Auditing Course Material

Part 29 of 61 (Chapters 2801-2900)

2. Advantages of Asset Securitization

Asset securitization offers several advantages for all stakeholders involved. Below are the key benefits of traditional asset securitization products:

Benefits for Originators:

- Capital Liberation: Securitization allows originators to free up capital by converting future receivables into immediate cash, enabling them to invest in new profitable assets.
- Enhanced Borrowing: Originators with better-rated cash flows can access financing at lower costs, as their financial standing improves.
- Improved Liquidity: By converting future receivables into cash, securitization enhances liquidity, giving the originator immediate funds to use for other purposes.
- Risk Management: Securitization helps in redistributing and managing risks more effectively, allowing originators to reduce exposure to certain risks.

Benefits for Investors:

- Diversification: Securitization provides investors with the opportunity to diversify their debt portfolios by adding new types of assets.
- Customized Risk: Investors can select cash flow structures that match their individual risk preferences, enabling tailored risk exposure.
- Safety and Efficiency: High-rated securities in securitization offer safety and capital efficiency, making them attractive investment options.
- Added Assurance: The involvement of a "Pool Servicer", responsible for managing the asset pool, provides additional assurance to investors regarding the maintenance and performance of the underlying assets.
- Flexible Cash Flows: Securitization offers the ability to structure cash flows in a way that meets investor needs, providing flexibility in payments and returns.

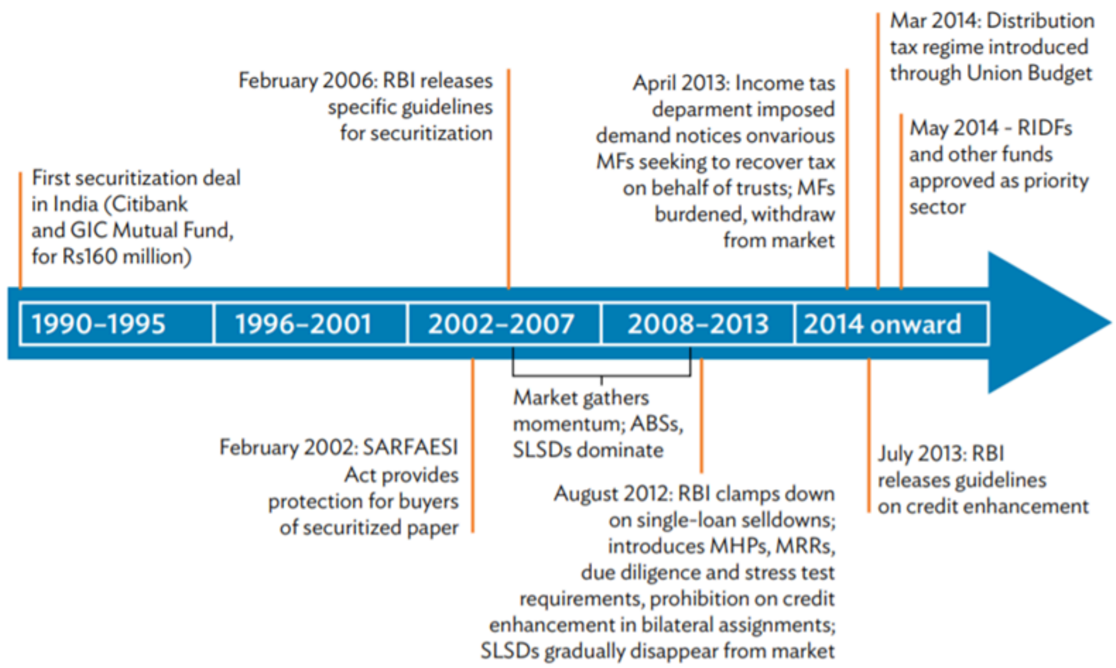
Benefits for Financial Markets:

- Diverse Instruments: Asset securitization introduces a range of debt instruments to the market, which increases liquidity and depth in financial markets.
- Market Expansion: It broadens the scope of the market, attracts new participants, and fosters competition, helping to create a more vibrant and dynamic marketplace.
- Capital Efficiency: Securitization helps improve return on capital, offering alternative funding routes and enhancing capital efficiency for financial institutions.
- Credit Market Diversification: By segmenting lending and funding, securitization leads to a diversification of credit markets, reducing concentration risk and spreading exposure.
- Efficiency Boost: Securitization increases the efficiency of financial markets by effectively bundling and distributing risks, making financial transactions smoother and more effective.

3. Regulation of Asset securitisation in India

There is no comprehensive single regulatory framework for the asset securitisation market per se. In effect, only the financial sector has a clear framework for participating in asset securitisation.

The securitization market in India has been operating since the early 1990s. Its growth is mainly due to the repackaging of retail assets and residential mortgages (for the most part in the priority sector segment) that continue to dominate. NBFCs and housing finance companies are the key originators of securitization deals in India, while banks are the leading investors because of PSL targets.



ABS = asset-backed security, MF = mutual fund, MHP = minimum holding period, MRR = minimum retention requirement, RBI = Reserve Bank of India, RIDF = Rural Infrastructure Development Fund, SARFAESI = Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest, SLSD = single-loan selldown, SPV = special-purpose vehicle.

The market has matured in the past decade since the implementation of the Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act, 2002, which provided the framework for the creation of asset reconstruction companies specializing in the securitization of assets purchased from banks. The securitization of auto loans has dominated the market throughout its development, and in the 2000s was supported by the emergence of residential MBSs.

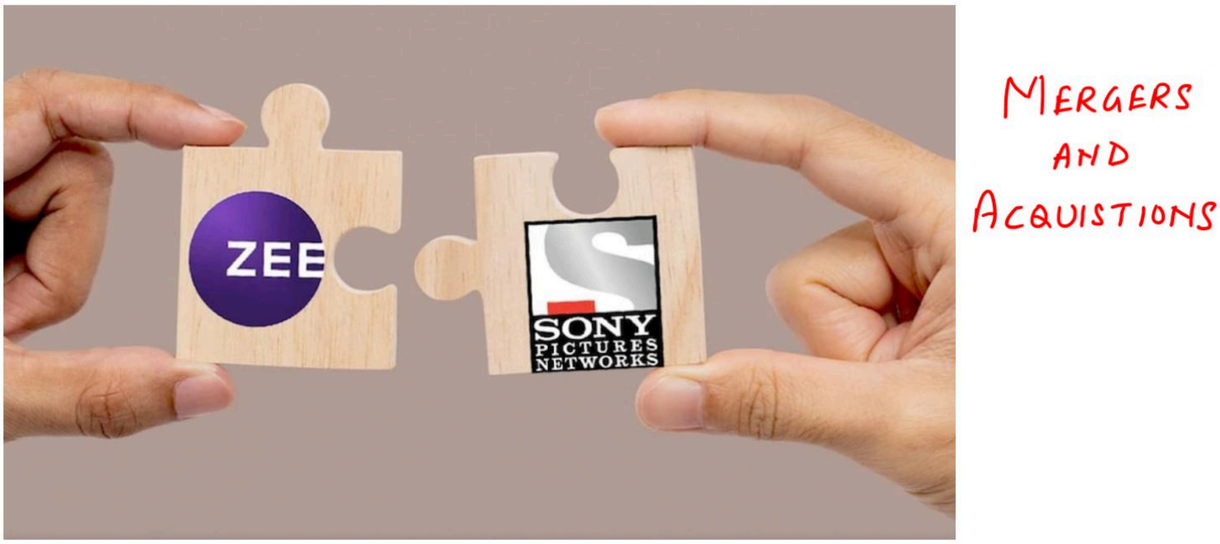
The market has, however, seen limited diversification, both among investors and originators. The originators have typically been PSBs, foreign banks, and NBFCs, with underlying assets made up mostly of retail and corporate loans. The investors have been PSBs looking to meet their PSL needs.

The securitization market is expected to grow further, especially since foreign portfolio investors have now been permitted to invest in securitized debt instruments. The option for foreign investors to invest in securitization allows overseas financial entities to take a share of India’s lucrative, fast-growing retail borrowing, without having to formally get into the business.

In March 2018, the SEBI re-constituted its committee that suggests roadmap for developing corporate bond market in the country. The 27-member committee would now be chaired by Harun R Khan, former Deputy Governor at the Reserve Bank of India (RBI). Earlier, the panel was headed by Shyamala Gopinath, who was also a former Deputy Governor at RBI. The committee -- corporate bonds and securitization advisory -- has representations from the government, banks, markets regulator, mutual funds, rating agencies, stock exchanges and depositories.

The panel was set up in 2011 under the chairmanship of R H Patil and is mandated to advise the regulator on developing the corporate bond market and as well as securitised instruments in the country. It also advises SEBI on "implementing the recommendations of the high level committee on corporate bonds and securitization". It also suggests SEBI on removal of regulatory hurdles under its purview and advise on issues which need to be taken up with other regulators. One of the major terms of reference of this committee is to advise SEBI on issues for addressing the operational and systemic risks, if any, in the market for corporate bonds and securitized instruments.

1. Introduction



Corporate restructuring refers to significant changes made by a company to its organizational, financial, or operational structure in order to improve its efficiency, competitiveness, or financial performance. These changes are often strategic in nature and may involve reorganizing the company's assets, liabilities, ownership, or operations to adapt to changing market conditions, seize new opportunities, or address existing challenges.

Corporate restructuring is often driven by various internal and external factors, including changes in market dynamics, competitive pressures, technological advancements, regulatory requirements, financial distress, or the pursuit of growth opportunities.

While corporate restructuring can create value for shareholders and stakeholders, it also entails risks and challenges, such as integration issues, cultural differences, legal complexities, and financial implications. Therefore, careful planning, due diligence, and strategic execution are essential to the success of corporate restructuring initiatives.

1. Introduction

Corporate restructuring is a complex process that involves making fundamental changes to the organization, operations, or financial structure of a company.

Let's classify each aspect of corporate restructuring:

Financial Restructuring

- **Capital Structure Changes:** This involves modifying the mix of debt and equity financing to optimize the company's financial position. It may include issuing new debt or equity securities, refinancing existing debt, or retiring debt to reduce leverage.
- **Debt Restructuring:** Companies facing financial distress may negotiate with creditors to restructure debt obligations, such as extending maturity dates, reducing interest rates, or accepting partial repayment.
- **Equity Restructuring:** Companies may undertake stock buybacks, stock splits, or reverse stock splits to adjust the number of outstanding shares and enhance shareholder value.

Organizational Restructuring

- **Hierarchical Changes:** Companies may flatten their organizational structure, eliminate layers of management, or redefine reporting relationships to improve communication, decision-making, and efficiency.
- **Business Unit Reorganization:** This involves reconfiguring business units, divisions, or departments to align with strategic goals, eliminate duplication of efforts, or focus on core competencies.
- **Personnel Adjustments:** Organizational restructuring may involve workforce reductions (layoffs or early retirements), reassignment of roles and responsibilities, or talent development initiatives to enhance employee productivity and morale.

Strategic Restructuring

- **Market Expansion:** Companies may enter new markets, geographies, or customer segments through organic growth initiatives or strategic acquisitions to diversify revenue streams and capitalize on emerging opportunities.
- **Portfolio Optimization:** This involves divesting non-core assets, business lines, or subsidiaries that no longer align with the company's strategic objectives or contribute to value creation.
- **Joint Ventures or Alliances:** Strategic partnerships, alliances, or joint ventures with other companies can provide access to complementary resources, technologies, or distribution channels to drive growth and innovation.

Operational Restructuring

- **Process Improvement:** Companies may reengineer business processes, implement lean manufacturing principles, or adopt new technologies (e.g., automation, digitization) to enhance operational efficiency, reduce costs, and improve quality.
- **Supply Chain Optimization:** This involves optimizing the sourcing, production, and distribution processes to minimize lead times, reduce inventory levels, and enhance responsiveness to customer demands.
- **Outsourcing or Insourcing:** Companies may outsource non-core functions or bring certain activities in-house to leverage economies of scale, access specialized expertise, or gain greater control over critical processes.

Ownership Restructuring

- **Mergers and Acquisitions (M&A):** Mergers involve the combination of two or more companies to form a single entity, while acquisitions involve one company purchasing another. M&A activities can help companies expand their market share, diversify their product or service offerings, achieve cost synergies, or enter new markets.
- **Going Public or Private**: Going public refers to the process of a privately held company offering its shares to the public through an initial public offering (IPO), thereby becoming a publicly traded company. Conversely, going private involves delisting shares from public exchanges, often through a management buyout or private equity acquisition. Going public can provide access to capital markets and liquidity for shareholders, while going private may offer greater operational flexibility and privacy.
- **Sell-offs and Spin-offs**: Sell-offs involve the divestiture or sale of a subsidiary, business unit, or asset by a company. Spin-offs, on the other hand, involve the creation of a new, independent company through the separation and distribution of a portion of the parent company's assets to its shareholders. Sell-offs and spin-offs can help streamline operations, unlock shareholder value, or refocus the company on its core business.

2. Acquisition

An acquisition, also known as a takeover, is a corporate action in which one company (the acquirer or buyer) purchases the majority or all of the ownership stake in another company (the target or seller). The acquiring company obtains control over the target company's assets, operations, and management, effectively integrating it into its own business structure.

Acquisitions can take 3 forms:
(i) Merger or Consolidation
(ii) Asset Acquisition
(iii) Stock Acquisition

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2. Acquisition

A merger or consolidation is a strategic business combination in which two companies come together to form a single entity, thereby combining their operations, assets, and ownership structures. There are two main variations of this form of acquisition: merger and consolidation.

Merger
In a merger, one company (the acquiring company or the surviving entity) absorbs another company (the acquired company). The acquiring company retains its name, identity, and legal structure, while also assuming all the assets, liabilities, and operations of the acquired company. After the merger, the acquired company ceases to exist as a separate entity, and its assets and operations are integrated into those of the acquiring company.

In 2019, Vijaya Bank and Dena Bank were merged with Bank of Baroda.

In 2020, ITC acquires Sunrise Foods.

In 2020, Zomato acquired UberEats.

Consolidation
A consolidation is similar to a merger, but instead of one company absorbing another, an entirely new company is created to house the combined operations of both companies. In a consolidation, both the acquiring company and the acquired company dissolve their previous legal identities and become part of the new entity. The new company assumes ownership of all assets and liabilities from the merging companies, and its operations are a blend of those from both entities.

Idea and Vodafone consolidated into a new brand new identity ‘Vi’.

Consolidation is also commonly referred to as **Amalgamation**. Both terms essentially denote the process of combining or merging multiple entities into a single entity.

Usually in all countries, the stockholders of each firm must approve a merger or consolidation.

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2. Acquisition

Stock acquisition, also known as share acquisition, is another method of acquiring another firm by purchasing its voting stock directly from its existing shareholders. This process typically involves offering cash, shares of stock, or other securities in exchange for the target firm's shares.

Stock acquisition can begin as a private negotiation between the acquiring firm's management and the target firm's management. Eventually, the offer is extended to the target firm's shareholders through a tender offer.

A **tender offer** is a public proposal made by one firm to the shareholders of another firm, inviting them to sell their shares at a specified price. It is often communicated through public announcements such as newspaper advertisements or direct mailings to shareholders. Unlike a merger, stock acquisition does not require shareholder meetings or voting, as shareholders have the option to accept or reject the offer individually.

Several factors influence the choice between stock acquisition and merger:

- **Shareholder Approval:** Stock acquisition does not require formal shareholder meetings or votes. Shareholders have the discretion to accept or reject the offer individually.
- **Direct Communication:** In stock acquisition, the bidding firm can communicate directly with the target firm's shareholders through a tender offer, bypassing the target firm's management and board of directors.
- **Resistance by Target Management:** Target firm managers may resist acquisition attempts. Stock acquisition allows the acquiring firm to circumvent resistance from target management.

In **two-tier tender offer**, the acquiring company offers a higher price to purchase a certain percentage of shares, known as the first tier. After acquiring these shares, the acquiring company then offers a lower price for the remaining shares, known as the second tier. This strategy is often employed to incentivize shareholders to tender their shares early in the process and to discourage resistance from the target company's management

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2. Acquisition

In an asset acquisition, one firm purchases all the assets of another company.

Unlike stock acquisition, where the acquiring company buys the shares of the target company, in asset acquisition, the entire business is not acquired as a single entity. Instead, individual assets such as property, equipment, inventory, and intellectual property are transferred from the selling firm to the acquiring firm. Asset acquisition typically requires a formal vote of the target company's stockholders.

While asset acquisition avoids the issue of minority shareholders, it can be complex and costly due to the need to transfer ownership of each individual asset.

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3. Types of M&A

There are 5 types of Mergers and Acquisitions (M&A):

1. Horizontal Merger

A horizontal merger occurs when two companies operating in the same industry and at the same stage of production merge together.

Let's consider two hypothetical companies, Company A and Company B, both operating in the smartphone manufacturing industry. If Company A merges with Company B, it would be a horizontal merger. Both companies produce similar products and operate in the same industry segment, aiming to increase market share and consolidate resources.

2. Vertical Merger

A vertical merger occurs when two companies operating at different stages of the production or distribution chain combine. For example, if a smartphone manufacturer acquires a company that produces key components like camera modules or processors, it's a vertical merger aimed at integrating different stages of the supply chain.

It can have 2 further sub-types:

2.1 *Forward Integration*: This occurs when a company merges with or acquires a business further down the supply chain.

Imagine Company C is a smartphone manufacturer, and it decides to acquire a retail chain that sells smartphones directly to consumers. This forward integration allows Company C to control its distribution channels, ensure product availability, and capture a larger portion of the retail market.

2.2 *Backward Integration:* This occurs when a company merges with or acquires a business that supplies inputs or raw materials for its production process.

Suppose Company D is a smartphone manufacturer, and it acquires a company that produces key components such as camera modules or processors used in smartphones. This backward integration ensures a stable supply of critical components, reduces dependency on external suppliers, and enhances cost-efficiency.

3. Conglomerate Merger

A conglomerate merger occurs when two companies operating in unrelated industries merge together.

Let's envision Company E, a multinational conglomerate with diverse business interests in sectors such as technology, healthcare, and hospitality. If Company E decides to acquire a company in the aerospace industry, it would be a conglomerate merger. Despite operating in unrelated industries, the merger allows Company E to diversify its portfolio, mitigate risks associated with economic fluctuations, and capitalize on new growth opportunities.

4. Concentric Merger

Concentric mergers occur when firms within the same industry, serving the same customer base, merge despite offering different but complementary products or services. These products may be related or often purchased together, enhancing consumer convenience.

For instance, consider a hypothetical merger between a company producing DVDs and another manufacturing DVD players. Although these companies offer distinct products, DVDs and DVD players are complementary items frequently bought together. This merger would be categorized as concentric because both products cater to the same consumer base and are typically used together. Such mergers aim to streamline operations, capitalize on cross-selling opportunities, and diversify product offerings to increase overall profitability.

5. Co-generic Merger

On the other hand, co-generic mergers involve companies operating in similar industries but offering different products, often complementary in nature. These mergers are strategic moves aimed at boosting the profitability of both companies by leveraging synergies between their diverse product lines.

For instance, imagine a hypothetical merger between two companies in the consumer goods sector: Procter & Gamble and Gillette, which merged in 2005. Despite offering different products, such as personal care items and grooming products, both companies cater to similar consumer needs and complement each other's product portfolios. This co-generic merger allows the combined entity to benefit from economies of scale, expanded market reach, and enhanced brand synergy, leading to improved profitability for both entities.

4. Takeovers

Mergers and acquisitions are often undertaken with the aim of executing a takeover. A takeover denotes the transfer of control of a company from one group of shareholders to another.

Takeovers can occur not only through Mergers and Acquistions but also through proxy contests, and going-private.

Proxy Contests
Proxy contests arise when dissatisfied shareholders seek to influence the direction of a company by gaining seats on its board of directors. Shareholders engaging in a proxy contest often form a dissident group and solicit proxy votes from other shareholders to support their cause. Proxy votes allow shareholders to authorize another party to vote on their behalf, giving the dissident group a platform to challenge the incumbent board's decisions and leadership. If successful, the dissident group can effect significant changes in the company's governance and strategic direction, effectively leading to a takeover of board control.

Proxy Contests is also called *Proxy Fight*.

Going-Private Transactions
Going-private transactions involve the conversion of a publicly traded company into a privately held entity by acquiring all outstanding shares from public shareholders. This process is typically initiated by a group of investors, which may include existing management, private equity firms, or other financial sponsors. The group offers to purchase the outstanding shares at a premium to the current market price, providing shareholders with an opportunity to cash out their investments. Once the acquisition is completed, the company's shares are delisted from public stock exchanges, and it ceases to be subject to the reporting and regulatory requirements applicable to publicly traded companies.

5. Why M&A - Synergy

Mergers and acquisitions (M&A) are strategic transactions in which two companies combine their operations to achieve various synergies and strategic objectives. The primary goal of M&A is to create value that is greater than the sum of the individual companies' standalone value. This value creation is often driven by synergies.

Synergy refers to the additional value that can be generated through the combination of two companies that is greater than the sum of their individual parts. Synergy can manifest in various forms, including revenue enhancement, cost reduction, tax savings, and reduced capital requirements.

Let us understand gow synergy is obtained in M&A.

1. Increase in Revenue

Improved Marketing: Merging companies can pool their marketing resources, expertise, and customer data to create more effective marketing campaigns. Cross-selling opportunities and increased brand recognition can lead to higher sales and revenue.

Improved Distribution Network: Access to a broader distribution network allows the merged entity to reach new markets and customers more efficiently. By leveraging each other's distribution channels, companies can expand their market reach and increase sales.

Strategic Benefits: Acquiring a company with advanced technology or unique intellectual property can provide a competitive advantage and drive revenue growth. For example, a technology company acquiring a startup with cutting-edge software can enhance its product offerings and attract new customers.

New Industry Entry: Mergers enable companies to enter new industries or sectors, diversifying their revenue streams and reducing dependency on a single market. This expansion into complementary industries can unlock new growth opportunities and revenue sources.

New Geography: M&A transactions can facilitate geographic expansion by entering new regions or countries. This geographical diversification reduces reliance on a specific market and mitigates risks associated with regional economic fluctuations or regulatory changes.

Monopoly Power and Price Control: Consolidation can result in increased market share and pricing power, allowing the merged entity to set higher prices and improve profit margins. By becoming a dominant player in the market, companies can exert greater control over industry dynamics and drive revenue growth.

2. Reduction in Costs

Economies of Scale: Combining operations can lead to economies of scale, resulting in lower per-unit costs due to increased production volumes. Shared resources, facilities, and bulk purchasing can drive down costs and improve profitability.

Technology Transfer: Acquiring companies with advanced technologies or proprietary processes can enhance operational efficiency and reduce costs. Implementing best practices and innovative solutions from the acquired company can streamline operations and improve productivity.

Efficient Management: Integrating management teams and organizational structures eliminates duplicate roles and functions, reducing overhead costs and improving decision-making efficiency. Synergies in leadership, talent, and expertise can drive operational improvements and cost savings.

Efficient Use of Facilities and Resources: Rationalizing facilities, consolidating redundant operations, and optimizing resource allocation can eliminate waste and inefficiencies. By leveraging shared infrastructure and resources, companies can improve resource utilization and reduce operating expenses.

3. Tax Savings

Profit-Loss Offset: Merging a profitable company with a loss-making one allows the offsetting of taxable profits with tax-deductible losses. This tax-saving strategy reduces the combined entity's overall tax liabilities and improves after-tax profitability.

Debt Capacity: Utilizing the acquired company's unused debt capacity can provide tax advantages by increasing interest deductions and lowering taxable income. Access to additional debt financing allows companies to fund acquisitions and investments more efficiently.

Surplus Funds Utilization: Instead of distributing surplus funds to shareholders as dividends, companies can use them for acquisitions, which are often more tax-efficient. By reinvesting surplus funds in strategic growth initiatives, companies can fuel expansion and create long-term shareholder value.

4. Reduced Capital Requirements

Sharing Fixed Costs: Consolidating operations and facilities enables companies to share fixed costs, such as rent, utilities, and administrative expenses. By eliminating duplicate facilities and streamlining operations, companies can achieve significant cost savings and improve profitability.

Lower Working Capital Requirements: Integration of supply chains, inventory management systems, and procurement processes can lead to reduced working capital needs. Optimizing inventory levels, minimizing lead times, and improving cash flow management enhance operational efficiency and financial performance.

In summary, M&A transactions are driven by the pursuit of synergies across various aspects of the business, including revenue enhancement, cost reduction, tax optimization, and capital efficiency.

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6. Hubris Hypothesis

The Hubris Hypothesis, proposed by Richard Roll, suggests that takeovers are often driven by the hubristic behavior of acquiring company executives. Hubris refers to an excessive sense of pride, self-confidence, and arrogance. According to this hypothesis, executives who exhibit hubris tend to believe they can do no wrong and possess perfect foresight.

Individuals affected by hubris may engage in irrational behavior, such as excessive bidding, driven by an inflated sense of their own capabilities and the belief that they cannot fail. They become so engrossed in the pursuit of their targets that they overlook the costs involved and become overly aggressive in their bidding strategies.

As a result, acquiring companies may end up paying a premium for their targets that exceeds the rational value of the acquisition. This overpayment benefits the shareholders of the target company, who receive a higher price for their shares. However, it leads to a decrease in wealth for the shareholders of the acquiring company, as they bear the burden of the excessive premium paid.

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7. Diversification

Diversification is often cited as a potential benefit when one firm acquires another. However, it is important to note that diversification alone may not necessarily lead to increased value.

From a financial perspective, part of a business's risk is specific to that particular business and is known as unsystematic risk. According to the Capital Asset Pricing Model (CAPM), this unsystematic risk can be mitigated through diversification.

But investors can achieve this diversification more efficiently by simply purchasing shares in different companies. For instance, instead of the Firm A acquiring Firm B for diversification purposes, shareholders could have individually diversified their portfolios by investing in Firm B and other companies directly. Therefore, diversification through conglomerate mergers may not necessarily benefit shareholders.

However, there are 3 scenarios where **diversification can lead to gains** for the acquiring firm:

(i) If diversification reduces unsystematic risk more effectively and at lower costs than investors adjusting their personal portfolios.

(ii) Diversification may enhance the firm's risk profile, allowing it to access more debt financing.

Imagine a retail conglomerate, Retail Holdings Ltd., acquiring a chain of grocery stores. By diversifying into the grocery sector, Retail Holdings reduces its dependence on the performance of its existing retail outlets, thereby lowering its overall business risk. As a result, lenders may perceive Retail Holdings as less risky and be more willing to extend credit or loans to the firm, effectively increasing its debt capacity. With greater access to debt financing, Retail Holdings can pursue expansion opportunities more aggressively or invest in growth initiatives.

(iii) Diversified firms may have better internal resource allocation strategies, leading to improved capital or labor efficiency compared to non-diversified firms.

Consider a manufacturing company, Industrial Solutions Inc., acquiring a software development firm, Tech Solutions LLC. Industrial Solutions seeks to diversify its revenue streams and leverage Tech Solutions' expertise to enhance its internal processes and technology capabilities. After the acquisition, Industrial Solutions integrates Tech Solutions' software solutions into its manufacturing operations, resulting in streamlined production processes, cost savings, and improved efficiency. The diversified firm may benefit from better allocation of capital and labor resources across its various business segments, leading to increased profitability and competitiveness.

8. NPV of a Merger

When evaluating acquisitions, firms often employ NPV (Net Present Value) analysis to assess the financial viability of the transaction.

NPV OF MERGER

= VALUE OF TARGET FIRM + SYNERGY − ACQUISTION COST

This analysis can be conducted using 2 primary methods:
(i) **Acquisition with Cash:** In this approach, the acquiring company uses cash to fund the acquisition, paying a predetermined amount to acquire the target company.
(ii) **Acquisition with Stocks:** Alternatively, the acquiring company may use its own stock as a form of currency to acquire the target company, exchanging shares of its own stock for ownership of the target firm.

These methods allow companies to evaluate the projected cash flows, costs, and benefits associated with the acquisition, helping them determine whether the merger is financially favorable and whether it will generate positive NPV.

In assessing whether to opt for cash or stock payment in mergers and acquisitions, several factors come into play, with the price of the bidder's stock being a pivotal consideration.

For instance, if Firm A's market price per share is Rs 20, but its managers believe the true value is Rs 15, they may opt for acquistion with stocks (they deem their stock to be overvalued). Managers often possess insider information, giving them insights distinct from the market's perception.

8. NPV of a Merger

Suppose Firm A and Firm B have values as separate entities of Rs 500 and Rs 100, respectively. They are both all-equity firms. If Firm A acquires Firm B , the merged Firm AB will have a combined value of Rs 700 due to synergies of Rs 100. The board of Firm B has indicated that it will sell Firm B if it is offered Rs 150 in cash.

Let us analyze if the Firm A acquire Firm B.

NPV OF MERGER

$$= \underbrace{\text{VALUE OF TARGET}}_{100} + \underbrace{\text{SYNERGY}}_{700-(500+100)\,=\,100} - \underbrace{\text{ACQUISTION COST}}_{150}$$

$$= 100 + 100 - 150 = 50$$

Since value the NPV of a merger (50) to the acquirer, is positive, we conclude that Firm A should make the acquisition.

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8. NPV of a Merger

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There are 10 shares outstanding for Firm B and 25 shares outstanding for Firm A.

Let us analyze how this acquistion can be done with stocks.

LET EXCHANGE RATIO = p

TOTAL SHARES AFTER MERGER = $25 + 10 \cdot p$

TOTAL VALUE AFTER MERGER = 700

PRICE PER SHARE AFTER MERGER = $\frac{700}{25+10p}$

FIRM B WILL GET $10 \cdot p$ SHARES, WHOSE VALUE SHOULD BE RS 150

$$\frac{70}{25+10 \cdot p} \times 10 \cdot p = 150 \Rightarrow p = 0.681$$

EXCHANGE RATIO

FOR EVERY 1 SHARE OF B $\Rightarrow$ GIVE 0.681 SHARE OF MERGED FIRM

In this case, first we need to understand the concept of Exchange Ratio.

The **exchange ratio** refers to the ratio at which the acquiring company will exchange its own shares for the shares of the target company. It determines the number of acquiring company shares that will be issued in exchange for each share of the target company.

For example, in our example the exchange ratio comes out to be 0.681, it means that for every share of the target company (Firm B), the acquiring company (Firm A) will issue 0.681 of its own shares.

8. NPV of a Merger

The shareholders of ABC Company have voted in favor of a buyout offer from XYZ Company. The ABC Company has Price–earnings ratio of 6.35, Shares outstanding as 73,000 and Earnings as Rs 2,30,000. The XYZ Company has Price–earnings ratio of 12.70, Shares outstanding as 1,46,000 and Earnings as Rs 6,90,000. ABC's shareholders will receive one share of XYZ stock for every three shares they hold in ABC Company.

(i) What will the EPS of XYZ be after the merger?
(ii) What will the PE ratio be after the merger, if the NPV of the acquisition is zero?
(iii) What is the value of the synergy?
(iv) Should we go ahead with the takeover.

Solution:

(i) What will the EPS of XYZ be after the merger?

TOTAL SHARES OUTSTANDING AFTER MERGER

$$= 1,46,000 + \frac{1}{3} \times 73,000 = 1,70,333$$

TOTAL EARNINGS AFTER MERGER

$$= 2,30,000 + 6,90,000 = 9,20,000 \text{ (Rs)}$$

$$EPS = \frac{9,20,000}{1,70,333} = \text{Rs } 5.40$$

(ii) What will the PE ratio be after the merger, if the NPV of the acquisition is zero?

$$\text{MARKET PRICE OF XYZ SHARE} = \frac{6,90,000}{1,46,000} \times 12.7$$

$$= 60.02$$

SINCE NPV = 0

$\Longrightarrow$ MARKET PRICE WILL REMAIN SAME AFTER MERGER

$$P/E \text{ RATIO} = \frac{60.02}{5.40} = 11.11$$

(iii) What is the value of the synergy?

VALUE OF ABC COMPANY = 2,30,000 × 6.35
= 14,60,500

COST OF ACQUISTION = $60.02 \times \frac{73,000}{3}$ = 14,60,500

NPV OF MERGER
= VALUE OF TARGET FIRM + SYNERGY − ACQUISTION COST

0 = 14,60,500 + SYNERGY − 14,60,500

⟹ SYNERGY = 0

(iv) Should we go ahead with the takeover.

NO ECONOMIC VALUE IN TAKEOVER
→ THERE MIGHT BE OTHER STRATEGIC REASONS

8. NPV of a Merger

PhonePe is trying to acquire BharatPe. Assume that both firms have no debt outstanding. Shares outstanding in Phonepe and BharatPe are 4,800 and 1,200 respectively. Price per share of Phonepe and BharatPe Rs 36 and Rs 24 respectively. The managers at PhonePe have estimated that the value of the synergistic benefits from acquiring BharatPe is Rs 9,500.

(i) If BharatPe is willing to be acquired for Rs 30 per share in cash, what is the NPV of the merger?
(ii) What will the price per share of the merged firm be assuming the conditions in (i)?
(iii) what is the merger premium in (i)?
(iv) Suppose BharatPe is agreeable to a merger by an exchange of stock. If PhonePe offers four of its shares for every five of BharatPe's shares, what will the price per share of the merged firm be?
(v) What is the NPV of the merger assuming the conditions in (iv)?
(vi) Are the shareholders of BharatPe better off with the cash offer (i) or the stock offer (iv)?
(vii) At what exchange ratio of PhonePe shares to BharatPe shares would the shareholders in BharatPe be indifferent between the two offers?

Solution:

(i) If BharatPe is willing to be acquired for Rs 30 per share in cash, what is the NPV of the merger?

NPV OF MERGER
= VALUE OF TARGET FIRM + SYNERGY − ACQUISTION COST
= $1200 \times 24 + 9500 - 1200 \times 30 = 2300$

(ii) What will the price per share of the merged firm be assuming the conditions in (i)?

$$\text{SHARE PRICE (cash acquisition)} = \frac{4800 \times 36 + 2300}{4800} = 36.48$$

(iii) what is the merger premium in (i)?

MERGER PREMIUM = $1200 \times (30-24) = 7200$

(iv) Suppose BharatPe is agreeable to a merger by an exchange of stock. If PhonePe offers four of its shares for every five of BharatPe's shares, what will the price per share of the merged firm be?

TOTAL NUMBER OF SHARES $= 4800 + 1200 \times \frac{4}{5} = 5760$

VALUE OF MERGED FIRM $= 4800 \times 36 + 1200 \times 24 + 9500$

$= 2,11,100$

PRICE PER SHARE $= \frac{2,11,100}{5760} = 36.65$

(v) What is the NPV of the merger assuming the conditions in (iv)?

NPV OF MERGER

= VALUE OF TARGET FIRM + SYNERGY − ACQUISITION COST

$= 1200 \times 24 + 9500 - 1200 \times \frac{4}{5} \times 36.65 = 3,116.67$

(vi) Are the shareholders of BharatPe better off with the cash offer (i) or the stock offer (iv)?

VALUE PER SHARE (CASH DEAL) = Rs 30

VALUE PER SHARE (STOCK DEAL) $= 24 \times \frac{4}{5} =$ Rs 19.20

$\Longrightarrow$ ACQUISITION BY CASH IS BETTER DEAL

(vii) At what exchange ratio of PhonePe shares to BharatPe shares would the shareholders in BharatPe be indifferent between the two offers?

LET EXCHANGE RATIO $= P$ $\frac{\text{PhonePe}}{\text{BharatPe}}$

TOTAL NUMBER OF SHARES $= 4800 + 1200 \times P$

SHARE PRICE (STOCK DEAL) $= \frac{2,11,100}{4800 + 1200P}$

WHICH IS EQUAL TO $\frac{30}{P}$

$$\frac{2,11,100}{4800 + 1200P} = \frac{30}{P} \Longrightarrow P = 0.8224$$

8. NPV of a Merger

Assume that Firm Alpha acquires Firm Beta via an exchange of stock at a price of Rs 18 for each share of Beta's stock. Both firms have no debt outstanding.
For Firm Alpha and Firm Beta, Total earnings are Rs 2,100 and Rs 700 respectively, Shares outstanding are 900 and 300 respectively, Price per share is Rs 60 and Rs 17 respectively.
(a) What will the earnings per share of Firm Alpha be after the merger?
(b) What will Firm Alpha's price per share be after the merger if the price–earnings ratio does not change?
(c) What will the price–earnings ratio of the postmerger firm be if the price–earnings ratio change?
(d) If there are no synergy gains, what will the share price of Alpha be after the merger? What will the price–earnings ratio be? What does your answer for the share price tell you about the amount Alpha bid for Beta ? Was it too high? Too low? Explain.

Solution:

(a) What will the earnings per share of Firm Alpha be after the merger?

TOTAL EARNINGS $= 2100 + 700 = 2800$

TOTAL NUMBER OF SHARES $= 900 + \dfrac{300 \times 18}{60} = 990$

$$EPS = \frac{2800}{990} = \text{Rs } 2.83$$

(b) What will Firm Alpha's price per share be after the merger if the price–earnings ratio does not change?

P/E OF ALPHA (before merger) $= \dfrac{60}{\frac{2100}{90}} = 25.71$

P/E AFTER MERGER $= 25.71$ (SAME)

STOCK PRICE AFTER MERGER $= 2.83 \times 25.71 = 72.73$ (Rs)

(c) What will the price–earnings ratio of the postmerger firm be if stock price remains unchanged (zero NPV acquisition)?

SINCE STOCK PRICE REMAINS UNCHANGED

$\Rightarrow$ NEW P/E $= \dfrac{60}{2.83} = 21.21$

(d) If there are no synergy gains, what will the share price of Alpha be after the merger? What will the price–earnings ratio be? What does your answer for the share price tell you about the amount Alpha bid for Beta ? Was it too high? Too low? Explain.

NEW SHARE PRICE = $\dfrac{900 \times 60 + 300 \times 17}{900 + 90} = 59.70$

P/E RATIO = $\dfrac{59.70}{2.83} = 21.11$

SINCE SHARE PRICE DECLINES ($60 \rightarrow 59.70$)

$\Longrightarrow$ NEGATIVE NPV MERGER

$\Longrightarrow$ REVISE MERGER BID DOWNWARDS $\downarrow$

9. Friendly Merger

Let us understand the step of Mergers and Acquistions, using example of PhonePe potentially acquiring Paytm.

1. Proposal and Negotiation

- PhonePe's CEO, recognizing the potential synergies between PhonePe and Paytm, reaches out to Paytm's CEO to propose a merger.
- Initial discussions focus on exploring the strategic rationale for the merger, identifying potential synergies, and evaluating the benefits to both companies and their shareholders.
- Negotiations ensue, covering various aspects such as the valuation of Paytm, the exchange ratio for stock-based transactions, the treatment of existing contracts and liabilities, and the roles of key executives post-merger.
- Advisors, including investment bankers and legal counsel, may be engaged to assist in conducting due diligence, structuring the deal, and navigating regulatory requirements.

2. Board Approval and Shareholder Vote

- Once negotiations yield a preliminary agreement, the proposed merger is presented to the respective boards of directors for review and approval.
- The boards conduct a thorough evaluation of the merger terms, financial projections, potential risks, and shareholder interests.
- If the boards determine that the merger is in the best interest of their respective companies and shareholders, they vote to approve the transaction.
- Following board approval, the merger agreement is submitted to shareholders for a vote at a special meeting, where they consider and vote on the proposed merger.

2. Regulatory Approval and Closing

- Upon obtaining shareholder approval, the companies proceed to seek regulatory approvals from relevant authorities, such as antitrust agencies and securities regulators.
- Regulatory review may involve assessing the competitive impact of the merger, ensuring compliance with securities laws, and addressing any potential concerns raised by regulators.
- Once all necessary regulatory approvals are obtained and any closing conditions are satisfied, the merger is finalized, and the companies formally combine their operations.
- Integration efforts commence, focusing on harmonizing business processes, consolidating operations, and realizing synergies to maximize the value of the merged entity.

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10. Hostile Takeover

In the event that Paytm's management rebuffs PhonePe's merger proposal or expresses reluctance to engage in negotiations, PhonePe may consider pursuing a hostile takeover strategy to acquire control of Paytm. This aggressive approach typically involves a series of strategic maneuvers aimed at gaining influence over Paytm's operations and ultimately compelling the company to accept the acquisition.

1. Toehold Acquisition (Street Sweep)

- PhonePe begins by discreetly acquiring a significant stake in Paytm's shares through open-market purchases or private transactions, without notifying Paytm's management.
- This initial investment, known as a toehold or street sweep, gives PhonePe a foothold in Paytm's ownership structure.
- It is also called **Creeping Acquistion**.
- As per SEBI (Substantial Acquisition of Shares and Takeovers) Regulations 2011, acquisition of 25% or more shares or voting rights, requires acquirer to make Public Offer.

SEBI (Substantial Acquisition of Shares and Takeovers) Regulations, 2011

10. **What are the threshold limits for acquisition of shares / voting rights, beyond which an obligation to make an open offer is triggered?**

- **Acquisition of 25% or more shares or voting rights:** An acquirer, who (along with PACs, if any) holds less than 25% shares or voting rights in a target company and agrees to acquire shares or acquires shares which along with his/ PAC's existing shareholding would entitle him to exercise 25% or more shares or voting rights in a target company, will need to make an open offer before acquiring such additional shares.
- **Acquisition of more than 5% shares or voting rights in a financial year:** An acquirer who (along with PACs, if any) holds 25% or more but less than the maximum permissible non-public shareholding in a target company, can acquire additional shares in the target company as would entitle him to exercise more than 5% of the voting rights in any financial year ending March 31, only after making an open offer.

2. Tender Offer

- With a toehold established, PhonePe launches a public tender offer to acquire additional shares of Paytm's stock directly from its shareholders.
- The tender offer, which is made at a premium to the prevailing market price, aims to incentivize shareholders to tender their shares to PhonePe.
- PhonePe may specify various terms in the tender offer, such as the percentage of shares it seeks to acquire, the duration of the offer, and any conditions or contingencies attached to the transaction.

3. Cleanup Merger

- If PhonePe accumulates a significant percentage of Paytm's shares through the tender offer, it may gain substantial voting power and the ability to influence Paytm's corporate decisions.
- With control or a significant minority stake in Paytm, PhonePe could seek to consolidate its position through a cleanup merger, which involves acquiring the remaining shares of Paytm and integrating the company into its operations.
- The cleanup merger may be proposed to Paytm's board of directors, presenting the transaction as an opportunity for shareholders to realize value and participate in the combined entity's growth prospects.

4. Proxy Fight

- As an alternative to a tender offer, PhonePe may initiate a proxy fight to gain control of Paytm's board of directors and influence its strategic direction.
- PhonePe nominates its own slate of director candidates to stand for election at Paytm's annual shareholders' meeting, challenging the incumbent board members.
- PhonePe engages in a proxy solicitation campaign to garner support from Paytm's shareholders, highlighting the benefits of its proposed nominees and the strategic rationale for the merger.
- If PhonePe's candidates win a majority of seats on Paytm's board, it gains effective control of the company and can proceed with implementing its merger plans.

10. Hostile Takeover

A "bear hug" is a tactic used by an acquiring company to make a highly attractive offer directly to the shareholders of a target company in an attempt to persuade them to sell their shares.

This offer is often significantly above the current market price of the target company's shares, aiming to entice shareholders to accept the bid. By making a compelling offer directly to shareholders, the acquiring company seeks to bypass the target company's management and board of directors, increasing pressure on them to negotiate or accept the takeover bid.

However, the target company may view the bear hug as a hostile act and may respond by implementing defensive measures to protect itself from the takeover attempt, such as adopting a poison pill or seeking alternative acquisition offers.

11. Defensive Tactics

Defensive Tactics are strategies employed by target companies to resist or discourage hostile takeover attempts by potential acquirers. These tactics are designed to protect the interests of the target company's shareholders and management.

These defensive measures implemented by a company's management and board of directors to deter or thwart hostile takeover attempts are also called **Shark Repellent**.

Let us discuss some of these tactics one by one.

11. Defensive Tactics

A **classified board**, also known as a **staggered board,** is a governance structure in which a company's board of directors is divided into multiple classes, with each class serving staggered terms. Typically, directors in each class are elected for overlapping terms, such as three years, and only one class is up for re-election each year.

These provisions are made in the corporate charter, which refers to the articles of incorporation and corporate bylaws governing a firm.

This structure contrasts with a unitary or non-classified board, where all directors are elected or re-elected at the same time, usually annually.

The primary purpose of a classified board is to make it more difficult for an outside party, such as an activist investor or potential acquirer, to gain control of the company's board through a proxy contest or hostile takeover attempt. By staggering the terms of directors, it becomes challenging for an external entity to replace a majority of the board in a single election cycle. This provides the company's management with more time and stability to respond to takeover attempts and to pursue long-term strategic initiatives without undue influence from short-term shareholders.

11. Defensive Tactics

Supermajority provisions in corporate charters dictate the percentage of voting shares required to approve significant transactions, such as mergers or acquisitions. Unlike a simple majority vote, where over 50% of voting shares are needed for approval, a supermajority provision sets the threshold higher than 50%. This threshold could be two-thirds, three-quarters, or even higher, depending on the specific provision outlined in the corporate charter.

For example, if a company's corporate charter stipulates a two-thirds supermajority provision for approving mergers, then at least two-thirds of the voting shares must vote in favor of the merger for it to be approved. This higher threshold makes it more challenging for an acquiring company to gain approval for a merger, particularly in the face of opposition from the target company's management or board of directors.

Supermajority provisions are often implemented as a defensive measure by companies to protect themselves from hostile takeovers. By requiring a higher percentage of shareholder approval, these provisions make it more difficult for an acquiring company to execute a hostile takeover without the support of a significant majority of shareholders.

Additionally, many corporate charters with supermajority provisions include a **board out clause**. This clause stipulates that the supermajority requirement does not apply if the board of directors of the target company approves the transaction. In other words, if the board of directors endorses the merger or acquisition, it can proceed even if it does not meet the supermajority threshold required by the corporate charter.

The inclusion of a board out clause ensures that the supermajority provision only serves as a hindrance to hostile takeovers, where the target company's management is opposed to the transaction. If the board of directors supports the merger or acquisition, it can bypass the supermajority requirement, thereby facilitating the transaction's approval.

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11. Defensive Tactics

Golden parachutes, refer to provisions included in employment contracts or severance agreements of top executives or key employees of a company as a means of deterring hostile takeovers or facilitating negotiations during merger and acquisition (M&A) discussions.

As defensive measures, golden parachutes are designed to provide executives with significant financial compensation and incentives in the event of a change in control or acquisition of the company by an outside party. By offering lucrative severance packages or compensation arrangements, companies aim to make themselves less attractive targets for hostile takeovers and discourage potential acquirers from pursuing aggressive strategies to gain control of the company.

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11. Defensive Tactics

A poison pill, also known as a shareholder rights plan, is a defensive strategy implemented by a company's management or board of directors to deter hostile takeovers.

The poison pill is designed to make the target company less attractive or more costly to acquire, thereby discouraging potential acquirers and giving the target company more leverage in negotiations.

The basic mechanism of a poison pill involves issuing rights or options to existing shareholders, enabling them to purchase additional shares of the company's stock at a significant discount in the event of a hostile takeover bid. These rights are triggered when certain predetermined conditions are met, such as the acquisition of a specified percentage of the company's outstanding shares by an outside entity (known as the "triggering event").

Poison pills deter hostile takeovers by diluting the ownership stake of potential acquirers. While they can protect shareholder interests and give the target company leverage in negotiations, critics argue that they may deter potential buyers and depress shareholder value, potentially leading to economic suicide for the company.

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11. Defensive Tactics

A people pill is a defensive strategy employed by a target company's management team to deter a hostile takeover attempt.

In this strategy, the management team publicly threatens to resign en masse if the hostile bid is successful. By introducing the possibility of losing the entire management team, the target company aims to discourage the acquiring company from completing the takeover, as it would then have to assemble a new management team to run the acquired company. This tactic is intended to make the takeover less appealing and increase the cost and complexity for the acquirer.

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11. Defensive Tactics

In Greenmail, a company repurchases its own stock from hostile bidder, at a premium above the market price. The purpose of greenmail is to thwart a hostile takeover attempt by buying back shares from the potential acquirer at a higher price, thereby eliminating the threat of the takeover.

The term "greenmail" is derived from the words "green" and "blackmail." In this context, "green" symbolizes money, while "blackmail" refers to coercive tactics used to extract concessions. Greenmail is often viewed as a defensive tactic employed by target companies to fend off hostile takeovers and protect shareholder interests, although it has been criticized for rewarding short-term investors at the expense of long-term shareholders.

It is also called **Premium Buyback Offer**.

While greenmail may prevent an immediate takeover, it can also result in increased costs for the target company and dilution of shareholder value. Moreover, it may encourage speculative investing and create incentives for investors to engage in similar tactics in the future.

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11. Defensive Tactics

A standstill agreement is a contractual arrangement between a target company and a potential acquirer that temporarily restricts the acquirer from further attempting to acquire or take control of the target company. In essence, it puts a pause or halt on any hostile takeover or aggressive acquisition attempts.

The agreement prohibits the potential acquirer from purchasing additional shares of the target company's stock or from making any further attempts to acquire control of the company through open market purchases, tender offers, or other means.

Standstill agreements typically have a specified duration or expiration date, after which the restrictions on the potential acquirer are lifted, and they are free to resume their acquisition efforts if desired.

Standstill agreements provide the target company with additional time to explore strategic alternatives, negotiate more favorable terms, or seek out alternative suitors without the threat of immediate hostile takeover or disruption.

By imposing temporary restrictions on the potential acquirer's actions, standstill agreements give the target company breathing room to evaluate its options and pursue value-maximizing strategies in the interest of its shareholders.

11. Defensive Tactics

A white knight is a friendly third party or acquiring company that steps in to rescue a target company from a hostile takeover attempt by making a more favorable acquisition offer. The term "white knight" refers to a company that intervenes to protect the target company from being acquired by an unwanted bidder, often referred to as the "black knight."

Unlike the hostile bidder (black knight), the white knight is typically viewed as a friendly suitor with the target company's best interests in mind. The white knight may offer a more attractive acquisition proposal, including better terms, price, or strategic fit, to win the support of the target company's management and board of directors.

The white knight's acquisition offer is often aligned with the target company's business objectives, growth plans, or corporate culture. This alignment may make the white knight a preferred partner for the target company, as it offers continuity and synergies that may not be present with the hostile bidder.

The acquisition by a white knight is usually negotiated and agreed upon through friendly discussions between the target company and the acquiring company. The white knight may conduct due diligence, engage in strategic planning, and negotiate mutually beneficial terms with the target company's management and board of directors.

The white knight's intervention is aimed at preserving or enhancing shareholder value by providing an alternative to the hostile bidder's offer. The white knight may offer shareholders a higher price, better long-term prospects, or other incentives to support the acquisition and thwart the hostile takeover attempt.

11. Defensive Tactics

A White Squire is a term used to describe a friendly third-party investor or entity that is invited by a target company's management to make a significant investment in the company.

The white squire makes a substantial investment in the target company, usually through the purchase of a significant stake in its equity or by providing capital through other means, such as convertible securities or preferred stock.

In exchange for its investment, the white squire agrees to align its interests with those of the target company's management and board of directors. This alignment typically involves supporting management's strategic initiatives, corporate governance practices, and long-term business objectives.

The white squire may enter into a voting agreement or proxy arrangement with the target company's management, agreeing to vote its shares in accordance with management's recommendations and to refrain from taking actions that could facilitate a hostile takeover or change in control.

As part of the agreement with the target company's management, the white squire may agree not to purchase additional shares of the company's stock beyond its initial investment, thereby avoiding the accumulation of a controlling stake that could trigger regulatory scrutiny or lead to a hostile takeover bid.

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11. Defensive Tactics

Recapitalizations and share buybacks can be used as defensive measures against hostile takeovers in several ways:

Increased Stock Price: When a company engages in a recapitalization or share buyback, it often issues debt to pay out dividends or buy back shares. This can lead to an increase in the company's stock price, potentially making it less attractive for the hostile bidder. The increase in stock price may occur due to various factors, such as the tax advantages associated with higher debt levels. However, it's important to note that the stock price will only rise if the firm's debt level before the recapitalization was below the optimum level. Therefore, a leveraged recapitalization may not be recommended for every target company.

Management Control: As part of the recapitalization process, management may issue new securities that give them greater voting control than they had before. This increase in control makes it more challenging for a hostile bidder to take over the company without the approval of management.

Reduced Appeal as a Takeover Target: Companies with substantial cash reserves on their balance sheets are often seen as attractive takeover targets. As part of the recapitalization process, the target company may use its cash reserves to pay dividends or buy back its own shares. By doing so, the company reduces its appeal as a takeover candidate since it reduces the amount of cash available to the potential acquirer, making the acquisition less financially attractive.

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11. Defensive Tactics

Exclusionary Self-Tenders are defensive strategies employed by companies to thwart hostile takeovers.

In exclusionary self-tenders, the company makes a tender offer to repurchase a certain amount of its own stock from existing shareholders while specifically excluding certain shareholders, often those who are supportive of the hostile takeover bid.

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11. Defensive Tactics

A target firm may opt for asset restructurings to make itself less attractive to potential acquirers. This strategy involves reorganizing the company's assets, often by divesting poorly performing or unrelated divisions. By streamlining its operations and focusing on core businesses, the target firm aims to increase its overall value and stock price. This increased value can make the company less appealing to a hostile bidder, as the potential for immediate gains from acquisition may diminish. Additionally, the restructuring may result in the creation of separate firms, each focused on a specific business line, further complicating any acquisition attempt.

Selling Crown Jewels

In some cases, a bidder may be primarily interested in acquiring a specific division or asset of the target company, often referred to as the "crown jewel." To deter the hostile bidder, the target company may choose to sell off this prized asset, thereby reducing the attractiveness of the overall company as an acquisition target. While this strategy can indeed thwart a takeover attempt, it carries the risk of undervaluing the asset being sold, potentially harming the target company's shareholders if the asset is worth more to the target than to the buyer.

Buying Unrelated Business

In contrast to selling off assets, some target companies may pursue acquisitions of unrelated businesses as a defensive strategy against hostile takeovers. By diversifying into unrelated industries or sectors, the target company may become less appealing to the acquirer, especially if the bidder is primarily interested in the target's existing business lines. However, this strategy may not always serve as a strong defense, as the bidder could potentially divest the newly acquired business post-acquisition. Nonetheless, the addition of unrelated businesses can complicate the bidder's integration plans and overall strategy, potentially discouraging the hostile takeover attempt.

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11. Defensive Tactics

Using antitrust disputes as a defense against hostile takeovers involves leveraging regulatory mechanisms to raise concerns about the potential negative impacts of the proposed acquisition on competition within the market.

Under the Competition Act of 2002, the Competition Commission of India (CCI) plays a crucial role in scrutinizing mergers and acquisitions to ensure they do not harm competition.

When facing a hostile takeover attempt, the target company or other stakeholders may file a complaint with the CCI, prompting an investigation into the anticompetitive implications of the transaction. The CCI conducts a thorough review, analyzing market data and considering input from various stakeholders to determine whether the proposed acquisition would result in reduced competition, higher prices, or diminished consumer choice.

Upon completing its investigation, the CCI may take remedial actions if it finds that the proposed acquisition poses significant antitrust concerns. These actions could include imposing conditions on the merger or acquisition, requiring divestitures of certain assets, or outright blocking the transaction altogether.

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11. Defensive Tactics

In the Macaroni Defense, the target company strategically issues a substantial amount of bonds, often referred to as "macaroni bonds," with the stipulation that these bonds must be redeemed at a high price in the event of a takeover or acquisition. This redemption provision essentially serves as a deterrent to potential acquirers, as it significantly increases the cost and financial burden associated with acquiring the target company.

The name "Macaroni Defense" is derived from the elongated and twisted shape of the corporate structure created through the issuance of these bonds, resembling the shape of macaroni pasta. By implementing this defense strategy, the target company aims to make itself less attractive or financially viable for potential acquirers, thereby discouraging hostile takeover attempts.

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12. Agency Problems in M&A

Agency problems in mergers and acquisitions (M&A) are rooted in the inherent conflicts of interest between different stakeholders, particularly managers and stockholders, within both bidding and target firms.

Managers of Bidding Firms
One of the key challenges lies in the divergence of interests between managers and stockholders of bidding firms. While stockholders typically seek to maximize shareholder value, managers may pursue mergers and acquisitions for personal gain or to bolster their own positions within the company.

This discrepancy is often attributed to agency theory, which posits that managers, who are responsible for day-to-day operations, may prioritize their own interests over those of stockholders. This is exacerbated by compensation structures that reward managers for increasing firm size or completing acquisitions, regardless of their potential impact on shareholder wealth.

Managers may be incentivized to pursue mergers, even if they have negative net present value (NPV), in order to secure bonuses or enhance their prestige within the industry.

Managers of Target Firms
Similarly, managers of target firms face their own set of agency issues in the context of M&A transactions.

These managers may resist takeovers in order to maintain their positions or negotiate deals that primarily benefit themselves rather than shareholders. In mergers of equals (MOEs), where both firms have equal representation on the merged entity's board, target firms may receive a lower percentage of merger gains compared to other types of mergers.

This suggests that managers of target firms may prioritize their own power and influence within the merged entity, potentially at the expense of shareholder value.

Managerial Entrenchment Hypothesis
The managerial entrenchment hypothesis posits that managers may erect barriers within a company to protect their own positions and job security, even at the expense of shareholder value. Under this hypothesis, managers prioritize their own interests over those of shareholders and may resist mergers or takeovers. As a result, they employ defensive mechanisms to thwart potential acquirers and maintain their positions of power. These defensive tactics can be detrimental to shareholder wealth, as they may prevent value-maximizing transactions and entrench underperforming management teams.

Shareholder Entrenchment Hypothesis
In contrast, the shareholder entrenchment hypothesis suggests that alternative mechanisms for monitoring managers, such as independent boards of directors or activist shareholders, are sufficient to protect shareholder interests. According to this hypothesis, defensive tactics deployed by managers in response to merger or takeover attempts do not significantly increase managerial inefficiency or harm shareholder welfare. Instead, these tactics are viewed as legitimate tools to safeguard shareholder interests and prevent opportunistic takeovers that may not be in the long-term interest of the company or its shareholders.

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13. Accounting for M&A

When a firm acquires another, the process of accounting for the acquisition involves two distinct sets of books: the stockholders' books and the tax books.

In accounting for acquisitions, the **purchase method** is commonly utilized by the acquiring firm. Under this method, the assets of the acquired firm are recorded on the books of the acquiring firm at their fair market value. This means that the acquiring firm evaluates and reports the acquired assets based on their current market worth at the time of acquisition. By doing so, the acquiring firm establishes a new cost basis for the acquired assets, reflecting their true economic value.

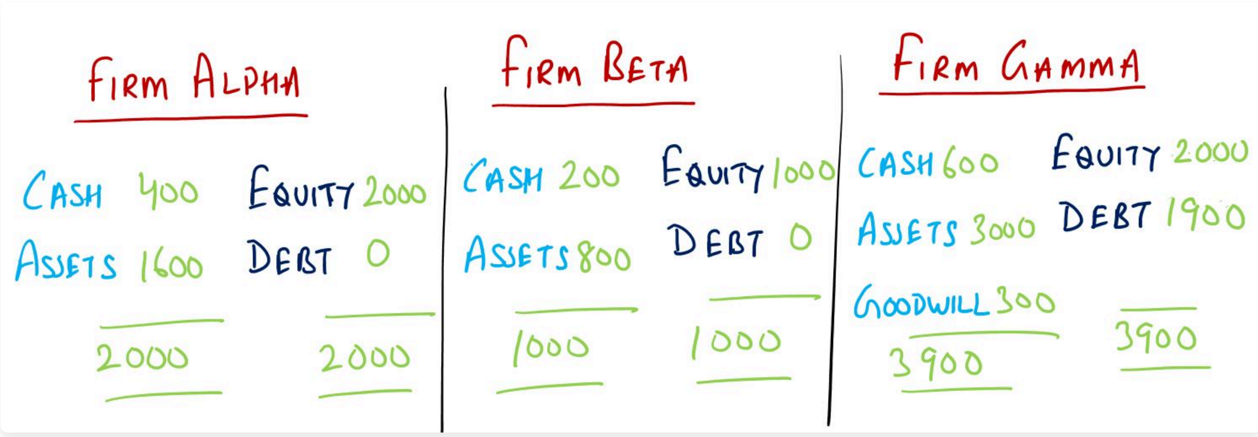
One significant aspect of the purchase method is the creation of *goodwill*. Goodwill is an accounting term that represents the excess of the purchase price paid by the acquiring firm over the sum of the fair market values of the individual assets acquired. Essentially, goodwill reflects the premium paid by the acquiring firm for acquiring the target company, beyond the identifiable tangible and intangible assets. It encompasses factors such as brand value, customer relationships, and market position, which contribute to the overall value of the acquired entity.

Illustration

Suppose Firm Alpha acquires Firm Beta, creating a new firm, Gamma.

The book value of Firm Beta on the date of the acquisition is Rs 1000 lakhs. This is the sum of Rs 800 lakhs in fixed assets and Rs 200 lakhs in cash.

However, an appraiser states that the sum of the fair market values of the assets is Rs 1400 lakhs. With Rs 200 lakhs in cash, the sum of the market values of Firm Beta is Rs 1600 lakhs. This represents the value to be received if the firm is liquidated by selling off.



Firm Alpha pays Rs 1900 lakhs in cash for Firm Beta. This difference of Rs 300 lakhs (Rs 1900 lakhs - Rs 1600 lakhs) is goodwill. It represents the increase in value from keeping the firm as an ongoing business. Firm Alpha issued Rs 1900 lakh in new debt to finance the acquisition of Firm Beta.

Say, the total assets of combined Firm Gamma increase to Rs 3900 lakhs.

The assets of Firm Beta appear in the new balance sheet at their current market value. That is, the market value of the assets of the acquired firm becomes part of the book value of the new firm.

However, the assets of the acquiring firm (Firm Alpha) remain at their old book value. They are not revalued upward when the new firm is created.

13. Accounting for M&A

As per Accounting Standard-14, Amalgamation can take place in two ways, i.e. in the nature of merger and in the nature of the purchase. When amalgamation is in the nature of merger the method of accounting used is the pooling of interest method, whereas is the amalgamation is in the nature of the purchase, purchase method of accounting is used.

In **pooling of interest method**, the assets and liabilities are recorded at their carrying amounts in the books of the transferee company. Difference in the amount of puchase consideration and share capital is adjusted with reserves.

In **purchase method**, the assets and liabilities of the acquired company are recorded in the books of acquiring company at their fair market value, as on the date of acquisition. Surplus of deficit of purchase considertaion over the net asset acuiqred, should be credited or debited, as capital reserves or goodwill.

13. Accounting for M&A

The balance sheets of two firms Delta and Sigma are given below. The fair market value of Sigma's fixed assets is equal to the book value. Delta pays Rs 15,000 for Sigma and raises the needed funds through an issue of long-term debt.

Company Delta			
Current Assets	18,000	Current Liabilities	5,100
Fixed Assets	33,000	Long term Liabilities	9,300
		Equity	36,600
	51,000		**51,000**

Company Sigma			
Current Assets	3,500	Current Liabilities	2,100
Fixed Assets	8,900	Long term Liabilities	1,400
		Equity	8,900
	12,400		**12,400**

(i) Construct a postmerger balance sheet assuming that Delta purchases Sigma and the purchase method of accounting is used.
(i) Suppose the fair market value of Sigma's fixed assets is Rs 15,000. Delta pays Rs 23,000 for Sigma and raises the needed funds through an issue of long-term debt. Construct the postmerger balance sheet now.

Solution:

(i) Construct a postmerger balance sheet assuming that Delta purchases Sigma and the purchase method of accounting is used.

POST MERGER

DEBT = 9300 + 15000 = 24300

GOODWILL = 15000 − 8900 − 3500 = 2600

Company Delta (Post Merger)			
Current Assets	21500	Current Liabilities	5100
Fixed Assets	41900	Long term Debt	24300
Goodwill	2600	Equity	36600
	66000		66000

(i) Suppose the fair market value of Sigma's fixed assets is Rs 15,000. Delta pays Rs 23,000 for Sigma and raises the needed funds through an issue of long-term debt. Construct the postmerger balance sheet now.

POST MERGER

DEBT = 9300 + 23000 = 32300

GOODWILL = 23000 − 15000 − 3500 = 4500

Company Delta (Post Merger)			
Current Assets	21500	Current Liabilities	5100
Fixed Assets	48 000	Long term Debt	32300
Goodwill	4500	Equity	36600
	74000		74000

13. Accounting for M&A

Shyam Industries has acquired Gupta Industries. The market value of Gupta Industries fixed assets is Rs 5,800; the market values for current and other assets are the same as the book values. Assume that Shyam Industries issues Rs 13,800 in new long-term debt to finance the acquisition. The following balance sheets represent the premerger book values for both firms.

Shyam Industries			
Current Assets	8,600	Current Liabilities	5,200
Fixed Assets	15,800	Long term Debt	3,700
Other Assets	1,800	Equity	17,300
	26,200		**26,200**

Gupta Industries			
Current Assets	2,500	Current Liabilities	2,300
Fixed Assets	5,800	Long term Debt	0
Other Assets	850	Equity	6,850
	9,150		**9,150**

(i) Construct the balance sheet for the new corporation if the merger is treated as a purchase for accounting purposes.
(ii) The market value of Gupta Industries fixed assets is Rs 5,800; the market values for current and other assets are the same as the book values. Assume that Shyam Industries issues Rs 10,500 in new long-term debt to finance the acquisition. Construct the postmerger balance sheet now.

Solution:

(i) Construct the balance sheet for the new corporation if the merger is treated as a purchase for accounting purposes.

POST MERGER

DEBT = 3700 + 13800 = 17500

GOODWILL = 13500 − 9150 = 4650

Shyam Industries (Post Merger)			
Current Assets	11100	Current Liabilities	5200
Fixed Assets	21600	Long term Debt	17500
Other Assets	2650	Equity	17300
Goodwill	4650		
	40000		40000

(ii) The market value of Gupta Industries fixed assets is Rs 5,800; the market values for current and other assets are the same as the book values. Assume that Shyam Industries issues Rs 10,500 in new long-term debt to finance the acquisition. Construct the postmerger balance sheet now.

POST MERGER

DEBT = 3700 + 10500 = 14200

GOODWILL = 10500 − 9150 = 1350

Shyam Industries (Post Merger)			
Current Assets	11100	Current Liabilities	5200
Fixed Assets	21600	Long term Debt	14200
Other Assets	2650	Equity	17300
Goodwill	1350		
	36700		36700

14. Leveraged BuyOut

In a Leveraged BuyOut (LBO), a company, typically a publicly traded firm, is acquired by a private group (either by a group of investor or group of management), by using a significant amount of debt to finance the purchase.

One of the primary characteristics of an LBO is the high level of debt used to finance the transaction. The debt component of the financing often results in tax advantages, as interest payments on debt are typically tax-deductible. Additionally, the use of debt allows the acquiring group to control a larger asset base with a relatively small initial investment.

LBOs are frequently associated with going-private transactions, where a publicly traded company is taken off the stock market and becomes privately held. In these transactions, shareholders of the publicly traded firm are typically offered a premium above the market price for their shares. This premium serves as an incentive for shareholders to accept the buyout offer.

While the concept of synergy, which refers to the potential increase in value resulting from the combination of two entities, is often associated with mergers involving two firms, it can also apply to LBOs.

In an LBO, the increased efficiency and performance of the acquired company, driven by the alignment of incentives between management and ownership, can create value. Managers, who become owners under an LBO, are incentivized to work hard and improve the company's operations, often referred to as the "carrot and stick" approach.

This alignment of interests between managers and owners can lead to enhanced performance and profitability, ultimately benefiting both parties involved in the transaction.

If the buyout is being done by a group of management, then it is also called **Management BuyOut** (MBO).

15. Divestitures

Divestitures refer to the action of selling or disposing of assets, subsidiaries, divisions, or business units by a company. This is reverse of Merger.

This process involves the intentional reduction or elimination of certain parts of a company's operations or portfolio. Divestitures can take various forms, including selling off assets, spinning off subsidiaries into separate entities, or outright liquidation of business units.

Let us discuss some of important types of divestitures.

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15. Divestitures

Liquidation refers to the process of selling off a division, business unit, segment, or set of assets of a company, typically to another entity.

In this type of divestiture, the assets being sold are converted into cash, which is then distributed to the company's shareholders or used to satisfy outstanding liabilities. The sale may involve the transfer of tangible assets such as equipment, inventory, and real estate, as well as intangible assets such as intellectual property or customer relationships.

There are several reasons why companies may opt for liquidation:

Corporate Focus: Liquidating a division or business unit can help the company sharpen its focus on its core operations and strategic priorities. By shedding non-core or underperforming assets, companies can streamline their businesses and allocate resources more efficiently, potentially enhancing overall value for shareholders.

Cash Generation: For liquidity-poor firms or those facing financial difficulties, liquidation can provide much-needed cash to meet immediate financial obligations or fund ongoing operations. By converting assets into cash, companies can improve their liquidity position and strengthen their financial stability.

Transparency and Valuation: Large, diversified firms with multiple business segments may face challenges in accurately valuing their overall business due to the complexity and lack of transparency associated with individual segments. Liquidating non-core or less transparent segments can simplify the company's structure, making it easier for investors to assess its value and potentially reducing the discount applied to its stock price.

Disposal of Unprofitable Divisions: Companies may choose to liquidate unprofitable divisions or business units that are weighing down overall performance. By divesting these underperforming assets, companies can eliminate associated losses and focus resources on more profitable areas of the business.

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15. Divestitures

A Spin Off is a corporate restructuring strategy in which a parent company creates a separate, independent entity by turning one of its divisions into a standalone business.

In a spin-off, the parent company distributes shares of the newly formed entity to its existing shareholders on a pro-rata basis, typically without receiving any cash proceeds in return. Unlike a sale or divestiture, where the division is transferred to another company, the spun-off division becomes a separate publicly traded company, with its own shares listed on the stock exchange.

There are several reasons why a company may choose to undertake a spin-off:

Increased Corporate Focus: Similar to other divestiture strategies, a spin-off can help sharpen the parent company's strategic focus by allowing it to concentrate on its core operations. By separating a non-core or underperforming division into a standalone entity, management can allocate resources more effectively and enhance overall business performance.

Enhanced Transparency and Valuation: Once the division becomes a publicly traded company, it is subject to regulatory disclosure requirements and investor scrutiny. This increased transparency can lead to better visibility and understanding of the parent and subsidiary businesses, potentially resulting in improved valuation for both entities.

Alignment of Executive Compensation: Executives are often compensated with stock options or equity incentives tied to the company's performance. In a spin-off, divisional managers can be granted shares of stock in the subsidiary, aligning their interests more closely with the performance of the spun-off business. This can provide greater motivation for managers to drive value creation within their respective divisions.

Favorable Tax Consequences: From a tax perspective, spin-offs generally offer more favorable treatment compared to outright sales or divestitures. Since the parent company does not receive any cash proceeds from the spin-off, there may be fewer tax implications associated with the transaction. Additionally, shareholders may benefit from tax-free treatment of the distribution of shares in the spun-off entity.

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15. Divestitures

In a Carve Out, a company separates a specific division or business unit and transforms it into an independent entity, which is then offered to the public through an initial public offering (IPO). Unlike a spin-off where the parent company distributes shares of the division to its existing shareholders, in a carve-out, the parent company typically retains a significant ownership stake in the carved-out entity while selling shares to outside investors. The carve-out process is similar to a spin-off in many aspects, sharing common benefits such as increased corporate focus, enhanced transparency, and alignment of executive incentives.

However, the key distinction lies in the financial outcome for the parent company. While a spin-off does not generate any cash proceeds for the parent, a carve-out results in the parent company receiving cash from the sale of shares in the carved-out entity to public investors. This infusion of cash can be advantageous for the parent company, particularly if it requires additional capital for investment, debt reduction, or other strategic initiatives.

The decision between a carve-out and a spin-off often depends on various factors such as the parent company's financial position, its strategic objectives, market conditions, and investor sentiment. Large, profitable firms may opt for carve-outs to access liquidity and capitalize on market opportunities, whereas smaller, less profitable firms may resort to spin-offs due to limitations in their ability to issue stock. However, the receipt of cash from a carve-out also introduces potential challenges, as it may tempt management to pursue less profitable projects or investments, leading to concerns related to the efficient allocation of capital.

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16. Roll Up

A Roll Up is a corporate strategy where multiple small companies within the same industry or sector are merged or acquired with the aim of consolidating their operations and achieving economies of scale.

The process typically involves a series of acquisitions orchestrated by a larger, often well-capitalized company known as the "platform" or "roll-up" company. The ultimate goal of a roll-up is to create a larger, more efficient entity that can compete more effectively in the market.

In a roll-up, the platform company seeks out smaller businesses that operate in complementary or related areas within the same industry. These smaller companies are usually fragmented and may lack the resources or scale to compete effectively on their own. By consolidating these businesses under a single umbrella, the roll-up company aims to streamline operations, reduce costs, and leverage synergies to enhance overall profitability.

Once the roll-up company has acquired a sufficient number of smaller businesses, it may pursue an initial public offering (IPO) to raise additional capital and provide liquidity to investors. Going public allows the roll-up company to access the public equity markets, enabling it to fund further expansion, repay debt, or pursue other strategic initiatives.

17. Why M&A fail

Let us understand some of the reasons why mergers and acquisitions (M&A) typically fail:

Cultural Incompatibility: Organizational culture plays a crucial role in shaping employee behavior, decision-making processes, and overall work environment. When there are significant differences in culture between the acquiring and target companies, it can lead to clashes, resistance to change, and difficulties in aligning goals and strategies. Failure to address cultural disparities can result in employee disengagement, loss of talent, and ultimately hinder the integration process.

Poor Due Diligence: Due diligence is a critical phase in the M&A process where the acquiring company assesses the target's financial, legal, operational, and cultural aspects. Inadequate due diligence can result in the failure to uncover hidden risks, liabilities, or operational inefficiencies, which may emerge post-transaction and impact the merged entity's performance and financial health.

Overvaluation: Overpaying for the target company is a common pitfall in M&A transactions. It can occur due to inflated expectations of synergies, competitive bidding processes, or misjudgment of the target's intrinsic value. When the acquisition price exceeds the target's true worth, it can strain the financial resources of the acquiring company and diminish shareholder value in the long run.

Integration Challenges: Successful integration is crucial for realizing the anticipated synergies and value creation opportunities in M&A deals. However, challenges may arise in integrating disparate systems, processes, organizational structures, and corporate cultures. Delays or missteps in integration efforts can disrupt operations, erode customer confidence, and lead to missed growth targets.

Leadership and Management Issues: Effective leadership and management are essential for steering the M&A process, facilitating communication, and aligning organizational objectives. However, leadership conflicts, power struggles, and lack of clarity in decision-making roles can impede progress and create uncertainty among employees, investors, and other stakeholders.

Regulatory and Legal Risks: M&A transactions are subject to regulatory scrutiny, antitrust laws, and compliance requirements, which vary across jurisdictions and industries. Failure to navigate regulatory hurdles or comply with legal obligations can result in costly fines, delays in deal closure, or even forced divestitures, undermining the transaction's success and reputation.

Loss of Key Talent: M&A activity often triggers uncertainty among employees, particularly those in key positions or critical functions. If not effectively managed, this uncertainty can lead to employee turnover, loss of institutional knowledge, and disruptions in business operations. Retaining and incentivizing key talent during and after the transition period is essential for preserving organizational capabilities and sustaining performance.

Strategic Misalignment: M&A deals may falter if there is a mismatch in strategic objectives, business models, or market dynamics between the acquiring and target companies. Incompatibility in product portfolios, customer segments, or growth strategies can undermine the rationale for the deal and erode value creation potential.

18. Critical Success Factors

Successful mergers and acquisitions (M&A) depend on various factors that are critical for achieving the desired outcomes and creating value for all stakeholders involved.

Here are some key success factors:

Strategic Alignment: Ensuring alignment between the strategic objectives of the acquiring and target companies is essential. M&A transactions should be driven by clear strategic rationale, such as expanding market presence, accessing new technologies, diversifying product portfolios, or achieving cost synergies.

Effective Due Diligence: Thorough due diligence is crucial for identifying potential risks, opportunities, and synergies associated with the transaction. This includes assessing financial, legal, operational, technological, and cultural aspects of the target company to inform decision-making and mitigate post-transaction surprises.

Cultural Compatibility: Recognizing and addressing cultural differences between the merging organizations is vital for successful integration. Building a shared vision, fostering open communication, and promoting collaboration can help bridge cultural gaps and create a cohesive organizational culture in the merged entity.

Strong Leadership and Governance: Effective leadership and governance structures are essential for driving M&A strategy, overseeing integration efforts, and ensuring alignment with stakeholders' interests. Clear communication, decisive decision-making, and accountability at all levels of the organization are critical for navigating complexities and driving execution excellence.

Robust Integration Planning: Developing a comprehensive integration plan early in the process is essential for streamlining operations, realizing synergies, and minimizing disruptions. This includes defining integration priorities, timelines, responsibilities, and key performance indicators (KPIs) to track progress and measure success.

Talent Management: Retaining and engaging key talent before, during, and after the integration process is critical for preserving institutional knowledge, maintaining customer relationships, and driving innovation. Implementing effective talent retention strategies, leadership development programs, and performance incentives can help mitigate the risk of talent flight and ensure continuity of operations.

Customer Focus: Maintaining a customer-centric approach throughout the M&A process is essential for preserving customer trust, satisfaction, and loyalty. Understanding customer needs, addressing concerns, and delivering value-added solutions can help minimize customer churn and capitalize on cross-selling opportunities in the merged entity.

Financial Discipline: Prudent financial management is essential for ensuring the sustainability and long-term success of M&A transactions. This includes maintaining financial discipline, managing costs, optimizing capital allocation, and monitoring financial performance to maximize shareholder value and support future growth initiatives.

Stakeholder Engagement: Proactive and transparent communication with all stakeholders, including employees, customers, suppliers, investors, and regulators, is crucial for building trust, managing expectations, and mitigating resistance to change. Engaging stakeholders early and often can help address concerns, resolve conflicts, and foster support for the M&A initiative.

1. International Financial Management

International Financial Management (IFM) is the management of finance in an international business environment; that is, the management of international financial flows.

It involves managing financial functions for companies that operate in more than one country. IFM encompasses a wide range of activities such as foreign exchange management, international investment and financing decisions, managing international financial risks, and operating in different economic, legal, and political environments.

Finance managers engaged in international finance must navigate various complexities and considerations, including:

Foreign Exchange Risk

- *Currency Fluctuations*: Managing the risk that arises from changes in exchange rates which can affect the value of international transactions and investments.
- *Hedging Strategies*: Utilizing financial instruments like futures, options, and swaps to mitigate exchange rate risks.

Political and Economic Risks

- *Political Stability*: Assessing the political environment in countries where the company operates to avoid risks like expropriation, nationalization, or political unrest.
- *Economic Conditions*: Evaluating economic indicators such as inflation, interest rates, and economic growth in different countries to make informed financial decisions.

Taxation and Regulatory Environment

- *Tax Laws*: Understanding and complying with diverse tax laws and regulations in different countries.
- *Regulatory Compliance*: Adhering to varying regulatory standards and reporting requirements across international borders.

Global Financing Options

- *Capital Markets*: Accessing international capital markets for raising funds, which might involve issuing bonds or equities in foreign markets.
- *Banking Relationships*: Establishing and maintaining relationships with international banks for financing needs and transactional support.

International Investment Decisions

- *Foreign Direct Investment (FDI)*: Making decisions on investments in foreign subsidiaries or joint ventures.
- *Portfolio Investment*: Managing international investment portfolios to diversify risk and maximize returns.

Repatriation of Profits

- *Dividends and Royalties:* Managing the repatriation of profits, dividends, and royalties back to the parent company, considering foreign exchange controls and tax implications.

Transfer Pricing

- *Inter-company Transactions:* Setting prices for transactions between subsidiaries in different countries to optimize overall tax burden and comply with international regulations.

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2. Foreign Exchange Management

Foreign Exchange Management from the perspective of a finance manager involves strategically handling currency-related transactions and exposures to minimize risks and maximize returns in an international business environment.

Companies need foreign exchange for several key reasons:

- *International Trade:* To buy and sell goods and services across borders, converting currencies as needed.
- *Foreign Investments:* To invest in overseas markets, including setting up subsidiaries and acquiring assets.
- *Currency Conversion:* To convert earnings and expenses into the local currency for financial reporting and operational purposes.
- *Profit Repatriation:* To transfer profits from foreign subsidiaries back to the parent company’s home country.

Foreign Exchnage Management includes understanding different types of exchange rate risks such as transaction, translation, and economic exposures. To mitigate these risks, finance managers employ various hedging strategies such as forward contracts, futures contracts, options contracts, and swaps. Additionally, natural hedging techniques like matching revenues and expenses in the same currency and diversifying production facilities and supply chains across multiple countries are used.

Regular risk assessment through sensitivity analysis and scenario planning is essential to evaluate the impact of exchange rate fluctuations on the company's financial performance. Establishing robust foreign exchange policies and procedures, including real-time monitoring and reporting, ensures that currency exposures are managed effectively and in line with the company's overall financial strategy.

The main objectives of foreign exchange management are to minimize risk, maximize returns, ensure predictability, and maintain a competitive advantage in international markets.

However, finance managers face challenges such as market volatility, regulatory compliance, the complexity of financial instruments, and the need to integrate foreign exchange management with the company’s broader financial and operational strategies.

By effectively managing foreign exchange risks, finance managers can stabilize cash flows, protect profitability, and support the company’s competitive positioning in global markets.

3. Exchange Rate

An exchange rate is, simply, the price of one nation's currency in terms of another currency, often termed the reference currency.

For example, the Dollar/Rs exchange rate is just the number of Rupees that one dollar will buy.

If a Dollar will buy 100 Rupees, the exchange rate would be as:
Dollar/Rs = 100

Sometimes, it is also expressed as Rs100/$.

We see that, an exchange rate is expressed as a currency pair, for example, USD/GBP.

$$\$/\text{₹} = 80 \Rightarrow 1\ \$ = 80\text{₹}$$

$$GBP/\$ = 1.2 \Rightarrow 1\ GBP = 1.2\ \$$$

$$¥/€ = x \Rightarrow 1\ ¥ = x\ €$$

$$\boxed{A/B = \frac{1}{B/A}}$$

The first currency listed in the pair (USD) always represents one unit of that currency, meaning 1 USD. The exchange rate tells you how much of the second currency (GBP) you would need to purchase one unit of the first currency.

USD/GBP = 0.80
1 U.S. Dollar (USD) equals 0.80 British Pounds (GBP).

EUR/USD = 1.20
1 Euro (EUR) equals 1.20 U.S. Dollars (USD).

USD/JPY = 110.00
1 U.S. Dollar (USD) equals 110 Japanese Yen (JPY).

4. Appreciation and Depreciation

Appreciation and Depreciation are simply about whether a currency's value increases (appreciation) or decreases (depreciation) relative to other currencies.

Appreciation

Appreciation refers to an increase in the value of a currency relative to other currencies in the foreign exchange market. Essentially, when a currency appreciates, it becomes stronger, meaning it can buy more of another currency or more goods and services in foreign markets.

For example, let's consider the US dollar (USD) and the Euro (EUR). If initially, 1 USD equals 0.85 EUR, but over time, due to various factors such as strong economic performance or higher interest rates in the United States, the exchange rate changes to 1 USD equals 0.90 EUR, then the US dollar has appreciated against the Euro. This means that with 1 US dollar, you can now buy more Euros than before.

Depreciation

On the other hand, depreciation refers to a decrease in the value of a currency relative to other currencies. When a currency depreciates, it becomes weaker, meaning it can buy fewer units of another currency or fewer goods and services in foreign markets.

Continuing with the example of USD and EUR, if initially, 1 USD equals 0.85 EUR, but due to factors like weak economic performance or lower interest rates in the United States, the exchange rate changes to 1 USD equals 0.80 EUR, then the US dollar has depreciated against the Euro. This means that with 1 US dollar, you can now buy fewer Euros than before.

4. Appreciation and Depreciation

The $/Rs exchange rate goes from $1 = Rs 93 to $1 = Rs 109.
(i) Which currency has appreciated and which has depreciated?
(ii) What is the rate of appreciation of euro?
(iii) What is the rate of depreciation of dollar?

Solution:

In this scenario, the U.S. dollar (USD) has appreciated, and the Indian rupee (INR) has depreciated.

When the exchange rate changes from $1 = Rs 93 to $1 = Rs 109, it means that now it takes more Indian rupees to purchase one U.S. dollar. In other words, the value of the U.S. dollar has increased relative to the Indian rupee, indicating appreciation. Conversely, the value of the Indian rupee has decreased relative to the U.S. dollar, indicating depreciation.

$/Rs 93 → 109

APPRECIATION OF $

$$\frac{\text{New Rs value of \$} - \text{Old Rs value of \$}}{\text{Old Rs value of \$}} = \frac{109-93}{93} = 0.1720$$

17.20%

DEPRECIATION OF Rs

$$\frac{\text{New \$ value of Rs} - \text{Old \$ value of Rs}}{\text{Old \$ value of Rs}} = \frac{\frac{1}{109} - \frac{1}{93}}{\frac{1}{93}} = -0.1467$$

-14.67%

4. Appreciation and Depreciation

During 2007, the yen went from \$0.0108017 to \$0.0123265.
(i) By how much did the yen appreciate against the dollar?
(ii) By how much has the dollar depreciated against the yen?

Solution:

Yen/\$ $\quad 0.0108017 \rightarrow 0.123265$

APPRECIATION OF YEN

$$\frac{\text{New \$ value of Yen} - \text{Old \$ value of Yen}}{\text{Old \$ value of Yen}} = \frac{0.0123265 - 0.0108017}{0.0108017}$$

$$= 0.1412 \quad 14.12\%$$

DEPRECIATION OF \$

$$\frac{\text{New Yen value of \$} - \text{Old Yen value of \$}}{\text{Old Yen value of \$}} = \frac{\frac{1}{0.0123265} - \frac{1}{0.0108017}}{\frac{1}{0.0108017}} = -0.1237$$

$$-12.37\%$$

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4. Appreciation and Depreciation

The government of India devalued the currency, setting its new rate at 109.2 to the dollar, from 60 previously. By how much has the currency of India devalued against the dollar? By how much has the dollar appreciated against the Rs?

Solution:

DEPRECIATION OF Rs $\qquad$ \$/Rs $\quad 60 \rightarrow 109.2$

$$\frac{\text{Final \$ value of Rs} - \text{Initial \$ value of Rs}}{\text{Initial \$ value of Rs}} = \frac{\frac{1}{109.2} - \frac{1}{60}}{\frac{1}{60}} = -0.45$$

$$-45\%$$

APPRECIATION OF \$

$$\frac{\text{Final Rs value of \$} - \text{Initial Rs value of \$}}{\text{Initial Rs value of \$}} = \frac{109.2 - 60}{60} = 0.82$$

$$82\%$$

4. Appreciation and Depreciation

During 1991, the Indian Rs fell 17% against the U.S. dollar. By how much has the dollar appreciated against the Rupees?

Solution:

DEPRECIATION OF Rs

Initial \$ value of Rs = x

Final \$ value of Rs = y

$$\frac{y-x}{x} = -0.17 \Rightarrow y = 0.83x$$

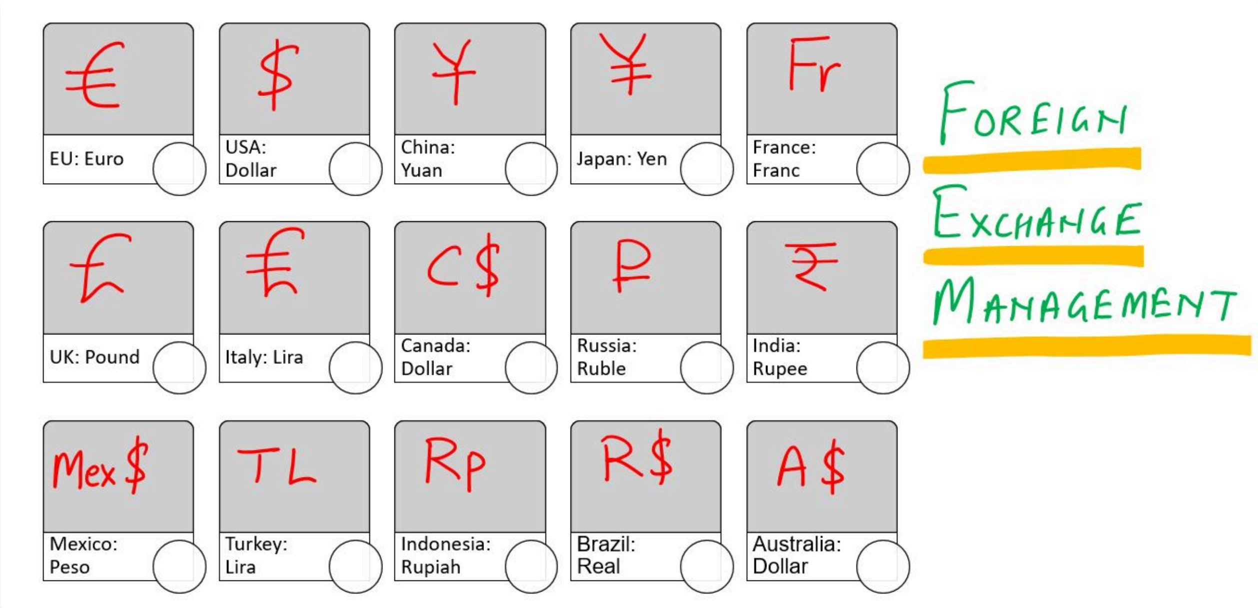
APPRECIATION OF \$

$$\frac{\text{Final Rs value of \$} - \text{Initial Rs value of \$}}{\text{Initial Rs value of \$}} = \frac{\frac{1}{y} - \frac{1}{x}}{\frac{1}{x}} = \frac{x-y}{y}$$

$$= \frac{x - 0.83x}{0.83x} = 0.2048$$

20.48%

5. Foreign Exchange Market



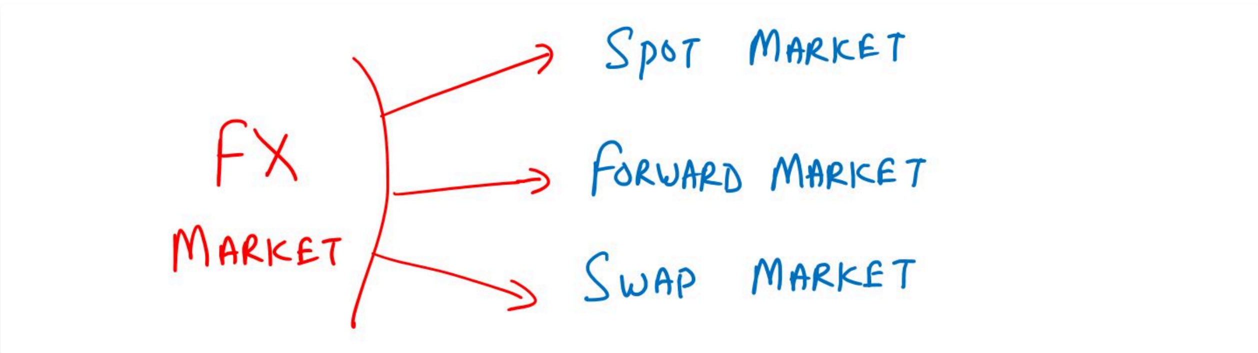
The foreign exchange market, often referred to as the forex or FX market, is a global decentralized market where currencies are traded.

The primary function of the foreign exchange market is to facilitate international trade and investment by allowing businesses and investors to convert one currency into another.

For instance, an Indian exporter selling automobiles to a U.S. dealer would receive dollars, while a U.S. manufacturer selling machine tools to a Indian company would receive Rupees. Ultimately, each party typically wants to convert the foreign currency into their domestic currency for ease of use. The foreign exchange market serves as an intermediary to facilitate these transactions efficiently.

Similarly, an American investor looking to invest in Swiss-franc-denominated bonds needs to convert dollars into francs, and Swiss purchasers of U.S. Treasury bills require dollars. The foreign exchange market simplifies these transactions by providing a centralized platform where currencies can be exchanged.

Most currency transactions are conducted through the worldwide **interbank market**, a wholesale market where major banks trade currencies with one another.



The foreign exchange market can be broadly divided into three categories:

(i) **Spot Market:** The spot market involves the immediate exchange of currencies at current market rates. Transactions in the spot market are settled "on the spot," usually within two business days.

(ii) **Forward Market:** The forward market allows participants to enter into contracts to buy or sell currencies at a predetermined rate on a specific future date. This helps businesses and investors hedge against the risk of future exchange rate fluctuations.

(iii) **Swap Market:** The swap market involves simultaneous borrowing and lending of two different currencies between two parties. Swaps are used to manage liquidity and mitigate currency risk over different time horizons.

Trading in the foreign exchange market is typically conducted through the **SWIFT system** (Society for Worldwide Interbank Financial Telecommunications), an international bank communications network. SWIFT electronically links brokers and traders worldwide, enabling efficient and secure currency trading.

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5. Foreign Exchange Market

The foreign exchange market, a global marketplace for trading currencies, involves various participants who engage in currency transactions for different purposes. The major participants in the FX market include:

(i) **Large Commercial Banks:** These banks are key players in the FX market, providing liquidity and facilitating transactions for clients, including other banks, corporations, and individual investors. They conduct a significant volume of currency trading both for their own accounts and on behalf of their clients.

(ii) **Foreign Exchange Brokers:** Operating in the interbank market, these brokers act as intermediaries between banks and other financial institutions. They help facilitate large-scale currency trades by matching buyers and sellers, thereby contributing to market liquidity and efficiency.

(iii) **Commercial Customers:** Primarily multinational corporations, these participants engage in the FX market to support their international business operations. They need to convert currencies for various purposes, such as paying for imports, receiving payments for exports, and managing foreign currency-denominated assets and liabilities.

(iv) **Central Banks:** Central banks occasionally intervene in the FX market to influence exchange rates and stabilize their national currencies. They may buy or sell their own currency to smooth out exchange rate fluctuations or to maintain target exchange rates in line with their monetary policy objectives.

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5. Foreign Exchange Market

The forward market involves contracts to exchange currencies at a future date at a predetermined rate. The major participants in the forward market can be categorized into four types: arbitrageurs, traders, hedgers, and speculators.

1. Arbitrageurs
Arbitrageurs seek to earn risk-free profits by exploiting differences in interest rates between countries. They use forward contracts to eliminate exchange rate risk while transferring funds from one nation to another. By locking in forward rates, arbitrageurs ensure that their profits are not eroded by currency fluctuations.

Thus Arbitrageurs seek to earn risk-free profits by exploiting differences in interest rates among countries.

2. Traders
Traders use forward contracts to mitigate the risk of loss on export or import orders denominated in foreign currencies. They cover specific payments or receipts expected at a future date by locking in exchange rates. This forward-covering transaction helps traders avoid unfavorable exchange rate movements and stabilize their expected cash flows.

Thus Traders eliminate or cover the risk of loss on export or import orders denominated in foreign currencies.

3. Hedgers
Hedgers, primarily multinational firms, engage in forward contracts to protect the home currency value of their foreign currency-denominated assets and liabilities. These assets and liabilities are not realized over the contract's life, so hedgers lock in exchange rates to reduce or eliminate exchange rate risk. By doing so, they protect their balance sheets from adverse currency movements.

Thus Hedgers protect the home currency value of foreign currency-denominated assets and liabilities.

4. Speculators
Speculators actively seek to profit from exchange rate fluctuations. They buy or sell currencies forward based on their expectations of future spot exchange rates. Speculators' participation is driven by prevailing forward rates and their market forecasts, rather than underlying business transactions. By taking on currency risk, speculators add liquidity to the market and can influence exchange rate movements.

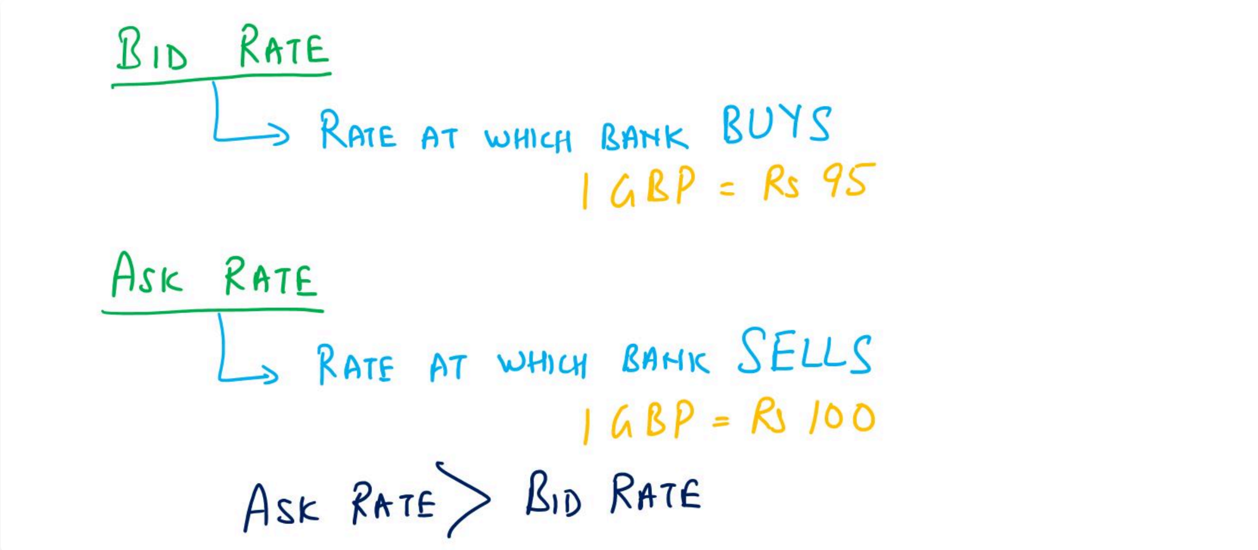
Thus Speculators profit from exchange rate fluctuations.

5. Foreign Exchange Market

Suppose you are going to the UK for holidays and you need British Pounds (GBP). You go to the State Bank of India (SBI) to exchange your Indian Rupees (INR) for GBP.

SBI tells you that they will take Rs 100 for 1 GBP. So, if you exchange Rs 1,00,000, you get 1000 GBP. This Rs 100 per GBP is the ask rate.

After your holiday, you have 200 GBP left. You go back to SBI, hoping to get Rs 20,000 (200 GBP x Rs 100) back. But the bank says they will only give you Rs 95 for 1 GBP, meaning you get Rs 19,000 for your 200 GBP. This Rs 95 per GBP is the bid rate.



The ask rate will always be higher than the bid rate because this difference is how the bank makes a profit.

Bid Rate
The bid rate is the price at which a market maker (such as a bank or financial institution) is willing to BUY a particular currency. It is the price a buyer is prepared to pay for a currency.

If a bank quotes a bid rate of 1.20 for EUR/USD, it means the bank is willing to buy 1 euro for 1.20 U.S. dollars.

Ask Rate
The ask rate (also known as the offer rate) is the price at which a market maker is willing to SELL a particular currency. It is the price a seller is asking for a currency.

If a bank quotes an ask rate of 1.25 for EUR/USD, it means the bank is willing to sell 1 euro for 1.25 U.S. dollars.

Usually, the ask rate is higher than the bid rate, representing the transaction cost and the market maker's profit.

5. Foreign Exchange Market

Spot Price

The spot price is the current price at which a currency can be bought or sold for immediate delivery. It reflects the current market value and is used for transactions that are settled "on the spot," typically within two business days.

If the spot price of the EUR/Rs pair is 120, it means 1 euro can be exchanged for 120 Indian Rupees.

Forward Price

The forward price involves setting the price for a currency transaction that will occur at a future date. Forward prices might include 30-day, 90-day, and 180-day forward prices, indicating the agreed-upon exchange rate for transactions that will settle in 30, 90, or 180 days, respectively. These prices account for expectations of future currency movements and interest rate differentials between the two currencies.

If the 90-day forward price for EUR/USD is 1.22, it means you can agree today to exchange euros for dollars at a rate of 1.22 in 90 days, regardless of the spot price at that future date.

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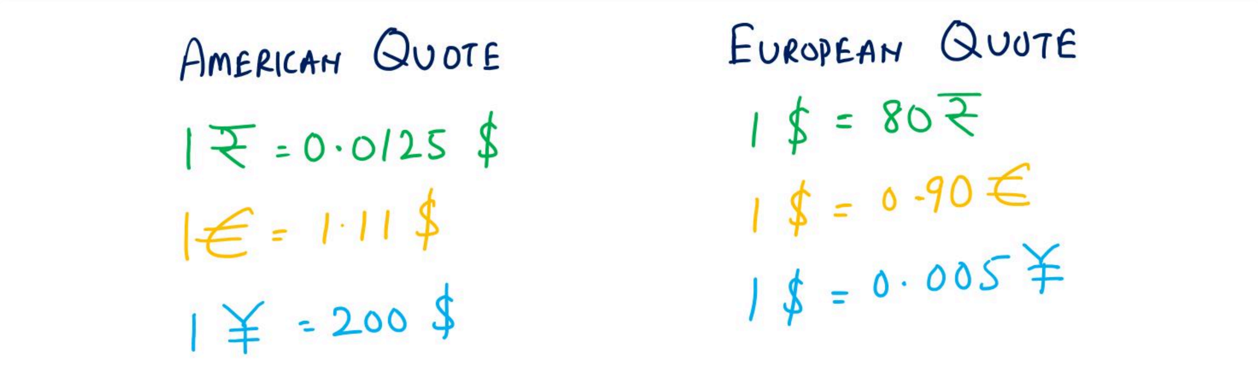
5. Foreign Exchange Market

American quotes and European quotes are methods how exchange rates are expressed relative to the U.S. dollar.



American Quote

An American quote expresses the number of U.S. dollars per unit of foreign currency. This type of quotation is common when interbank trades involve dollars.

If the EUR/USD exchange rate is quoted as 1.20, it means that 1 euro is equivalent to 1.20 U.S. dollars. In other words, you would need 1.20 U.S. dollars to buy 1 euro.

If the GBP/USD exchange rate is quoted as 1.35, it means that 1 British pound is equivalent to 1.35 U.S. dollars. Therefore, you would need 1.35 U.S. dollars to purchase 1 British pound.

European Quote

A European quote expresses the number of foreign currency units per U.S. dollar.

If the USD/JPY rate is quoted as 110, it means 1 U.S. dollar is worth 110 Japanese yen.

If the USD/Rs rate is quoted as 80, it means 1 U.S. dollar is worth 80 Indian Rupees.

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5. Foreign Exchange Market

EXCHANGE RATES

Indicative direct rates in rupees a unit except yen at 4 p.m. on May 16

CURRENCY	TT BUY	TT SELL
US Dollar	83.30	83.62
Euro	90.55	90.90
British Pound	105.53	105.94
Japanese Yen (100)	53.85	54.05
Chinese Yuan	11.54	11.59
Swiss Franc	92.30	92.66
Singapore Dollar	61.95	62.19
Canadian Dollar	61.12	61.38
Malaysian Ringitt	17.78	17.87
Australian Dollar	55.62	55.84

Source:Indian Bank

THE HINDU

17 May 2024

Direct Quotation

A direct quotation in the foreign exchange market is a way of expressing the exchange rate where the price of one unit of foreign currency is given in terms of the home currency.

In India, the exchange rate for the euro might be quoted as 105. This means that 1 euro costs 105 Rupees.

HOME CURRENCY	FX CURRENCY	DIRECT QUOTE	INDIRECT QUOTE
INDIA	RUSSIA	1 ₽ = 0.90 ₹	1 ₹ = 1.11 ₽
USA	CHINA	1 ¥ = 0.80 $	1 $ = 1.25 ¥
INDIA	UK	1 £ = 100 ₹	1 ₹ = 0.01 £

Indirect Quotation

An indirect quotation is the opposite of a direct quotation. In this method, the value of the home currency is expressed in terms of the foreign currency. This type of quote shows how much foreign currency one unit of the home currency can buy.

In India, banks might quote the value of the Euro in terms of Indian Rupees as 0.0095. This means that 1 Rupee can be exchanged for 0.0095 euros.

If you are in the USA (where your home currency is dollars), a direct quote is the same as an American quote, and an indirect quote is the same as a European quote.

Note that when American quote are converted to European quote or direct quotations are converted to indirect quotations, bid and ask rates are reversed; that is, the reciprocal of the American (direct) bid becomes the European (indirect) ask, and the reciprocal of the American (direct) ask becomes the European (indirect) bid.

5. Foreign Exchange Market

The **bid-ask spread** is the difference between the ask rate and the bid rate. It represents the market maker's profit margin and the cost of trading for the market participant.

$$\text{Bid Ask Spread} = \text{Ask Rate} - \text{Bid Rate}$$

$$\text{Bid Ask Spread (\%)} = \frac{\text{Ask Rate} - \text{Bid Rate}}{\text{Ask Rate}} \times 100$$

If the bid rate for EUR/USD is 1.20 and the ask rate for EUR/USD is 1.25, the bid-ask spread is 0.05.

It is usually stated as a percentage cost of transacting in the foreign exchange market, which is computed as follows.

$$\text{Bid Rate} = 1.20$$

$$\text{Ask Rate} = 1.25$$

$$\text{Bid Ask Spread} = 1.25 - 1.20 = 0.05$$

$$\text{Bid Ask Spread (\%)} = \frac{1.25 - 1.20}{1.25} \times 100 = 4\%$$

The bid-ask spread is influenced by various factors:

- **Order Cost:** This includes the costs associated with processing and executing trades, such as administrative expenses and technology costs.
- **Inventory Cost:** These are the costs incurred by market makers for holding and managing an inventory of currencies, including the risk of price fluctuations.
- **Competition:** The level of competition among market makers and brokers in the foreign exchange market.
- **Volume:** The amount of trading activity or liquidity in the market for a particular currency pair.
- **Currency Risk:** The risk associated with fluctuations in currency exchange rates, political instability, and economic uncertainty.

5. Foreign Exchange Market

$$A|C = x \qquad C|B = y$$

$$A|B = A|C \times C|B = x \times y$$

$$B|A = \frac{1}{A|C \times C|B} = \frac{1}{x \times y}$$

Cross rates refer to the exchange rate between two currencies, both of which are quoted against a third currency, typically the U.S. dollar (USD).

$$\text{EURO}|\$ = 1.20 \Rightarrow 1 \text{ EURO} = 1.20\,\$ \longrightarrow 1\,\$ = \frac{1}{1.20} \text{ EURO}$$

$$\$|\text{YEN} = 110 \Rightarrow 1\,\$ = 110 \text{ YEN}$$

$$\text{EURO}|\text{YEN} = ?$$

$$\frac{1}{1.20} \text{ EURO} = 110 \text{ YEN}$$

$$\Rightarrow 1 \text{ EURO} = \frac{110}{\frac{1}{1.20}} = 110 \times 1.20 = 132 \text{ YEN}$$

$$\text{EURO}|\text{YEN} = 132$$

Since most currencies are quoted against the dollar, calculating the exchange rate between two non-USD currencies often involves using their respective rates against the dollar.

If the British pound (£) is worth US $1.60, while the Canadian dollar (C$) is worth US $.80, the value of the British pound with respect to the Canadian dollar is calculated as follows.

$$£|US\$ = 1.60 \Rightarrow 1£ = 1.60\,\$ \qquad £|C\$ = ?$$

$$C\$|US\$ = 0.80 \Rightarrow 1\,C\$ = 0.80\,\$$$

$$£|C\$ = £|US\$ \times US\$|C\$$$

$$= 1.60 \times \frac{1}{0.80} = 2.0$$

Similarly the value of the Canadian dollar with respect to the British pound is calculated as follows.

$$C\$/£ = C\$/US\$ \times US\$/£$$

$$= 0.80 \times \frac{1}{1.60} = 0.5 \leftarrow \text{SAME AS } \frac{1}{£/C\$}$$

Notice that the value of a Canadian dollar in units of UK pounds is simply the reciprocal of the value of a UK pound in units of Canadian dollars.

---

5. Foreign Exchange Market

Suppose that the European quotes for the Japanese yen and the South Korean won are as follows:
Japanese yen: ¥ 105.62/US$
South Korean won: W 1040.89/US$
Compute the cross rate of yen per won. Also compute the cross rate of won per yen.

Solution:

$$\$/¥ = 105.62$$

$$\$/W = 1040.89$$

$$W/¥ = W/\$ \times \$/¥ = \frac{1}{1040.89} \times 105.62 = 0.10147$$

$$\text{THUS } W/¥ = 0.10147 \leftarrow \text{CROSS RATE OF YEN PER WON}$$

$$¥/W = \frac{1}{W/¥} = \frac{1}{0.10147} = 9.8551$$

CROSS RATE OF WON PER YEN

---

5. Foreign Exchange Market

Suppose sterling is quoted at \$ 1.9519−36, and the Swiss franc is quoted at \$ 0.9250−67. What is the direct quote for the pound in Zurich?

Solution:

WHAT IS GIVEN

	BID	ASK
£/\$	1.9519	1.9536
F/\$	0.9520	0.9267

WHAT IS TO BE COMPUTED

DIRECT QUOTE OF £ IN SWISS F

→ Bid Rate £/F ?

→ Ask Rate £/F ?

Note that in calculating the cross rates, always assume that you have to sell a currency at the lower (or bid) rate and buy it at the higher (or ask) rate, giving you the worst possible rate.

BID RATE £/F

1. sell 1 £ → get \$ $= 1 \times 1.9519 = 1.9519$ \$
2. sell 1.9519 \$ → get F $= \dfrac{1.9519}{0.9267} = 2.1063$ F

ASK RATE £/F

1. \$ needed for 1 £ $= 1.9536$ \$
2. F needed for 1.9536 \$ $= \dfrac{1.9536}{0.9250} = 2.1120$ F

DIRECT QUOTE (£/F) $\boxed{2.1063 - 120}$

5. Foreign Exchange Market

Suppose that the Brazilian real (R) is quoted at R 0.9955–1.0076 per US$ and the Thai baht (B) is quoted at B 25.2513–3986 per US$. What is the direct quote for the real in Bangkok?

Solution:

WHAT IS GIVEN

	BID	ASK
\$/R	0.9955	1.0076
\$/B	25.2513	25.3986

WHAT IS TO BE COMPUTED

DIRECT QUOTE OF R IN B → BID RATE R/B ?

→ ASK RATE R/B ?

Note that in calculating the cross rates, always assume that you have to sell a currency at the lower (or bid) rate and buy it at the higher (or ask) rate, giving you the worst possible rate.

BID RATE R/B

① Sell 1 R → Get \$ $= \frac{1}{1.0076}$ \$

② Sell $\frac{1}{1.0076}$ \$ → Get B $= \frac{25.2513}{1.0076} = 25.0608$ B

ASK RATE R/B

① \$ needed for 1 R $= \frac{1}{0.9955}$ \$

② B needed for $\frac{1}{0.9955}$ \$ $= \frac{25.3986}{0.9955} = 25.5134$ B

DIRECT QUOTE (R/B) $\boxed{25.0608 - 5134}$

6. Factors affecting exchange rates

The spot rate in foreign exchange refers to the price at which foreign currencies are traded for immediate delivery. It's essentially the current exchange rate at a given moment in time.

Exchange rates (spot rate) are determined by the forces of supply and demand in this market. Just like any other market-clearing price, they adjust to equilibrate the quantities of currencies supplied and demanded.

Several factors influence the supply and demand for currencies:

Inflation Rates
Inflation erodes the purchasing power of a currency over time. If a country experiences high inflation, its goods and services become relatively more expensive compared to those of countries with lower inflation rates.

As a result, the currency of the country with higher inflation tends to depreciate relative to currencies of countries with lower inflation rates. This is because foreign buyers demand more of the foreign currency to purchase goods and services from countries with lower inflation, driving up the exchange rate.

Purchasing power parity (PPP) theory suggests that exchange rates should adjust to equalize the purchasing power of different currencies. If a currency's exchange rate is higher than its PPP value, it's considered overvalued, and if it's lower, it's undervalued.

Interest Rates
Interest rates influence capital flows and investment decisions. Higher interest rates generally attract foreign investors seeking higher returns on their investments.

For instance, if the United States raises its interest rates compared to the India, investors may shift their investments from India based assets to dollar-denominated assets to capitalize on the higher returns.

This increased demand for the U.S. dollar can lead to its appreciation relative to the Indian Rupees, assuming other factors remain constant.

Economic Growth
Strong economic growth signals a healthy economy with opportunities for investment and profit. Investors are attracted to countries with strong economic performance because they anticipate higher returns on their investments.

As foreign investors seek to invest in assets in the growing economy, they need to acquire the domestic currency to make those investments.

This increased demand for the domestic currency strengthens it relative to other currencies, assuming other factors remain constant.

Political and Economic Risks
Political stability and economic certainty are essential for attracting foreign investment. Countries with stable governments, sound economic policies, and low levels of political and economic risk are perceived as safer places to invest.

Investors are more willing to hold assets denominated in currencies of stable countries because they are less likely to experience sudden declines in value.

Currencies of countries perceived as stable and low-risk tend to be more highly valued, while those associated with higher risks may depreciate as investors seek safer alternatives.

7. Central Bank and Currency Value

At the heart of every nation's financial framework lies its central bank, the custodian of monetary policy and the ultimate authority on money creation.

Tasked with a multitude of objectives, the central bank navigates the economic landscape using a range of policy instruments to achieve stability and growth. Among its primary goals are ensuring:
(i) price stability by managing inflation,
(ii) fostering sustainable economic expansion,
(iii) maintaining favorable interest rates to encourage investment and borrowing, and
(iv) safeguarding the value of the national currency in international markets.

Before 1971, major currencies were tethered to tangible commodities, most notably gold, providing a fixed reference point for their value. Despite short-term fluctuations, prices tended to revert to this stable benchmark.

However, the dissolution of the Bretton Woods system marked a pivotal shift away from this commodity-based standard. In its place emerged the fiat money system.

Fiat money, by definition, is currency endowed with legal tender status but lacks intrinsic backing from a physical commodity. Its value hinges on the confidence and trust vested in the issuing government's ability to uphold stability and fulfill financial obligations. Unlike commodity money, which derives value from its inherent worth, fiat currency's value is intricately linked to the management of the money supply by the central bank.

In this fiat regime, the central bank assumes the critical role of safeguarding the currency's stability and value. By controlling the money supply, it endeavors to curb inflationary pressures and uphold the purchasing power of the currency. However, this endeavor is not devoid of risks. Excessive money creation can fuel inflation, eroding the currency's value and diminishing consumer purchasing power.

Furthermore, the central bank's actions and perceived policy stance profoundly influence market expectations and exchange rates. Currencies issued by central banks with a proven track record of prudent monetary management are deemed reliable stores of value, maintaining their worth over time. Conversely, doubts regarding a central bank's commitment to price stability can lead to currency depreciation and heightened exchange rate volatility.

Yet, the efficacy of the central bank can be compromised by political interference. Political pressures often compel central banks to undertake actions that can contribute to inflation and the devaluation of the currency:

Governments frequently urge central banks to adopt "easier" monetary policies, typically involving an expansion of the money supply to lower interest rates. This encouragement stems from the belief held by many that a higher inflation rate can be traded off for increased economic growth.

Also, the central banks lacking independence are frequently coerced into "monetizing the deficit." This practice involves financing government deficits by purchasing government debt using newly created money. However, such actions tend to fuel inflation and lead to a depreciation of the currency's value.

Thus, the importance of central bank independence cannot be overstated. Independent central banks are better positioned to resist short-term political pressures and commit to credible, long-term monetary policies aimed at preserving price stability. By safeguarding their autonomy, central banks bolster confidence in the currency, foster economic stability, and mitigate the risks of inflation and currency devaluation.

7. Central Bank and Currency Value

Dollarization refers to the complete replacement of a country's local currency with the US dollar as the sole legal tender. It represents the ultimate commitment to monetary credibility and stability, as the US dollar is widely regarded as a stable and reliable currency. However, the decision to dollarize depends on whether maintaining monetary discipline is perceived as easier under a dollarized system compared to one where the local currency circulates alongside the dollar.

While dollarization offers the potential benefits of enhanced monetary stability and credibility, it comes with significant costs for the government and economy:

(i) **Loss of Monetary Policy Control**: By adopting the US dollar, the government forfeits its ability to independently conduct monetary policy. This means that the central bank loses the capacity to act as a lender of last resort to financial institutions in times of crisis. Without control over the money supply, the government may struggle to mitigate economic shocks or respond effectively to financial instability.

(ii) **Inflexibility in Adjusting Interest Rates and Exchange Rates**: Dollarization restricts the central bank's ability to adjust interest rates or manipulate exchange rates to manage economic conditions. This lack of flexibility can hinder the country's ability to respond to changes in economic circumstances, such as inflationary pressures or external shocks.

(iii) **Loss of Seigniorage Revenue**: Seigniorage refers to the profit earned by the central bank from issuing currency. Dollarization results in the loss of this revenue stream, as the country no longer issues its own currency. This loss of seigniorage can have fiscal implications for the government's budget and financing arrangements.

Despite these drawbacks, countries may opt for dollarization if the alternative is perceived as monetary chaos or hyperinflation. In such cases, the benefits of adopting a stable and widely accepted currency like the US dollar may outweigh the costs associated with relinquishing monetary policy control.

It's important to note that while dollarization can provide price stability, it is not a panacea for economic challenges. Sound economic policies and structural reforms are still essential for long-term economic success. Even in the United States, which effectively practices dollarization, economic fluctuations and challenges persist, highlighting that currency choice alone does not guarantee economic prosperity.

8. Multinational Capital Budgeting

Multinational capital budgeting is the process of evaluating and analyzing investment opportunities across different countries for a multinational corporation. It involves assessing the financial viability and potential risks of various projects or investments in foreign markets, considering factors such as exchange rates, taxation, political stability, regulatory environments, and cultural differences.

The main objective of multinational capital budgeting is to allocate capital efficiently across borders to maximize the value of the multinational corporation while minimizing risks. This involves determining which investment projects offer the highest returns relative to their risks and resource requirements.

Here's how Multinational capital budgeting differs from domestic capital budgeting:

Project and Parent Company Cash Flows: In multinational capital budgeting, cash flows from the project may need to be converted into the parent company's currency, considering exchange rate fluctuations. In domestic capital budgeting, all cash flows are in the same currency.

Foreign Tax Regulations: Multinational projects are subject to different tax regulations in each country they operate in, which can significantly affect cash flows. Domestic projects are only subject to domestic tax regulations.

Expropriation Risk: Multinational projects may face the risk of expropriation by foreign governments, which is not typically a concern in domestic projects.

Blocked Funds: Funds invested in foreign projects may become blocked due to foreign exchange controls or other regulations, which is not an issue in domestic projects.

Exchange Rate Changes and Inflation: Multinational projects are exposed to exchange rate fluctuations and inflation in different countries, impacting cash flows and project profitability. Domestic projects are not subject to such currency and inflation risks.

Project-Specific Financing: Multinational projects may require financing arrangements specific to each country, considering local market conditions and regulations, while domestic projects typically rely on domestic financing sources.

Basic Business Risks: Foreign projects may face additional risks such as political instability, cultural differences, and legal complexities, which are not typically encountered in domestic projects.

8. Multinational Capital Budgeting

Political risks faced by multinational companies vary widely, spanning from minor interference to the extreme measure of asset confiscation. Interference may manifest through laws mandating quotas for local employment, obligatory investments in environmental and social projects, and constraints on currency convertibility. At the pinnacle of political risk lies expropriation, where governments seize control of foreign-owned assets.

Between these spectrums, discriminatory practices may arise, such as imposing higher taxes, utility charges, or wage requirements on foreign entities, placing them at a competitive disadvantage. However, some developing nations offer concessions to foreign investors, potentially providing them with cost advantages over domestic competitors.

Given the significant influence of political risk on investment projects, it's imperative to assess it realistically. Factors such as government stability, prevailing political sentiments, efficiency in processing requests, inflation rates, and the integrity of legal systems play pivotal roles in determining the level of political risk.

To mitigate political risk, multinational companies can take proactive measures. Collaborating with host countries, employing local nationals, and making responsible investments can reduce exposure. Joint ventures with local partners can enhance the company's public image and facilitate business operations, particularly in countries where direct ownership is restricted.

Furthermore, dependency of subsidiaries on the parent company for technology, markets, or supplies can deter expropriation, as it renders the enterprise less self-sustaining. Additionally, political risk insurance provides a safeguard against potential losses arising from expropriation or other political events.

Expropriation represents the most extreme form of political risk, resulting in divergent cash flows between the project and parent company. Adjusting expected cash flows enables the evaluation of expropriation's impact on project value. By understanding and mitigating political risks, multinational companies can navigate the complexities of the global business landscape more effectively.

8. Multinational Capital Budgeting

In multinational capital budgeting, two approaches are commonly used, each ultimately leading to the same result:

Home Currency Approach

Under this method, foreign cash flows are converted into the home currency as they occur.

These converted cash flows are then discounted at the home country's Weighted Average Cost of Capital (WACC) to calculate the Net Present Value (NPV) in the home currency.

If the NPV is positive, the project in the foreign country is deemed acceptable.

To execute this approach, future exchange rates are required to convert projected foreign currency cash flows into the home currency. These exchange rates are determined using the International Fisher Effect equation, which equates interest rate differentials to inflation differentials.

Foreign Currency Approach

In contrast, the foreign currency approach starts by determining the required return on foreign investments. This involves converting the home country's WACC into the equivalent foreign country required return (WACC) using the International Fisher Effect equation, which states that the interest rate differential equals the inflation differential.

After establishing the required return on foreign investments, the cash flows denominated in the foreign currency are discounted using the foreign country's WACC. This yields the NPV in foreign currency terms.

Then, the NPV is converted into the home currency to compare it with the investment criteria.

Difference

The primary distinction between these approaches lies in the timing of currency conversion:

- In the home currency approach, conversion occurs before estimating the NPV.
- In the foreign currency approach, conversion takes place after estimating the NPV.

Despite this difference, both approaches ultimately lead to the same decision-making outcome regarding the acceptance or rejection of the project in the foreign country.

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8. Multinational Capital Budgeting

L&T, an Indian construction company, is evaluating an overseas investment in Thailand. The project will cost 2 million in Thai Baht to launch. The cash flows are expected to be 0.9 million Baht a year for the next three years.

The current spot exchange rate for Baht is Rs 0.5. The risk-free rate in India is 5 percent, and the risk-free rate in Thailand is 7 percent. L&T's WACC on investments of this sort is 10 percent.

Should L&T take this investment?

Solution:

We will can do this with two approaches. Both approaches should result in same NPV.

Home Currency Approach

HOME = INDIA   FOREIGN = THAILAND

$i_h = 0.05$ $i_f = 0.07$

SPOT RATE TODAY 1 Rs = 0.5 ฿

Approximated Version of IFE

$$E(S) = S \times \left[1 + (i_f - i_h)\right]^t$$

$$E(S_1) = 0.5 \times \left[1 + (0.07 - 0.05)\right]^1 = 0.5100 \text{ ฿}$$

$$E(S_2) = 0.5 \times \left[1 + (0.07 - 0.05)\right]^2 = 0.5202 \text{ ฿}$$

$$E(S_3) = 0.5 \times \left[1 + (0.07 - 0.05)\right]^3 = 0.5306 \text{ ฿}$$

$t=0$	1	2	3	
−2	0.9	0.9	0.9	← in ฿
0.5	0.51	0.5202	0.5306	← Exchage Rate
−4	1.76	1.73	1.70	← in Rs

$$NPV = -4 + \frac{1.76}{1.10} + \frac{1.73}{1.10^2} + \frac{1.70}{1.10^3} = \text{Rs } 0.3 \text{ MILLION}$$

YES, GO AHEAD

Foreign Currency Approach

DISCOUNT RATE IN INDIA = 10%

DISCOUNT RATE IN THAILAND = 10% + 2%

= 12%

FROM IFE

7% − 5% = 2%

$$\text{NPV in } (฿) = -2 + \frac{0.9}{1.12} + \frac{0.9}{1.12^2} + \frac{0.9}{1.12^3}$$

$$= 0.16 \text{ Million } ฿$$

$$\text{NPV in } (\text{Rs}) = \frac{0.16}{0.5} = 0.3 \text{ Million Rs}$$

8. Multinational Capital Budgeting

A US company has an investment opportunity in UK. The project costs £19 million and is expected to produce cash flows of £3.6 million in Year 1,£4.1 million in Year 2, and £5.1 million in Year 3. The current spot exchange rate is $1.09/£ and the current risk-free rate in the US is 3.1 percent, compared to that in UK of 2.9 percent. The appropriate discount rate for the project is estimated to be 10.5 percent, the U.S. cost of capital for the company. In addition, the subsidiary can be sold at the end of three years for an estimated £12.7 million. What is the NPV of the project?

Solution:

HOME = USA   FOREIGN = UK

$i_h = 0.0310$ $i_f = 0.0290$

SPOT RATE TODAY 1£ = $1.09

$$E(S) = S \times \left[\frac{1+i_h}{1+i_f}\right]^t = 1.09 \times \left[\frac{1.0310}{1.0290}\right]^t$$

$E(S_1) = 1.0921$ $E(S_2) = 1.0942$ $E(S_3) = 1.0964$

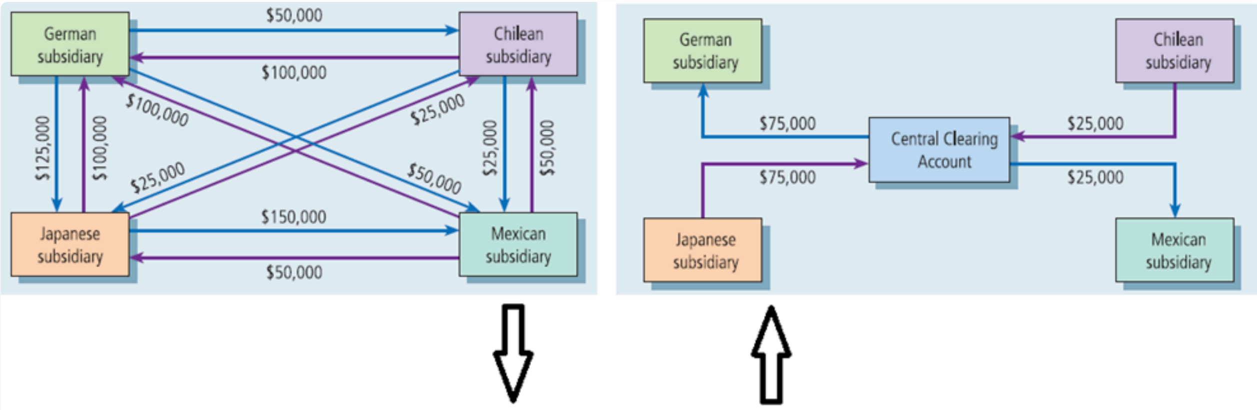
	$t=0$	$t=1$	$t=2$	$t=3$
(£) →	−19,000,000	3,600,000	4,100,000	5,100,000 + 12,70,000
	↓ 1.09	↓ 1.0921	↓ 1.0942	↓ 1.0964
($) →	−20,710,000	3,931,627	4,486,389	19,515,351

NPV @ 10.5% ⟹ 986,352 $

9. Multilateral Netting

Multilateral netting can be employed to settle inter-company balances for subsidiaries of a company that transact with one another in different currencies. Instead of Subsidiary A in one country arranging payment to Subsidiary B in another country for an inter-company transaction, and Subsidiary B arranging payment to Subsidiary C in yet another country for another transaction, these subs can report to a central office or submit into a centralized system for netting.

In an effort to make the process more efficient, however, many multinationals have now set up clearing accounts in a certain location and assigned the manager at this location the authority to make the transfers that are necessary to pay intracompany subsidiary obligations. This process of multilateral netting, which involves a determination of the net amount of money owed to subsidiaries through multilateral transactions, begins with a computation of the amounts owed to each.



Subsidiary	Total receivables	Total payables	Net positions
German	$300,000	$225,000	$75,000
Chilean	125,000	150,000	−25,000
Japanese	200,000	275,000	−75,000
Mexican	225,000	200,000	25,000

The table has been constructed based on the information in the first part of the figure. The table shows the net positions. Based on this information, those that owe money are required to transfer it to a centralized clearing account, whereas those that are owed money are paid from this central account.

There are a number of reasons that multilateral netting has become popular. One advantage is that it helps the parent company to ensure that financial interactions between the units are quickly brought to completion. If bills are allowed to be outstanding for months at a time, it can result in the other units not wanting to do business with slow-paying subsidiaries. Netting helps to reduce the likelihood of such problems. A second advantage is that those units that are owed money have faster access to their funds. A third advantage is that the parent company knows which subsidiaries are amassing large amounts of cash and can tap these sources if necessary to support activities in other locales. A fourth advantage is that the cost of converting foreign exchange is minimized because the central clearing account manager can convert large amounts at the same time.

There are also some problems associated with multilateral netting. *First* is that many governments place controls on these operations by allowing them only for trade transactions. So the MNC's ability to use netting for moving funds can be limited. *Second* problem is that in other cases governments have required that payment for imports be delayed until these goods clear customs, thus slowing down the netting process by as much as 60 to 90 days. *Third* is of getting local subsidiary managers to cooperate and keep the central clearing account manager fully apprised of all transactions affecting this process.

10. International Financing

International financial markets are the global platforms where a diverse array of financial instruments, including stocks, bonds, currencies, commodities, and derivatives, are traded among investors, institutions, and governments across different nations. These markets are vital in facilitating the efficient allocation of capital, managing risks, and establishing the prices of financial assets on a worldwide scale.

Major international financial centers, such as London, Tokyo, and New York, serve as focal points for global financial activity. While other industrialized countries boast significant domestic financial markets, only a select few, like Germany and France, also function as prominent international financial hubs.

Conversely, certain nations with comparatively modest domestic financial markets hold substantial influence as global financial centers. Markets in countries like Switzerland, Luxembourg, Singapore, Hong Kong, the Bahamas, and Bahrain act as financial intermediaries, serving as conduits through which foreign funds flow (called financial **entrepots**). These markets play a pivotal role in connecting nonresident suppliers of funds with nonresident users of funds, functioning as crucial channels in the international financial landscape.

10. International Financing

Financial markets play a crucial role in the economy by performing several key functions and promoting overall economic growth. Here's a breakdown of their functions and their impact on the economy:

Functions of Financial Markets

- **Mobilize Savings:** Financial markets provide individuals and institutions with avenues to invest their savings, thereby channeling funds from savers to borrowers. This mobilization of savings allows for productive use of capital and facilitates economic growth.
- **Allocate Resources:** Financial markets help allocate resources by directing capital to its most productive uses. Through mechanisms such as stock markets, bond markets, and venture capital, funds are allocated to businesses and projects with promising prospects, fostering innovation and economic development.
- **Facilitate Risk Transfer and Risk Management:** Financial markets offer various instruments, such as insurance, derivatives, and hedging strategies, that allow individuals and businesses to transfer and manage risks associated with fluctuations in interest rates, exchange rates, commodity prices, and more.
- **Supply Liquidity:** Financial markets provide liquidity by enabling the buying and selling of financial assets. Liquidity ensures that investors can easily convert their assets into cash, enhancing market efficiency and stability.

Benefits of Well-Functioning Financial Markets

- **Greater Capital Accumulation:** Efficient financial markets encourage saving and investment, leading to increased capital accumulation, which fuels economic growth and development.
- **Better Projects:** Well-functioning financial markets allocate capital to projects with the highest potential returns, resulting in the funding of innovative and productive ventures.
- **More Innovation:** Access to capital through financial markets facilitates research and development, fostering innovation and technological advancement.
- **Managerial Accountability:** Financial markets impose discipline on corporations through mechanisms such as shareholder activism and market valuation, promoting managerial accountability and corporate governance.
- **Stronger Economic Growth:** Well-developed financial markets provide the necessary capital for investment, leading to increased productivity, employment, and overall economic growth.
- **Greater Consumer Satisfaction:** Efficient financial markets contribute to lower transaction costs, increased competition, and better access to financial products and services, ultimately benefiting consumers.

Factors Promoting Well-Functioning Financial Markets

- **Secure Property Rights:** Clear and enforceable property rights encourage investment and lending by providing investors with confidence in their ability to protect and profit from their assets.
- **Contracts Easily Enforceable:** Reliable contract enforcement ensures that agreements between borrowers and lenders are upheld, reducing uncertainty and facilitating capital flows.
- **Meaningful Accounting Information:** Accurate and transparent accounting information enables investors to make informed decisions and assess the financial health and performance of companies.
- **Transparent Financial Statements:** Transparent financial reporting enhances market efficiency by providing investors with timely and accurate information about the financial position and operations of firms.
- **Accountability of Borrowers and Investors:** Accountability mechanisms, such as credit ratings, regulatory oversight, and legal frameworks, promote responsible behavior among borrowers and investors, fostering trust and stability in financial markets.

10. International Financing

Eurocurrency refers to a currency, such as the US dollar, or any other freely convertible currency, which is deposited in a bank outside its country of origin.

For instance, when US dollars are deposited in a bank in London, they are termed as **Eurodollars**. Similarly, US dollars deposited in Delhi or any other foreign location also fall under the category of Eurodollars. It's important to note that the prefix "Euro" used here does not specifically relate to the euro currency or Europe. Even US dollars deposited in cities like Montreal or Hong Kong are considered Eurodollar deposits. These deposits can be held in a foreign bank or in the foreign branch of a domestic US bank.

The Eurodollar market serves as a significant source of short-term financing for multinational companies' working capital needs. T

One of the primary attractions of the Eurocurrency market is the variance in interest rates compared to domestic markets. Due to the absence of controls and associated costs, coupled with large transaction volumes, Eurocurrency deposits generally offer higher yields than domestic deposits, while loans tend to be cheaper than those in domestic markets. Loans are typically offered at a certain percentage above London Interbank Offered Rate (LIBOR), which represents the deposit rate applicable to interbank loans in London.

The growing importance of the Organization of Petroleum Exporting Countries (OPEC) also contributed to the growth of the Eurocurrency market. Because OPEC generally requires payment for oil in dollars, the OPEC countries began to use the Eurocurrency market to deposit a portion of their oil revenues. These dollar denominated deposits are sometimes known as **Petrodollars.**

LIBOR

LIBOR, or the London Interbank Offered Rate, is an average interest rate at which major global banks borrow from one another. It is calculated based on five major currencies, including the US dollar, Euro, British Pound, Japanese Yen, and Swiss Franc, across seven different maturities. This results in a total of 35 different LIBOR rates reported each business day, with the three-month US dollar rate being the most commonly referenced rate in financial markets.

10. International Financing

The foreign bond market constitutes a significant segment of the international financial markets, representing bonds issued by foreign entities within a domestic market. These bonds are subject to local regulations and must be denominated in the local currency.

Eurobonds are a type of bond issued and sold outside the country in whose currency they are denominated. Unlike traditional bonds, which are typically issued by governments or corporations within their home countries, Eurobonds are directly issued by the final borrowers, such as corporations or international organizations.

The term "Euro" in Eurobonds signifies that these bonds are sold outside the countries in whose currencies they are denominated. This means that a Eurobond issued in euros, for example, would be sold and traded in countries other than those that use the euro as their domestic currency. Similarly, Eurobonds denominated in other currencies like US dollars or British pounds would also be sold outside the respective countries associated with those currencies.

Within the realm of foreign bonds, several types are commonly encountered:

Yankee Bonds: These are dollar-denominated foreign bonds issued in the United States by foreign entities seeking to access the American capital market.

Samurai Bonds: Samurai bonds are yen-denominated bonds issued in Japan by non-Japanese entities. They provide foreign issuers access to Japanese investors and are subject to Japanese regulations.

Shogun Bonds: Shogun bonds are foreign currency bonds issued within Japan by Japanese corporations. They allow Japanese entities to diversify their funding sources beyond the domestic market.

Bulldog Bonds: Bulldog bonds are foreign bonds denominated in British pounds and issued in the United Kingdom by non-British entities. They offer foreign issuers access to British investors and the UK capital market.

Panda Bonds: Panda bonds are renminbi-denominated bonds issued in China by non-Chinese entities. These bonds allow foreign issuers to access Chinese investors and the Chinese capital market. Panda bonds are subject to Chinese regulations and market conditions.

Global Bonds: Global bonds are multi-jurisdictional bond offerings, typically denominated in dollars, registered in multiple countries, and marketed to investors worldwide. They provide issuers with access to a broader investor base.

Foreign bond issues, similar to domestic bonds, come in various forms, including fixed-rate issues, floating-rate notes (FRNs), and equity-related issues:

> **(a) Fixed-Rate Issues**: These bonds feature a fixed coupon rate, predetermined maturity date, and full repayment of the principal amount at maturity, resembling their domestic counterparts.
>
> **(b) Floating-Rate Notes (FRNs)**: FRNs have variable coupon rates reset at regular intervals, often every three to six months. The new coupon rate is typically determined by adding a fixed margin to a reference rate such as the Treasury bill rate or commercial paper rate.
>
> **(c) Equity-Related Bonds**: These bonds blend characteristics of traditional bonds with equity features, including convertible bonds and bonds with equity warrants:
>
> > **1. Convertible Bonds**: These fixed-rate bonds grant the holder the option to convert them into a predetermined number of common shares before maturity, offering potential participation in future equity upside.
> >
> > **2. Equity Warrants**: Bonds with equity warrants provide the holder the right to purchase a specified number of common stock shares at a predetermined price within a designated time frame, allowing for potential equity participation.

10. International Financing

Equity securities represent another avenue for international financing, where investors acquire ownership stakes in companies in exchange for shares of stock, with the potential for capital gains through stock appreciation and dividends.

Euro Equity Market

Over the past two decades, the Euro Equity market has emerged as a significant development. This market facilitates the trading of shares outside the issuing company's home country, allowing companies to offer their shares internationally rather than restricting them to their domestic market.

American Depository Receipts (ADR)

A common method for Euro-equities to gain exposure in the United States is through American Depository Receipts (ADR). ADRs are negotiable certificates issued by US banks, representing shares of a foreign company's stock held in trust at a custodian bank abroad. Traded like stocks, each ADR corresponds to a certain number of underlying shares.

Global Depository Receipts (GDR) and European Depository Receipts (EDR)

Apart from ADRs, there are Global Depository Receipts (GDR) and European Depository Receipts (EDR). While ADRs are limited to trading in the US, GDRs are traded globally. Essentially, GDRs and ADRs are similar in legal, operational, and administrative aspects, with GDRs being listed on exchanges outside the US.

Indian Depository Receipts (IDR)

Indian Depository Receipts (IDR) enable foreign companies to raise funds from Indian markets by offering entitlement to foreign equity and listing on Indian stock exchanges.

Sovereign Wealth Funds (SWFs)

Sovereign wealth funds (SWFs) serve as significant sources of capital, deriving resources from various avenues, including revenues from natural resource exports like oil. Managed professionally, SWFs invest in projects or stock markets globally. Prominent SWFs include the Government Pension Fund of Norway, the Abu Dhabi Investment Authority, and the China Investment Corporation.

10. International Financing

The foreign bank market refers to the international marketplace where banks from different countries engage in various financial activities, including lending, borrowing, investment, and foreign exchange transactions. These banks operate across borders to provide a wide range of financial services to clients, including multinational corporations, governments, and individuals.

Key features of the foreign bank market include:

- **Cross-Border Operations:** Foreign banks conduct business across national boundaries, establishing branches or subsidiaries in different countries to serve their clients' needs. They may offer services such as corporate and retail banking, investment banking, asset management, and trade finance.
- **International Lending and Borrowing:** Foreign banks facilitate cross-border lending and borrowing, providing financing to businesses, governments, and individuals in various currencies. They play a crucial role in supporting global trade and investment by offering credit facilities and trade finance services.
- **Foreign Exchange Services**: Foreign banks are major participants in the foreign exchange market, facilitating currency exchange transactions for their clients. They provide services such as spot and forward foreign exchange trading, currency hedging, and international payment services to help clients manage currency risk.
- **International Trade Finance**: Foreign banks offer trade finance solutions, such as letters of credit, trade finance loans, and export financing, to support international trade transactions. They help businesses mitigate risks associated with cross-border trade and ensure the smooth flow of goods and services.
- **Capital Markets Activities**: Foreign banks engage in capital markets activities, including underwriting securities, issuing bonds and equities, and providing investment banking services. They assist companies in raising capital from global investors and facilitate mergers and acquisitions, debt restructuring, and other corporate finance transactions.

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11. Foreign Exchange Market

The **foreign exchange market** is a market for converting the currency of one country into that of another country. An **exchange rate** is simply the rate at which one currency is converted into another.

The foreign exchange market serves two main functions. The first is to convert the currency of one country into the currency of another. The second function of the foreign exchange market is to provide insurance against foreign exchange risk, which is the possibility that unpredicted changes in future exchange rates will have adverse consequences for the firm. When a firm insures itself against foreign exchange risk, we say that is it engaging in **hedging**.

International businesses have 4 main uses of foreign exchange markets.

- First, the payments a company receives for its exports, the income it receives from foreign investments, or the income it receives from licensing agreements with foreign firms may be in foreign currencies. To use those funds in its home country, the company must convert them to its home country’s currency.
- Second, international businesses use foreign exchange markets when they must pay a foreign company for its products or services in its country’s currency.
- Third, international businesses use foreign exchange markets when they have spare cash that they wish to invest for short terms in money markets.
- Finally, currency speculation is another use of foreign exchange markets. Currency speculation typically involves the short-term movement of funds from one currency to another in the hopes of profiting from shifts in exchange rates.

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11. Foreign Exchange Market

The determinants of foreign exchange are the factors that influence the exchange rate between two currencies. The exchange rate refers to the value of one currency relative to another currency, and it is determined by the forces of supply and demand in the foreign exchange market.

(i) Inflation

Inflation is one of the most significant factors that determine the foreign exchange rate. When the inflation rate in a country is high, the purchasing power of its currency decreases. As a result, the demand for that currency falls, leading to a depreciation in the exchange rate. Conversely, if the inflation rate in a country is low, the demand for its currency increases, leading to an appreciation in the exchange rate.

For example, let us consider the case of India and the United States. Suppose India has a high inflation rate of 10%, while the United States has an inflation rate of 2%. Due to India's high inflation rate, the value of the Indian rupee will decrease relative to the US dollar. Therefore, the exchange rate of USD/INR will increase, meaning that it will take more Indian rupees to buy a US dollar.

(ii) Interest Rates

Interest rates are another important factor that determines the foreign exchange rate. When the interest rate in a country increases, foreign investors are more likely to invest in that country. As a result, the demand for the currency increases, leading to an appreciation in the exchange rate. Conversely, if the interest rate in a country decreases, the demand for the currency falls, leading to a depreciation in the exchange rate.

For example, let us consider the case of India and Japan. Suppose India has an interest rate of 6%, while Japan has an interest rate of 0.1%. Due to India's high-interest rate, foreign investors will be more likely to invest in India. Therefore, the demand for Indian rupees will increase, leading to an appreciation in the exchange rate of JPY/INR.

(iii) Foreign Exchange Barriers

Foreign exchange barriers are policies or regulations implemented by countries to restrict the flow of foreign exchange. Such barriers can include taxes, quotas, or restrictions on the movement of capital. These barriers can negatively impact the exchange rate of a currency, as they reduce the demand for that currency.

For example, let us consider the case of China and India. Suppose China implements a restriction on the outflow of capital from its country. As a result, foreign investors will be less likely to invest in China, leading to a decrease in the demand for Chinese yuan. Consequently, the exchange rate of CNY/INR will decrease, meaning that it will take fewer Indian rupees to buy a Chinese yuan.

(iv) Foreign Trade Barriers

Foreign trade barriers are policies or regulations implemented by countries to restrict the flow of goods and services between countries. Such barriers can include tariffs, quotas, or restrictions on the movement of goods. These barriers can negatively impact the exchange rate of a currency, as they reduce the demand for that currency.

For example, let us consider the case of India and the United States. Suppose the United States implements a tariff on imports from India. As a result, the demand for Indian goods and services will decrease, leading to a decrease in the demand for Indian rupees. Consequently, the exchange rate of USD/INR will decrease, meaning that it will take fewer US dollars to buy an Indian rupee.

(v) Central Bank Intervention

Central banks can also influence the foreign exchange rate by buying or selling foreign currency. When a central bank buys foreign currency, it increases the supply of that currency in the market, leading to a depreciation in its exchange rate. Conversely, when a central bank sells foreign currency, it reduces the supply of that currency in the market, leading to an appreciation in its exchange rate.

For example, let's consider the case of India and the European Union. Suppose the Reserve Bank of India (RBI) buys euros from the European Central Bank (ECB) in exchange for Indian rupees. As a result, the supply of euros in the market will increase, leading to a depreciation in the exchange rate of EUR/INR. Conversely, if the RBI sells euros to the ECB in exchange for Indian rupees, the supply of euros in the market will decrease, leading to an appreciation in the exchange rate of EUR/INR.

(vi) Political stability

Political stability is another important determinant of foreign exchange rates. Countries with stable political systems and policies are often perceived as having lower investment risk, which may lead to an increase in demand for that country's currency. Conversely, countries with unstable political systems may be perceived as having higher investment risk, leading to a decrease in demand for that country's currency.

For example, let's consider the case of India and Pakistan. Suppose India is perceived to have a more stable political system compared to Pakistan. Due to India's political stability, foreign investors may be more likely to invest in India, leading to an increase in demand for the Indian rupee. As a result, the value of the Indian rupee may increase relative to the Pakistani rupee, leading to an appreciation in the exchange rate of PKR/INR.

(vii) Speculation

Speculation is another determinant of foreign exchange rates. Speculation refers to buying or selling currencies based on expectations of future economic or political events. The market demand for a currency may increase or decrease based on such expectations, leading to fluctuations in exchange rates.

For example, let's consider the case of India and China. Suppose there are expectations that India's economy will grow faster than China's in the future. As a result, speculators may buy Indian rupees in the present, leading to an increase in demand for the currency and an appreciation in the exchange rate of CNY/INR.

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11. Foreign Exchange Market

Devaluation of currency refers to a deliberate downward adjustment of a country's currency value relative to other currencies in the foreign exchange market. The process of devaluation is usually undertaken by a country's central bank and involves reducing the exchange rate of the currency. Devaluation is typically used as an economic policy tool to address various issues faced by a country.

Devaluation has both positive and negative impacts on an economy. One of the primary benefits of devaluation is that it makes exports cheaper, leading to an increase in export demand. As the value of the currency decreases, imported goods become more expensive, leading to an increase in domestic production, which can help improve a country's trade balance.

However, devaluation can also lead to negative impacts, such as inflation. When the value of the currency decreases, the prices of imported goods increase, which can lead to higher inflation. Additionally, devaluation can increase the cost of servicing foreign debt, leading to pressure on external finances.

Devaluation is typically done to address various economic challenges faced by a country. One of the primary reasons is to improve a country's trade balance by making its exports more competitive in the global market. By reducing the value of the currency, exports become cheaper, leading to an increase in export demand, which can help improve a country's trade balance.

Another reason for devaluation is to stimulate economic growth. By making exports more competitive, devaluation can increase export demand, leading to an increase in export revenues and overall economic growth.

Devaluation can also be used to reduce a country's external debt burden. If a country has a significant amount of foreign currency-denominated debt, devaluation can help reduce the amount of debt owed in domestic currency terms, reducing pressure on the country's external finances.

Devaluation can be carried out in various ways. The most common method is through market forces, where the exchange rate is allowed to float freely, and the market determines the value of the currency. In this case, devaluation occurs when the demand for a currency decreases, leading to a decline in its value. Another method of devaluation is through direct intervention by the central bank. The central bank can sell foreign reserves to reduce the value of the currency or reduce interest rates to stimulate demand for the currency.

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12. Evolution of Exchange Rate Systems

Throughout human history, gold has held a special place as a medium of exchange due to its unique properties. Its durability ensures that it retains its value over time, making it an ideal store of wealth. Gold is also easily recognizable and divisible, facilitating transactions of varying sizes.

Furthermore, its portability allows it to be easily transported across regions and civilizations. These qualities have made gold an attractive form of money for societies across the globe.

One of the key advantages of using gold as money is its limited supply. Unlike fiat currencies that can be printed at will by governments, the production of gold is constrained by natural factors and the cost of extraction. This limited supply means that the value of gold tends to remain relatively stable over the long term, providing a foundation for economic stability.

The gold standard, which prevailed for much of the 19th and early 20th centuries, formalized the use of gold as the basis for determining the value of currencies. Under this system, participating countries agreed to fix the prices of their currencies in terms of a specified amount of gold. Central banks would then buy or sell gold to maintain these fixed exchange rates.

The gold standard era saw remarkable long-term price stability, as the value of gold relative to other goods and services remained relatively constant. This stability provided a favorable environment for economic growth and international trade.

Calls for a return to the gold standard often stem from concerns about the stability of fiat currencies. **Fiat money**, which is not backed by a physical commodity like gold, relies solely on trust in the issuing authority. However, history has shown that governments often succumb to the temptation to print excessive amounts of money, leading to inflation and currency devaluation.

In contrast, a gold standard imposes discipline on monetary policy. Governments cannot increase the money supply without acquiring additional gold reserves, which acts as a natural constraint on inflationary pressures. This disciplined approach to monetary policy is seen as a safeguard against the risks associated with fiat currencies.

Overall, the use of gold as a basis for determining currency values has deep historical roots and offers potential benefits in terms of long-term price stability and economic discipline. However, implementing a modern gold standard would require overcoming various logistical and practical challenges in today's globalized financial system.

12. Evolution of Exchange Rate Systems

The Classical Gold Standard, spanning from 1821 to 1914, marked a significant era in global economic history. Initiated by England's return to the gold standard in 1821 following the Napoleonic Wars, this period witnessed an increasing number of countries adopting gold-backed currencies. By 1880, most nations worldwide had embraced some form of the gold standard, laying the foundation for a period characterized by stable exchange rates, prices, and international trade.

From 1880 to 1914, the Classical Gold Standard reached its zenith, fostering unprecedented levels of economic prosperity, global trade expansion, and labor and capital mobility across borders. This era is often romanticized by proponents of the gold standard, who highlight its role in promoting economic stability and fostering peace on a global scale.

However, critics of the rigid gold standard point to periods of economic turmoil during this time, such as the major depression of the 1890s and the economic contraction of 1907. They argue that while the gold standard provided stability in exchange rates and prices, it was not immune to economic downturns and recessions. Whether these economic challenges could have been mitigated under a fiat money standard remains a subject of debate.

The outbreak of World War I led to the breakdown of the gold standard, as countries suspended convertibility to gold in order to finance wartime expenditures. Following the war, the Gold Exchange Standard briefly revived the gold standard from 1925 to 1931. Under this system, the United States and England held gold reserves, while other nations held both gold and their currencies as reserves.

However, the Gold Exchange Standard faltered in 1931 when England abandoned gold due to unrealistic exchange rates and mounting capital outflows. This marked the end of the brief resurgence of the gold standard, as countries faced the challenges of the Great Depression and sought alternative monetary arrangements.

12. Evolution of Exchange Rate Systems

The **Bretton Woods System**, spanning from 1946 to 1971, emerged in response to the economic turmoil of the interwar period and the destructive trade practices of the 1930s. During this time, nations engaged in competitive devaluations, known as "beggar-thy-neighbor" policies, in an attempt to gain trade advantages at the expense of others, leading to escalating tensions and trade conflicts.

To prevent a recurrence of such destructive economic policies, Allied nations convened at Bretton Woods, New Hampshire, in 1944 to devise a new postwar monetary system. The outcome of this conference was the establishment of two key institutions: the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (World Bank). The IMF aimed to promote monetary stability, while the World Bank focused on providing financial assistance to countries for post-war reconstruction efforts.

Under the Bretton Woods Agreement implemented in 1946, participating governments committed to maintaining fixed exchange rates for their currencies relative to the US dollar or gold. These exchange rates were allowed to fluctuate within a narrow band of 1% around their stated par values.

To uphold these fixed exchange rates, governments intervened in the foreign exchange markets, buying or selling their currencies against the dollar whenever exchange rate deviations occurred. The IMF played a crucial role in providing foreign exchange to member nations facing pressure on their currencies due to temporary factors.

Despite the theoretical benefits of exchange rate stability for promoting international trade and investment, the practical implementation of the Bretton Woods System faced challenges. Governments were reluctant to adjust their exchange rates due to perceived political costs, and coordination of monetary policies among participating nations was lacking.

In reality, the fixed exchange rate system of Bretton Woods was far from stable. Over the period from 1946 to 1971, many countries experienced significant adjustments to their exchange rates. Only a few, such as the United States and Japan, maintained unchanged par values, while others devalued or floated their currencies.

The collapse of the Bretton Woods System occurred on August 15, 1971, when President Richard Nixon suspended the convertibility of the US dollar into gold for central banks and devalued the dollar to address America's trade deficit. Two main factors contributed to the demise of the system: rising inflation in the United States and resistance from countries like West Germany, Japan, and Switzerland to accepting inflationary pressures from the dollar.

Ultimately, the Bretton Woods experience underscores the importance of sound macroeconomic policies and policy coordination in maintaining fixed exchange rate systems. It serves as a reminder that fixed exchange rates are not immutable and require careful management to ensure stability and sustainability.

12. Evolution of Exchange Rate Systems

Following the collapse of the Bretton Woods System in 1971, the world entered a new era of exchange rate arrangements characterized by greater flexibility and volatility. The period from 1971 to the present has witnessed significant shifts in exchange rate policies and agreements.

In December 1971, amidst efforts to stabilize the post-Bretton Woods monetary system, the **Smithsonian Agreement** saw the devaluation of the US dollar against gold and the revaluation of other currencies relative to the dollar. However, ongoing attempts to maintain fixed exchange rates proved unsustainable, leading to the adoption of floating exchange rates by most countries in 1973.

Because the Bretton Woods Agreement was based on a system of fixed exchange rates and par values, the IMF had to change its rules to accommodate floating exchange rates. The **Jamaica Agreement** of 1976 amended the original rules to eliminate the concept of par values and permit greater exchange-rate flexibility.

A notable event in the evolution of exchange rate policies occurred in September 1985, when representatives from the Group of Five (G-5) nations convened at the Plaza Hotel in New York City. The resulting **Plaza Agreement** aimed to depreciate the US dollar against other major currencies to enhance American competitiveness. However, the rapid decline of the dollar led to concerns of overshooting its equilibrium value, prompting a reversal of policies by central banks.

In response to the dollar's excessive depreciation, the Group of Seven (G-7) nations, comprising the United States, Japan, West Germany, France, Britain, Canada, and Italy, convened in February 1987 to address the situation. The **Louvre Accord**, named after the venue of the meeting, outlined a plan to stabilize the dollar by pegging exchange rates within a narrow range and aligning economic policies among member countries.

Since then, exchange rate regimes have continued to evolve, with many countries adopting flexible exchange rate arrangements to accommodate changing economic conditions and policy objectives. The post-Bretton Woods era has been characterized by a dynamic interplay of market forces and policy interventions, shaping the landscape of international finance and trade.

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13. Foreign Exchange Risk

Foreign exchange risk refers to the potential loss or gain a company faces due to changes in exchange rates between the currencies of different countries. This risk arises when a company operates internationally and deals with transactions denominated in foreign currencies.

Let's take the example of Tata Consultancy Services (TCS), an Indian multinational IT services and consulting company. TCS operates in multiple countries and conducts business transactions in various currencies, including the US dollar (USD), Euro (EUR), British pound (GBP), and others.

Now, suppose TCS secures a contract with a client in the United States for $1 million USD. At the time of securing the contract, the exchange rate is 1 USD = 75 Indian Rupees (INR), so the contract is valued at 75 million INR for TCS. However, by the time TCS receives payment from the client, the exchange rate has changed (Indian Rs has appreciated), and now 1 USD = 77 INR. As a result, when TCS converts the $1 million USD into Indian Rupees, they will receive only 70 million INR instead of the initially expected 75 million INR. This currency fluctuation has resulted in TCS receiving less revenue in terms of its home currency, INR.

This example illustrates how foreign exchange risk can impact a company. The fluctuation in exchange rates can affect the company's revenues, expenses, and ultimately its profitability. To mitigate this risk, companies needs to employ hedging strategies.

Hedging a particular currency exposure means establishing an offsetting currency position so that whatever is lost or gained on the original currency exposure is exactly offset by a corresponding foreign exchange gain or loss on the currency hedge.

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13. Foreign Exchange Risk

Exposure describes how much a company is susceptible to changes in exchange rates. This susceptibility can take on different forms, impacting aspects such as revenues, expenses, profits, and overall financial performance.

Understanding these various types of exposure is crucial for companies to effectively manage currency risks and maintain financial stability in an increasingly globalized economy.

Translation Exposure

Translation exposure, alternatively termed as accounting exposure or balance-sheet exposure, emerges when there's a necessity, for reporting and consolidation intents, to convert the financial records of foreign subsidiaries from their local currencies (LC) to the parent company's home currency (HC).

If exchange rates have shifted since the last reporting period, this conversion, or restatement, of assets, liabilities, revenues, expenses, gains, and losses expressed in foreign currencies will lead to either foreign exchange gains or losses.

Let us say Tata Consultancy Services (TCS) has a subsidiary in the United States, which reports its financials in US dollars (USD). If the Indian Rupee (INR) weakens against the USD, when TCS consolidates its financial statements, the subsidiary's assets and liabilities, when converted to INR, would increase in value, resulting in a foreign exchange gain for TCS. Conversely, if the INR appreciates, TCS would face a foreign exchange loss. This exemplifies translation exposure, where changes in exchange rates impact the reported financial position of multinational companies.

Operating Exposure

Operating exposure refers to the vulnerability of a company's future operating cash flows, such as revenues and costs, to fluctuations in currency values. In simpler terms, it measures how much a company's financial performance can be affected by changes in exchange rates.

This exposure is not limited to companies engaged in international business; even purely domestic corporations can be subject to operating exposure if their revenues or costs are impacted by currency movements. For example, a domestic company that imports raw materials or goods from abroad may face increased costs if the value of its home currency weakens against the currency of the exporting country. Conversely, a domestic exporter may experience higher revenues if its home currency strengthens against foreign currencies.

Operating exposure is important because it directly affects a company's profitability and competitiveness in the market.

Transaction Exposure

Transaction exposure happens when a company has deals that involve future payments or receipts in foreign money. This exposure is inherently tied to the dynamic nature of exchange rates, wherein fluctuations between the time of transaction initiation and settlement lead to corresponding fluctuations in the value of these foreign currency cash flows. Consequently, such fluctuations can result in either currency gains or losses for the involved parties.

For instance, let us consider an Indian company engaged in international trade. Suppose this company has recently made a sale to a customer in the United Kingdom, with the transaction conducted and recorded in British pounds. Similarly, the company may also have outstanding obligations, such as loan repayments, denominated in Japanese yen. In both cases, the company is subject to transaction exposure, as the eventual value of these cash flows in Indian Rupees (the home currency) will be contingent upon prevailing exchange rates at the time of settlement.

It's important to note that transaction exposure can be of two types, *accounting* and *operating* exposures.

Certain elements of transaction exposure, such as accounts receivable and debts denominated in foreign currencies, are already reflected in a firm's accounting exposure, as they are included in the balance sheet.

However, other aspects of transaction exposure, like foreign currency sales contracts where goods have been contracted but not yet delivered, represent a component of operating exposure. These elements, although not currently documented in financial statements, are integral to the firm's operational dynamics and can significantly influence its financial performance and risk profile.

Economic Exposure

Economic exposure encompasses both operating exposure and transaction exposure, forming a comprehensive view of how a company is impacted by currency fluctuations. Essentially, it delves into the broader implications of exchange rate movements on the firm's financial health.

In more technical terms, economic exposure evaluates the degree to which changes in exchange rates can alter the value of the company, measured through the present value of its anticipated cash flows. This means that economic exposure goes beyond just the direct impacts on operating cash flows and transactional obligations; it considers the broader implications for the company's overall financial performance and valuation.

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13. Foreign Exchange Risk

Companies with international operations deal with assets, liabilities, revenues, and expenses in foreign currencies. However, since investors and the financial community are mainly interested in the company's home currency (HC) values, the financial statements of foreign subsidiaries must be converted into HC before being consolidated with the parent company's financial statements.

When currency values change, there may be gains or losses from foreign exchange translation. Assets and liabilities translated at the current exchange rate are considered exposed, while those translated at a historical rate are not. The difference between exposed assets and liabilities is called translation exposure. The debate among accountants revolves around which assets and liabilities are exposed and when to recognize foreign exchange gains and losses on the income statement. It's important to note that these gains or losses are purely accounting and may not involve actual cash flows.

Four principal translation methods are available: the current/noncurrent method, the monetary/nonmonetary method, the temporal method, and the current rate method.

1. Current/Noncurrent Method

This method translates a foreign subsidiary's current assets and liabilities into the home currency at the current exchange rate, while non-current assets or liabilities are translated at their historical exchange rates. Consequently, a subsidiary with positive local currency working capital may experience a translation loss in case of devaluation, and vice versa for negative working capital.

The income statement is generally translated at the average exchange rate, except for items linked to noncurrent assets or liabilities, which are translated at the same rates as their corresponding balance sheet items, potentially resulting in different translation rates for similar revenue and expense items.

2. Monetary/Nonmonetary Method

This method distinguishes between monetary assets and liabilities (e.g., cash, accounts payable) and nonmonetary assets and liabilities (e.g., inventory, fixed assets). Monetary items are translated at the current rate, while nonmonetary items are translated at historical rates.

Income statement items are typically translated at the average exchange rate, except for those related to nonmonetary assets and liabilities, which are translated at the same rate as their corresponding balance sheet items, potentially leading to different translation rates for revenue and expense items.

3. Temporal Method

A variant of the monetary/nonmonetary method, the temporal method usually translates inventory at historical rates, although it may use current rates if inventory values are reported at market values on the balance sheet. While similar to the monetary/nonmonetary method, the choice of exchange rate for translation in the temporal method depends on the method's underlying approach to evaluating cost (historical versus market).

Income statement items are typically translated at an average rate for the reporting period, except for cost of goods sold and depreciation charges related to balance sheet items, which are translated at historical rates.

4. Current Rate Method

This straightforward method translates all balance sheet and income items at the current exchange rate. Widely used by British companies and mandated by the U.S. translation standard (FASB 52), it results in a loss from devaluation and a gain from revaluation if a firm's foreign-currency-denominated assets exceed its liabilities.

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13. Foreign Exchange Risk

Hedging is an investment strategy that attempts to lower the risk of unexpected events. It is appropriate to view hedging as a form of insurance. Like insurance, hedging does not prevent potential adverse events from occurring; rather, it reduces the negative impacts of those events should they occur.

A **natural hedge** is the phenomenon of two assets with opposite risk profiles that cancel out each other’s risk. These assets may be a combination of any of the following: currencies, stocks, bonds, and commodities. The only requirement for a natural hedge is that the assets' risks are negatively correlated to each other.

There are two basic hedging strategies: long hedge and short hedge. A **long hedge** is an investment strategy that secures the price of an asset in anticipation that the asset's price will increase in the future. Firms that will require an asset in the future but wish to protect themselves from the possibility of paying inflated prices utilize long hedges. Where ‘holding long’ indicates the purchase of an asset, a **short hedge** is an investment strategy that secures the price in anticipation of the price or value of an asset diminishing. Firms that would need to sell an asset in the future but prefer protection from the possibility of price decreases utilize short hedges.

A **perfect hedge** occurs, when the gain or loss on the hedged transaction exactly offset the loss or gain on the unhedged position. This investment strategy results in equal gains and losses.

We have described below techniques to hedge (a) Transaction Exposure (b) Economic Exposure and (c) Translation Exposure.

13. Foreign Exchange Risk

When managing transaction exposure, firms have several methods at their disposal to mitigate the impact of exchange rate fluctuations. These methods are divided into strategies for hedging exposure to payables (outflows) and exposure to receivables (inflows).

Hedging Exposure to Payables:

- **Forward or Futures Hedge on Payables:** Firms can use forward contracts or futures contracts to lock in a specific exchange rate for purchasing the required foreign currency. This hedges against potential currency appreciation. Forward contracts are customizable to suit the firm's needs.
- **Money Market Hedge on Payables:** By borrowing local currency and converting it into the foreign currency needed to cover payables, firms can create a money market hedge. The borrowed funds are invested until they are required to cover payables. If Interest Rate Parity (IRP) exists and there are no transaction costs, the money market hedge yields similar results to the forward hedge.
- **Hedging Payables with Currency Call Options:** Currency call options grant the right to buy a specific amount of a foreign currency at a predetermined price within a specified timeframe. Unlike forward contracts, they do not obligate the firm to purchase the currency. If the spot rate remains lower than the exercise price, the firm can let the option expire and buy the currency at the spot rate. If the currency appreciates, the call option allows the firm to buy at the exercise price.

Hedging Exposure to Receivables:

- **Forward or Futures Hedge on Receivables:** Forward contracts and futures contracts enable firms to lock in an exchange rate for selling a specific foreign currency, hedging against currency depreciation.
- **Money Market Hedge on Receivables:** This involves borrowing the currency that will be received from receivables and using the receivables to repay the loan.
- **Put Option Hedge on Receivables:** Put options grant the right to sell a specific foreign currency at a predetermined exercise price by a specified expiration date. Firms can use put options to establish a minimum amount for converting receivables into their home currency. Unlike forward contracts, put options are not obligations, and if the currency's value exceeds the exercise price, firms can let the option expire and sell at the prevailing spot rate.

Alternative Hedging Techniques:

When perfect hedging is not possible or is prohibitively expensive, firms can employ alternative methods to reduce exposure:

- **Leading and Lagging:** Firms adjust the timing of payments or receipts based on expectations of future currency movements. In leading, they expedite payments in a depreciating currency to lock in favorable rates, while in lagging, they delay payments in an appreciating currency to benefit from further currency appreciation.
- **Cross-Hedging:** This strategy involves hedging in a currency that serves as a proxy for the exposed currency. Its effectiveness depends on the correlation between the two currencies.
- **Currency Diversification:** Firms diversify their operations among multiple countries to limit the impact of exchange rate movements. This strategy reduces reliance on a single currency's fluctuations.

Additionally, long-term hedging can be achieved by using long-term forward contracts that match the payables' or receivables' maturity dates. Parallel loans, where currencies are exchanged with a promise to re-exchange at a predetermined rate on a future date, can also serve as a long-term hedging technique.

13. Foreign Exchange Risk

Economic exposure can be managed by balancing the sensitivity of revenue and expenses to exchange rate fluctuations. To accomplish this, however, the firm must first recognize how its revenue and expenses are affected by exchange rate fluctuations. For some firms, revenue is more susceptible. These firms are most concerned that their home currency will appreciate against foreign currencies since the unfavorable effects on revenue will more than offset the favorable effects on expenses. Conversely, firms whose expenses are more sensitive to exchange rates than their revenue are most concerned that their home currency will depreciate against foreign currencies.

When firms reduce their economic exposure, they reduce not only these unfavorable effects but also the favorable effects if the home currency value moves in the opposite direction.

MNCs may restructure their operations to reduce their economic exposure. The restructuring involves shifting the sources of costs or revenue to other locations in order to match cash inflows and outflows in foreign currencies.

When deciding how to restructure operations to reduce economic exposure, one must address the following questions:

- Should the firm attempt to increase or reduce sales in new or existing foreign markets?
- Should the firm increase or reduce its dependency on foreign suppliers?
- Should the firm establish or eliminate production facilities in foreign markets?
- Should the firm increase or reduce its level of debt denominated in foreign currencies?

Possible Strategies to Hedge Economic Exposure are given below:

- **Pricing Policy:** If the dollar's value declines by 10 % and this reduces the prices that Indian customers pay for American products by 10 %, then the Indian company can attempt to remain competitive by discounting its prices by 10 %. Although this strategy can retain market share, the lower prices will result in less revenue and therefore less cash flows.
- **Hedging with Forward Contracts:** Indian company can sell dollars forward for the period in which it wants to hedge against the adverse effects of the weak dollar.
- **Purchasing Foreign Supplies:** Another possibility is for the Indian Company is to purchase its materials in America, a strategy that would reduce its costs (and enhance its cash flows) during a weak-dollar period to offset the adverse effects of the weak dollar.
- **Financing with Foreign Funds:** The Indian company can also reduce its economic exposure by financing a portion of its business with loans in dollars. It could convert the loan proceeds to Rupees and use the Rupees to support its business.

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13. Foreign Exchange Risk

Translation exposure occurs when an MNC translates each subsidiary's financial data to its home currency for consolidated financial statements. Even if translation exposure does not affect cash flows, it is a concern of many MNCs because it can reduce an MNC's consolidated earnings and thereby cause a decline in its stock price. Thus, some MNCs may consider hedging their translation exposure.

Translation exposure can be reduced by selling forward the foreign currency used to measure a subsidiary's income. If the foreign currency depreciates against the home currency, the adverse impact on the consolidated income statement can be offset by the gain on the forward sale in that currency. If the foreign currency appreciates over the time period of concern, there will be a loss on the forward sale that is offset by a favorable effect on the reported consolidated earnings. However, many MNCs would not be satisfied with a "paper gain" that offsets a "cash loss."

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14. Currency Derivatives

A currency derivative is a financial contract whose value is derived from the underlying currency it represents. Individuals, financial firms, and multinational corporations (MNCs) utilize currency derivatives for various purposes. While some engage in speculation on future exchange rate movements, MNCs commonly use them to hedge against exposure to exchange rate risk, which is essential for managing their international operations effectively.

The Currency Derivatives can be broadly divided into following categories:

Forward Contracts

Forward contracts are utilized primarily for hedging against anticipated exchange rate movements. Through forward contracts, parties agree to buy or sell a specified amount of currency at a predetermined exchange rate on a future date. This allows businesses to lock in exchange rates today, mitigating the risk of adverse movements in the currency market.

Futures Contracts

Currency futures contracts are commonly used for both speculation and hedging. Traded on exchanges, currency futures contracts involve agreements to buy or sell a specified currency at a predetermined price on a future date. They provide a standardized, transparent means for investors to bet on or protect against future exchange rate movements.

Options Contracts

Currency options contracts offer flexibility for both speculation and hedging purposes. Currency options grant the holder the right, but not the obligation, to buy (call option) or sell (put option) a specified currency at a predetermined price within a set timeframe. This provides downside protection while allowing potential gains from favorable movements.