Charges (CACs)

Contributory Asset Charges (CACs)

- The fundamental premise of MEEM method is that fair value of intangible asset is equal to present value of net cash flows attributable to that asset

- Hence, the income stream attributable to that asset are those in excess of fair return on all assets that contribute to the income generating process ('contributory asset')

- CAC reflects an estimate of the amount a typical market participant would have to pay to use the contributory asset to generate income with the intangible asset under consideration

- CAC comprises of two elements-
  - The return of investment – Economic depreciation of Contributory asset
  - The return on investment – Profit margin

Case Study I

- ABC Inc acquired 80% stake in XYZ Ltd. on 30th June 2011 for cash consideration of USD 600 million through subscription to fresh issue of equity shares (35% stake) and purchase of shares from Promoters and Public (45% stake).

- Purchase Price Allocation exercise is a process whereby the purchase price paid by the Acquirer is allocated to the identified Net Assets of the Target entity.

- As per IFRS 3 Revised following steps should be followed:
  - Computation of the Weighted Average Cost of Capital (WACC)
  - Identification and Valuation of the Assets and Liabilities
  - Computation of Goodwill
  - Computation of Weighted Average Return on Assets (WARA)
  - Computation of Internal Rate of Return (IRR) of the Acquirer
  - Reconciliation of WACC and WARA

Case Study I (Contd.)

Computation of WACC

$$WACC = (Ke * E/V) + (Kd\,(1 - t) * D/V)$$

Where:

Ke = cost of equity (Calculated using the CAPM model)
Kd = cost of debt (Post tax)
E = market value of the firm's equity
D = market value of the firm's debt
V = E + D
E/V = percentage of financing that is equity
D/V = percentage of financing that is debt
t = corporate tax rate

Case Study I (Contd.)

Weighted Average Cost of Capital **USD in Million**

Company Name	Debt	1 year Average Market Cap	5 year Levered β	Debt / Equity ratio
AB Limited	11,957.00	1,900.04	1.06	6.29
AC Limited	2,211.00	1,734.87	1.16	1.27
AD Limited	3,138.00	3,307.37	0.87	0.95
AE Limited	143.00	28.04	0.53	5.10
AF Limited	236.00	142.62	0.74	1.65

Company Name	Unlevered β	1 year Average Market Cap	Product
AB Limited	0.20	1,900.04	373.32
AC Limited	0.61	1,734.87	1,060.48
AD Limited	0.52	3,307.37	1,734.02
AE Limited	0.12	28.04	3.23
AF Limited	0.34	142.62	48.68
Weighted Average	**0.45**	**7,112.94**	**3,219.72**

Particulars	
Risk free rate (Rfr)	8.43%
Market Return	15.00%
Re-Levered Beta	0.61
	12.45%
Company specific risk premium	6.00%
Cost of equity (Ke)	18.45%
Cost of Debt	11.00%
Corporate Tax Rate	30.00%
Post - Tax Cost of Debt (Kd)	7.70%

XYZ Limited	
1 year Average Market Cap	300.00
Debt	151.00
Debt/Equity ratio	0.50

Weighted Average Cost of Capital (WACC)	Capital Structure	Cost of Capital	Weighted Cost
Cost of equity (Ke)	67%	18.45%	12.30%
Cost of debt (Kd)	33%	7.70%	2.57%
Weighted average cost of capital			**15.00%**

Case Study I (Contd.)

The following Assets and Liabilities were identified as per the guidelines of IFRS 3 Revised:

- **Fixed Assets**

- Following are the approaches generally used for valuation of Fixed / Tangible assets:
  - Sales or market comparison approach
  - Depreciated replacement cost approach, and
  - Income-based approaches.
- We found using the Depreciated Replacement Cost Method to be the most appropriate & derived the value of Fixed / Tangible assets to **be USD 500 Million**.

- **Investments**

- These related to 10% stake in an unlisted entity was considered at Book Value of **USD 20 Million**.

- **Net Working Capital**

- Debtors and Inventory of the company were valued based on the expected recoverable amount.
- The exercise was carried out by another consultant and the value derived was **USD 150 Million**.

Case Study I (Contd.)

➢ **Call / Put Option**

- Following are the approaches generally used for valuation of Call / Put Option:
  - Black Scholes Option Pricing Model
  - Binomial Option Pricing Model
- We found using the Black Scholes Option Pricing Model to be the most appropriate & derived the value of Call / Put Option to **be USD 4.65 Million**.

Option calculation	**In USD**
Price as on 30th Jun 11	60
Strike price	70
Implied Volatility	25.00%
Time (Days)	1095
Risk free rate of interest	8.43%

Value of Call option per share	12.21
Value of Call option (USD in Million)	12.21

Value of Put option per share	7.56
Value of Put option (USD in Million)	7.56

Net (USD in Million)	**4.65**

Case Study I (Contd.)

- **Brand Name "CHAKRA"**
- **The Relief from Royalty (RFR)** methodology seeks to be as market based as possible through determining what other buyers in the market have paid, or might have reasonably paid, for brand assets similar to those being analyzed.
- The brand related cash flows are quantified by estimating the notional royalty income which might be earned by licensing out the right to exploit the brand or, equivalently, by estimating the royalties which the brand owner is exempt from paying by virtue of being an owner rather than a licensee.
- The application of the RFR method broadly involves the following steps:
  - Detailed market assessment of each brand
  - Assessment of the royalty rate for each brand
  - Determination of the discount rate applicable and DCF analysis
  - Notional licensee analysis and conclusions

Case Study I (Contd.)

Relief from Royalty method **USD in Million**

FAIR VALUE MEASUREMENT OF BRAND NAME						
31st December year ending		**2012 (6 months)**	**2013**	**2014**	**2015**	**2016**
Sales		25.00	70.00	90.00	110.00	128.00
Royalty	0.75%	0.19	0.53	0.68	0.83	0.96
Less: Taxes	32.45%	(0.06)	(0.17)	(0.22)	(0.27)	(0.31)
Post tax cash flow		0.13	0.35	0.46	0.56	0.65
Terminal Value	3.00%					4.77
Net cash flow		0.13	0.35	0.46	0.56	5.42
Time to Midpoint		0.25	1.00	2.00	3.00	4.00
Discount factor	17.00%	0.96	0.85	0.73	0.62	0.53
Net Present Value		0.12	0.30	0.33	0.35	2.89
Present Value of Brand						4.00
Tax Amortization Benefit Factor						1.25
Fair Value of Brand						**5.00**

Case Study I (Contd.)

- **Customer Relationships**

- Valuation through multi period excess earnings method is predicated on the basis that the value of an intangible asset is the present value of the earnings it generates, net of a reasonable return on other assets which also contribute to that stream of earnings.
- The application of the Multi-Period Excess Earnings method broadly involves the following steps:
  - Derive future cash flows for subject intangible asset
  - Subtract tax expenses
  - Apply contributory asset charges (Charge an economic rent for the other assets needed to generate the aggregate cash flows)
    - Fixed assets
    - Working capital
    - Assembled Workforce
    - Other intangible assets
  - Calculate present value of future cash flows
  - Compute the tax amortization benefit

Case Study I (Contd.)

Multi Period Excess Earnings method **USD in Million**

FAIR VALUE MEASUREMENT OF CUSTOMER RELATIONSHIPS									
31st December year ending		**2012 (6 months)**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Sales attributable to ongoing customers of ABC Limited		100%	90%	80%	70%	50%	30%	20%	5%
Total Sales		25.00	70.00	90.00	110.00	128.00	153.00	178.00	203.00
Gross Profit attributable to ongoing customers of ABC Limited		13.75	34.65	39.60	42.35	35.20	25.25	19.58	5.58
Less: Selling exp attributable to existing customers	50%	(2.50)	(7.00)	(9.00)	(11.00)	(12.80)	(15.30)	(17.80)	(20.30)
Net Cash flow		11.25	27.65	30.60	31.35	22.40	9.95	1.78	(14.72)
Less: Taxes	30.00%	(3.38)	(8.30)	(9.18)	(9.41)	(6.72)	(2.98)	(0.53)	4.42
Post tax cash flow		7.88	19.36	21.42	21.95	15.68	6.96	1.25	(10.30)
Less: Contributory Asset Charge									
Fixed assets	7.00%	(1.75)	(4.90)	(6.30)	(7.70)	(8.96)	(10.71)	(12.46)	(14.21)
Working capital	3.50%	(0.88)	(2.45)	(3.15)	(3.85)	(4.48)	(5.36)	(6.23)	(7.11)
Assembled workforce	0.07%	(0.02)	(0.05)	(0.06)	(0.07)	(0.08)	(0.10)	(0.12)	(0.13)
Brand name	0.11%	(0.03)	(0.07)	(0.10)	(0.12)	(0.14)	(0.16)	(0.19)	(0.22)
Cashflow attributable to ongoing customers of ABC Limited		5.21	11.88	11.82	10.21	2.02	(9.37)	(17.75)	(31.97)
Time to Midpoint		0.25	1.00	2.00	3.00	4.00	5.00	6.00	7.00
Discount factor	17.00%	0.96	0.85	0.73	0.62	0.53	0.46	0.39	0.33
Net Present Value		5.01	10.16	8.63	6.37	1.08	(4.27)	(6.92)	(10.65)
Present Value of Customer Relationships									9.40
Tax Amortization Benefit Factor									1.25
Fair Value of Customer Relationships									**11.75**

Case Study I (Contd.)

➢ Non Compete Agreement

- We estimated the value using the income approach – Difference in EBIT "with" and "without" restrictive covenants of the Non-Compete Agreement.

Non Compete Agreement

With restrictive convenants — USD in Million

31st Dec year ending		2012	2013	2014
Percentage loss of market share		0%	0%	0%
EBIT		30.91	57.80	59.82
Less: Taxes	30.00%	-9.27	-17.34	-17.95
Post tax earnings (Debt free)		21.63	40.46	41.88

Without restrictive convenants — USD in Million

31st Dec year ending		2012	2013	2014
Percentage loss of market share		0%	30%	20%
EBIT		30.91	40.46	47.86
Less: Taxes	30.00%	-9.27	-12.14	-14.36
Post tax earnings (Debt free)		21.63	28.32	33.50

Assumed that promoters start a competiting business which shall take one year for set up

USD in Million

31st March year ending		2012	2013	2014
Comparison				
With restrictive convenants		21.63	40.46	41.88
convenants		21.63	28.32	33.50
Reduction in Debt free Cashflow		-	12.14	8.38
Time to Midpoint		0.50	1.50	2.50
Discount factor	17.00%	0.92	0.79	0.68
Net Present Value		-	9.59	5.66
Present Value of Non Compete Agreement				15.25
Tax Amortization Benefit Factor				1.25
Raw Value of Non Compete Agreement				19.06
Probability of Competing				50%
Fair Value of Non Compete Agreement				**9.53**

Case Study I (Contd.)

- **Long Term Liabilities**
- The Long term liabilities relate to Term Loans taken from Banks and hence, have been considered at Book Value of **USD 151 Million**.
- **Non Controlling interest**
- Non Controlling interest has been estimated as their share of the identifiable net assets of the Target company which is **USD 109.99 Million.**
- **Goodwill**
- Goodwill arising from a business combination is determined as:
- Consideration transferred Plus
- the amount of any non-controlling interest Plus
- The fair value of any previously held equity interest in the acquire Less
- The fair value of the identifiable net assets of the acquire.

Case Study I (Contd.)

Computation of Goodwill **USD in Million**

No.	Assets and Liabilities	Approach / Methodology	Estimated Fair Value
1	Fixed Assets	Cost Approach - Depreciated Replacement Cost Method	500.00
2	Investments	Book value	20.00
3	Net Working Capital	Fair Value provided by another consultant's report	150.00
4	Call / Put Option	Black Scholes Option Pricing Model	4.65
5	Brand	Relief from Royalty method	5.00
6	Customer Relationships	Multi Period Excess Earnings Method	11.75
7	Non Compete Agreement	Income Approach – Difference in “with” and “without” Non Compete	9.53
8	Long Term Liabilities	Book value	-151.00
9	Non Controlling interest	Proportionate Net Assets of the Company	-109.99
10	**Goodwill**	**Excess of Cost of Acquisition over net of Assets acquired and the Liabilities assumed**	**160.06**

Case Study I (Contd.)

Computation of WARA

Weighted Average Return on Assets (WARA)

Assets	Fair value (USD in Million)	Percent of Total Assets taken over	Return on asset	Weighted Average Return
Fixed Assets	500.00	58.07%	15.00%	8.71%
Investments	20.00	2.32%	18.45%	0.43%
Net Working Capital	150.00	17.42%	15.00%	2.61%
Call / Put Option	4.65	0.54%	17.00%	0.09%
Brand	5.00	0.58%	17.00%	0.10%
Customer Relationships	11.75	1.37%	17.00%	0.23%
Non Compete Agreement	9.53	1.11%	17.00%	0.19%
Goodwill	160.06	18.59%	19.00%	3.53%
Total	**860.99**	**100.00%**		**15.90%**

Case Study I (Contd.)

Computation of Internal Rate of Return (IRR) of the ABC Inc

- IRR is calculated based on the Expected cash flows of XYZ Limited as estimated by ABC Inc at the time of the acquisition

In principal, the weighted average rate of return (WARA), including goodwill, should equate to the enterprise value discount rate (IRR and WACC)

WARA	15.90%
WACC	15.00%
IRR	14.50%

Thank You!!!

Contact Details
CA Anand Sanghvi
E – anand@valserve.in
M - +91 94281 04090