



N P T E L O N L I N E C E R T I F I C A T I O N C O U R S E S

MERGERS, ACQUISITIONS AND CORPORATE RESTRUCTURING

Prof. CHANDRA SEKHAR MISHRA

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LECTURE: 26

TITLE: M&A Deal Structuring – 1

- M&A Deal Structure
- Select examples of M&A Deals
- Desirables of an M&A Deal
- Major Components of an M&A Deal
- Accounting and Economic Dilution



Keywords



- M&A Deal
- Accounting dilution
- Economic dilution
- Voting dilution
- Mergers
- Triangular Mergers

Deal Design

*You name the price. I'll name the terms.
(And I'll do better than you every time.)*

- Old Saying

Examples of M&A Deals

- January 27, 2022, Air India was **acquired** by Tata Group. **Tata Sons** acquired a 100% ownership position in **Air India** through **Talace Private Limited ("Talace")**, a wholly owned **subsidiary**.
 - Upfront payment of Rs.2,300 crore in **cash** to the Government of India
 - Debt of approximately Rs 15,300 crore is transferred as part of the Balance Sheet. Thus the enterprise value is approximately Rs.18,000 crore.
 - Balance Rs.61,562 crore debt of Air India will be taken care by the Government of India
- November 29, 2022: Tata Sons announced **merger** of its joint venture airline Vistara with Air India



*http://timesofindia.indiatimes.com/articleshow/86878292.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst, accessed on 12 Jan 2022

Examples of M&A Deals, contd..

- 26 October 2022: Acquisition of **majority stake** in Badshah Masala Private Limited by Dabur India Limited
 - Dabur India signed an agreement to acquire 51 per cent in Badshah Masala for a **cash** consideration of Rs 587.52 crore.
 - It was stated that **remaining 49 per cent stake** will be acquired by Dabur **after five years**.
- 02 January 2023: Dabur India completed the process of acquisition and Badshah became a **subsidiary** of Dabur India. Badshah is retained as a separate entity.



Examples of M&A Deals, contd..

- 19 January 2023: Indian company, Sun Pharma to **acquire** US firm Concert for \$576 million**
- Sun Pharma will acquire all outstanding shares of Concert through a tender offer for an upfront payment of \$8 per share of common stock in **cash** or \$576 million in equity value.
- Concert stockholders will also receive a non-tradeable **contingent value right** entitling holders to receive up to an additional \$3.50 per share of common stock in **cash**, payable upon the alopecia drug achieving certain **net sales milestones** within specified periods.



** <https://www.livemint.com/companies/news/sunpharmatoacquireus-firm-concert-for-576-mn-11674153800028.html>, accessed on 12 January 2023.

Some Ideas about Deal Design

- Deal design is like an engineering problem, trying to optimize multiple objectives with many constraints (a financial engineering problem!).
- Deal design is also a bargaining problem, where buyer and seller seek a structure satisfying both the sides.
- M&A deal can be seen as a system where each component interacts with the others. Hence one must have a ‘whole deal view’.
- Deals try to provide solutions to economic problem. There are no “right” deals, but there are lots of wrong ones – contractual impossibility theorem [Sahlman, W. A. (1988)].

Desirables in Designing a Deal[#]

- Create Value: Identifying sources of value creation, transfer, or destruction.
- Improve financial results; avoid EPS dilution.
 - Accounting dilution vs. Economic dilution
 - Voting dilution
- Improve control; avoid voting dilution.
- Build financial flexibility.
 - Pure Cash vs. Pure Stock Deals
 - How about LBOs?
- Manage Risks
 - Share Price Risks
 - Currency Risk

[#] Adapted from Bruner, R. F.(2004).

Desirables in Designing a Deal, contd..

- Preserve and improve competitive standing.
- Manage signals to the capital markets.
 - Share-for-share structures signal that buyers believe their firm to be overvalued.
- Manage incentives.
 - Keep and properly maintain the best intellectual capital of the firm.
 - Managing the culture
- Enhance governance and management structure.
 - Acquiring new talent
 - Putting in place new procedures to resolve CEO succession problems if any
 - Breaking deadlocks among the directors.



Desirables in Designing a Deal, contd..

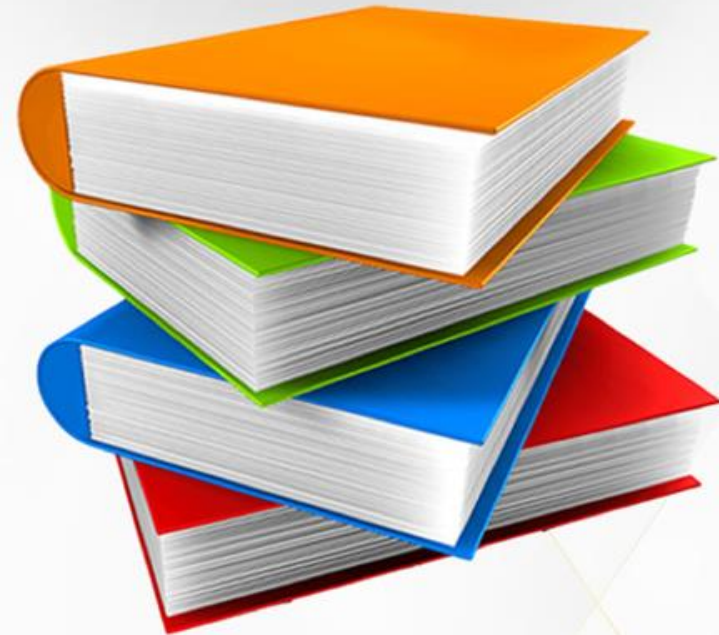
- Shape impact on employees and commitments.
 - Ensuring continuity of employment of target company employees
 - Protecting pension assets
 - Minimizing the impact of plant closings or restructurings
 - Building employee morale.



CONCLUSION

- Deal design is a intricate process involving multiple objectives and multiple stakeholders.
- One may not be make a deal satisfying all the objectives or stakeholders.
- Besides business aspects, accounting and tax aspects are also considered while designing a deal.

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LECTURE: 27

TITLE: M&A Deal Structuring – 2

- Major Components of an M&A Deal
- Illustrations of different types of Deal Structure
- Forms of Payment in M&A Deal



Keywords



- M&A Deal
- Subsidiary Merger
- Reverse and Forward Triangular Merger
- Earn outs
- Contingent Value Rights
- Side Payments

Major Components of Deal Structuring Process

- Form of acquisition
- Valuation
- Form of payment
 - Cash/ stock/ debt/ mix
 - Now / later
- Acquisition vehicle

Major Components of Deal Structuring Process

- Tax considerations
- Accounting Considerations
- Post-closing organization
- Subsidiary Merger
 - Forward vs Reverse Triangular Merger

Illustration of Different Types of Mergers and Acquisitions

Illustration 1: Purchase of Assets with Cash



Illustration 2: Purchase of Stock with Cash

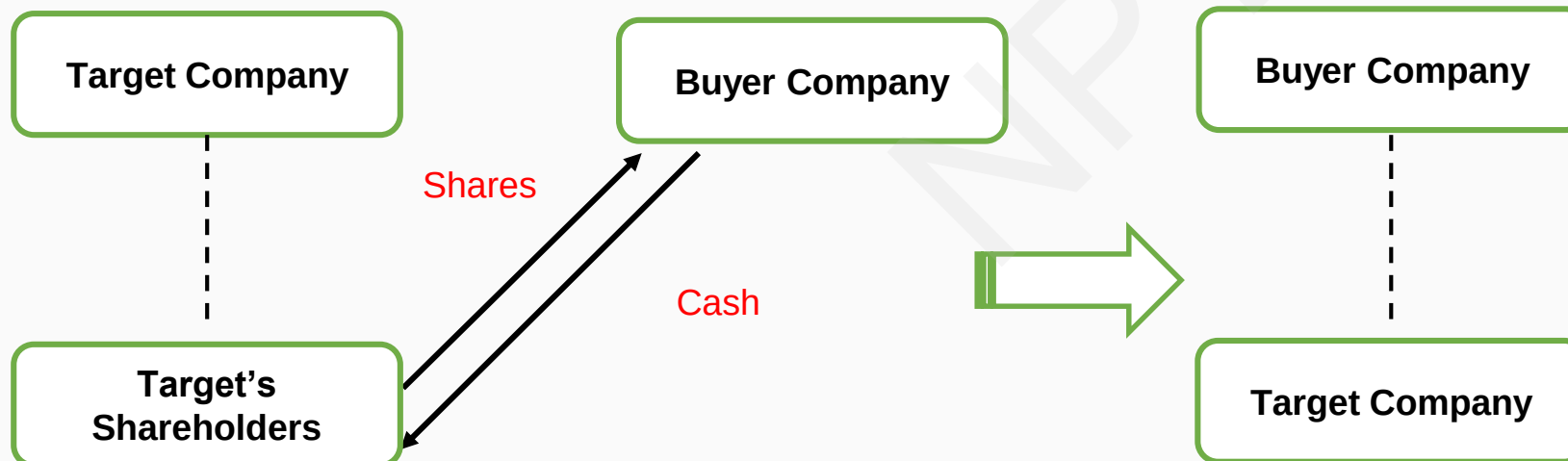


Illustration of Different Types of Mergers and Acquisitions, contd..

Illustration 3: Reverse Triangular Cash Merger

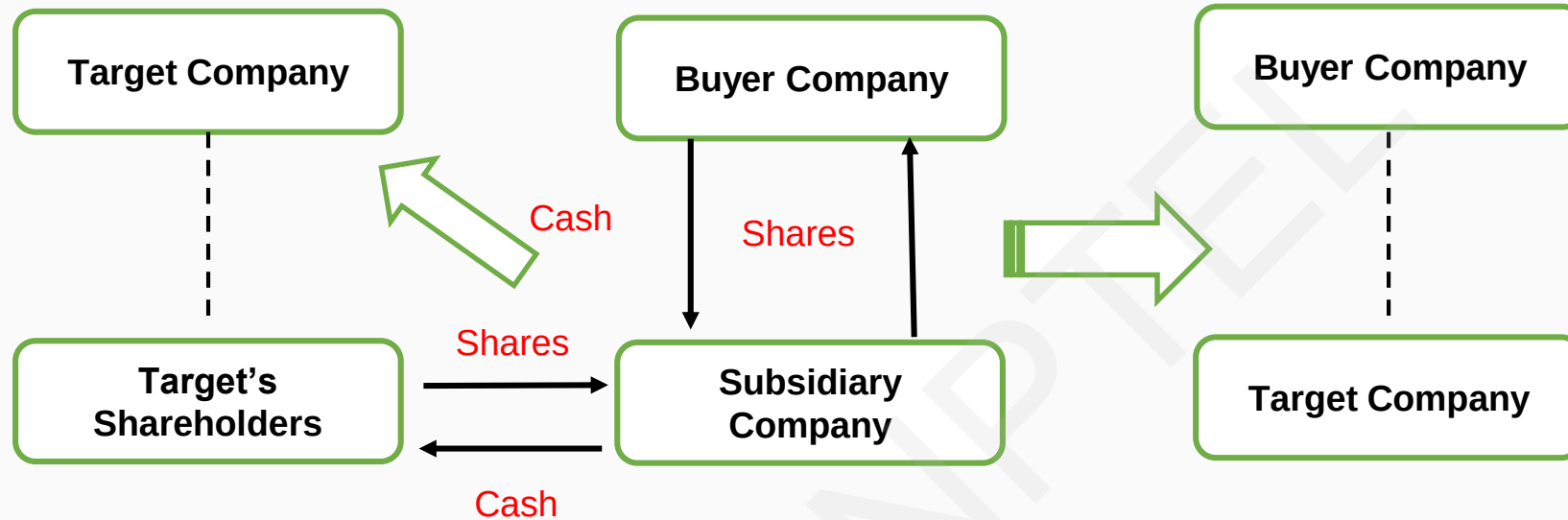


Illustration of Different Types of Mergers and Acquisitions, contd..

Illustration 3: Forward Triangular Cash Merger

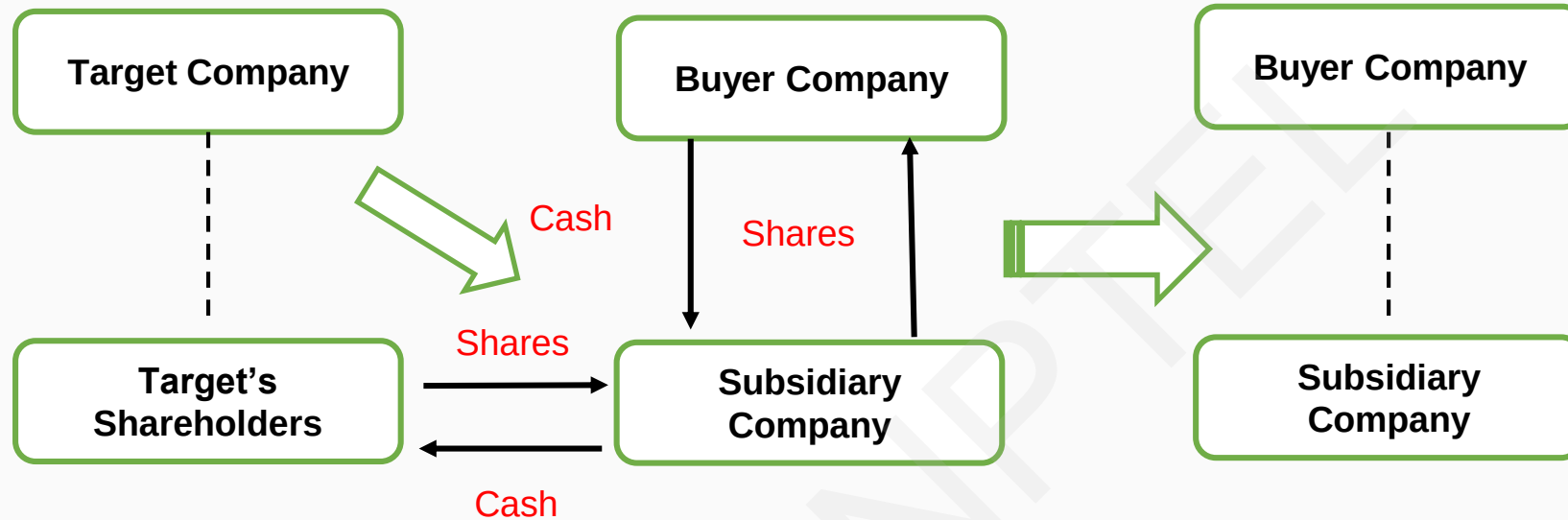
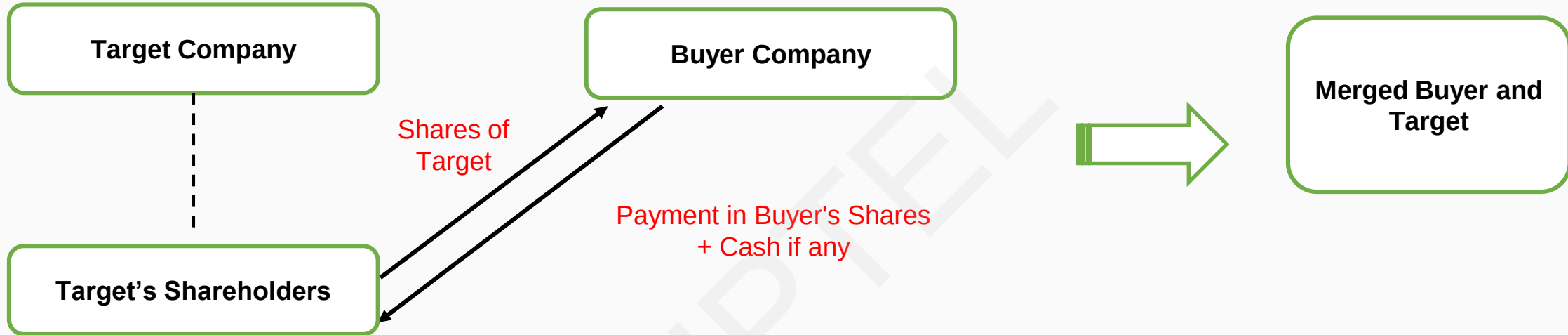


Illustration of Different Types of Mergers and Acquisitions, contd..

Illustration 4: Statutory Merger



Deal Design Terms: Value and Form of Payment

- Value to be delivered (i.e. Price)
- Form of payment (cash, stock, debt...)
 - Fixed payments
 - Cash, Stock, Debt or Mix
 - Contingent payments
 - **Earn outs:** it is a financial contract whereby a portion of the purchase price of a company is to be paid in the future, contingent on realizing the future earnings level or some other performance measure agreed on earlier [DePamphilis, D. (2019)].
 - Earn outs are ideal if the acquired business is operated as a wholly owned subsidiary of the acquiring company under the management of the former owners or key executives



Deal Design Terms: Value and Form of Payment, contd..

- Contingent payments, contd..
 - **Contingent value rights (CVRs)**: CVR Securities are issued by the acquirer commit it to pay additional cash or securities to the holder of the CVR (ie., the seller) if the acquirer's share price falls below a specified level at some future date [DePamphilis, D. (2019)].
 - CVRs can also be structured as a portion of payment to be made in the event of achievement of some milestone in the future.
 - CVRs can be traded in the market
 - CVRs and Earn Outs are used interchangeably by some authors and practitioners.



Deal Design Terms: Value and Form of Payment, contd..

- Side payments
 - Golden parachutes
 - Warrants
 - Bonuses
 - Rights, royalties
 - Consulting commitments to managers of the target firm
 - Guarantees to unions (this does not involve cash payment)
 - Guarantees to local governments (this does not involve cash payment)



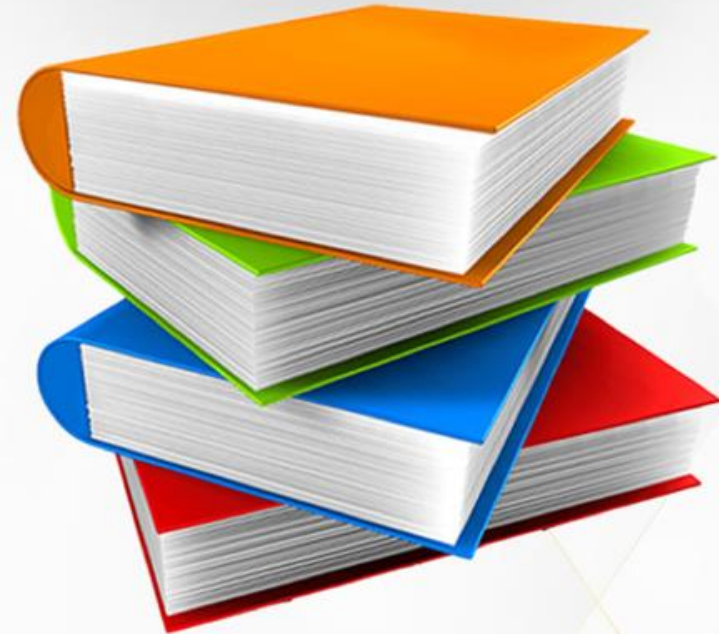
CONCLUSION

- Deal design is a intricate process involving multiple objectives and multiple stakeholders.
- Deal design includes formation of post M&A structure of the business
- Payments for M&A can be in terms of cash, share, debt or a mix of these.
- Future payments in terms of earn outs and contingent value rights are also used by acquiring companies.

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LECTURE: 28

TITLE: M&A Deal Structuring – 3

- Deal Structure
- Different Forms of payment
- Purchase price adjustments
- Share price risk
- Collar arrangements



Keywords



- **Earnouts**
- **Contingent Value Rights**
- **Side Payments**
- **Share Exchange Ratio**
- **Fixed Share Exchange Agreement**
- **Fixed value agreement**
- **Collar**

Form of Payment – Recapitulation

- Cash
- Stock
- Debt
- Convertible Debt
- Mix of the above
- Deferred Payments

Breaking Deadlock in Valuation and Managing Share Price Risk

- Breaking the deadlock in valuation
 - Deferred Payments
 - Earnouts
 - Contingent value rights
 - Side Payments
 - Rights, royalties
 - Consulting commitments
- In view of the time gap between the date of announcement of deal and actual execution of deal the buyer and seller may need
 - Purchase price adjustment
 - Escrow accounts
 - Protection from fluctuation in share price of the acquiring company

Designing an Earnout – An Example

- Earn outs is a financial contract whereby a portion of the purchase price of a company is to be paid in the future, contingent on realizing the future earnings level or some other performance measure agreed on earlier [DePamphilis, D. (2019)].
- Example:
 - Company Smart signs the agreement and announces the deal for acquiring Company Intelligent on 31 March 20X1. The payment is to be made in cash in two tranches:
 - a. At the closing of deal: lump-sum payment of Rs.400 million
 - b. At the end of three year period: five times of average extra net profit over and above the baseline profit projected over three year period
 - Company Smart is willing to pay the Earnout because it expects the shareholder value to increase in case of achievement of profit over and above the baseline profit projected.
 - The valuation multiple estimated for net profit: 12 times

Designing an Earnout – An Example, contd..

	Year 20X2	Year 20X2	Year 20X3
Baseline projection – net profit (Rs. Million)	20	24	30
Actual performance – net profit (Rs. Million)	25	30	36

Earnout at the end of 3 years (Rs. Million)

$$= \left\{ \frac{(25 - 20) + (30 - 24) + (36 - 30)}{3} \times 5 \right\} = 5.67 \times 5 = 28.33$$

- Total Payment: Rs.400 million at the time of closing of the deal + Rs.28.33 million after 3 year period

Potential increase in shareholder value (Rs. Million)

$$= \left\{ \frac{(25 - 20) + (30 - 24) + (36 - 30)}{3} \times 12 \right\} - 28.33 = 68.00 - 28.33 = 39.67$$

Post closing Balance Sheet Adjustments and Escrow Accounts

- Several M&As require purchase price adjustments, particularly resulting from restatement of earnings, cash flow or working capital.
- The actual financial outcomes of the target might vary from the projected financial outcomes done at the time of announcement of the deal. There is a time gap between the announcement (or agreement) and actual execution or closing of an M&A deal. Common mechanisms for addressing this problem:
 - Creating an escrow account: the buyer retains a portion of the purchase price until completion of post-closing audit of the target's financial statements
 - Change in purchase price in response to change in the balance sheet due to time lapse between agreement and actual closing date
- The balance sheet adjustments and escrow accounts are ideal for cash for share deals.

Balance Sheet Adjustment Example

	At the time of Negotiation	At closing	Reduction in Purchase Price	Increase in Purchase Price
If net working capital equals	Rs.200 Million	Rs.180 million	Rs.20 million	N.A.
If net working capital equals	Rs.200 Million	Rs.230 million	N.A.	Rs.30 million

Source: Adapted from DePamphilis (2019)

Share for share deal and risk in share price change

- In case of share for share deal, fluctuation in the acquiring company's share price can affect the target or acquiring company depending on the situation, due to time gap between announcement of deal and actual date of share exchange.
- Fixed-share agreements: shareholders of target shall receive a defined number of shares for each share held in the target based on the valuation or price determined at the time of the closing of the deal.
 - Target's shareholders shall gain (lose) in case of increase (decrease) in the share price of the acquiring company.
 - The cost of acquisition shall increase for the acquiring company in case of increase in its share price.
 - Both target and acquiring companies are subject to risk.

	Share Price at the time of announcement	Share Exchange Ratio (SER)
Acquiring Company (A)	Rs.200	One share of A for two shares of T (1 : 2)
Target Company (T)	Rs.100	

Share for share deal and risk in share price change, contd..

- Fixed-value agreements: shareholders of target shall receive a fixed value per share by varying the share exchange ratio. Thus the SER shall float.
- In the table below, the SER is fixed at 1 share of A for two shares of T based on the prevailing share price at the time of announcement. The SER shall vary depending on the change in the share price of A at the time of closing of the deal.

	A	T	Share Exchange Ratio
Share Price at the time of announcement	Rs.200	Rs.100	1 : 2 (or 0.5 : 1) subject to variation in the share price of A
Actual share price at the time of closing deal – case I	Rs.180	N.A.	0.56 (i.e. 100/180) shares of A for each share of T
Actual share price at the time of closing deal – case II	Rs.250	N.A.	0.40 (i.e. 100/250) shares of A for each share of T

Share for share deal and risk in share price change, contd..



- Collar arrangement: This method captures both fixed share-exchange and fixed value, but allows the SER to vary within a narrow range as explained below:

$$\text{Offer Price per Share} = \text{SER} \times \text{Acquirer's Share Price (ASP)} = \left\{ \frac{\text{Offer Price per Share}}{\text{ASP}} \right\} \times \text{ASP}$$

$$\text{Collar Range: } \text{SER}_L \times \text{ASP}_L \text{ (lower limit)} \leq \text{Offer Price per Share} \leq \text{SER}_U \times \text{ASP}_U \text{ (upper limit)}$$

Example of Collar Arrangement

- Acquiring Company A has announced a share-exchange arrangement of 0.5:1 with Company T based on the respective closing share price of Rs.100 (A) and Rs.50 (T).
- Fixed value agreement: The exchange rate shall float inside a 10% collar above and below A's share price of Rs.100 and a fixed purchase price of Rs.50 for each share of T. the range for floating of exchange rate is as below:

$$\frac{50}{90} \times 90 \leq \frac{50}{100} \times 100 \leq \frac{50}{110} \times 110$$
$$\Rightarrow 0.5556 \times 90 \leq 0.50 \times 100 \leq 0.4545 \times 110$$

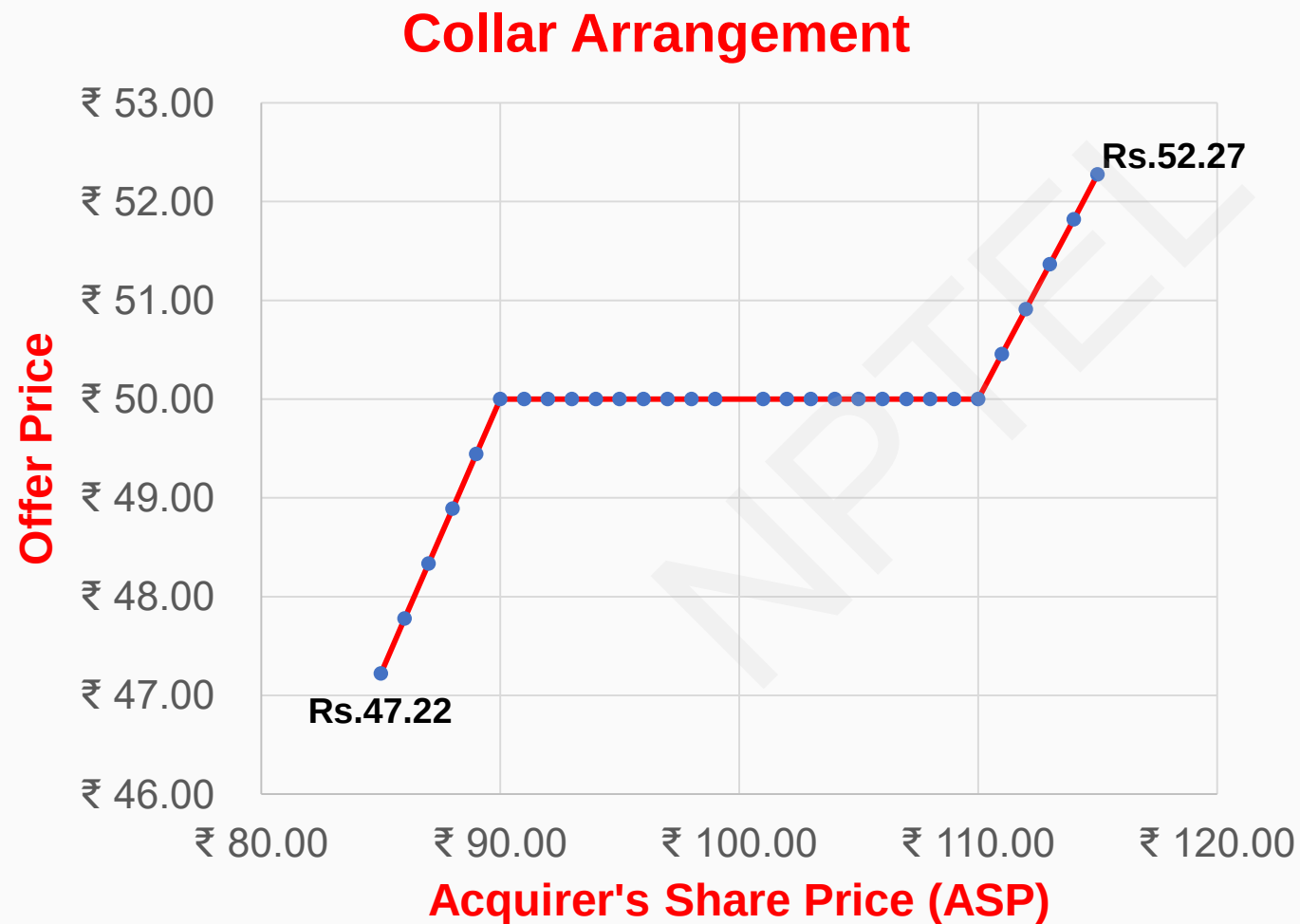
- Fixed share-exchange agreement: the offer price involves a fixed exchange ratio inside a collar 11 to 15% above Rs.100. Thus the purchase price (offer price) shall float if A's share price changes between 11 and 15% from Rs.100 per share.
- T can terminate the agreement and walk away, if A's share price falls by more than 15% below Rs.100. If the share price of A increase by more than 15% above Rs.100, the exchange ratio shall float based on a fixed purchase price of Rs.52.27 (Table given in the subsequent slide).

Example of Collar Arrangement, contd..

% change in ASP	ASP (Rs.)	Offer price (Rs.)	SER	% change in ASP	ASP (Rs.)	Offer price (Rs.)	SER
1	101	50.00	0.4950	-1	99	50.00	0.5051
2	102	50.00	0.4902	-2	98	50.00	0.5102
3	103	50.00	0.4854	-3	97	50.00	0.5155
4	104	50.00	0.4808	-4	96	50.00	0.5208
5	105	50.00	0.4762	-5	95	50.00	0.5263
6	106	50.00	0.4717	-6	94	50.00	0.5319
7	107	50.00	0.4673	-7	93	50.00	0.5376
8	108	50.00	0.4630	-8	92	50.00	0.5435
9	109	50.00	0.4587	-9	91	50.00	0.5495
10	110	50.00	0.4545	-10	90	50.00	0.5556
11	111	50.45	0.4545	-11	89	49.44	0.5556
12	112	50.91	0.4545	-12	88	48.89	0.5556
13	113	51.36	0.4545	-13	87	48.33	0.5556
14	114	51.82	0.4545	-14	86	47.78	0.5556
15	115	52.27	0.4545	-15	85	47.22	0.5556
>15	SER floats based on fixed Rs.52.27			<-15	T can walk away		

Source: Adapted from DePamphilis (2019)

Example of Collar Arrangement, contd..



CONCLUSION

- The payment for M&A deals can be in multiple forms.
- The payment options have their respective advantages and limitations from buyer as well as seller's point of view.
- M&A deals provides for risk management with respect to change in the balance sheet, financial outcomes and share prices, etc. when the there is time gap between the announcement of deal and closing of the deal.

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1. Bruner, R. F.(2004). *Applied Mergers and Acquisitions*,. John Wiley & Sons.
2. DePamphilis, D. (2019). *Mergers, acquisitions, and other restructuring activities: An integrated approach to process, tools, cases, and solutions*. Academic Press.
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LECTURE: 29

TITLE: M&A Deal Structuring – 4

- Choosing the form of payment
- Financing of M&A
- FRICTO Analysis
- Seven C's of Credit Analysis
- Different forms of debt financing for M&A



Keywords



- **Payment Options**
- **Financing Options**
- **Pecking order hypothesis**
- **Seven C's of credit analysis**
- **FRICTO**

Choosing the form of Payment

Different forms of payments have their own advantages and disadvantages from buyer and seller's perspective. Some of those are discussed below.

Form of Payment	Buyer's Perspectives	Seller's Perspectives
Cash	Simple Impact on financial leverage if the amount has to be borrowed	Immediate receipt; Not affected by credit worthiness of the buyer Can not participate in future prospects Taxable
Stock	If buyer's P/E is high, relative to seller's P/E, potential for increase in the value of combined firm Potential EPS dilution	Defers taxes and provides potential increase in price Continuity of interest in the company Potential decrease in value in case of decline in share price of the acquirer/ combined firm

Choosing the form of Payment, contd..

Form of Payment	Buyer's Perspectives	Seller's Perspectives
Debt	Interest expense is tax deductible Increase in leverage	Defers tax liability (principal portion) Risk of default
Earnouts	Shifting of risk to the seller Minimizing upfront payment Delay in integration of the business	Potential for a higher purchase price Uncertainty of the price
Contingent value rights	Minimizing upfront payment Minimizing the risk of overpayment Commitment to minimum payment	Minimum payout guarantee Tradable Buyer may ask for reduction in purchase price

Choosing the form of Payment, contd..

Form of Payment	Buyer's Perspectives	Seller's Perspectives
Rights to intellectual property like, License and Franchise	Minimizing use of cash Creation of a potential competitor	Access to valuable rights Spread of taxable income over time Illiquid Taxable like ordinary income
Royalties from Licenses and Franchises	Minimizing use of cash Opportunity cost	Spread of taxable income over time Taxable like ordinary income

Cash vs Stock as Form of Payment – Select Factors

- **Hostile or friendly deal:** Hostile deals are likely to have cash payment.
- **Valuation of Acquiring Company:** More the valuation of acquiring company (relative to other companies in the similar sector), more likely is the share for share payment.
- **Concentration of ownership in Target:** Other things remaining constant targets with highly concentrated ownership are more likely to have Cash for share deal.
- **Size of buyer vs target:** Bigger size targets (relative to buyers) are likely to have share for share exchange. Similarly small size targets are more likely to have cash for share deal.
- **Liquidity of Buyer Company:** Buyer companies with less liquidity (cash and cash equivalents) are likely to opt for share for share exchange.
- **Desire to control:** More the desire of buyer's management to have control over the target, more likely is the cash for share payment.

Financing M&A

- Mergers and Acquisitions are like expansion of business, thus needing financing.
- The choice of payment in M&A has implications for financing of M&A deal.
- Multiple financing options are applicable in case of cash as a form of payment – either in full or in part.
- In case of share for share as payment option, new shares in the acquiring company are issued to the target's shareholders.

Pecking Order of Financing M&A*

- Cash
- Treasury Stock (particularly applicable in case of M&A)
- Debt
- Convertible Debt
- Preference Share Capital
- Equity Share Capital

* Adapted from Myers, S. C., & Majluf, N. S. (1984) and Bruner (2004)

Thinking like a Lender or Creditor – Six C's of Credit#

- Cash flow
- Collateral
- Capital
- Conditions
- Course or capacity
- Character (or commitment)

This is only a suggested approach and different variations are suggested by different practitioners.

FRICTO Framework^{##}

- Flexibility: leaving the financing options open and ability to meet unforeseen financing requirements as they arise
- Risk: ability to meet financial obligations in adverse circumstances; variability in cash flows, profit or income;
- Income: impact of financing alternatives on financial metrics like, earnings per share (EPS), return on equity (RoE). Income does not refer to absolute amount of net income.
- Control: impact of financing alternatives on the ownership control of the firm
- Timing: current economic and capital market condition
- Others: Any other thing related to the unique situation and relevant to the financing decision, like, urgency, collaterals, signaling to market, etc.

^{##} *Sihler, W. W. (1971); Kester, G. W., & Hoover, S. A. (2005)*

Debt as a financing option

- Seniority: in terms of claims on the profit/ cash flow/ assets of the borrower
- Maturity: tenure of the debt or loan
- Coupon: rate of interest – fixed rate vs. floating rate
 - Zero coupon bonds
 - Junk bonds (bonds with very high yield)
- Call protection: restrictions on prepayment of debt
- Covenants: restrictions imposed by the lender with respect to use of cash flow, further borrowing, dividend payment, disposal of assets, etc.
- Convertibility: Convertible (partly or fully) into equity shares instead of repayment of principal amount in cash.

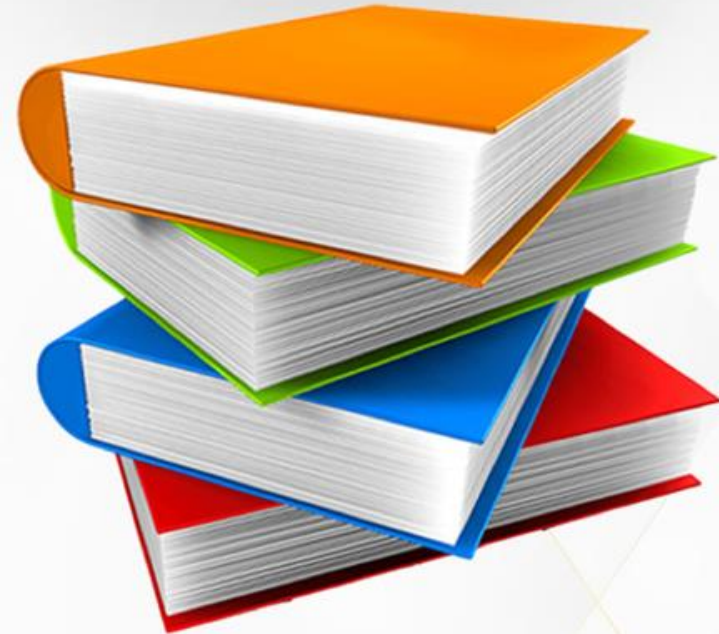
Different types of debt

- Term Loan
 - Asset based, i.e. secured
 - Cash flow based
 - Senior vs junior (subordinated) debts
- Revolving credit facility: mostly used for working capital financing and can be obtained against receivables and inventory with a maximum limit fixed by the lender. Interest is charged on the actual amount borrowed, not on the sanctioned amount.
- Mezzanine debt: a layer of finance between senior debt and equity. It is usually unsecured and carries a higher coupon. It can be in the form of convertible debt. Mezzanine finance can also be in the form of preference shares. from the lender of
- LBOs: Acquisition financed by a very high portion of debt (to be discussed separately as part of module # 8)

CONCLUSION

- The payment for M&A deals can be in multiple forms.
- The payment options have their respective advantages and limitations from buyer as well as seller's point of view.
- Different options are available for financing an M&A deal.
- An acquiring company should think like a lender while choosing the financing option.

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LECTURE: 30

TITLE: M&A Deal Structuring – 5

- Share Exchange Ratio
- Buyer's Maximum Acceptable Exchange Ratio
- Target's Minimum Acceptable Exchange Ratio
- Summary of Steps in M&A Process
- Possibilities of M&A negotiation go wrong?



Keywords



- Share Exchange Ratio
- Negotiation window
- Zone of Possible Agreement (ZOPA)
- M&A Negotiation

Determining the Share Exchange Ratio

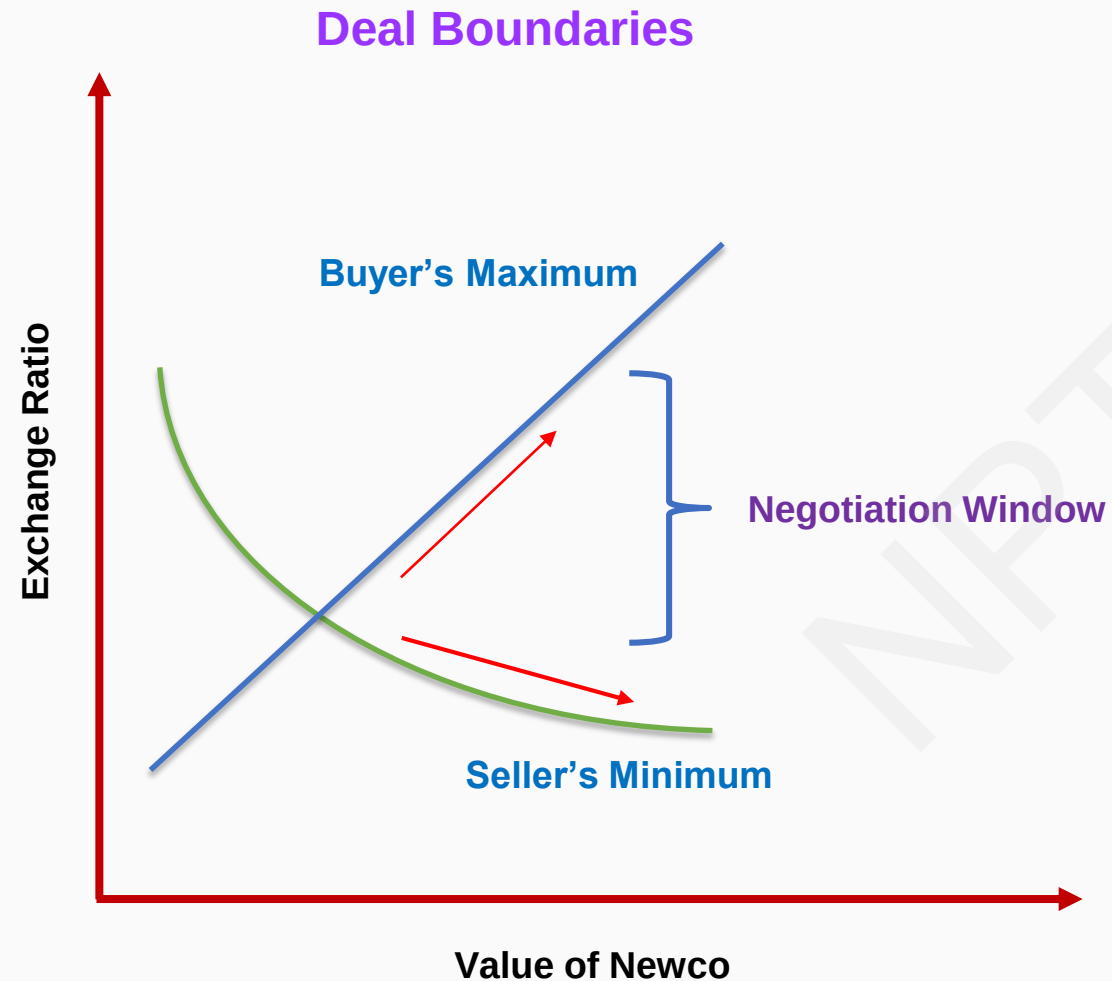
- Share Exchange Ratio (SER) is defined as Number of shares in Newco or acquiring company offered per one share of target or selling company

$$\begin{aligned} & \text{Offer price per share} \\ &= (SER) \times \text{Acquirer Share Price (ASP)} \end{aligned}$$

$$= \frac{\text{Offer Price per Share}}{ASP} \times ASP$$

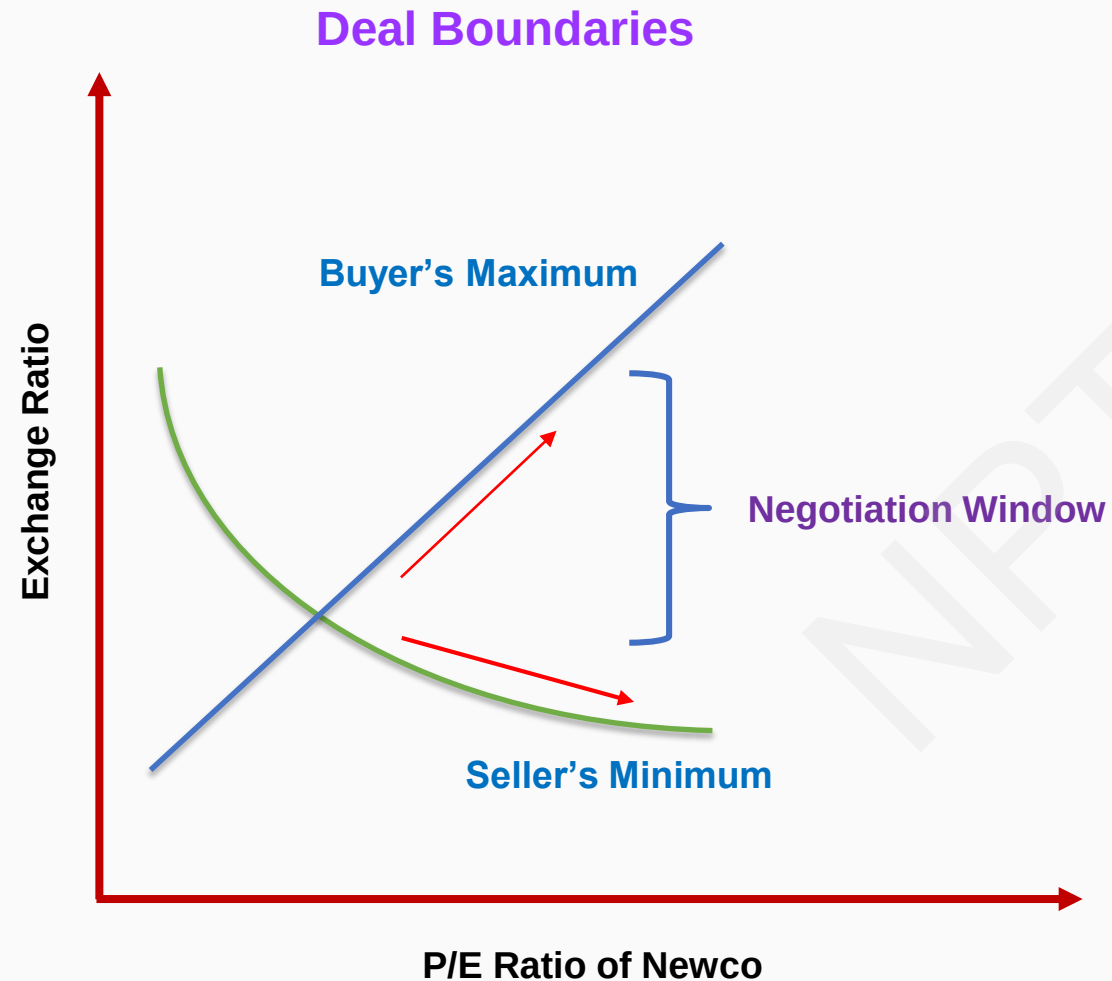
$$\Rightarrow SER = \frac{\text{Offer Price per Share}}{ASP}$$

Deal Boundaries and Share Exchange Ratio



Source: Bruner (2004)

Deal Boundaries and Share Exchange Ratio, contd..



Source: Bruner (2004)

Buyer's Maximum Acceptable Exchange Ratio and Target's Minimum Acceptable Exchange Ratio – Derivation of Formulas – using Price – Earning (P/E) Multiple for valuation

Notations:

- P_1 = Buyer's Share price today, before the transaction
- P_2 = Target's Share price today, before the transaction
- P_{12} = Share price of combined company, after the transaction
- S_1 = Number of outstanding shares of buyer, before the transaction
- S_2 = Number of outstanding shares of target, before the transaction
- E_1 = Net income of the buyer, next year, stand-alone basis
- E_2 = Net income of the target, next year, stand-alone basis
- $E_{\text{Synergies}}$ = The change in net income of the combined firm arising from synergies
- ER_1 = Maximum acceptable exchange ratio (buyer share per target share) from the buyer's viewpoint
- ER_2 = Minimum acceptable exchange ratio (buyer shares per target share) from the target's viewpoint

Buyer's Maximum Acceptable Exchange Ratio based on P/E Multiple*

The deal shall be attractive for the buyer, if value of the share after the acquisition is greater than the value of the share today, i.e. just before the acquisition, i.e.

$$P_{12} \geq P_1 \quad \dots (1.1)$$

To find the boundary of maximum acceptable exchange ratio, the above equation can be solved on equality basis.

The share price of the combined firm:

$$P_{12} = (PE_{12}) \times (EPS_{12}) \quad \dots (1.2)$$

$$EPS \text{ of the combined firm, } EPS_{12} = \frac{E_1 + E_2 + E_{Synergies}}{S_1 + S_2(ER_1)} \quad \dots (1.3)$$

Inserting equations (1.2) and (1.3) into equation (1.1)

$$P_1 = \frac{(PE_{12})E_1 + E_2 + E_{Synergies}}{S_1 + S_2(ER_1)} \quad \dots (1.4)$$

Solving equation (4) for ER_1 ,

$$ER_1 = -\frac{S_1}{S_2} + \frac{E_1 + E_2 + E_{Synergies}}{P_1 S_2} PE_{12} \quad \dots (1.5)$$

* Adapted from Bruner (2004)

Target's Minimum Acceptable Exchange Ratio based on P/E Multiple*

The deal shall be attractive for the target as long as the deal preserves or creates value for its shareholders.

$$P_{12} \geq \frac{P_2}{ER_2} \quad \dots (2.1)$$

To find the boundary of minimum acceptable exchange ratio, the above equation can be solved on equality basis.

The share price of the combined firm:

$$P_{12} = (PE_{12}) \times (EPS_{12}) = \frac{P_2}{ER_2} \quad \dots (2.2)$$

$$EPS \text{ of the combined firm, } EPS_{12} = \frac{E_1 + E_2 + E_{Synergies}}{S_1 + S_2(ER_2)} \quad \dots (2.3)$$

Inserting equations (2.2) and (2.3) into equation (2.1)

$$P_{12} = \frac{P_2}{ER_2} = \frac{(PE_{12})(E_1 + E_2 + E_{Synergies})}{S_1 + S_2(ER_2)} \quad \dots (2.4)$$

Solving equation (4) for ER_1 ,

$$ER_2 = \frac{P_2 S_1}{(PE_{12})(E_1 + E_2 + E_{Synergies}) - P_2 S_2} \quad \dots (2.5)$$

* Adapted from Bruner (2004)

Example on Acceptable Exchange Ratio

Suppose, Company 2 (Target)) is merged with Company 1 (Acquirer) and shareholders of the target are issued shares in Company 1 (post merger it is known as Newco). The relevant information are given in the table below.

Required:

Buyer's Maximum Acceptable Exchange Ratio and Target's Minimum Acceptable Exchange Ratio

Particulars	Assumptions	
Buyer's share price	P_1	Rs.90
Target's share price	P_2	Rs.60
Buyer's net income	E_1	Rs.460
Target's net income	E_2	Rs.350
Net income from synergies	E_s	Rs.120
Buyer's number of shares outstanding	S_1	160
Target's number of shares outstanding	S_2	140
Expected PE Ratio of Newco	PE_{12}	25

Example on Acceptable Exchange Ratio, contd..

Buyer's Maximum Acceptable Exchange Ratio:

$$ER_1 = -\frac{S_1}{S_2} + \frac{E_1 + E_2 + E_{Synergies}}{P_1 S_2} P E_{12}$$

$$ER_1 = -\frac{160}{140} + \frac{480 + 350 + 120}{90 \times 140} \times 25 = 0.7024$$

Target's Minimum Acceptable Exchange Ratio:

$$ER_2 = \frac{P_2 S_1}{(P E_{12})(E_1 + E_2 + E_{Synergies}) - P_2 S_2}$$

$$ER_2 = \frac{60 \times 160}{25 \times (460 + 350 + 120) - 60 \times 160} = 0.6465$$

Particulars	Assumptions	
Buyer's share price	P ₁	Rs.90
Target's share price	P ₂	Rs.60
Buyer's net income	E ₁	Rs.460
Target's net income	E ₂	Rs.350
Net income from synergies	E _S	Rs.120
Buyer's number of shares outstanding	S ₁	160
Target's number of shares outstanding	S ₂	140
Expected PE Ratio of Newco	PE ₁₂	25

Conclusion: Since target's minimum acceptable exchange ratio is lower than the buyer's maximum acceptable exchange ratio, the deal is possible. This is known as Zone of Possible Agreement (ZOPA)

Summary of Steps in M&A Process

- Strategic planning followed by searching and identifying target(s)
- Making an initial contact with target
- Signing of confidentiality agreements between acquiring company and target company; Seeking help of investment bankers
- Preparing a Term Sheet in interim before signing a definitive agreement
- Due diligence and drafting of definitive agreement
- Approval of definitive agreement by respective board of directors
- Disclosure and announcement to public, regulating agencies, and stock exchanges as the case may be.
- Filing with Antitrust authorities (e.g. Competition Commission of India) for approval
- Approval by shareholders of respective company in their meeting
- Approval by the statutory authorities like Company Law Tribunal in India
- Closing of deal
- Integration

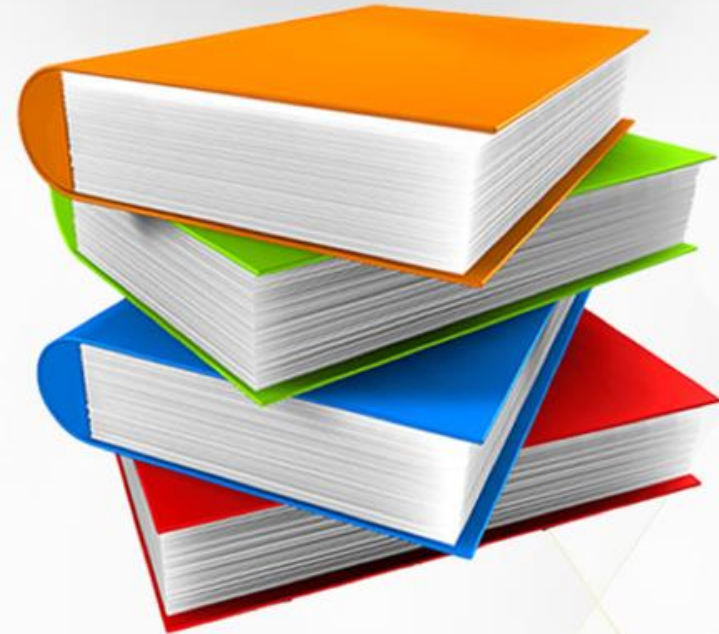
When can M&A negotiation go wrong?

- Top management of two companies not getting along well
- CEO succession – who is in control, post merger?
- Valuation and Pricing
- Adverse situation in capital market and / or economy
- Unpleasant discoveries in the due diligence process
- Material adverse change – like sudden change in the government policy affecting the business of target and / or acquiring company
- Non-approval by the regulators
- Entering of a competitor
- Rejection of M&A deal by the shareholders

CONCLUSION

- Buyer and Target decide respectively about maximum and minimum acceptable exchange ratio before coming for negotiation.
- Deal will be possible if target's minimum acceptable exchange ratio is lower than the buyer's maximum acceptable exchange ratio. This is also known as Zone of Possible Agreement (ZOPA).
- During the process of negotiation, there can be circumstances when things can go wrong and the deal might be called off.

REFERENCES



1. Bruner, R. F.(2004). Applied Mergers and Acquisitions,. John Wiley & Sons.
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3. Kapil and Kapil (2017). Mergers and Acquisitions: Strategy, Valuation, Leverage buyouts, and Financing. Wiley India.





Thank you

