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B.Com Honours | Semester 1 | Calicut University

Stock Market Fundamentals

Course Code: COM1FM105 (2) • Module 3 Notes

1. Security Analysis & Fundamental Valuation: The EIC Framework

In financial economics and capital market pedagogy, security analysis represents the disciplined intellectual process of estimating the **Intrinsic Value** of a financial asset to determine whether it is currently underpriced, fairly valued, or overpriced by the broader stock market. Pioneered by Benjamin Graham and David Dodd in their seminal 1934 treatise *Security Analysis*, fundamental analysis posits that while short-term market prices fluctuate wildly due to human psychology, fear, and greed, the market price of a stock will asymptotically converge toward its true intrinsic economic value over the long run.

To systematically evaluate the future cash-generating capacity and risk profile of a corporation, analysts deploy the top-down **EIC Framework**: evaluating first the broader **Economy**, followed by the specific **Industry**, and culminating in the granular analysis of the individual **Company**.

1.1 The EIC Analytical Framework (Top-Down Approach)

THE THREE-TIER EIC ANALYTICAL HIERARCHY

Top-Down Security Selection

1. Economy Analysis (Macro)

Examines macroeconomic forces that govern aggregate corporate profitability across the nation:

- **GDP Growth Rate:** Real economic output expansion.
- **Inflation Rates (CPI/WPI):** Input cost pressures and purchasing power.
- **Interest Rate Regimes (RBI Repo Rate):** Cost of debt capital and discount rates.
- **Fiscal & Current Account Deficits:** Sovereign stability and currency health.
- **Foreign Direct Investment (FDI/FPI):** Cross-border liquidity inflows.

2. Industry Analysis (Meso)

Evaluates the structural attractiveness, growth stage, and competitive dynamics of specific sectors:

- **Industry Life Cycle:** Pioneering $ o$ Rapid Expansion $ o$ Maturity $ o$ Decline.
- **Porter's Five Forces:** Supplier power, buyer power, entry barriers, substitutes, rivalry.
- **Cyclical vs. Defensive:** Cyclicals (Automobiles, Real Estate, Steel) vs. Defensives (FMCG, Pharmaceuticals, Utilities).
- **Government Policy:** Subsidies, tariffs, PLI schemes, export restrictions.

3. Company Analysis (Micro)

Rigorous quantitative and qualitative dissection of the target business entity:

- **Competitive Moat:** Network effects, brand power, patents, low-cost scale.
- **Management Integrity:** Capital allocation track record, clean governance.
- **Promoter Shareholding:** High promoter stake and zero promoter share pledge.
- **Financial Ratios:** Profitability margins, return on capital, leverage health.

1.2 Qualitative Governance Filters: Promoters Holding & Pledge Risks

In emerging markets such as India, corporate governance and promoter alignment represent the primary filter against catastrophic capital destruction. Two critical variables demand scrutiny:

- **Promoter Shareholding:** Represents the percentage of equity owned by the founders/promoters. A high promoter holding (e.g., $>50%$) signals strong alignment with public shareholders. A steadily declining promoter stake over successive quarters serves as a severe warning of insider lack of confidence.
- **Promoter Share Pledge:** The percentage of promoter-owned shares pledged as collateral to banks or NBFCs to secure corporate or personal loans. If a company's stock price drops sharply, lenders issue margin calls. If promoters fail to provide additional collateral, lenders invoke the pledge and dump millions of shares on the open exchange, causing a vicious crash (e.g., historical collapses of Zee Entertainment, Reliance Communications, Coffee Day). **A high pledge percentage ($>20%$) represents an existential red flag.**

2. Financial Ratio Taxonomy & Fundamental Company Diagnostics

Financial statement analysis translates audited Balance Sheets, Profit & Loss accounts, and Cash Flow statements into standardized mathematical metrics that enable cross-sectional peer benchmarking and historical time-series evaluation.

2.1 Core Categories of Financial Ratios

COMPREHENSIVE FINANCIAL RATIO TAXONOMY

Corporate Financial Diagnostics

Ratio Category	Mathematical Formula	Analytical Significance & Healthy Benchmark
Current Ratio (Liquidity)	$ ext{Current Ratio} = rac{ ext{Current Assets}}{ ext{Current Liabilities}}$	Measures short-term debt servicing capability. Benchmark: $ge 1.5$ to 2.0. Values < 1.0 indicate immediate working capital stress.
Return on Equity (RoE)	$ ext{RoE} = rac{ ext{Net Profit After Tax}}{ ext{Shareholders' Equity}} imes 100$	Measures efficiency of generating profit from shareholders' capital. Premium benchmark: $ge 15% – 20%$ sustainably over 5 years.
Return on Capital Employed (RoCE)	$ ext{RoCE} = rac{ ext{EBIT}}{ ext{Total Capital Employed}} imes 100$	Measures operating profitability generated from all capital providers (Equity + Long-term Debt). Must exceed Cost of Capital (WACC).
Debt-to-Equity Ratio (D/E)	$ ext{D/E Ratio} = rac{ ext{Total Debt}}{ ext{Total Shareholders' Equity}}$	Measures financial leverage. Conservative benchmark: $le 0.5$. Debt-free companies ($D/E = 0$) carry minimal bankruptcy risk.
Interest Coverage Ratio	$ ext{ICR} = rac{ ext{EBIT}}{ ext{Interest Expense}}$	Ability to service interest on borrowings from operating income. Safe benchmark: $ge 3.0$. Values < 1.5 signal default danger.
Price-to-Earnings Ratio (P/E)	$ ext{P/E} = rac{ ext{Current Market Price (CMP)}}{ ext{Earnings Per Share (EPS)}}$	Market valuation multiplier. High P/E indicates high growth expectations or overvaluation; low P/E suggests value or fundamental distress.
Price-to-Book Ratio (P/B)	$ ext{P/B} = rac{ ext{Current Market Price (CMP)}}{ ext{Book Value Per Share (BVPS)}}$	Compares market price to accounting net asset value. Crucial for asset-heavy sectors and banking/NBFC evaluation.
PEG Ratio (Valuation)	$ ext{PEG} = rac{ ext{P/E Ratio}}{ ext{Annual EPS Growth Rate (%)}}$	Peter Lynch's growth-adjusted valuation: $ ext{PEG} < 1.0$ signals undervalued growth; $ ext{PEG} > 2.0$ signals expensive valuation.

2.2 DuPont Analysis: Deconstructing Return on Equity

Under the classical **3-Factor DuPont Model**, Return on Equity (RoE) is mathematically decomposed into three distinct operational drivers to identify the exact source of a company's financial performance:

The 3-Factor DuPont Decomposition Formulation

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RoE = Operating Profit Margin × Asset Turnover Ratio × Financial Leverage Multiplier
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ext{RoE} = left( rac{ ext{Net Profit}}{ ext{Sales}} ight) imes left( rac{ ext{Sales}}{ ext{Total Assets}} ight) imes left( rac{ ext{Total Assets}}{ ext{Shareholders' Equity}} ight)
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Analytical Takeaway: A company can achieve a high RoE through high net profit margins (pricing power, e.g., luxury goods or software), rapid asset turnover (operational efficiency, e.g., retail supermarkets), or dangerous financial leverage (pumping up debt). Fundamental analysis rejects companies that artificially inflate RoE purely through excessive debt.

3. Technical Analysis: Philosophy, Candlesticks, and Indicators

While fundamental analysis evaluates *what* security to buy by examining financial statements, **Technical Analysis** evaluates *when* to buy or sell by studying historical price movements and trading volumes on charts. Developed originally by Charles H. Dow in the late nineteenth century, technical analysis studies the behavioral psychology of market participants.

3.1 The Three Foundational Axioms of Technical Analysis

1. Market Discounts Everything

All known macroeconomic information, company balance sheets, future earnings expectations, and political developments are instantaneously reflected in the current market price of the stock.

2. Prices Move in Trends

Price movements do not behave purely randomly; they follow observable persistent trends (Uptrends - higher highs & higher lows; Downtrends - lower highs & lower lows; Sideways/Consolidation ranges).

3. History Repeats Itself

Human emotional psychology—fear, panic, greed, hope—remains constant across centuries. Consequently, visual chart patterns reoccur reliably over time.

3.2 Japanese Candlestick Patterns: Visualizing Market Sentiment

Originating from seventeenth-century Japanese rice merchant Munehisa Homma, candlestick charts visually encapsulate four critical price points (Open, High, Low, Close - OHLC) over a designated timeframe (daily, hourly, 5-minute):

ANATOMY & TAXONOMY OF KEY CANDLESTICK FORMATIONS

Price Action Signals

Pattern	Visual Structure	Psychological & Trading Interpretation
Hammer (Bullish Reversal)	Small real body at the upper end of the trading range, little or no upper shadow, and a long lower shadow (at least 2x the body length).	Appears after a sustained downtrend. Sellers aggressively dumped prices during the session, but buyers stepped in forcefully, rejecting lower levels and driving price back up to close near the high.
Shooting Star (Bearish Reversal)	Small real body at the lower end of the range, long upper shadow (at least 2x body), and negligible lower shadow.	Appears after an uptrend. Buyers pushed prices to new highs, but met severe institutional selling pressure, forcing price down to close near the open. Signals exhaustion of bullish momentum.
Bullish Engulfing	A small red/bearish candle followed immediately by a large green/bullish candle whose body completely engulfs the prior candle's body.	Powerful bullish reversal signal indicating that buyers have completely overwhelmed sellers, signaling the initiation of an aggressive upward move.
Doji (Indecision)	Open and Close prices are virtually identical, resulting in a horizontal line or cross with upper and lower shadows.	Represents perfect equilibrium and absolute psychological indecision between bulls and bears. A warning that the prevailing trend is losing momentum.

3.3 Core Technical Indicators and Oscillators

1. Moving Averages (SMA & EMA)

Calculates the average price over a specified period to smooth out short-term price noise and identify underlying trend direction.

- **Simple Moving Average (SMA):** Equal weighting to all days.
- **Exponential Moving Average (EMA):** Assigns greater mathematical weight to recent price data, reacting faster to reversals.
- **Golden Cross:** Short-term 50-day EMA crosses above long-term 200-day EMA (Major Bullish signal). **Death Cross:** 50 EMA crosses below 200 EMA (Major Bearish signal).

2. Relative Strength Index (RSI)

A momentum oscillator developed by J. Welles Wilder measuring the speed and velocity of directional price movements on a scale from 0 to 100 (standard 14-period lookback):

- **Overbought ($ ext{RSI} ge 70$):** Security has experienced rapid upward momentum and may be due for a consolidation or pullback.
- **Oversold ($ ext{RSI} le 30$):** Severe selling exhaustion; potential technical bounce zone.
- **Divergence:** Price makes a higher high while RSI makes a lower high (Bearish Divergence—signals impending trend reversal).

3. MACD (Moving Average Convergence Divergence)

A trend-following momentum indicator created by Gerald Appel. Comprises:

- **MACD Line:** 12-day EMA minus 26-day EMA.
- **Signal Line:** 9-day EMA of the MACD Line.
- **Histogram:** Visual difference between MACD and Signal Line. When the MACD line crosses above the Signal Line, a bullish buy signal is triggered.

4. Bollinger Bands (Volatility)

Developed by John Bollinger. Consists of a 20-day SMA middle band enclosed by an Upper Band ($+2sigma$) and a Lower Band ($-2sigma$ standard deviations):

- Bands expand during high market volatility and contract during consolidation.
- **Bollinger Squeeze:** Extreme band narrowing indicates volatility compression, presaging an explosive directional breakout.

4. Modern Portfolio Theory, Diversification & Risk Architecture

Modern portfolio management seeks to maximize expected investment returns for a given level of risk, or minimize risk for a target expected return. This mathematical discipline was formalized by Nobel laureate Harry Markowitz in 1952.

4.1 The Anatomy of Total Risk: Systematic vs. Unsystematic Risk

Decomposition of Aggregate Portfolio Risk

$$\text{Total Investment Risk} = \text{Systematic (Market) Risk} + \text{Unsystematic (Specific) Risk}$$

Systematic Risk (Non-Diversifiable)

Macro-environmental risks that impact the entire capital market simultaneously. Cannot be eliminated by diversification:

- **Components:** Interest rate shocks, inflation, wars, pandemics, monetary policy changes.
- **Measurement (Beta - β):** Measures the volatility/sensitivity of a stock relative to the broader market index. If $\beta = 1.5$, the stock tends to move 15% when the Nifty moves 10%. If $\beta < 1.0$, the stock is defensive.

Unsystematic Risk (Diversifiable)

Microeconomic risks specific to an individual firm or sector:

- **Components:** Factory strikes, management fraud, patent rejections, loss of a key customer.
- **Elimination:** Markowitz proved that by constructing a portfolio of 25 to 30 uncorrelated stocks across diverse economic sectors, **unsystematic risk can be mathematically reduced to virtually zero**.

4.2 Portfolio Revision & Strategic Asset Allocation

Constructing a portfolio is not a static one-time event; it requires continuous **Portfolio Revision**:

- **Asset Allocation:** Distributing wealth across non-correlated asset classes: Equities (growth), Fixed Income / Debt (capital preservation and regular cash flow), Gold (inflation hedge and geopolitical crisis safe haven), and Cash (liquidity).
- **Rebalancing Strategies:**
  - *Calendar Rebalancing:* Reviewing and resetting asset weights back to target allocations on a fixed schedule (e.g., annually or semi-annually).
  - *Threshold-Based Rebalancing:* Rebalancing whenever an asset class deviates by more than $\pm 5\%$ from its target allocation (e.g., if equities surge to 75% of a 60:40 portfolio, sell 15% of equity profits and reinvest into debt).

5. Corporate Actions & Comprehensive Stock Market Taxation (Post-Budget 2024)

Understanding corporate earnings distributions and statutory tax liabilities is essential for calculating net investment returns. In India, taxation on securities trading is governed by the **Income Tax Act, 1961**, as amended by the landmark **Finance Act, 2024 (Budget 2024)**.

5.1 Corporate Actions: The Dividend Lifecycle

A **Dividend** is the distribution of a portion of a company's post-tax profits to its shareholders. The dividend execution follows a strict chronological calendar:

- **1. Declaration Date:** The Board of Directors officially announces the dividend per share and fixes the record date.
- **2. Record Date:** The cut-off date established by the company to determine the official list of eligible shareholders registered in the depository records.
- **3. Ex-Dividend Date:** The date on which the stock begins trading without the dividend entitlement. Under India's **T+1 settlement system, the Ex-Dividend Date is set exactly on the Record Date** (or T-1 business day). To receive the dividend, an investor must purchase the stock *before* the ex-dividend date.
- **4. Payment Date:** The date on which the dividend cash is credited directly into the investor's linked savings bank account via electronic ECS/NACH transfer.
- **Tax Treatment of Dividends:** Dividends are fully taxable in the hands of shareholders at their applicable personal **Income Tax Slab Rates**. Under Section 194, companies deduct 10% TDS if dividend payout exceeds ₹5,000 in a financial year.

5.2 Comprehensive Indian Stock Market Taxation Architecture (Post-Budget 2024)

STATUTORY TAX RATES ON SECURITIES TRADING IN INDIA

Finance Act 2024 Amendments

Trading / Investment Activity	Holding Period Criteria	Statutory Tax Rate (Post-July 2024)	Loss Set-Off & Carry Forward Rules
Short-Term Capital Gains (STCG - Section 111A)	Equity delivery held for **$le 12$ Months**	**20.0% Flat** (Increased from 15% in Budget 2024) + Cess	Can be set off against both STCG and LTCG. Can be carried forward for **8 consecutive assessment years**.
Long-Term Capital Gains (LTCG - Section 112A)	Equity delivery held for **> 12 Months**	**12.5% Flat** (Increased from 10% in Budget 2024) on gains exceeding **₹1,25,000 exemption limit** per year.	Can be set off strictly against LTCG only. Can be carried forward for **8 assessment years**.
Intra-day Equity Trading (MIS)	Positions squared-off on the **same calendar day**	**Speculative Business Income (Sec 43(5)):** Taxed at individual progressive **Income Tax Slab Rates** (up to 30%).	Speculative losses can be set off *strictly against speculative profits only*. Can be carried forward for **4 assessment years**.
Derivative Trading (Futures & Options - F&O)	Monthly / Weekly derivative contract settlements	**Non-Speculative Business Income (Sec 43(5)(d)):** Taxed at individual **Income Tax Slab Rates**. Business expenses are fully deductible.	F&O business losses can be set off against any business or other income (except salary). Can be carried forward for **8 assessment years**.

6. Calicut University Examination Bank: Questions & Solutions

The following curated question-solution sets reflect the exact academic standards, conceptual depth, and analytical rigor prescribed by Calicut University for **COM1FM105 (2): Stock Market Fundamentals** (Module III: Fundamental and Technical Analysis).

Part A: Short Answer Questions (2 Marks Each)

Question 1 [Part A - 2 Marks] **Cognitive Level: Understand**

Define the EIC framework in Fundamental Security Analysis.

The **EIC Framework** is a top-down security analysis model that evaluates investment viability across three systematic tiers: (1) **Economy Analysis** (evaluating macro indicators such as GDP, inflation, interest rates); (2) **Industry Analysis** (evaluating sector growth stage, competition, and regulatory environment); and (3) **Company Analysis** (evaluating financial ratios, competitive moats, and management integrity).

Question 2 [Part A - 2 Marks] **Cognitive Level: Understand**

What is Promoter Pledging, and why does a high pledge percentage create risk for retail shareholders?

Promoter Pledging refers to promoters using their equity shareholding as collateral to secure commercial loans from banks or NBFCs. A high pledge percentage is dangerous because if the stock price falls, lenders demand additional collateral (margin calls); failure to provide cash triggers open-market distress sales by lenders, triggering catastrophic share price collapses.

Question 3 [Part A - 2 Marks] **Cognitive Level: Remember / Understand**

State the three core philosophical assumptions of Technical Analysis.

Technical analysis is built upon three foundational axioms: (1) **The Market Discounts Everything** (all fundamentals and news are already baked into the current market price); (2) **Prices Move in Trends** (prices follow identifiable upward, downward, or sideways trends); and (3) **History Repeats Itself** (recurrent chart patterns reflect persistent human market psychology).

Question 4 [Part A - 2 Marks] **Cognitive Level: Understand**

What is a Hammer Candlestick pattern, and what does it indicate?

A **Hammer** is a bullish reversal candlestick with a small upper body and a long lower shadow (at least double the body length) appearing at the bottom of a downtrend. It indicates that sellers aggressively forced prices down during the session, but buyers stepped in forcefully to reject lower levels, driving the price back to close near the high, signaling a potential upward reversal.

Question 5 [Part A - 2 Marks] **Cognitive Level: Understand**

Explain the Relative Strength Index (RSI). What do values above 70 and below 30 indicate?

The **Relative Strength Index (RSI)** is a momentum oscillator measuring the speed and change of price movements on a scale from 0 to 100. A value **above 70 indicates an Overbought condition** (potential consolidation or downward price correction ahead), while a value **below 30 indicates an Oversold condition** (potential price rebound/bounce zone).

Question 6 [Part A - 2 Marks] **Cognitive Level: Understand**

Distinguish between Systematic Risk and Unsystematic Risk.

Systematic Risk (Market Risk, measured by Beta $□eta$) arises from macroeconomic factors like inflation, wars, and interest rate hikes that impact all securities simultaneously and cannot be eliminated by diversification. **Unsystematic Risk** (Specific Risk) arises from company-specific factors like management failure or strikes and can be eliminated through portfolio diversification.

Question 7 [Part A - 2 Marks] **Cognitive Level: Remember / Understand**

What are the revised tax rates on STCG and LTCG for listed equities post-Budget 2024?

Under the Finance Act 2024: (1) **Short-Term Capital Gains (STCG under Section 111A)** on equity held $le 12$ months is taxed at a flat rate of **20%** (increased from 15%); (2) **Long-Term Capital Gains (LTCG under Section 112A)** on equity held > 12 months is taxed at a flat rate of **12.5%** (increased from 10%) on gains exceeding the enhanced statutory exemption threshold of **₹1,25,000** per financial year.

Question 8 [Part A - 2 Marks] **Cognitive Level: Understand**

Explain the significance of the "Ex-Dividend Date" under India's T+1 settlement system.

The **Ex-Dividend Date** is the date on which a stock starts trading without the dividend entitlement. Under India's T+1 settlement cycle, to be recognized as an eligible shareholder on the company's Record Date, an investor must buy the shares **before the Ex-Dividend Date**; purchasing on or after the Ex-Dividend Date disqualifies the buyer from receiving that dividend.

Part B: Short Essay / Conceptual Questions (5 Marks Each)

Question 9 [Part B - 5 Marks] **Cognitive Level: Analyze**

Explain the 3-Factor DuPont Model for Return on Equity (RoE). How does it help an investor evaluate the true quality of a company's profitability?

The **3-Factor DuPont Model** decomposes Return on Equity into three distinct operational and financial components:
$ ext{RoE} = ext{Net Profit Margin} imes ext{Asset Turnover Ratio} imes ext{Equity Multiplier}$ $ ext{RoE} = left(↟rac{ ext{Net Income}}{ ext{Revenue}} ight) imes left(↟rac{ ext{Revenue}}{ ext{Total Assets}} ight) imes left(↟rac{ ext{Total Assets}}{ ext{Shareholders' Equity}} ight)$ **Analytical Utility for Investors:**
1. *Net Profit Margin (Operating Efficiency):* Measures pricing power and cost management. Higher margins indicate strong competitive moats.
2. *Asset Turnover (Asset Use Efficiency):* Measures how efficiently management generates sales from each rupee of capital assets.
3. *Equity Multiplier (Financial Leverage):* Measures the proportion of assets funded by debt. A high multiplier warns that RoE is being driven by high debt rather than operational excellence.
Conclusion: DuPont analysis protects investors from "value traps"—companies displaying an apparently high RoE driven dangerously by extreme leverage rather than organic profitability.

Question 10 [Part B - 5 Marks] **Cognitive Level: Analyze**

Compare Fundamental Analysis with Technical Analysis across key conceptual and practical parameters.

Parameter	Fundamental Analysis	Technical Analysis
Primary Objective	Identifies the **Intrinsic Value** of a stock to determine *what* to buy.	Identifies price trends, momentum, and chart patterns to determine *when* to buy/sell.
Data Sources	Audited financial statements (P&L, Balance Sheet), industry data, macro GDP/interest rates.	Historical price charts, trading volume, candlestick formations, mathematical indicators.
Time Horizon	Long-term investing (typically 3 to 10+ years).	Short-to-medium term (Intraday, days, or weeks).
Underlying Philosophy	Market price will eventually converge with intrinsic corporate value.	Market discounts everything; history and human psychology repeat themselves.
Key Tools	EIC Framework, DCF intrinsic valuation, P/E, P/B, RoE, Debt-to-Equity ratios.	Support/Resistance, Moving Averages (EMA), RSI, MACD, Bollinger Bands.

Question 11 [Part B - 5 Marks] **Cognitive Level: Understand & Apply**

Discuss the statutory classification and tax treatment of Intra-day Equity Trading versus Equity Futures & Options (F&O) under the Indian Income Tax Act.

Under Section 43(5) of the Income Tax Act, 1961, trading activities are classified into distinct tax heads with completely different treatment:

1. Intra-day Equity Trading (Speculative Business Income):

- Because transactions are squared-off without physical delivery of shares, it is statutorily defined as *Speculative Business Income*.
- Net profits are added to total personal income and taxed at applicable progressive **slab rates**.
- *Loss Restriction:* Speculative losses can be set off **strictly against speculative profits only**. Unabsorbed losses can be carried forward for up to **4 assessment years**.

2. Equity Derivative Trading - F&O (Non-Speculative Business Income):

- Under Section 43(5)(d), exchange-traded derivatives are explicitly recognized as **Non-Speculative Business Income**.
- Net profits are taxed at individual income tax slab rates.
- *Expense Deductibility:* Traders can deduct legitimate business expenses (brokerage, internet bills, trading software subscriptions, advisory fees, depreciation on computers).
- *Loss Flexibility:* F&O business losses can be set off against any business or other income (except salary) in the same year, and carried forward for up to **8 assessment years**.

Part C: Comprehensive Essay & Problem Solving (10 / 15 Marks)

Question 12 [Part C - 15 Marks] **Cognitive Level: Analyze & Evaluate**

Comprehensive Essay: Elaborate on the EIC (Economy-Industry-Company) framework of Fundamental Security Analysis. Discuss the critical economic indicators, industry life cycle stages, and the key financial ratios an investor must evaluate before selecting a stock for long-term wealth creation.

The EIC Framework: Comprehensive Master Architecture

The EIC framework provides a rigorous, top-down analytical architecture for equity research. An equity share does not exist in isolation; its performance is nested within its industry sector, which is in turn nested within the macroeconomic system.

1. Economy Analysis: Macroeconomic Drivers

The economy sets the broad boundaries of corporate growth. Analysts examine six macro variables:

- **Gross Domestic Product (GDP):** The rate of aggregate output expansion. A 7%+ real GDP growth rate creates strong tailwinds across capital goods, credit, and consumer spending.
- **Monetary Policy & Repo Rates:** The Reserve Bank of India's benchmark policy rate. Rising rates increase borrowing costs and compress equity valuation multiples; declining rates stimulate corporate CapEx.
- **Inflation Dynamics:** High Consumer Price Index (CPI) inflation erodes consumer discretionary spending and increases raw material input costs.
- **Fiscal Deficit & Sovereign Debt:** High deficits crowd out private corporate borrowing and exert upward pressure on bond yields.
- **Foreign Exchange & Current Account:** Fluctuations in the USD/INR exchange rate impact import-heavy sectors (oil refiners, electronics) versus export-oriented sectors (IT services, pharmaceuticals).

2. Industry Analysis: Structural Dynamics & Life Cycle

- **Industry Life Cycle Theory:**
  - *1. Pioneering Stage:* High technological innovation, experimental products, severe venture mortality (e.g., green hydrogen).
  - *2. Rapid Expansion Stage:* Accelerating demand, expanding margins, industry consolidation (e.g., electric vehicles, solar infrastructure).
  - *3. Stagnation / Maturity Stage:* Growth matches GDP; high dividend yields, stable market shares (e.g., FMCG, commercial banking).
  - *4. Decline Stage:* Product obsolescence driven by technological disruption (e.g., traditional print media).
- **Cyclicality vs. Defensive Attributes:** Investors balance cyclical stocks (sensitive to economic booms/busts) with defensive stocks (recession-proof demand).

3. Company Analysis: Financial Ratios & Moat Evaluation

Company analysis verifies operational superiority against industry peers:

- **Competitive Moats (Warren Buffett):** High switching costs, brand prestige, patents, and structural cost advantages.
- **Profitability & Return Metrics:** Sustainable RoE $> 15%$ and RoCE $> 18%$ demonstrating high capital productivity.
- **Financial Leverage & Solvency:** Low Debt-to-Equity ($D/E < 0.5$) and healthy Interest Coverage ($ICR > 4.0$) insulating against distress.
- **Valuation Realism:** Comparing trailing P/E and P/B against 5-year historical medians and industry peer averages to avoid overpaying.

Question 13 [Part C - 15 Marks] **Cognitive Level: Apply & Calculate**

Security Analysis & Capital Market Taxation Problem:

1. **An investor is evaluating the audited financials of *Kochi Tech Solutions Ltd* for FY 2024–25:**
    - **Current Assets = ₹18,00,000; Current Liabilities = ₹9,00,000; Total Assets = ₹60,00,000.**
    - **Total Debt = ₹12,00,000; Shareholders' Equity = ₹36,00,000.**
    - **Total Annual Revenue (Sales) = ₹80,00,000; EBIT = ₹16,00,000; Interest Expense = ₹2,00,000.**
    - **Net Profit After Tax = ₹10,80,000; Total Outstanding Shares = 100,000 shares; CMP = ₹324.**

    Calculate: (a) Current Ratio, (b) Debt-to-Equity Ratio, (c) Interest Coverage Ratio, (d) Return on Equity (RoE), (e) Earnings Per Share (EPS), and (f) Price-to-Earnings (P/E) Ratio.
2. **During FY 2024–25 (post-July 2024), an investor executes the following transactions in listed equity shares:**
    - **Transaction A: Sold shares on delivery after holding for 8 months, realizing a Short-Term Capital Gain of ₹1,50,000.**
    - **Transaction B: Sold shares on delivery after holding for 2.5 years, realizing a Long-Term Capital Gain of ₹3,75,000.**

    Calculate the total capital gains tax liability of the investor under the amended post-Budget 2024 statutory tax regime (Section 111A and Section 112A).

Comprehensive Mathematical Solutions

Part 1: Financial Ratio Diagnostics for Kochi Tech Solutions Ltd

- **(a) Current Ratio:** $ ext{Current Ratio} = rac{ ext{Current Assets}}{ ext{Current Liabilities}} = rac{₹18,00,000}{₹9,00,000} = mathbf{2.0 : 1}quad ext{(Healthy Liquidity)}$
- **(b) Debt-to-Equity Ratio:** $ ext{D/E Ratio} = rac{ ext{Total Debt}}{ ext{Shareholders' Equity}} = rac{₹12,00,000}{₹36,00,000} = mathbf{0.33 : 1}quad ext{(Conservative Leverage)}$
- **(c) Interest Coverage Ratio (ICR):** $ ext{ICR} = rac{ ext{EBIT}}{ ext{Interest Expense}} = rac{₹16,00,000}{₹2,00,000} = mathbf{8.0 ext{ Times}}quad ext{(High Solvency)}$
- **(d) Return on Equity (RoE):** $ ext{RoE} = rac{ ext{Net Profit After Tax}}{ ext{Shareholders' Equity}} imes 100 = rac{₹10,80,000}{₹36,00,000} imes 100 = mathbf{30.0%}quad ext{(Superior Return)}$
- **(e) Earnings Per Share (EPS):** $ ext{EPS} = rac{ ext{Net Profit After Tax}}{ ext{Total Outstanding Shares}} = rac{₹10,80,000}{100,000 ext{ shares}} = mathbf{₹10.80 ext{ per share}}$
- **(f) Price-to-Earnings (P/E) Ratio:** $ ext{P/E Ratio} = rac{ ext{Current Market Price (CMP)}}{ ext{EPS}} = rac{₹324.00}{₹10.80} = mathbf{30.0 ext{ Times}}$

Part 2: Capital Gains Tax Calculation (Post-Budget 2024 Regime)

1. Short-Term Capital Gains Tax (Section 111A):

- Holding period is 8 months ($le 12$ months), qualifying as STCG under Section 111A.
- Total STCG Realized = **₹1,50,000**.
- Statutory Tax Rate post-Budget 2024 = **20.0%**.
- $ ext{STCG Tax} = ₹1,50,000 imes 20.0% = mathbf{₹30,000.00}$

2. Long-Term Capital Gains Tax (Section 112A):

- Holding period is 2.5 years (> 12 months), qualifying as LTCG under Section 112A.
- Total LTCG Realized = **₹3,75,000**.
- Statutory Annual Exemption Limit (Post-Budget 2024) = **₹1,25,000**.
- Taxable LTCG = $₹3,75,000 - ₹1,25,000 = mathbf{₹2,50,000}$.
- Statutory Tax Rate post-Budget 2024 = **12.5%**.
- $ ext{LTCG Tax} = ₹2,50,000 imes 12.5% = mathbf{₹31,250.00}$

3. Total Aggregate Tax Liability:

- $ ext{Base Tax Liability} = ext{STCG Tax} + ext{LTCG Tax} = ₹30,000 + ₹31,250 = mathbf{₹61,250.00}$
- Add: Health and Education Cess @ 4% on Base Tax $= 4% imes ₹61,250 = mathbf{₹2,450.00}$.
- $ ext{Total Net Tax Payable} = ₹61,250 + ₹2,450 = mathbf{₹63,700.00}$