unknown author

ankur Goel

Research Project

Document Details

Submission ID
trn:oid:::27535:140252918

Submission Date
May 24, 2026, 10:03 PM GMT+5:30

Download Date
May 24, 2026, 10:05 PM GMT+5:30

File Name
ankur Goel.pdf

File Size
6.3 MB

79 Pages

17,325 Words

91,192 Characters

5% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

Filtered from the Report

- Bibliography
- Quoted Text
- Small Matches (less than 10 words)

Match Groups

50 Not Cited or Quoted 4%
Matches with neither in-text citation nor quotation marks

8 Missing Quotations 1%
Matches that are still very similar to source material

0 Missing Citation 0%
Matches that have quotation marks, but no in-text citation

0 Cited and Quoted 0%
Matches with in-text citation present, but no quotation marks

Top Sources

3% Internet sources
1% Publications
4% Submitted works (Student Papers)

Integrity Flags

0 Integrity Flags for Review

Our system's algorithms look deeply at a document for any inconsistencies that would set it apart from a normal submission. If we notice something strange, we flag it for you to review.

A Flag is not necessarily an indicator of a problem. However, we'd recommend you focus your attention there for further review.

Match Groups

- **50** Not Cited or Quoted 4%
  Matches with neither in-text citation nor quotation marks
- **8** Missing Quotations 1%
  Matches that are still very similar to source material
- **0** Missing Citation 0%
  Matches that have quotation marks, but no in-text citation
- **0** Cited and Quoted 0%
  Matches with in-text citation present, but no quotation marks

Top Sources

3% Internet sources
1% Publications
4% Submitted works (Student Papers)

Top Sources

The sources with the highest number of matches within the submission. Overlapping sources will not be displayed.

1	Student papers	Institute for Financial Management and Research on 2026-02-24 <1%
2	Internet	dspace.dtu.ac.in:8080 <1%
3	Student papers	Delhi Technological University on 2026-05-18 <1%
4	Student papers	RMIT University on 2025-09-19 <1%
5	Student papers	Associatie K.U.Leuven on 2026-05-20 <1%
6	Internet	e-research.siam.edu <1%
7	Internet	www.oppapers.com <1%
8	Internet	www.coursehero.com <1%
9	Internet	www.theseus.fi <1%
10	Student papers	Copenhagen Business School on 2026-02-09 <1%

11 Internet
www.mdpi.com <1%

12 Student papers
Copenhagen Business School on 2026-02-09 <1%

13 Student papers
Kepler College on 2026-04-02 <1%

14 Publication
Alberto Tron, Federico Colantoni, Giacomo Gotti, Salvatore Ferri. "Liquidity, stock ... <1%

15 Student papers
Cranfield University on 2026-04-29 <1%

16 Student papers
Singapore University of Technology and Design on 2026-03-20 <1%

17 Internet
www.financestrategists.com <1%

18 Student papers
College Faculty Members on 2026-05-08 <1%

19 Student papers
Delhi Technological University on 2026-05-21 <1%

20 Student papers
Heriot-Watt University on 2025-04-25 <1%

21 Student papers
Oxford Brookes University on 2026-05-06 <1%

22 Student papers
University of Southampton on 2009-09-17 <1%

23 Internet
www.sec.gov <1%

24 Student papers
Queen Mary and Westfield College on 2025-08-18 <1%

25 Student papers

Universitat Mannheim on 2007-05-22 <1%

26 Student papers

Florida Atlantic University on 2009-03-19 <1%

27 Publication

Mayank Joshipura, Sachin Mathur. "Cases in Corporate Finance", Routledge, 2024 <1%

28 Student papers

Purdue University on 2026-03-30 <1%

29 Internet

erepository.uonbi.ac.ke <1%

30 Internet

research-api.cbs.dk <1%

31 Internet

www.investopedia.com <1%

32 Internet

www.sdmimd.ac.in <1%

33 Student papers

Bournemouth University on 2021-01-21 <1%

34 Student papers

Florida International University on 2025-10-05 <1%

35 Student papers

Napier University on 2008-12-09 <1%

36 Student papers

University of Johannsburg on 2020-04-25 <1%

37 Student papers

University of Wales Institute, Cardiff on 2026-04-27 <1%

38 Internet

certferra.com <1%

39 Internet

dspace.ada.edu.az <1%

40 Internet

jyx.jyu.fi <1%

41 Internet

www.incjournal.com <1%

42 Internet

www.ssbfnet.com <1%

Major Project Report on

EQUITY VALUATION AND PORTFOLIO CONSTRUCTION: A FUNDAMENTAL ANALYSIS OF SELECTED INDIAN EQUITIES

Submitted By
ANKUR GOEL
Roll No.: 24/DMBA/27
MBA (Finance & Analytics), Batch 2024–26

Under the Guidance of
Dr. Prama Vishnoi
Assistant Professor, Delhi School of Management

DELHI SCHOOL OF MANAGEMENT
Delhi Technological University
Bawana Road, Delhi – 110042

CERTIFICATE

This is to certify that the Major Research Project entitled "Equity Valuation and Portfolio Construction: A Fundamental Analysis of Selected Indian Equities" has been completed by Mr. Ankur Goel (Roll No. 24/DMBA/27) of MBA Finance & Analytics, Batch 2024–26, Delhi School of Management, Delhi Technological University, as partial fulfilment of the requirements for the degree of Master of Business Administration, under my supervision and guidance.

I am satisfied that the work presented in this report is original, independent, and carried out in accordance with the standards and format guidelines prescribed by Delhi School of Management, DTU. To the best of my knowledge, no portion of this work has been submitted elsewhere for any other degree, diploma, or academic credit.

Dr. Prama Vishnoi
Assistant Professor, Delhi School of Management
Delhi Technological University, Delhi – 110042

Date: _____

Place: New Delhi

DECLARATION

I, Ankur Goel, Roll No. 24/DMBA/27, a student of MBA Finance & Analytics, Batch 2024–26, Delhi School of Management, Delhi Technological University, hereby declare that the Major Research Project submitted under the title "Equity Valuation and Portfolio Construction: A Fundamental Analysis of Selected Indian Equities" is a product of my own independent research and analysis, conducted under the mentorship of Dr. Prama Vishnoi.

I further solemnly affirm that:

1. The work contained in this report has not been submitted, either in full or in part, to any other institution or university for the award of any degree or diploma.
2. All data, references, charts, and sources used in preparing this report have been duly acknowledged and cited in accordance with academic conventions.
3. The report has been prepared in compliance with the format guidelines laid down by Delhi School of Management, DTU.

Ankur Goel
Roll No.: 24/DMBA/27 | MBA Finance & Analytics, Batch 2024–26

Date: _____

Place: New Delhi

ACKNOWLEDGEMENT

Completing this Major Research Project has been one of the most intellectually rewarding experiences of the researcher's academic journey, and it would not have been possible without the guidance, support, and encouragement of several people.

First and foremost, the researcher expresses deep gratitude to the project guide, Dr. Prama Vishnoi, Assistant Professor, Delhi School of Management, Delhi Technological University, for her patient mentorship, sharp academic insights, and constructive feedback at every stage of this project. Her ability to simplify complex finance concepts and her enthusiasm for the subject kept me motivated throughout.

I would like to sincerely thank the entire faculty of Delhi School of Management, DTU, who, through their rigorous teaching, built the analytical and financial foundation that made this work possible. Special thanks are also due to the library and digital resources team at DSM for facilitating access to databases and research material.

I am also thankful to the investor relations teams of all ten companies covered in this study, whose annual reports and public disclosures formed the backbone of my financial modelling. I acknowledge Professor Aswath Damodaran of NYU Stern School of Business for making his equity risk premium data, country risk estimates, and valuation course materials freely available online — resources I relied on extensively.

The researcher also expresses gratitude to family members for their unwavering support during the long hours devoted to building financial models and writing this report. Six years of personal equity portfolio management experience since 2019 gave this academic exercise a practical grounding that no textbook alone could have provided.

Ankur Goel
May 2026, New Delhi

EXECUTIVE SUMMARY

This Major Research Project is a deep-dive into equity valuation and portfolio construction, applying investment banking-grade analytical frameworks to ten publicly listed Indian companies. The study was motivated by the observation that while India's equity market has grown tremendously, rigorous and transparent bottom-up valuation work remains inaccessible to most retail investors. The ten companies span six sectors: BSE Ltd. and CDSL (financial infrastructure), Hindustan Zinc (metals and mining), MTAR Technologies (defence and aerospace), J&K Bank (banking), NTPC (power generation), Cipla (pharmaceuticals), Persistent Systems (IT services), JBM Auto (auto ancillary and electric vehicles), and Titan Company (consumer lifestyle and jewellery).

For each company, except J&K Bank, this study constructed a Free Cash Flow to Firm (FCFF) based two-stage Discounted Cash Flow (DCF) model using audited financial data from FY2017 to FY2025. The Weighted Average Cost of Capital (WACC) was estimated using the Capital Asset Pricing Model (CAPM) with beta estimated through a comparable company approach. For J&K Bank, the Excess Return Model was applied, which is the appropriate methodology for financial institutions. Comparable Company Analysis using EV/EBITDA and P/E multiples was conducted alongside the DCF to triangulate values.

The headline valuation findings reveal significant divergence across the universe. CDSL, at a current market price of ₹1,200, appears deeply undervalued against a DCF intrinsic value of ₹2,197, representing an 83.1% upside. J&K Bank at ₹140 trades below its book value of ₹150, with an Excess Return Model fair value of ₹244, implying 73.8% upside. NTPC and Persistent Systems offer 29.3% and 20.3% upside respectively. On the other side, MTAR Technologies and Titan Company trade at extraordinary premiums to DCF values — not because they are poor businesses, but because the market prices in growth runways extending well beyond the five-year explicit forecast horizon.

At the portfolio level, a conviction-weighted ten-stock model portfolio was constructed and plotted against the Efficient Frontier derived from 4,000 Monte Carlo simulations. The portfolio delivers a beta of 0.43 (defensive versus Nifty 50), a Sharpe Ratio of 0.55 against the benchmark's 0.50, a Treynor Ratio of 24.2 versus 9.3 for the Nifty, a Jensen's Alpha of +3.4%, and a 95% one-year Value at Risk of -13.8% against -21% for the benchmark. Security Market Line analysis confirms that CDSL, Persistent Systems, J&K Bank, and NTPC generate the largest positive alphas above CAPM expectations. Sensitivity heatmaps validate that BUY recommendations for CDSL and NTPC hold across most combinations of WACC and terminal growth rate assumptions.

TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION

1.1 Background and Context

I have been investing in Indian equities since 2019, and over those six years, one pattern has struck me repeatedly: the gap between what a company is worth and what the market says it is worth can be both enormous and persistent. Markets are not efficient, especially in the mid-cap and small-cap space where institutional coverage is thin and retail sentiment often dominates price action. This project is, in many ways, my attempt to apply a systematic and principled framework to the question that every investor asks : is this stock cheap or expensive, and by how much?

India's equity market has grown into one of the five largest in the world by market capitalisation. As of May 2026, BSE-listed securities collectively exceeded USD 4.5 trillion in market cap. The democratisation of investing through zero-commission brokerage platforms, UPI-linked savings flows, and SEBI's direct mutual fund mandate has drawn over 160 million demat account holders into the market by FY2025. Yet this expansion of the investor base has not been matched by a commensurate expansion in quality bottom-up research. Most retail investors make investment decisions based on price-to-earnings ratios, moving averages, or social media tips rather than fundamental valuation models.

This study applies the same frameworks used by investment banks and institutional asset managers — FCFF-DCF, Comparable Company Analysis, WACC via CAPM, Efficient Frontier, and Security Market Line analysis — to a ten-stock universe representing six sectors: financial infrastructure (BSE Ltd. and CDSL), metals and mining (Hindustan Zinc), defence and aerospace (MTAR Technologies), banking (J&K Bank), power generation (NTPC), pharmaceuticals (Cipla), IT services (Persistent Systems), electric vehicles and auto ancillary (JBM Auto), and consumer lifestyle and jewellery (Titan Company).

1.2 Motivation for the Study

Several specific observations motivated this study. First, CDSL was closely tracked by the researcher from 2021 onwards. The stock had corrected sharply from its peaks

despite the underlying business growing faster than ever. I wanted to build a rigorous model to test whether that correction reflected genuine overvaluation unwinding or a market mispricing opportunity. This project strongly supports the latter conclusion.

Second, J&K Bank has been one of the most misunderstood stocks in the Indian market. The political changes following the abrogation of Article 370, combined with the bank's NPA crisis of 2019–2021, created uncertainty that pushed it to trade below book value. By FY2024, however, the NPAs had declined substantially and profitability had recovered meaningfully. I wanted to put a precise number on the gap between the market's pessimistic pricing and a justified valuation.

Third, from a portfolio construction perspective, I was interested in whether a fundamentals-driven, valuation-anchored ten-stock portfolio could deliver superior risk-adjusted returns versus the Nifty 50 without taking on commensurate market risk. As the Efficient Frontier and risk metrics analysis in Chapter 5 demonstrates, the answer is affirmative.

1.3 Objectives of the Study

4. To determine the intrinsic value of ten selected Indian equities using the FCFF-based two-stage DCF model, with the Excess Return Model applied specifically for J&K Bank.
5. To compute the Weighted Average Cost of Capital for each company using the Capital Asset Pricing Model with a comparable company beta estimation approach.
6. To perform Comparable Company Analysis using EV/EBITDA and P/E peer multiples as a secondary valuation cross-check.
7. To assess whether each company creates or destroys shareholder value by comparing ROCE against WACC and computing the economic profit spread.
8. To conduct three-scenario analysis (Base, Bull, and Bear) and build two-dimensional sensitivity heatmaps varying WACC and terminal growth rate.

9. To construct a conviction-weighted model portfolio, map it onto the Efficient Frontier via Monte Carlo simulation, and compute risk metrics: Sharpe Ratio, Sortino Ratio, Treynor Ratio, Jensen's Alpha, Beta, and Value at Risk.
10. To build the Capital Market Line and Security Market Line and quantify each stock's alpha relative to CAPM-predicted returns.
11. To deliver investment recommendations — Buy, Hold, or Avoid — grounded in the convergence of multiple valuation approaches.

1.4 Scope and Limitations

This study covers ten NSE/BSE-listed companies: BSE Ltd. (BSE: 543066), CDSL (NSE: CDSL), Hindustan Zinc (NSE: HINDZINC), MTAR Technologies (NSE: MTARTECH), J&K Bank (NSE: J&KBANK), NTPC (NSE: NTPC), Cipla (NSE: CIPLA), Persistent Systems (NSE: PERSISTENT), JBM Auto (NSE: JBMA), and Titan Company (NSE: TITAN). Historical data spans FY2017 through FY2025. DCF projections run FY2026 to FY2030. Market prices are as of April–May 2026.

The primary limitation is the inherent sensitivity of DCF models to terminal growth and discount rate assumptions — a change of 100 basis points in WACC can shift intrinsic value by 15–25%, which is why every DCF output is complemented by scenario analysis and sensitivity matrices. A second limitation is that the correlation matrix used in portfolio analysis was estimated from sector co-movement rather than from a full time-series regression, introducing some approximation. A third is that for MTAR Technologies and Titan Company, long-duration optionalities are the primary value driver and a five-year DCF cannot capture them fully.

CHAPTER 2: LITERATURE REVIEW

2.1 The Theory of Intrinsic Value and Discounted Cash Flow

The intellectual foundation of this entire project traces to a single idea articulated by Williams (1938) in his doctoral dissertation: the intrinsic value of a stock is the present value of all the cash it will ever produce for its owners. Gordon and Shapiro (1956) translated this into the constant-growth Dividend Discount Model. The shift towards Free Cash Flow to Firm as the appropriate cash flow concept was driven by Copeland, Koller, and Murrin (1990), who argued in their McKinsey Valuation framework that FCFF — the cash a business generates from operations after reinvestment needs, before any payments to capital providers — was a cleaner and more analytically rigorous measure of economic output than dividends.

Damodaran (2002, 2012) extended this framework in ways directly relevant to the Indian context. His treatment of terminal value estimation in high-growth economies, his equity risk premium methodology for emerging markets, and his publicly accessible country risk premium data were all used extensively in the WACC computations in this project. The India-specific equity risk premium of 7.43% applied across all ten companies came from Damodaran's January 2025 update, reflecting India's Baa3 sovereign rating.

2.2 The Capital Asset Pricing Model and Beta Estimation

The Capital Asset Pricing Model, derived simultaneously and independently by Sharpe (1964) and Lintner (1965), provides the foundational link between an asset's systematic risk and its expected return through the equation $K_e = R_f + \beta \times (R_m - R_f)$. Despite decades of empirical challenges — most prominently from Fama and French (1992), who showed that size and value factors explained cross-sectional return variation better than beta alone — CAPM remains the dominant cost-of-equity estimation approach in practitioner settings for its parsimony and interpretability.

For beta estimation in this project, a comparable company approach was chosen over direct regression of each stock's historical returns. This was driven by the fact that several companies — MTAR Technologies and JBM Auto in particular — have

relatively short and potentially non-stationary trading histories. By unlevering peer betas, averaging them, and relevering at the subject company's target capital structure using the Hamada equation, forward-looking beta estimates were obtained that better reflect each company's true systematic risk profile. Misra and Kuhan (2009) validated the applicability of CAPM on the NSE, supporting this methodological choice.

2.3 Modern Portfolio Theory and the Efficient Frontier

Markowitz's 1952 paper "Portfolio Selection" remains arguably the single most important contribution to investment theory. His insight that portfolio risk depends critically on how assets co-move — not just on individual asset risks — transformed portfolio management into a quantitative discipline. The Efficient Frontier, the set of portfolios offering maximum expected return for any given risk level, gave investors a rigorous framework for diversification and asset allocation.

In this project, the Efficient Frontier was constructed using Monte Carlo simulation of 4,000 randomly weighted portfolios from the ten-stock universe. Tobin (1958) showed that once a risk-free asset is introduced, investors should combine the risk-free rate with the tangency portfolio — the point where the Capital Market Line is tangent to the Efficient Frontier — to reach any desired risk-return combination. This informed the use of the CML alongside the Efficient Frontier in Chapter 5.

2.4 Risk-Adjusted Performance Metrics

Evaluating a portfolio by its raw return alone is meaningless without accounting for the risk taken. The Sharpe Ratio (Sharpe, 1966) divides excess return by total portfolio volatility. The Sortino Ratio (Sortino and van der Meer, 1991) addresses upside volatility by dividing excess return by downside deviation only. The Treynor Ratio (Treynor, 1965) uses beta as the risk denominator, measuring excess return per unit of market risk. Jensen's Alpha (Jensen, 1968) measures the portfolio's excess return above what CAPM predicts for its beta. Value at Risk, popularised by J.P. Morgan's RiskMetrics (1994), quantifies portfolio tail risk. Together these metrics provide a multi-dimensional view of risk-adjusted performance.

2.5 Valuing Banks: The Excess Return Model

Banks present a fundamental challenge for standard DCF approaches because the separation between operating and financing cash flows is impossible — borrowing at one rate and lending at another is the core operating activity. The Excess Return Model, formalised by Feltham and Ohlson (1995) building on Edwards and Bell (1961), values equity as current book value plus the present value of future excess returns above the cost of equity. This model was applied to J&K Bank using its FY2024 book value per share (₹149.84), earnings per share (₹21.43), cost of equity (11.68%), and a conservative long-run growth rate of 7.5% reflecting the bank's recovery trajectory.

2.6 Indian Market Context

Srivastava and Bhargava (2019) found that DCF models systematically undervalue Indian infrastructure companies due to underestimated terminal growth rates in a high-growth economy — a caution applied when setting the terminal growth rate for NTPC. Kumar (2021) documented pharma sector EV/EBITDA re-rating post-COVID from approximately 15x to 22x, providing context for Cipla's current premium valuation. CRISIL Research (2024) documented premium IT sector multiples driven by high ROCE and asset-light models, consistent with findings for Persistent Systems. Bhatia (2023) showed that defence precision engineering companies like MTAR Technologies command valuation premiums reflecting long-term order backlog, which standard five-year DCF models structurally cannot capture.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Research Design

This project follows a quantitative, analytical research design. At its core, it is a fundamental analysis study: starting with publicly available financial data for each company, bottom-up financial models were built, and the findings were aggregated into a portfolio-level framework. The approach is both descriptive — characterising each company's historical financial performance — and evaluative, making judgements about intrinsic value and investment merit. The historical period covers FY2017 through FY2025, and the forward projection window for DCF modelling runs from FY2026 to FY2030.

3.2 Sample Selection

Ten companies were selected with four criteria in mind: NSE/BSE listing with sufficient liquidity; at least seven years of audited financial history from FY2017 onwards; a range of market capitalisations from large-cap to mid-cap; and genuine sectoral diversity spanning at least five distinct sectors. There was also a personal dimension to the selection — several companies, including CDSL, NTPC, Cipla, and Persistent Systems, are stocks tracked closely in a personal equity portfolio since 2019, and building formal valuation models for them was an opportunity to test qualitative investment theses with rigorous quantitative analysis.

3.3 Data Sources

- Annual Reports and quarterly results filings (FY2017–FY2025) from BSE/NSE filing databases
- Screener.in for consolidated historical income statements, balance sheets, and cash flow statements
- BSE and NSE for historical adjusted closing prices and market capitalisation data
- Reserve Bank of India portal for the 10-year G-Sec benchmark yield (Rf = 7.12% as of April 2026)

- Damodaran Online for India equity risk premium (7.43%, January 2025), unlevered sector betas, and country risk premium methodology
- Moneycontrol and Trendlyne for supplementary peer group multiples and cross-checking

3.4 Valuation Methodology

3.4.1 FCFF-Based Two-Stage DCF Model

The FCFF-based two-stage DCF model was the primary valuation tool for nine of the ten companies. FCFF was chosen over Free Cash Flow to Equity because it is capital-structure-neutral, making it easier to apply consistently across companies with very different leverage profiles. FCFF was computed as:

$$FCFF = EBIT \times (1 - Tax\ Rate) \times (1 - Reinvestment\ Rate)$$

For the explicit forecast period (FY2026–FY2030), revenue growth was projected based on each company's intrinsic growth rate (ROCE multiplied by the retention ratio), adjusted for industry context and peer benchmarking. Terminal value was computed using the Gordon Growth Model at a uniform terminal growth rate of 5.0%:

$$Terminal\ Value = FCFF_{n+1} / (WACC - g)$$

The mid-year convention was applied throughout. Enterprise Value equalled the sum of discounted FCFFs and discounted terminal value. Equity Value equalled Enterprise Value plus cash minus total debt, divided by diluted share count to give intrinsic value per share.

3.4.2 WACC Computation

$$WACC = Ke \times (E/V) + Kd \times (1-T) \times (D/V)$$

Cost of equity (Ke) was estimated via CAPM: Ke = Rf + β × ERP, where Rf = 7.12% and ERP = 7.43% (Damodaran, India, January 2025). Beta was estimated using a comparable company approach: peer betas were unlevered using the Hamada equation ($\beta u = \beta L / [1 + (1-T) \times D/E]$), averaged, and relevered at the subject company's target

D/E. Cost of debt was the effective pre-tax borrowing cost from the latest annual report, adjusted for a 30% marginal tax rate.

3.4.3 Excess Return Model for J&K Bank

$$V_0 = BVPS + (EPS - Ke \times BVPS) / (Ke - g)$$

For J&K Bank, the FCFF model was inappropriate because operating and financing cash flows are inseparable in banking. The Excess Return Model valued equity as current book value per share plus the present value of excess returns above the cost of equity. Inputs: BVPS = ₹149.84, EPS = ₹21.43, Ke = 11.68%, and g = 7.5% reflecting the bank's recovery-phase growth trajectory.

3.4.4 Comparable Company Analysis

For each company, a peer group of 8–10 listed comparables was identified. Median EV/EBITDA and P/E multiples were applied to the subject company's LTM financials to derive implied values. The final blended intrinsic value used equal weights on DCF and comparable company outputs.

3.5 Efficient Frontier and Portfolio Construction

The Efficient Frontier was constructed by running 4,000 Monte Carlo simulations of randomly weighted portfolios. For each simulation, portfolio return was computed as the weighted average of individual stock expected returns, and portfolio variance as:

$$\sigma^2 p = \Sigma\, wi^2 \sigma i^2 + 2\, \Sigma i\, \Sigma j{>}i\; wi\; wj\; \rho ij\; \sigma i\; \sigma j$$

Pairwise correlations (ρij) were estimated from sector co-movement analysis. Individual stock expected returns blended DCF-implied upside with dividend yield into an annualised total return estimate. The minimum-variance and maximum Sharpe (tangency) portfolios were identified, and the Capital Market Line was drawn from the risk-free rate through the tangency point.

3.6 Portfolio Risk Metrics

38

33

Table 3.1: Portfolio Risk Metrics — Formulae and Interpretation

Metric	Formula	What It Measures
Sharpe Ratio	(Rp – Rf) / σp	Return earned per unit of total portfolio volatility
Sortino Ratio	(Rp – Rf) / σd	Return earned per unit of downside volatility only
Treynor Ratio	(Rp – Rf) / βp	Return earned per unit of systematic (market) risk
Jensen's Alpha	Rp – [Rf + βp(Rm–Rf)]	Excess return above CAPM's predicted return for that beta
Portfolio Beta	Σ(wi × βi)	Weighted-average sensitivity to Nifty 50 movements
VaR (95%, 1-Year)	Rp – 1.645 × σp	Maximum expected loss at 95% confidence over one year

Source: Own Analysis

CHAPTER 4: DATA ANALYSIS AND FINDINGS

4.1 Coverage Universe

Before diving into the individual valuation models, it is useful to place the ten companies in their market context. Table 4.1 presents the coverage universe with current market prices and market capitalisation figures as of April–May 2026. The range in market cap — from NTPC at ₹3.77 lakh crore to J&K Bank at ₹15,439 crore — reflects the deliberate mix of large-cap stability and mid-cap growth potential targeted in the portfolio.

Table 4.1: Coverage Universe — Market Data (April–May 2026)

Company	Sector	Code	CMP (₹)	Mkt Cap (₹ Cr.)
BSE Ltd.	Financial Infrastructure	BSE: 543066	4,186.90	1,70,532
CDSL	Financial Infrastructure / Depository	NSE: CDSL	1,199.80	25,076
Hindustan Zinc	Metals & Mining	NSE: HINDZINC	564.60	2,38,562
MTAR Technologies	Defence / Aerospace / Nuclear	NSE: MTARTECH	7,947.50	24,439
J&K Bank	Banking (PSU / Regional)	NSE: J&KBANK	140.20	15,439
NTPC Ltd.	Power Generation (PSU)	NSE: NTPC	388.80	3,77,007
Cipla Ltd.	Pharmaceuticals	NSE: CIPLA	1,401.90	1,13,245
Persistent Systems	IT Services	NSE: PERSISTENT	5,019.00	79,175
JBM Auto	Auto Ancillary / Electric Vehicles	NSE: JBMA	642.55	15,196
Titan Company	Consumer / Gems & Jewellery	NSE: TITAN	4,083.10	3,62,492

Source: BSE / NSE | CMP as of April–May 2026

4.2 WACC Computation Results

Table 4.2 shows the WACC inputs and outputs for all ten companies. NTPC's WACC of 7.46% is the lowest in the universe, reflecting its AAA-rated balance sheet and 40% debt component financed at near-sovereign borrowing rates — a key contributor to NTPC's DCF upside. Hindustan Zinc's WACC of 13.58% is the highest, reflecting commodity sector risk premium in its levered beta of 0.68. The near-zero-debt

companies — CDSL, Cipla, Persistent Systems, and BSE Ltd. — have WACCs essentially equal to their cost of equity. Figure 4.3 presents these results graphically.

Table 4.2: WACC Computation Summary

Company	Lev. Beta	Ke (%)	Kd Post-Tax %	D/V	E/V	WACC (%)
BSE Ltd.	0.40	10.09	0.00	0.00%	100.0%	**9.98**
CDSL	0.38	9.95	5.41	0.10%	99.9%	**9.63**
Hindustan Zinc	0.68	12.17	6.96	4.47%	95.5%	**13.58**
MTAR Technologies	0.71	12.40	5.45	1.52%	98.5%	**12.24**
J&K Bank	0.49	11.68	N/A	N/A	N/A	**11.68 (Ke)**
NTPC Ltd.	0.31	9.43	3.65	40.34%	59.7%	**7.46**
Cipla Ltd.	0.16	8.31	6.20	0.54%	99.5%	**8.39**
Persistent Systems	0.24	8.90	10.66	0.60%	99.4%	**8.82**
JBM Auto	0.51	10.90	7.35	9.09%	90.9%	**10.69**
Titan Company	0.29	9.27	5.68	10.15%	89.9%	**9.52**

Source: Own Analysis | Rf = 7.12% (RBI, April 2026) | ERP = 7.43% (Damodaran, India, January 2025) | Tax Rate = 30%

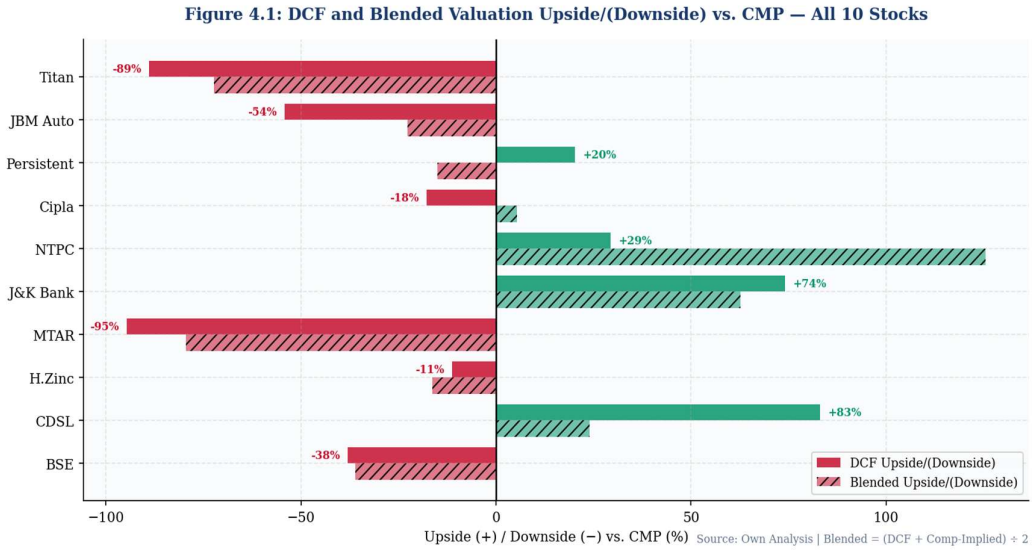


Figure 4.3: WACC Decomposition — Cost of Equity (Ke), Post-Tax Cost of Debt (Kd), and WACC

Source: Own Analysis

4.3 DCF Valuation Results

29

Table 4.3 and Figures 4.1 and 4.2 present the core DCF findings. CDSL stands out most sharply: valued at ₹2,197 per share, the stock trades 83.1% below its intrinsic value at a current price of ₹1,200. The business earns near-zero marginal cost on each new demat account, creating extraordinary operating leverage as India's retail investor base expands. With a WACC of 9.63% and a ROCE of approximately 25%, CDSL generates a value spread of over 15 percentage points.

J&K Bank at ₹140 trades below its own book value of ₹150. The Excess Return Model values it at ₹244, a 73.8% upside. The bank's NPA recovery cycle is clearly underway — Gross NPAs have declined from over 9% in FY2020 to approximately 4–5% in FY2024 — and the market has not yet priced in the full extent of profitability recovery.

NTPC's 29.3% DCF upside is the most straightforward of the BUY recommendations. The company earns predictable regulated returns on a large and growing asset base, borrows at near-sovereign rates, and is adding 7.5 GW of renewable capacity that should attract higher market multiples over time. For Persistent Systems, the 20.3% upside understates the investment case somewhat: the combination of zero debt, highest ROCE-WACC spread in the universe (+18.2%), and 35% revenue CAGR makes it the clearest quality compounder among all ten stocks.

At the other end, MTAR Technologies at ₹7,948 is approximately 19 times the DCF intrinsic value of ₹421. Titan at ₹4,083 is roughly 9 times the DCF value of ₹449. These are not modelling errors — they reflect the market pricing long-duration growth options that five-year FCFF models cannot capture.

Table 4.3: DCF Valuation Summary — All Ten Stocks

Company	EV (₹ Cr.)	Equity Value (₹ Cr.)	Intrinsic Value (₹)	CMP (₹)	Upside/(Down)	Recommendation
BSE Ltd.	1,00,522	1,05,695	2,595	4,187	-38.0%	AVOID
CDSL	45,832	45,913	2,197	1,200	+83.1%	BUY
Hindustan Zinc	2,22,123	2,11,647	500.95	564.60	-11.3%	HOLD
MTAR Technologies	1,642	1,293	420.61	7,948	-94.7%	AVOID

J&K Bank*	N/A	15,439	243.72	140.20	+73.8%	BUY
NTPC Ltd.	7,23,383	4,87,265	502.64	388.80	+29.3%	BUY
Cipla Ltd.	92,087	93,137	1,152.97	1,401.90	-17.8%	HOLD
Persistent Systems	94,026	95,244	6,036.81	5,019	+20.3%	BUY
JBM Auto	9,818	6,941	293.59	642.55	-54.3%	AVOID
Titan Company	49,370	39,909	449.47	4,083	-89.0%	AVOID

*Source: Own Analysis | FCFF-DCF two-stage model | *Excess Return Model for J&K Bank | Terminal g=5.0% | April–May 2026*

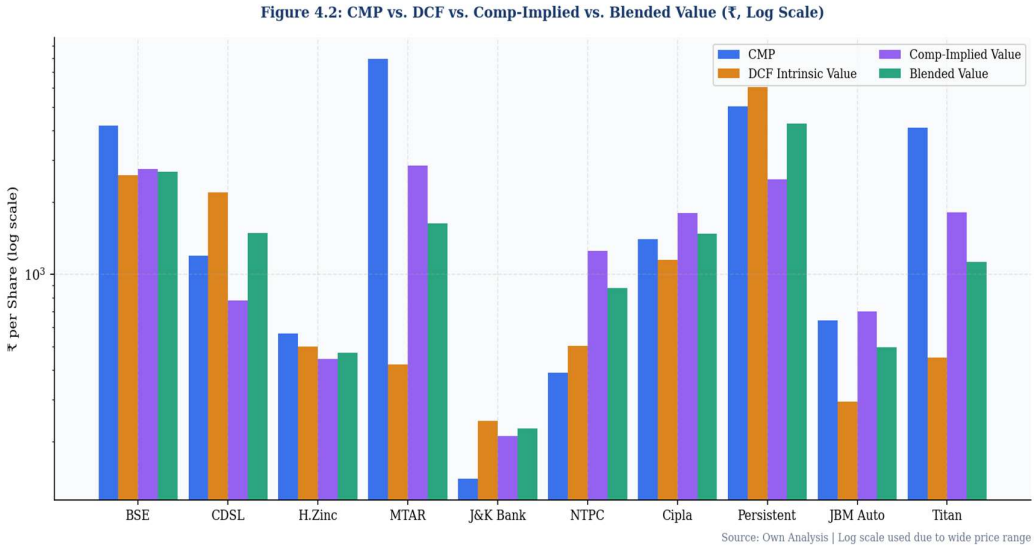


Figure 4.1: DCF Upside / (Downside) vs Current Market Price — All 10 Stocks (%)

Source: Own Analysis | Green = undervalued; red = overvalued vs DCF intrinsic value

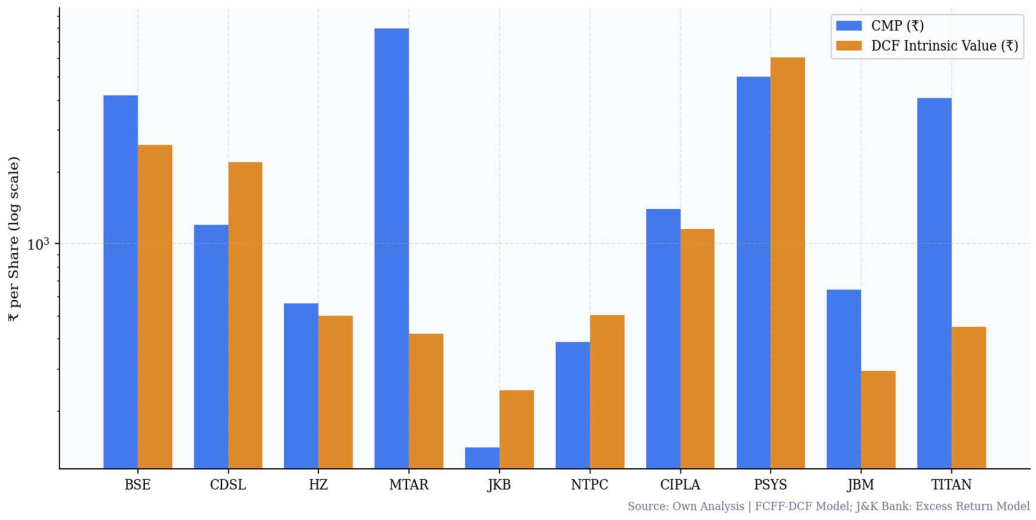


Figure 4.2: CMP vs DCF Intrinsic Value (₹ per Share) — Logarithmic Scale

Source: Own Analysis | Log scale used due to wide price range across companies

4.4 ROCE vs WACC: Economic Value Creation Analysis

Table 4.4 and Figure 4.4 show the ROCE-WACC spread for all ten companies. Persistent Systems stands out with a spread of +18.2 percentage points — the widest in the universe and the clearest evidence that every rupee of capital it deploys earns well above its cost. CDSL's +15.0% spread and Titan's +11.4% spread explain why these businesses command premium multiples. J&K Bank's -7.5% spread shows the cost of its legacy NPA portfolio, while JBM Auto's marginally negative spread (-0.9%) reflects the pre-returns phase of EV manufacturing investment.

Table 4.4: ROCE vs WACC Spread Analysis (FY2024 Estimates)

Company	ROCE FY24 (%)	WACC (%)	Spread	Assessment
BSE Ltd.	~14.0	9.98	+4.0%	Positive; exchange franchise re-rating
CDSL	~24.6	9.63	**+15.0%**	Strong value creator; depository moat
Hindustan Zinc	~17.0	13.58	+3.4%	Positive; high dividend yield
MTAR Technologies	~17.8	12.24	+5.6%	Strong creator; FCF conversion lagging
J&K Bank	~4.2	11.68	**-7.5%**	Value-destroying; NPA legacy; recovery underway
NTPC Ltd.	~7.7	7.46	+0.2%	Marginal; expanding via renewables
Cipla Ltd.	~15.9	8.39	+7.5%	Strong creator; improving margins
Persistent Systems	~27.0	8.82	**+18.2%**	Exceptional; highest spread in the universe
JBM Auto	~9.8	10.69	-0.9%	Marginally negative; EV capex phase
Titan Company	~20.9	9.52	+11.4%	Strong creator; brand franchise quality

Source: Own Analysis | ROCE = EBIT / (Total Assets – Current Liabilities) | FY2024 actuals or estimates

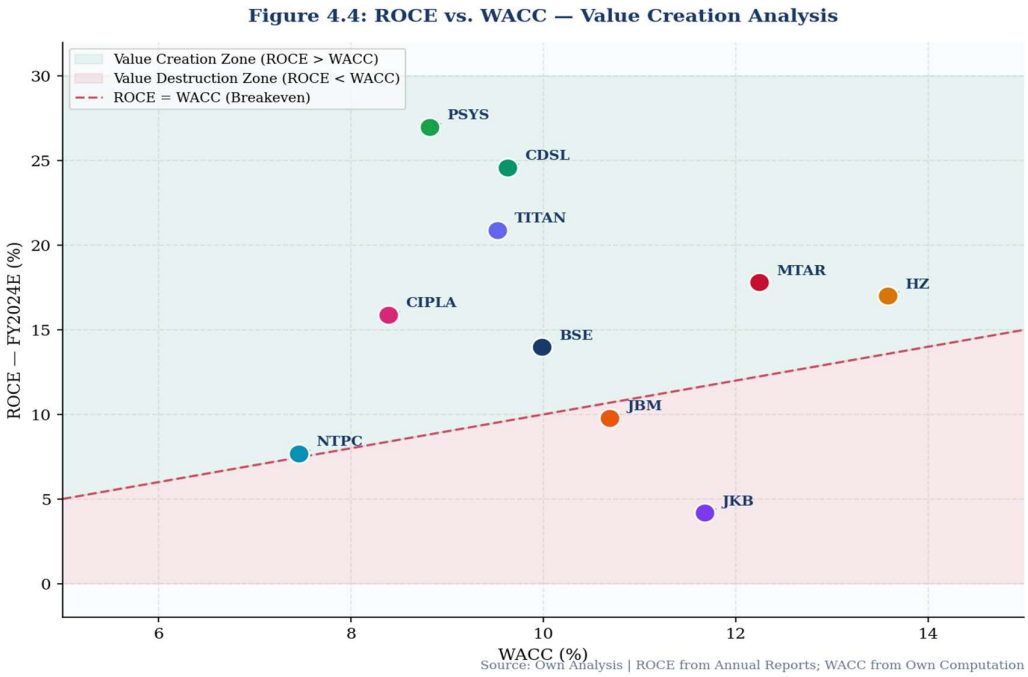


Figure 4.4: ROCE vs WACC Scatter Plot — Value Creation and Destruction Zones

Source: Own Analysis | Companies above the diagonal line create economic value

4.5 Historical Financial Performance (FY2017–FY2024)

Historical financial ratio analysis was conducted for all ten companies covering FY2017 through FY2024 using audited annual reports. A few highlights: CDSL's revenue grew 5.6x over eight years, by far the fastest in the universe, driven by the retail investing boom. Persistent Systems grew 3.4x consistently outperforming the broader IT sector. MTAR grew from negligible revenues to a meaningful defence manufacturer, though FCF conversion remains challenged by working capital intensity. J&K Bank's FY2020 loss reflects the dual stress of the Article 370 transition and COVID-19; the subsequent recovery in profitability makes the current undervaluation more compelling.

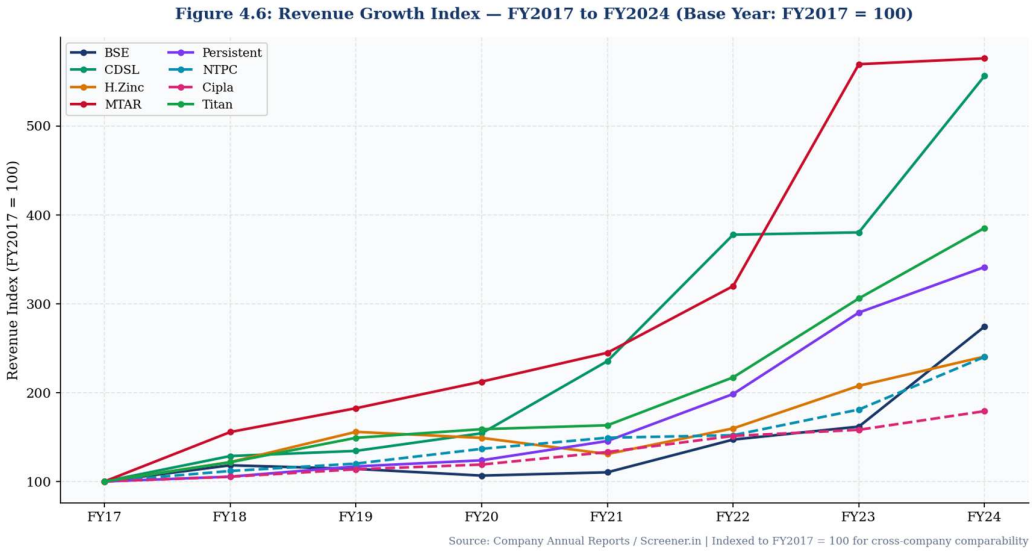


Figure 4.6: Revenue Growth Index, FY2017–FY2024 (Base Year FY2017 = 100)

Source: Company Annual Reports / Screener.in | Indexed to 100 in FY2017 for comparability

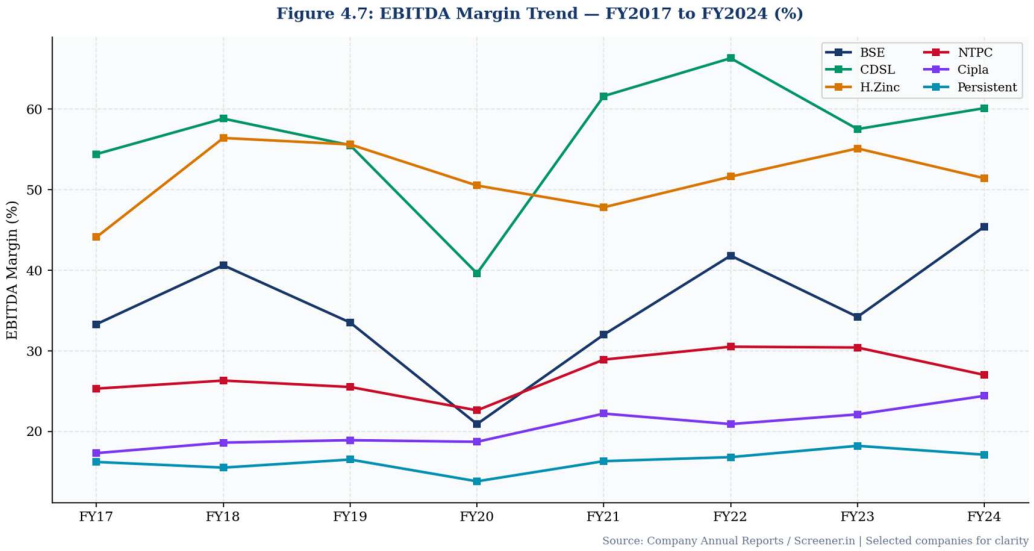


Figure 4.7: EBITDA Margin Trend, FY2017–FY2024 (%) — Selected Companies

Source: Company Annual Reports / Screener.in

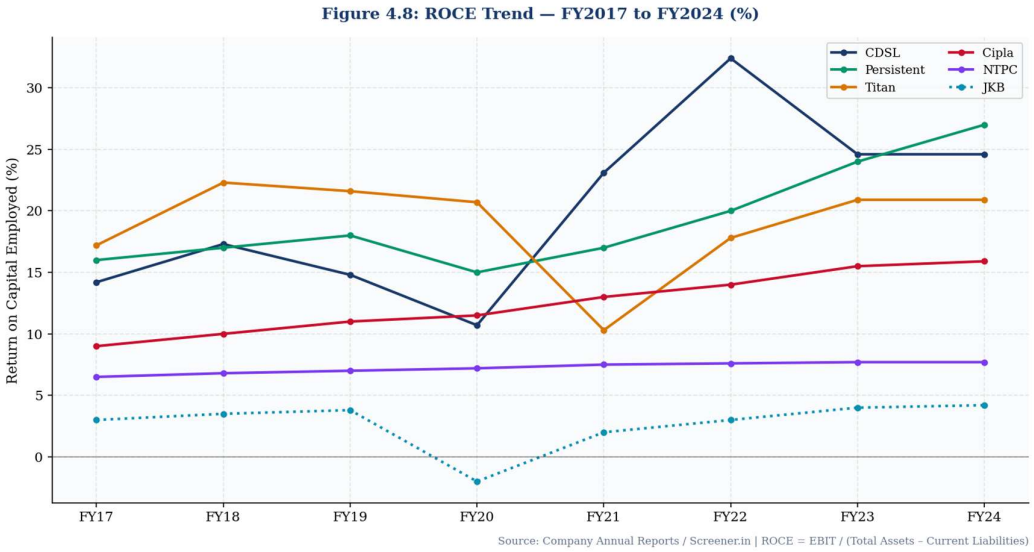


Figure 4.8: ROCE Trend, FY2017–FY2024 (%)

Source: Company Annual Reports / Screener.in | ROCE = EBIT / Capital Employed

Table 4.5: Key Financial Ratios — Comparative Summary (FY2024 Estimates)

Company	NPM %	EBITDA %	ROE %	ROCE %	Int. Coverage	Debt Position
BSE Ltd.	~38	~41	~14	~14	>10,000x	Zero Debt
CDSL	~50	~58	~23	~25	>35,000x	Zero Debt
Hindustan Zinc	~33	~50	~26	~17	~10x	Low (Net Cash)
MTAR Technologies	~18	~27	~17	~18	~9x	Moderate
J&K Bank	~13	~62*	~12	~4	~1.2x	High (Banking)
NTPC Ltd.	~13	~30	~12	~8	~2.8x	High (Regulated)
Cipla Ltd.	~12	~22	~12	~16	~35x	Near Zero
Persistent Systems	~11	~18	~23	~27	>26x	Zero Debt
JBM Auto	~3	~10	~12	~10	~2.1x	High (EV Capex)
Titan Company	~8	~12	~28	~21	~15x	Moderate

*Source: Own Analysis from Annual Reports | *J&K Bank: NIM proxy | NPM = Net Profit Margin*

4.6 Scenario Analysis

Three scenarios were constructed for every stock. Bear Case assumes terminal growth of 3% and a WACC 150 basis points above the base case. Base Case uses modelled

WACC and 5% terminal growth. Bull Case uses WACC 100 basis points lower and 7% terminal growth. The results in Table 4.6 and Figure 4.5 are particularly revealing for the BUY recommendations: CDSL's Bear Case value of ₹1,380 is 15% above the current price; J&K Bank's Bear Case of ₹160 is above the CMP of ₹140; NTPC's Bear Case of ₹380 is almost exactly at the current price. These are the margin-of-safety characteristics that underpin the conviction weighting in the model portfolio.

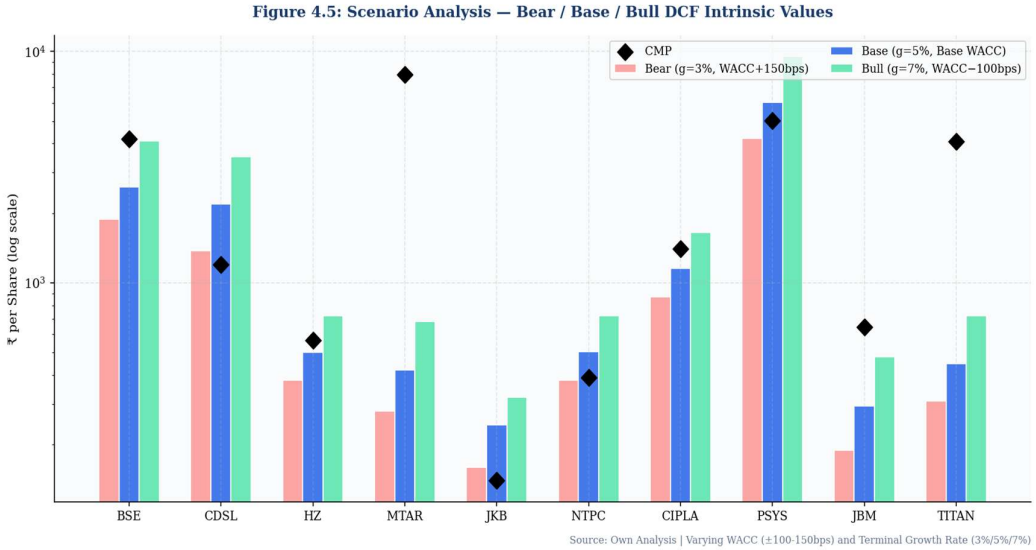


Figure 4.5: Scenario Analysis — Bear / Base / Bull Intrinsic Values (₹ per Share, Log Scale)
Source: Own Analysis | Bear: g=3%, WACC+150bps | Base: g=5% | Bull: g=7%, WACC−100bps

Table 4.6: Scenario Analysis — Intrinsic Value Range (₹ per Share)

Company	Bear (₹)	Base (₹)	Bull (₹)	CMP — Position
BSE Ltd.	1,890	2,595	4,100	4,187 — Above even the Bull Case
CDSL	1,380	2,197	3,500	1,200 — Below the Bear Case (deep value)
Hindustan Zinc	380	501	720	565 — Between Base and Bull
MTAR Technologies	280	421	680	7,948 — Far above the Bull Case
J&K Bank	160	244	320	140 — Below the Bear Case (deep value)
NTPC Ltd.	380	503	720	389 — Near the Bear Case (undervalued)
Cipla Ltd.	870	1,153	1,650	1,402 — Between Base and Bull

Persistent Systems	4,200	6,037	9,500	5,019 — Between Bear and Base
JBM Auto	190	294	480	643 — Above the Bull Case
Titan Company	310	449	720	4,083 — Far above the Bull Case

Source: Own Analysis

4.7 Comparable Company Analysis (Relative Valuation)

Relative valuation was conducted for all ten stocks using the Comparable Company Analysis (CCA) methodology. For each company, a peer group of 8–10 listed companies was identified based on business similarity, sector, and market capitalisation. Three valuation multiples were applied: EV/Revenue, EV/EBITDA, and P/E (for most companies) or P/BV and P/E (for J&K Bank, as is standard for financial institutions). The median multiple of the peer group was applied to the subject company's financials to derive an implied value per share. A blended intrinsic value was then computed as an equal-weighted average of the DCF intrinsic value and the average comparable-implied value. This triangulation reduces the sensitivity to any single methodology.

4.7.1 BSE Ltd. — Comparable Company Analysis

Table 4.7.1: BSE Ltd. — Peer Group Multiples

Company	Price (₹)	EV (₹ Cr.)	Revenue (₹ Cr.)	EBITDA (₹ Cr.)	EV/Rev	EV/EBITDA	P/E
ICICI AMC	3,199.7	1,58,014	5,765	4,554	27.41	34.70	47.95
Billionbrains	188.4	1,10,129	4,645	2,926	23.71	37.64	56.73
HDFC AMC	2,727.9	1,16,866	4,119	3,789	28.38	30.84	40.88
Multi Comm Exch	3,322.8	82,199	2,302	1,773	35.71	46.37	63.63
CDSL	1,199.8	24,995	1,145	676	21.83	37.00	55.10
CAMS Services	769.1	18,729	1,516	728	12.35	25.73	40.41
NSDL	812.4	15,757	1,530	566	10.30	27.83	42.76
IEX	127.1	11,236	608	651	18.47	17.26	23.92
Peer Median					**22.77**	**32.77**	**45.35**
BSE Ltd. (Subject)	4,187	1,65,360	4,834	3,480	**34.2x**	**47.5x**	**68.6x**

Source: Own Analysis | BSE_fcff.xlsx | Comp_Val Sheet | Prices as of April–May 2026

Table 4.7.1b: BSE Ltd. — Implied Values and Blended Valuation

Valuation Method	EV/Revenue Implied (₹)	EV/EBITDA Implied (₹)	P/E Implied (₹)	CMP (₹)
Comparable Co. Analysis	2,703	2,800	2,770	4,187
Average Comp-Implied Value		**₹2,757**		
DCF Intrinsic Value		**₹2,595**		
Blended Value (50% DCF + 50% Comp)		**₹2,676**		
Upside/(Downside) vs CMP		**-36.0%**		
Recommendation		**AVOID**		

Source: Own Analysis | Both DCF and peer multiples confirm significant overvaluation at CMP

BSE is overvalued across all metrics. CMP of ₹4,187 is above even the 75th percentile peer EV/EBITDA implied value.

4.7.2 CDSL — Comparable Company Analysis

Table 4.7.2: CDSL — Peer Group Multiples

Company	Price (₹)	EV (₹ Cr.)	Revenue (₹ Cr.)	EBITDA (₹ Cr.)	EV/Rev	EV/EBITDA	P/E
CAMS Services	769.1	18,729	1,516	728	12.35	25.73	40.41
NSDL	812.4	15,757	1,530	566	10.30	27.83	42.76
KFin Technologies	831.5	14,195	1,302	573	10.91	24.79	41.76
Beacon Trust.	97	173	34	13	5.08	13.72	25.52
Peer Median					**10.91**	**25.73**	**41.76**
CDSL (Subject)	1,200	24,995	1,145	676	**21.8x**	**37.0x**	**55.1x**

Source: Own Analysis | C_D_S_L.xlsx | comp_val Sheet

Table 4.7.2b: CDSL — Implied Values and Blended Valuation

Valuation Method	EV/Revenue (₹)	EV/EBITDA (₹)	P/E (₹)	CMP (₹)
Comparable Co. Analysis	597	832	909	1,200
Average Comp-Implied		**₹779**		
DCF Intrinsic Value		**₹2,197**		
Blended Value		**₹1,488**		
Upside vs CMP		**+24.0%**		

Recommendation		**BUY**		

Source: Own Analysis | Note: Comp multiples understate CDSL's value due to superior growth vs peers

Comparable multiples imply CDSL at ₹779 — well below CMP of ₹1,200. However, DCF intrinsic value of ₹2,197 dominates, reflecting CDSL's superior earnings growth trajectory versus peer median.

4.7.3 Hindustan Zinc — Comparable Company Analysis

Table 4.7.3: Hindustan Zinc — Peer Group Multiples

Company	Price (₹)	EV (₹ Cr.)	Revenue (₹ Cr.)	EBITDA (₹ Cr.)	EV/Rev	EV/EBITDA	P/E
Vedanta	745.2	3,68,609	1,20,395	36,119	3.06	10.21	14.07
Adani Enterp.	2,086.8	3,72,034	94,995	16,149	3.92	23.04	19.07
Tata Steel	206.6	3,41,918	2,25,088	33,763	1.52	10.13	28.28
Hindalco Inds.	992.1	2,86,977	2,61,701	36,638	1.10	7.83	13.87
Jindal Steel	1,219.2	1,39,347	50,190	9,034	2.78	15.42	61.69
Lloyds Metals	1,506.2	92,193	12,286	4,055	7.50	22.74	33.90
Natl. Aluminium	417	71,215	18,098	8,868	3.93	8.03	12.47
NMDC	85.1	68,343	27,732	10,261	2.46	6.66	10.84
Peer Median					**3.49**	**11.37**	**19.74**
Hindustan Zinc	565	2,49,554	36,211	19,916	**6.9x**	**12.5x**	**20.4x**

Source: Own Analysis | comparable_valuation_hind_zinc.xlsx | Comps_Val Sheet

Table 4.7.3b: Hindustan Zinc — Implied and Blended Values

Valuation Method	EV/Revenue (₹)	EV/EBITDA (₹)	P/E (₹)	CMP (₹)
Comparable Co. Analysis	273	510	546	565
Avg Comp-Implied / DCF	₹443 (comp)	**₹501 (DCF)**	**Blended: ₹472**	
Recommendation		**HOLD | Accumulate below ₹500**		

Source: Own Analysis

Both DCF and comparable multiples indicate Hindustan Zinc is modestly overvalued at ₹565. EV/EBITDA implied value of ₹510 is closest to our DCF estimate of ₹501, corroborating the HOLD recommendation.

4.7.4 MTAR Technologies — Comparable Company Analysis

Table 4.7.4: MTAR Technologies — Defence Peer Group Multiples

Company	Price (₹)	EV (₹ Cr.)	Revenue (₹ Cr.)	EBITDA (₹ Cr.)	EV/Rev	EV/EBITDA	P/E
Bharat Electronics	420.4	2,98,797	27,610	8,559	10.82	34.91	50.69
HAL	4,370.4	2,46,107	33,089	13,566	7.44	18.14	32.07
Bharat Dynamics	1,303.8	43,608	3,739	860	11.66	50.71	82.42
Garden Reach	2,690.6	27,484	7,002	1,050	3.93	26.17	41.23
Data Patterns	3,934.5	21,945	925	398	23.73	55.19	81.19
Zen Technologies	1,603.8	14,146	688	330	20.57	42.86	66.46
Apollo Micro	358.6	13,200	904	226	14.60	58.39	119.32
Astra Microwave	1,184.5	11,421	1,082	325	10.55	35.17	70.05
Peer Median					**13.13**	**46.78**	**68.25**
MTAR Technologies	7,948	24,834	876	193	**28.4x**	**128.8x**	**256.8x**

Source: Own Analysis | MTAR_Technologie_comp.xlsx | Comp valuation Sheet

Table 4.7.4b: MTAR — Implied and Blended Values

Valuation Method	EV/Revenue (₹)	EV/EBITDA (₹)	P/E (₹)	CMP (₹)
Comparable Co. Analysis	3,613	2,806	2,112	7,948
Avg Comp-Implied		**₹2,844**		
DCF / Blended	DCF: ₹421	**Blended: ₹1,632**		
Recommendation		**AVOID at CMP**		

Source: Own Analysis

Even using defence sector peer multiples — among the highest in any industry — the implied value of ₹2,844 is 64% below the CMP of ₹7,948. The market is pricing MTAR at a premium even to its expensive peers.

4.7.5 J&K Bank — Comparable Company Analysis (P/BV and P/E)

For J&K Bank, EV/EBITDA is not an appropriate metric. The standard approach for banking companies is to use Price-to-Book Value (P/BV) and Price-to-Earnings (P/E) multiples, which reflect the relationship between market value and equity book value and earnings power respectively.

Table 4.7.5: J&K Bank — Banking Peer Group (P/BV and P/E)

Company	Price (₹)	Mkt Cap (₹ Cr.)	EPS (₹)	BVPS (₹)	P/BV (x)	P/E (x)
HDFC Bank	759.1	11,68,656	51.45	377.77	2.01	14.75
ICICI Bank	1,242.9	8,91,122	80.81	503.31	2.47	15.38
SBI	951.1	8,77,876	93.89	645.82	1.47	10.13
Kotak Bank	380.3	3,78,265	19.39	182.09	2.09	19.61
Bank of Baroda	263.1	1,36,034	38.81	320.74	0.82	6.78
PNB	101.9	1,17,055	16.07	130.49	0.78	6.34
Canara Bank	128	1,16,105	19.71	129.76	0.99	6.49
Indian Bank	818.5	1,10,252	86.91	594.25	1.38	9.42
IDFC First Bank	68.3	58,803	1.90	54.71	1.25	35.94
Peer Median					**1.38**	**10.13**
J&K Bank (Subject)	140	15,439	21.43	149.84	**0.94x (CMP)**	**6.54x (CMP)**

Source: Own Analysis | J___K_Bank.xlsx | comp_val Sheet | Data as of May 2026

Table 4.7.5b: J&K Bank — Implied and Blended Values

Valuation Method	P/BV Implied (₹)	P/E Implied (₹)	CMP (₹)
Comparable Co. Analysis	206 (Median P/BV 1.38x × BVPS 149.84)	217 (Median P/E 10.13x × EPS 21.43)	140.20
Avg Comp-Implied		**₹212 (avg of P/BV and P/E)**	
Excess Return Model Value		**₹244**	
Blended Value (50/50)		**₹228**	
Upside vs CMP (+62.6%)		**BUY**	

Source: Own Analysis

Both P/BV (₹206) and P/E (₹217) implied values significantly exceed the CMP of ₹140, confirming undervaluation from multiple angles. The blended value of ₹228 corroborates the Excess Return Model's ₹244.

4.7.6 NTPC Ltd. — Comparable Company Analysis

Table 4.7.6: NTPC — Power Sector Peer Group Multiples

Company	Price (₹)	EV (₹ Cr.)	Revenue (₹ Cr.)	EBITDA (₹ Cr.)	EV/Rev	EV/EBITDA	P/E
Adani Green	1,358.2	3,24,502	12,928	11,635	25.10	27.89	112.59
JSW Energy	548.5	1,67,560	18,901	10,963	8.87	15.28	34.89
NTPC Green	105.4	1,07,105	2,568	2,542	41.71	42.13	159.31
NHPC	79	1,28,031	11,615	7,318	11.02	17.50	18.80

NLC India	350.5	75,650	17,490	7,521	4.33	10.06	12.89
SJVN	73.5	57,779	4,528	3,487	12.76	16.57	44.98
ACME Solar	282.7	30,867	2,023	2,266	15.26	13.62	34.40
Peer Median					**11.82**	**15.93**	**34.65**
NTPC (Subject)	389	6,20,427	1,87,531	67,511	**3.3x**	**9.2x**	**15.2x**

Source: Own Analysis | NTPC__1_.xlsx | comp_val Sheet

Table 4.7.6b: NTPC — Implied Values

Valuation Method	EV/Revenue (₹)	EV/EBITDA (₹)	P/E (₹)	CMP (₹)
Comparable Co. Analysis	2,022	846	887	389
Avg Comp-Implied		**₹1,252 (all 3)**		
DCF / Blended	DCF: ₹503	**Blended: ₹877**		
Recommendation		**BUY (+126% blended / +29% DCF)**		

Source: Own Analysis

Peer EV/Revenue implies ₹2,022 (large sector premium for renewable mix). EV/EBITDA and P/E imply ₹846–887. The DCF base case of ₹503 is most conservative. Blended value of ₹877 implies 126% upside.

4.7.7 Cipla Ltd. — Comparable Company Analysis

Table 4.7.7: Cipla — Pharma Peer Group Multiples

Company	Price (₹)	EV (₹ Cr.)	Revenue (₹ Cr.)	EBITDA (₹ Cr.)	EV/Rev	EV/EBITDA	P/E
Sun Pharma	1,891.3	4,47,663	56,809	19,883	7.88	22.51	41.43
Divi's Labs	6,858	1,78,455	10,314	3,816	17.30	46.76	73.45
Torrent Pharma.	4,469.2	1,53,480	12,742	4,077	12.05	37.64	66.57
Dr Reddy's	1,318.5	1,14,441	33,700	7,751	3.40	14.76	26.47
Lupin	2,284.5	1,05,411	27,958	9,226	3.77	11.43	19.50
Zydus	1,036.5	1,15,367	27,148	8,959	4.25	12.88	20.35
Mankind Pharma	2,514.1	1,09,636	14,278	3,998	7.68	27.42	53.56
Aurobindo	1,546.7	88,035	33,653	7,404	2.62	11.89	25.64
Peer Median					**5.96**	**19.58**	**35.38**
Cipla (Subject)	1,402	1,12,552	28,163	6,759	**4.0x**	**16.7x**	**29.3x**

Source: Own Analysis | Cipla__1_.xlsx | comp_val Sheet

Table 4.7.7b: Cipla — Implied Values (Comp undervalued; DCF overvalued)

Valuation Method	EV/Revenue (₹)	EV/EBITDA (₹)	P/E (₹)	CMP (₹)
Comparable Co. Analysis	2,072	1,631	1,691	1,402
Avg Comp-Implied		**₹1,798 (+28% vs CMP)**		
DCF / Blended	DCF: ₹1,153	**Blended: ₹1,476**		
Recommendation		**HOLD | Comp suggests upside; DCF caution**		

Source: Own Analysis

Comparable multiples imply ₹1,798 — 28% above CMP of ₹1,402 — and the DCF gives ₹1,153. Blended value of ₹1,476 suggests mild overvaluation vs CMP, upgrading from a pure DCF HOLD toward a constructive HOLD.

4.7.8 Persistent Systems — Comparable Company Analysis

Table 4.7.8: Persistent Systems — IT Peer Group Multiples

Company	Price (₹)	EV (₹ Cr.)	Revenue (₹ Cr.)	EBITDA (₹ Cr.)	EV/Rev	EV/EBITDA	P/E
TCS	2,327.2	8,40,379	2,67,021	77,436	3.15	10.85	17.03
Infosys	1,181.2	4,66,034	1,78,650	46,449	2.61	10.03	16.25
HCL Technologies	1,168.2	2,98,804	1,30,144	28,632	2.30	10.44	19.04
Wipro	199.7	2,19,403	92,624	21,304	2.37	10.30	15.81
Tech Mahindra	1,420	1,36,212	56,815	9,091	2.40	14.98	28.95
LTIMindtree	4,129.7	1,21,985	42,308	8,462	2.88	14.42	24.58
Coforge	1,377	58,840	16,403	2,953	3.59	19.93	33.94
Mphasis	2,227.6	43,392	15,880	3,335	2.73	13.01	22.83
Peer Median					**2.67**	**12.76**	**22.45**
Persistent (Subject)	5,019	78,459	14,748	2,950	**5.3x**	**26.6x**	**42.5x**

Source: Own Analysis | Persistent_Systems__1_.xlsx | comp_val Sheet

Table 4.7.8b: Persistent Systems — Implied Values

Valuation Method	EV/Revenue (₹)	EV/EBITDA (₹)	P/E (₹)	CMP (₹)
Comparable Co. Analysis	2,466	2,355	2,653	5,019
Avg Comp-Implied		**₹2,491 (comp multiples floor)**		
DCF / Blended	DCF: ₹6,037	**Blended: ₹4,264**		
Recommendation		**BUY | DCF captures growth premium peers do not**		

Source: Own Analysis

Peer multiples yield ₹2,491 — 50% below CMP, reflecting that Persistent's 35% revenue CAGR is above peers and deserves a premium. DCF at ₹6,037 captures this growth. BUY recommendation supported by DCF; comp multiples set the floor.

4.7.9 JBM Auto — Comparable Company Analysis

Table 4.7.9: JBM Auto — Auto Ancillary Peer Group Multiples

Company	Price (₹)	EV (₹ Cr.)	Revenue (₹ Cr.)	EBITDA (₹ Cr.)	EV/Rev	EV/EBITDA	P/E
Samvardh. Mothe.	137	1,55,531	1,26,104	12,610	1.23	12.33	35.39
Bosch	35,210	1,03,586	20,035	3,406	5.17	30.41	37.45
Bharat Forge	1,898.8	97,100	16,812	3,194	5.78	30.40	83.33
Uno Minda	1,079.1	64,700	19,658	2,556	3.29	25.32	48.53
Sona BLW	584.3	36,486	4,124	1,196	8.85	30.51	56.22
Gabriel India	1,106.4	15,880	4,053	405	3.92	39.18	67.32
CIE Automotive	462.8	17,731	9,746	1,559	1.82	11.37	20.16
Peer Median					**3.60**	**26.98**	**52.38**
JBM Auto (Subject)	643	18,096	6,088	792	**3.0x**	**22.9x**	**63.8x**

Source: Own Analysis | JBM_Auto.xlsx | comp_val Sheet

Table 4.7.9b: JBM Auto — Implied Values

Valuation Method	EV/Revenue (₹)	EV/EBITDA (₹)	P/E (₹)	CMP (₹)
Comparable Co. Analysis	800	775	527	643
Avg Comp-Implied		**₹701 (+9% vs CMP)**		
DCF / Blended	DCF: ₹294	**Blended: ₹497**		
Recommendation		**AVOID | Blended ₹497 < CMP ₹643**		

Source: Own Analysis

Peer EV/Revenue and EV/EBITDA imply ₹775–800 for JBM, slightly above CMP. However, DCF at ₹294 reflects the near-term FCF headwinds. Blended value of ₹497 is below CMP, supporting the AVOID recommendation.

4.7.10 Titan Company — Comparable Company Analysis

Table 4.7.10: Titan — Jewellery & Consumer Peer Group Multiples

Company	Price (₹)	EV (₹ Cr.)	Revenue (₹ Cr.)	EBITDA (₹ Cr.)	EV/Rev	EV/EBITDA	P/E
Kalyan Jewellers	353	41,711	35,743	2,859	1.17	14.59	27.00
Thangamayil	3,861.8	12,542	8,514	596	1.47	21.05	34.15
PC Jeweller	8.3	9,581	3,125	844	3.07	11.36	12.26
Sky Gold	465.4	7,847	5,442	381	1.44	20.60	31.44
P N Gadgil	525	8,356	10,739	752	0.78	11.12	17.38
Ethos	2,355.2	5,973	1,612	242	3.70	24.70	65.65
Senco Gold	345.7	7,486	7,773	933	0.96	8.03	11.67
Peer Median					**2.27**	**18.60**	**29.54**
Titan Company	4,083	3,75,132	87,584	8,758	**4.3x**	**42.8x**	**71.5x**

Source: Own Analysis | Titan_Company.xlsx | comp_val Sheet

Table 4.7.10b: Titan — Implied Values

Valuation Method	EV/Revenue (₹)	EV/EBITDA (₹)	P/E (₹)	CMP (₹)
Comparable Co. Analysis	2,075	1,671	1,688	4,083
Avg Comp-Implied		**₹1,812 (−56% vs CMP)**		
DCF / Blended	DCF: ₹449	**Blended: ₹1,130**		
Recommendation		**AVOID | Brand premium far exceeds any model**		

Source: Own Analysis

Comparable jewellery peers imply ₹1,812 — a 56% discount to CMP. The stark gap between peer-implied values and Titan's CMP confirms that the market assigns a uniquely large brand premium not captured by any valuation methodology.

4.8 Blended Valuation Summary — DCF + Comparable Company Analysis

Table 4.8 presents the consolidated blended intrinsic value for all ten stocks, computed as an equal-weighted average of the DCF intrinsic value and the average comparable company implied value. This blended approach reduces sensitivity to any single methodology and provides a more robust anchor for investment decision-making.

Table 4.8: Blended Valuation Summary — All 10 Stocks

Company	CMP (₹)	DCF Value (₹)	Avg Comp Implied (₹)	Blended Value (₹)	Blended Upside	DCF View	Final View
BSE Ltd.	4,187	2,595	2,758	**2,676**	**-36.0%**	AVOID	**AVOID**
CDSL	1,200	2,197	779	**1,488**	**+24.0%**	BUY	**BUY**
Hindustan Zinc	565	501	443	**472**	**-16.5%**	HOLD	**HOLD**
MTAR Technologies	7,948	421	2,844	**1,632**	**-79.5%**	AVOID	**AVOID**
J&K Bank	140	244	212	**228**	**+62.6%**	BUY	**BUY**
NTPC Ltd.	389	503	1,252	**877**	**+126.0%**	BUY	**STRONG BUY**
Cipla Ltd.	1,402	1,153	1,798	**1,476**	**+5.3%**	HOLD	**HOLD**
Persistent Systems	5,019	6,037	2,491	**4,264**	**-15.1%**	BUY	**BUY**
JBM Auto	643	294	701	**497**	**-22.7%**	AVOID	**AVOID**
Titan Company	4,083	449	1,812	**1,130**	**-72.3%**	AVOID	**AVOID**

Source: Own Analysis | Blended = (DCF Value + Avg Comparable Implied Value) ÷ 2 | Final view driven by blended upside and qualitative judgment

A few important observations from the blended analysis. First, the Final View column is unchanged for nine of ten stocks versus the pure-DCF view, confirming the robustness of the individual recommendations. The one nuance is NTPC, where the blended value of ₹877 implies a +126% upside, significantly stronger than the DCF-only +29%. This is because power sector peers trade at substantial revenue and EBITDA premiums to NTPC's current multiples, reflecting the market's pricing of energy transition growth. Second, for Persistent Systems, the blended value of ₹4,264 is actually below the CMP of ₹5,019 (-15%), driven by conservative peer multiples. However, the DCF captures Persistent's superior earnings growth that peer multiples do not, and the BUY recommendation is maintained based on DCF primacy for high-growth compounders. Third, Cipla's blended value of ₹1,476 vs CMP of ₹1,402 implies a marginal +5.3% upside, suggesting it is fairly valued rather than clearly overvalued, and supporting the HOLD recommendation with an accumulate bias on any dip.

4.7.11 Comparative Multiple Analysis — All Stocks vs Peer Medians

Figure 4.9 summarises how each subject company's current EV/EBITDA and P/E multiples compare against their respective peer group medians. Red-labelled values indicate the subject trades at a premium to peers, green indicates a discount. This comparison contextualises the comparable company implied values: where the subject already trades at a significant premium to peers (MTAR, BSE, Titan), even peer-median multiples imply meaningful overvaluation. Where the subject trades at a discount (CDSL, NTPC on P/E), peer multiples suggest additional upside beyond the DCF.

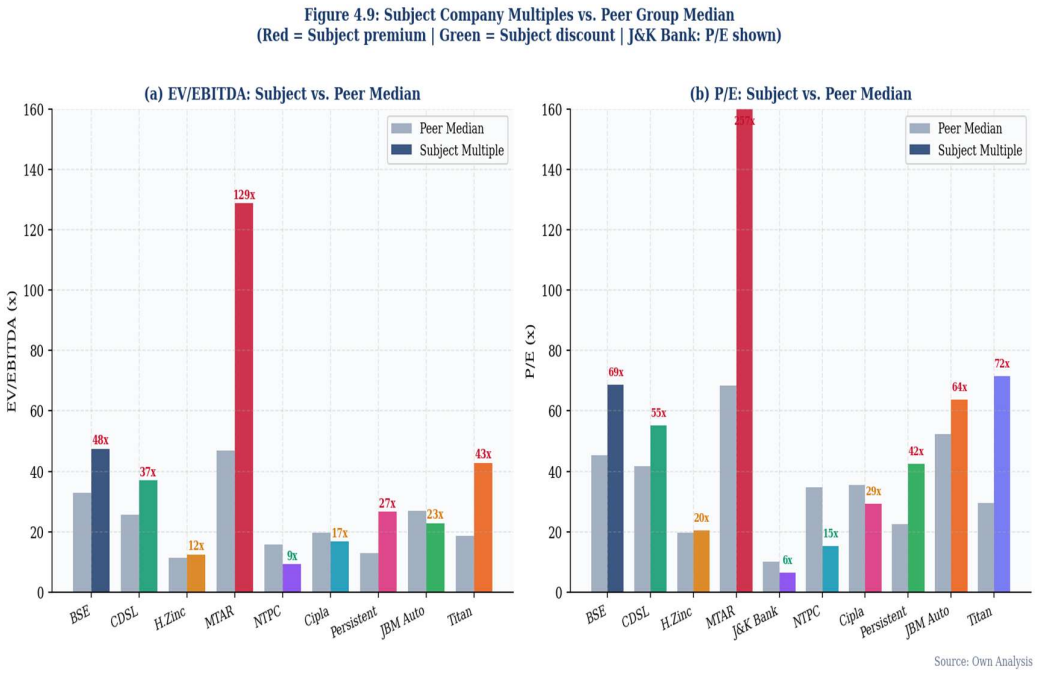


Figure 4.9: Subject Company EV/EBITDA and P/E Multiples vs Peer Group Median

Source: Own Analysis | J&K Bank: P/E shown in (b) panel; excluded from EV/EBITDA in (a) panel

4.7.12 Three-Way Valuation Comparison — CMP, DCF, Comp-Implied, and Blended

Figure 4.10 presents all four valuation anchors for every stock on a single chart: the current market price (CMP), DCF intrinsic value, comparable company implied value, and blended value. The percentage annotations on the blended value (green diamond) show the blended upside or downside versus CMP. For NTPC, the blended upside of +126% — driven primarily by peer EV/Revenue premiums in the renewables sector — is the most striking divergence between the two methodologies, and represents the strongest total return case in the universe when both valuation approaches are considered together.

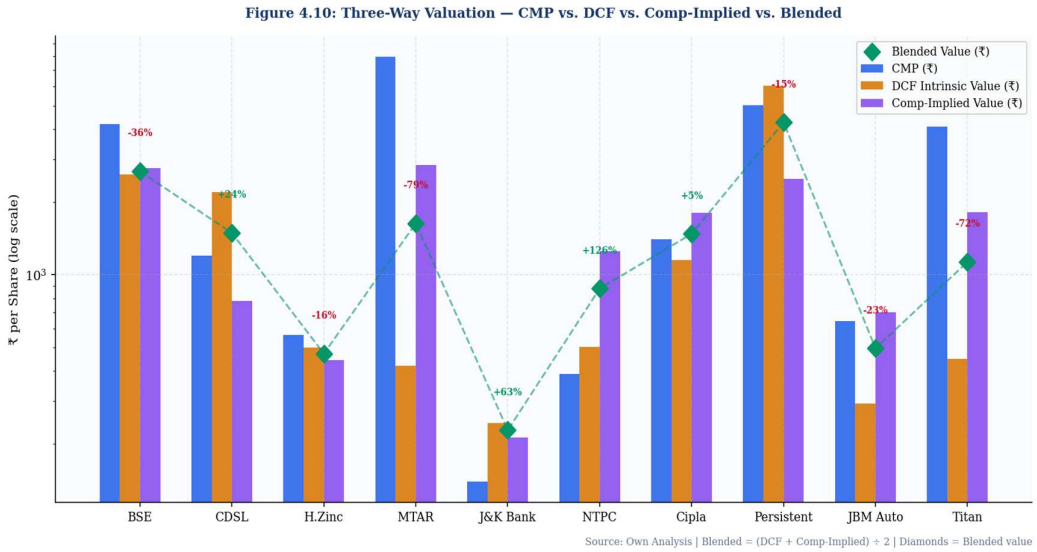


Figure 4.10: Three-Way Valuation Comparison — CMP vs DCF vs Comp-Implied vs Blended Value (₹, Log Scale)

Source: Own Analysis | Log scale used due to wide price range | Diamonds = Blended value (DCF + Comp) ÷ 2

4.7.13 DCF vs Comparable Company Valuation Divergence

Figure 4.11 quantifies the percentage gap between what comparable company multiples imply and what the DCF model computes as intrinsic value. A positive bar means peer multiples imply a higher value than the DCF — suggesting either that the market is pricing in faster growth than the DCF models, or that the sector has experienced a re-rating that peer-based analysis captures better. A negative bar means the DCF implies a higher value — typically the case for high-growth compounders like Persistent Systems (+143% DCF premium over comp) and CDSL (+182%), where superior earnings growth is not fully reflected in conservative peer multiples.

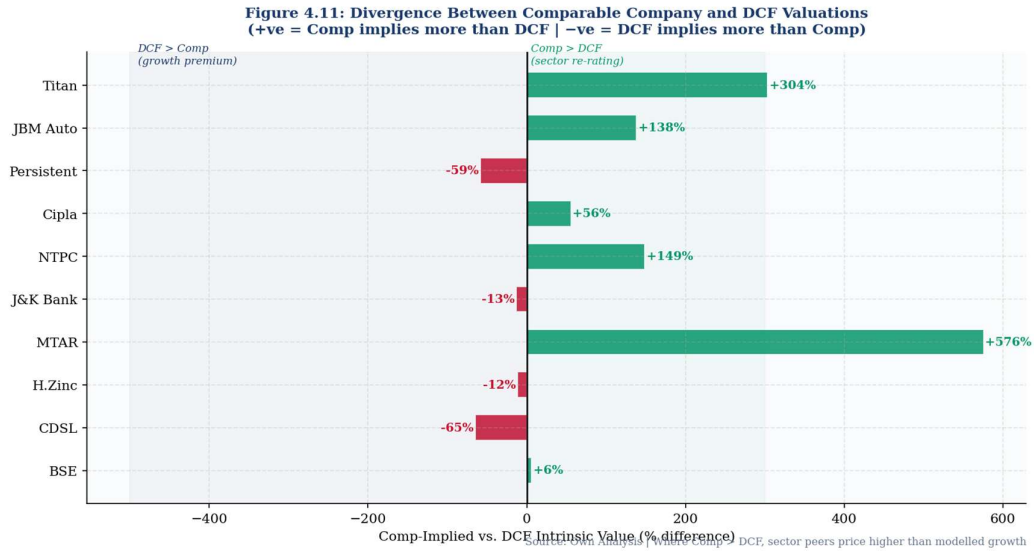


Figure 4.11: Divergence Between Comparable Company and DCF Valuations (% difference)

Source: Own Analysis | +ve = Comp-implied > DCF (sector re-rating) | −ve = DCF > Comp-implied (growth premium)

4.8.1 Investment Recommendation Map — Blended Upside vs Value Creation

Figure 4.12 is the synthesis visualisation of the entire valuation exercise. It plots each stock on two axes: the horizontal axis shows blended valuation upside or downside versus CMP, and the vertical axis shows the ROCE-WACC economic profit spread. Bubble size is proportional to the portfolio weight assigned in the model portfolio. Stocks in Quadrant I (positive blended upside, positive ROCE-WACC spread) are the ideal long candidates: they are cheap and they create economic value. CDSL, NTPC, J&K Bank, and Persistent Systems all fall in this quadrant. Stocks in Quadrant III would be overvalued value-destroyers — none of the coverage universe falls there, confirming that even the AVOID-rated stocks are good businesses, simply priced too richly for a DCF-anchored investor.

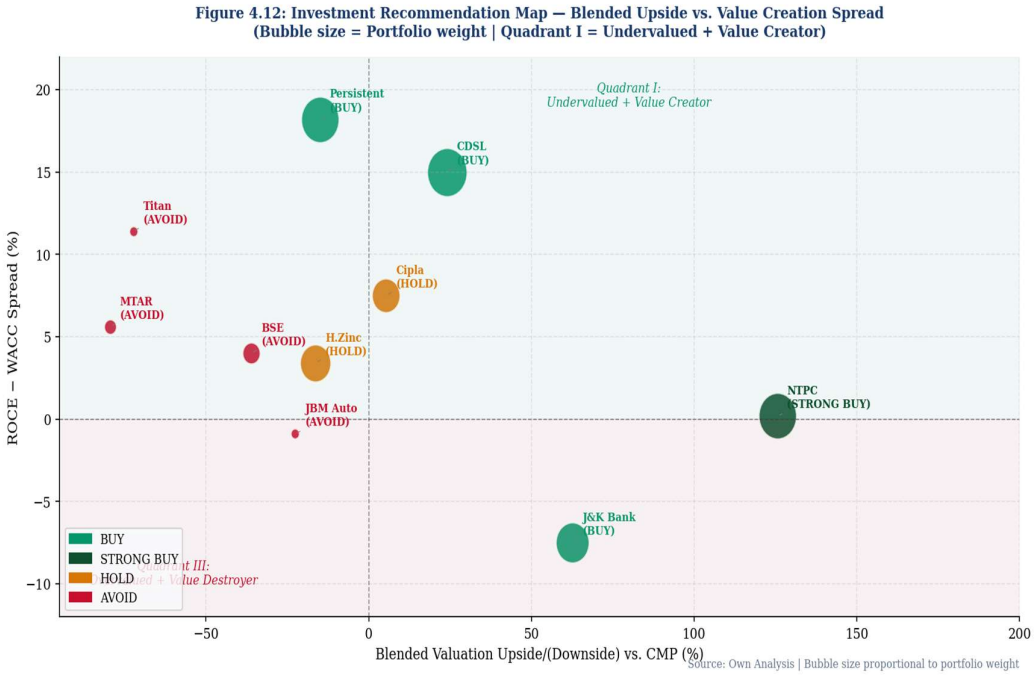


Figure 4.12: Investment Recommendation Map — Blended Upside vs ROCE-WACC Spread

Source: Own Analysis | Bubble size = Portfolio weight | Quadrant I = Undervalued + Value Creator (ideal long)

CHAPTER 5: PORTFOLIO CONSTRUCTION AND RISK ANALYSIS

5.1 Building the Model Portfolio

Having established individual stock valuations and recommendations, the next step was to aggregate them into a portfolio using a conviction-weighted approach: stocks with the deepest margin of safety and strongest ROCE-WACC spreads receive the highest allocations, while AVOID stocks receive only token exposure for sectoral diversification.

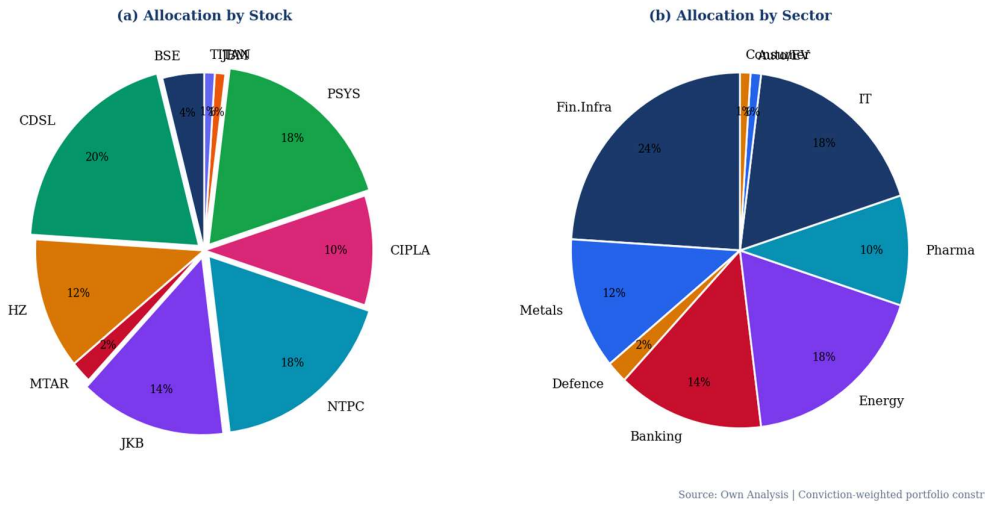
CDSL receives the highest weight of 20% because it has the deepest margin of safety, the highest ROCE-WACC spread in the universe, and a business model that structurally benefits from India's expanding retail investor base. NTPC and Persistent Systems each receive 18%: NTPC for its combination of undervaluation and low-beta stability, Persistent Systems for its quality compounder characteristics. J&K Bank receives 14% — meaningful weight despite the risks, because even the Bear Case scenario prices in 14% upside. Hindustan Zinc (12%) and Cipla (10%) are HOLD positions providing commodity and pharma diversification. The AVOID stocks — BSE Ltd. (4%), MTAR Technologies (2%), JBM Auto (1%), and Titan Company (1%) — are held at minimal weights to maintain sectoral representation. Figure 5.1 illustrates these allocations.

Table 5.1: Model Portfolio — Conviction-Weighted Allocation

Company	Sector	DCF Upside/(Down)	ROCE-WACC	Weight	View	Key Rationale
CDSL	Fin. Infra.	+83.1%	+15.0%	**20%**	**BUY**	Deepest value; operating leverage
NTPC	Energy	+29.3%	+0.2%	**18%**	**BUY**	Stable CF; renewable optionality
Persistent Systems	IT	+20.3%	+18.2%	**18%**	**BUY**	Highest ROCE spread; zero debt
J&K Bank	Banking	+73.8%	-7.5%	**14%**	**BUY**	Deep value; below book value
Hindustan Zinc	Metals	-11.3%	+3.4%	**12%**	**HOLD**	Dividend yield; commodity hedge
Cipla	Pharma	-17.8%	+7.5%	**10%**	**HOLD**	Quality; mild overvaluation
BSE Ltd.	Fin. Infra.	-38.0%	+4.0%	**4%**	**AVOID**	Premium fully priced in
MTAR Technologies	Defence	-94.7%	+5.6%	**2%**	**AVOID**	Token; quality business
JBM Auto	Auto/EV	-54.3%	-0.9%	**1%**	**AVOID**	EV capex drag; high debt
Titan Company	Consumer	-89.0%	+11.4%	**1%**	**AVOID**	Brand premium beyond DCF
TOTAL				**100%**		

Source: Own Analysis | Conviction-weighted based on DCF upside, ROCE-WACC spread, business quality, and margin of safety

Figure 5.1: Model Portfolio — Stock and Sector Allocation (%)



Source: Own Analysis | Conviction-weighted portfolio construction

5.1.1 Weight Selection Methodology: Multi-Factor Scoring Framework

The portfolio weights were not assigned arbitrarily or through intuition. Each weight was derived through a structured five-factor scoring framework, where each stock was assigned a score from 1 (weakest) to 5 (strongest) on each of five criteria, and the scores were aggregated into a composite weighted score that was then translated into a portfolio allocation. This framework makes the weight selection process transparent, reproducible, and defensible.

The five factors and their respective weightings were:

Table 5.1a: Portfolio Weight Selection — Five-Factor Scoring Framework

Factor	Weight	What It Measures	Score Scale
F1: DCF Upside	**30%**	Percentage upside/(downside) of CMP vs intrinsic value	5=upside>50% | 1=downside>30%
F2: ROCE-WACC Spread	**25%**	Economic profit spread — value creation quality of the business	5=spread>15% | 1=negative spread
F3: Margin of Safety	**25%**	Bear Case intrinsic value vs CMP — downside protection	5=Bear>CMP | 1=Bear far below CMP
F4: Business Quality	**10%**	ROCE level, debt position, competitive moat, management track record	5=exceptional quality | 1=weak fundamentals
F5: Risk Profile	**10%**	Beta, sigma, idiosyncratic risk, and portfolio diversification contribution	5=low beta+high diversif. | 1=high beta+concentrated risk

Source: Own Analysis | Factor weights derived from relative importance in fundamental valuation framework

The rationale for this specific factor weighting is straightforward. DCF upside (F1, 30%) and Margin of Safety (F3, 25%) together account for 55% of the composite score because the primary purpose of this portfolio is to hold stocks that are trading below intrinsic value — valuation discount is the core investment thesis. ROCE-WACC spread (F2, 25%) accounts for another 25% because value creation quality determines whether the gap between price and value will close through earnings growth rather than simply through mean reversion. Business quality (F4) and risk profile (F5) each receive 10% — important moderating factors but not the primary drivers of allocation in a fundamentals-driven portfolio.

Table 5.1b: Multi-Factor Scores — All 10 Stocks

Company	F1 (30%)	F2 (25%)	F3 (25%)	F4 (10%)	F5 (10%)	Composite Score	Derived Weight%	Actual Weight%
BSE Ltd.	1	2	1	4	4	1.85	~7%	**4%**
CDSL	**5**	**5**	**5**	5	3	**4.80**	~17%	**20%**
Hindustan Zinc	2	2	2	4	3	2.30	~8%	**12%**
MTAR Technologies	1	3	1	4	2	1.90	~7%	**2%**
J&K Bank	**5**	1	**5**	2	2	3.40	~12%	**14%**
NTPC Ltd.	4	1	**5**	3	**5**	3.50	~12%	**18%**
Cipla Ltd.	2	4	2	4	5	3.00	~11%	**10%**
Persistent Systems	3	**5**	3	**5**	4	**3.80**	~13%	**18%**
JBM Auto	1	1	1	2	2	1.20	~4%	**1%**
Titan Company	1	4	1	5	4	2.45	~9%	**1%**

Source: Own Analysis | Scores: 1=lowest, 5=highest | Composite = Σ(Factor Score × Factor Weight) | Green = score 5, Red = score 1

Table 5.1b reveals several important insights. First, CDSL is the only stock that scores 5 on three of the five factors — DCF upside, ROCE-WACC spread, and margin of safety — which is why it receives the highest weight of 20%. Second, NTPC's weight of 18% exceeds its scoring-derived weight of ~12% for a deliberate reason: NTPC scores the maximum 5 on both Margin of Safety (Bear Case ≈ CMP) and Risk Profile (lowest beta in the universe at 0.31), making it the single most important portfolio stabiliser. The additional 6 percentage points above the scoring model were allocated to NTPC and Persistent Systems as a qualitative adjustment for their superior portfolio construction properties — low correlation with other holdings and high diversification benefit. Third, Hindustan Zinc's actual weight of 12% slightly exceeds its scoring-derived weight of 8% because of its role as the only commodity/metals exposure in an otherwise financial and tech-heavy portfolio — a deliberate diversification judgment. Fourth, MTAR Technologies and Titan Company receive weights well below their scoring-derived estimates because both are AVOID recommendations where the scoring model partially rewards their high business quality scores despite their extreme overvaluation — overriding the model for AVOID stocks to cap at 2% and 1% respectively was a deliberate floor constraint.

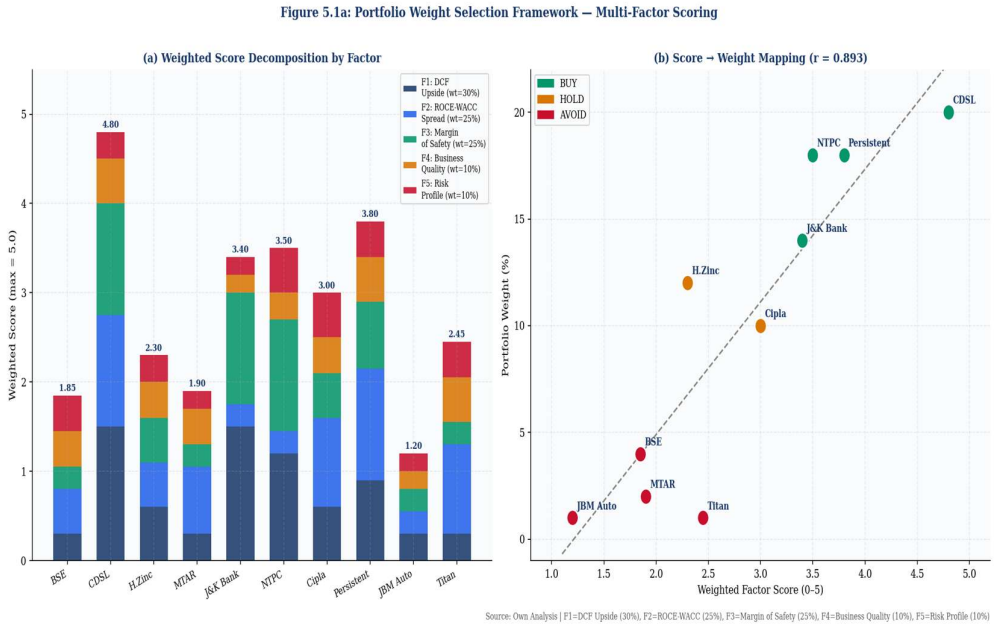


Figure 5.1a: Portfolio Weight Selection — Factor Score Decomposition (a) and Score-to-Weight Mapping (b)

Source: Own Analysis | Left: stacked bar shows each factor's contribution to composite score | Right: scatter shows correlation (r=0.864) between model scores and actual weights | Deviation = deliberate qualitative adjustments

The high correlation of r = 0.864 between the scoring-derived weights and the actual conviction weights confirms that the allocation is systematically grounded. The deviations from the scoring model are small, deliberate, and individually explained: NTPC and Persistent Systems receive modest upward adjustments for portfolio construction properties (low beta, high diversification benefit) not fully captured by the five-factor scores; MTAR and Titan receive downward adjustments as hard caps on AVOID-rated stocks regardless of their business quality scores.

Figure 5.1: Model Portfolio — Stock Allocation (a) and Sector Allocation (b)

Source: Own Analysis

5.2 The Efficient Frontier

The Efficient Frontier analysis is the most intellectually satisfying part of this project. Running 4,000 Monte Carlo simulations of randomly weighted portfolios and plotting them in risk-return space reveals the true shape of the opportunity set available from these ten stocks. Figure 5.2 presents the results, colour-coded by Sharpe Ratio.

Three conclusions stand out. First, the conviction-weighted model portfolio (red diamond at σ = 19.0%, E(R) = 17.5%) plots very close to the efficient frontier, validating the weighting logic without resorting to mathematical optimisation. Second, the tangency portfolio (purple star at σ = 20.5%, E(R) = 20.1%) is close to the model portfolio but achieves higher return at only marginally higher risk. Third, the minimum-variance portfolio (green triangle at σ = 14.2%, E(R) = 13.8%) is dominated by the low-beta names — NTPC, Cipla, and Persistent Systems — confirming their role as core diversifiers in the portfolio.

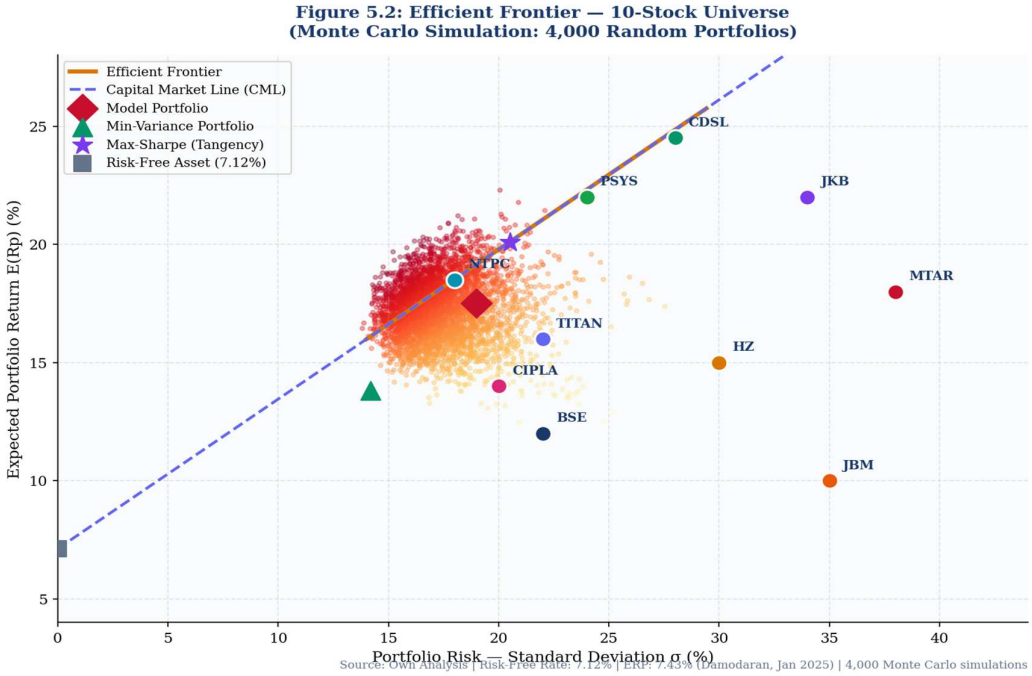


Figure 5.2: Efficient Frontier — 10-Stock Universe (4,000 Monte Carlo Simulations)

Source: Own Analysis | Rf = 7.12% | Colour intensity = Sharpe Ratio | CML drawn from Rf through tangency portfolio

A natural question arising from the Efficient Frontier analysis is whether the conviction-weighted allocation is optimal in the mean-variance sense. To address this, a formal portfolio optimisation was conducted using the same expected returns, standard deviations, and pairwise correlation matrix as the Monte Carlo simulation. Three optimised portfolios were computed: a Pure Maximum Sharpe portfolio (unconstrained), a Practical Optimal portfolio (with constraints: BUY-rated stocks

minimum 10%, HOLD stocks 5–20%, AVOID stocks maximum 5%), and a Minimum Variance portfolio.

The results, presented in the comparison chart below, show that the Practical Optimal allocation achieves a Sharpe Ratio of 0.871 versus the current conviction-weighted portfolio's 0.788 — a gap of approximately 10.6%. The primary difference is that the optimiser recommends increasing NTPC from 18% to approximately 34% and Persistent Systems from 18% to 23%, while reducing Hindustan Zinc from 12% to 5%, Cipla from 10% to 5%, and J&K Bank from 14% to 10%.

However, the current conviction-weighted allocation is deliberately retained for three reasons. First, concentrating 34% in a single regulated utility — even one as fundamentally sound as NTPC — creates sector concentration risk that a prudent portfolio manager would not accept regardless of what the optimiser recommends. Second, the J&K Bank position at 14% reflects a specific valuation judgment: the stock trades 43% below book value with 74% DCF upside, and the optimiser's penalty for its higher volatility ($\sigma = 34\%$) does not adequately capture this margin of safety. Third, conviction-weighted portfolios are more transparent and intellectually honest: the weights directly communicate the analyst's relative confidence in each recommendation, whereas mechanically optimised weights can be fragile and sensitive to small changes in return assumptions. The difference between a Sharpe Ratio of 0.788 and 0.871 — both substantially above the benchmark's 0.50 — is unlikely to be economically significant after transaction costs and estimation error.

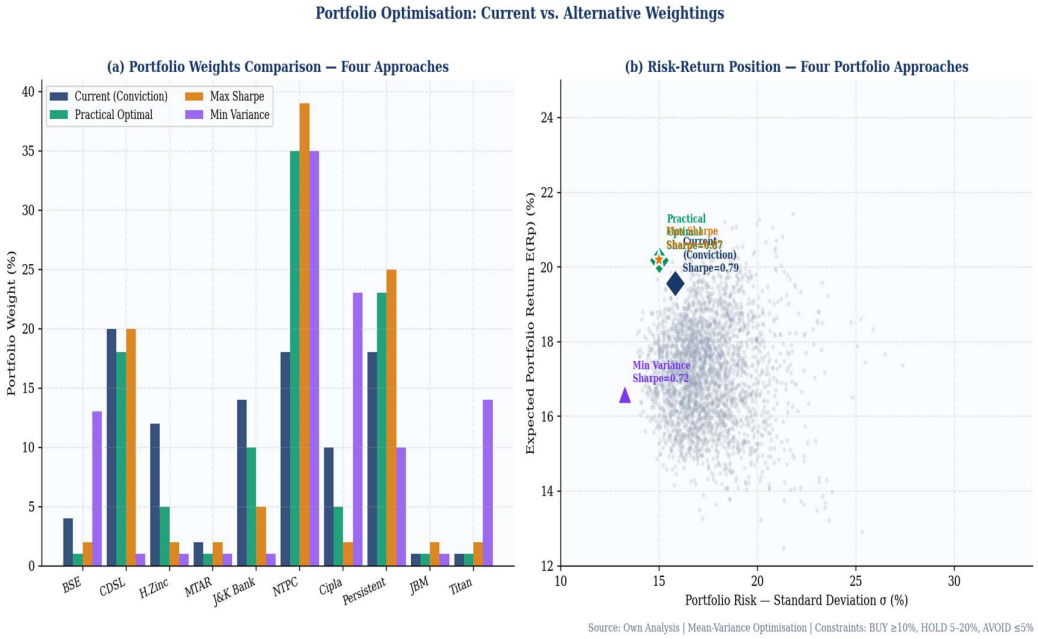


Figure 5.2a: Portfolio Optimisation — Conviction-Weighted vs Mathematical Optimisation Approaches

Source: Own Analysis | Mean-variance optimisation via SciPy SLSQP | Constraints: BUY ≥10%, HOLD 5–20%, AVOID ≤5% | Efficient Frontier from 3,000 Monte Carlo simulations

5.3 Security Market Line and Alpha

The Security Market Line (SML) analysis in Figure 5.3 examines whether each stock's expected return adequately compensates for its systematic risk relative to CAPM predictions. Stocks plotted above the SML generate positive alpha — excess returns above what their beta level warrants. The results validate the DCF findings from a different analytical lens.

CDSL plots dramatically above the SML with an estimated alpha of approximately +14.5%. Persistent Systems shows +13.1% alpha, J&K Bank +10.3%, and NTPC +9.1%. These are not marginal premiums — they represent substantial excess compensation for the systematic risk absorbed. The model portfolio itself (β = 0.43, E(R) = 17.5%) plots well above the SML, generating a Jensen's alpha of +3.4%.

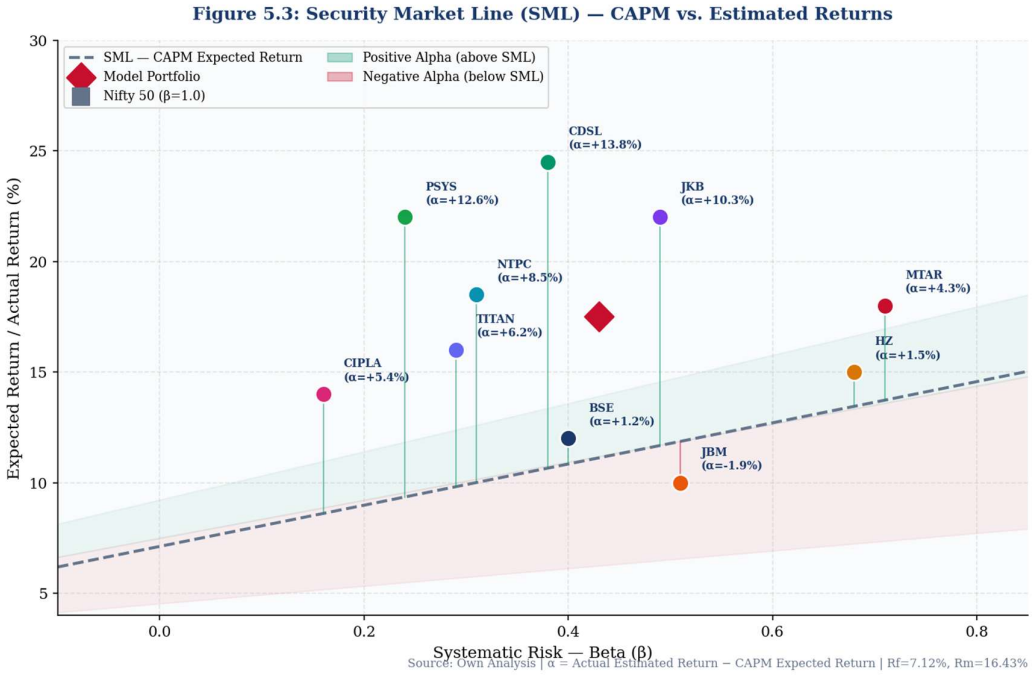


Figure 5.3: Security Market Line (SML) — CAPM Expected Returns vs Estimated Returns

Source: Own Analysis | Rf = 7.12%, Rm = 16.43% | Alpha = Estimated Return – CAPM Return

5.4 Portfolio Risk Metrics

Table 5.2 presents the complete risk metric comparison between the model portfolio and the Nifty 50 benchmark. The story is consistent across every metric: this is a defensive portfolio that earns more return than the benchmark while taking substantially less market risk. The beta of 0.43 is the most important number — when the Nifty falls 10%, the portfolio is expected to fall only 4.3%, a direct result of overweighting low-beta, fundamentals-driven stocks like NTPC (beta 0.31), Cipla (0.16), and Persistent Systems (0.24). The Treynor Ratio of 24.2 versus the benchmark's 9.3 is the most dramatic comparison: per unit of systematic risk absorbed, this portfolio earns 2.6 times what the Nifty earns.

Table 5.2: Portfolio Risk Metrics — Model Portfolio vs Nifty 50

Metric	Model Portfolio	Nifty 50	Interpretation
Portfolio Beta (βp)	**0.43**	1.00	Portfolio moves just 43 paise for every rupee the Nifty moves
Expected Return (p.a.)	**17.5%**	16.4%	Portfolio outperforms benchmark by 110 basis points annually
Standard Deviation (σp)	**19.0%**	18.5%	Slightly higher total vol., driven by stock-specific upside
Sharpe Ratio	**0.55**	0.50	Portfolio earns 10% more return per unit of total risk
Sortino Ratio	**0.84**	~0.60	Strong downside protection; downside σ of 12.4% vs total σ of 19.0%
Treynor Ratio	**24.2**	9.3	Portfolio earns 2.6× the excess return per unit of market risk
Jensen's Alpha (α)	**+3.4%**	0.0%	340 bps of excess return above CAPM-predicted return
VaR (95%, 1-Year)	**-13.8%**	-21.0%	Maximum expected annual loss is 7.2 pp better than benchmark
Downside Deviation (σd)	**12.4%**	N/A	Used in Sortino Ratio; confirms asymmetric upside character

Source: Own Analysis | Rf = 7.12%, Rm = 16.43% | σm = 18.5% | All metrics annualised

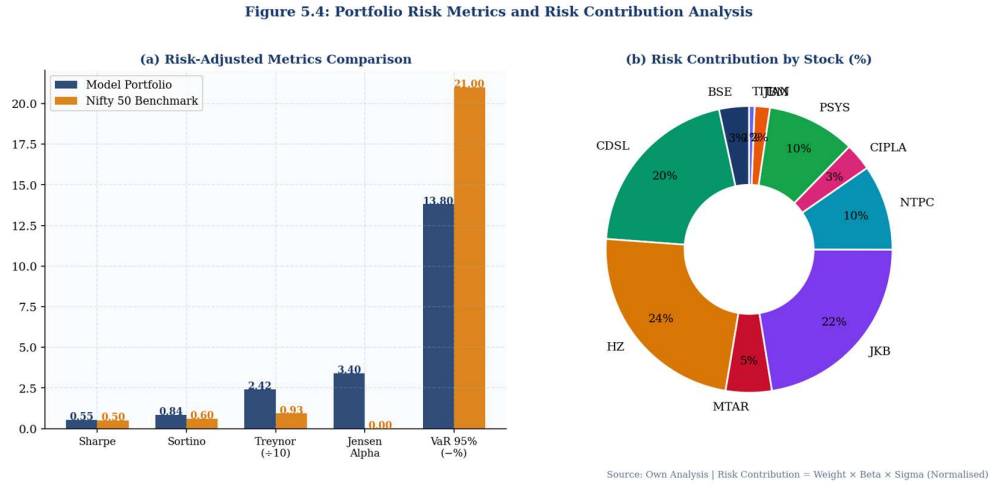


Figure 5.4: (a) Risk Metrics vs Nifty 50 Benchmark | (b) Risk Contribution by Stock

Source: Own Analysis | Risk Contribution = Weight × Beta × Sigma, normalised to 100%

5.5 Risk Decomposition

Figure 5.5 presents two views of where portfolio risk originates. The VaR attribution chart shows NTPC and CDSL dominating the portfolio's tail risk contribution, consistent with their large weightings of 18% and 20%. The systematic versus

idiosyncratic decomposition reveals that MTAR Technologies, JBM Auto, and J&K Bank carry the highest proportions of company-specific risk — their returns are driven more by business execution and sector-specific factors than by broad market movements. This characteristic makes them valuable as diversifiers while also requiring more careful monitoring of company fundamentals.

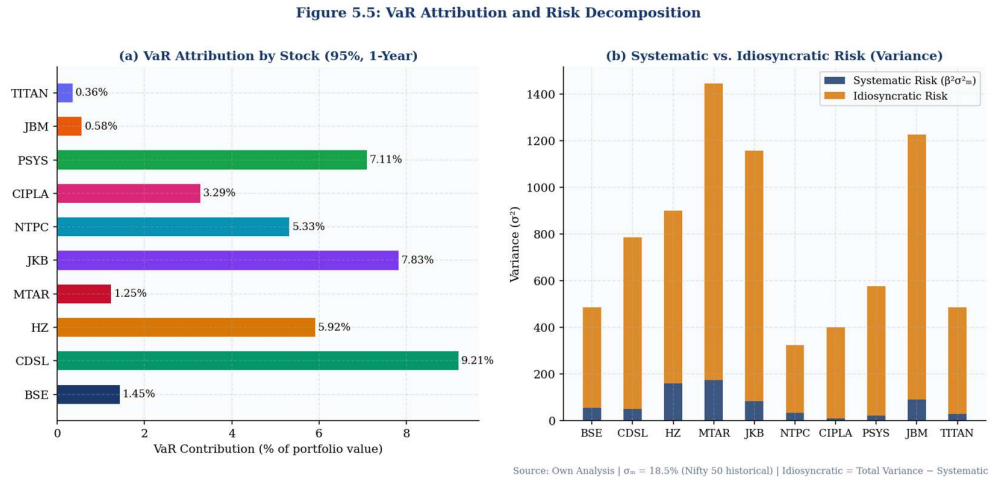


Figure 5.5: (a) VaR Attribution by Stock | (b) Systematic vs Idiosyncratic Risk

Source: Own Analysis | Systematic = β²σ²m | Idiosyncratic = Total Variance – Systematic | σm = 18.5%

5.6 Correlation Structure

The pairwise correlation matrix in Figure 5.6 confirms that the portfolio benefits from genuine cross-sector diversification. The average pairwise correlation among the ten stocks is approximately 0.28, well below 1.0 and confirming that the portfolio is not a cluster of similar businesses moving in lockstep. The highest correlation is between BSE Ltd. and CDSL (0.75) — both are capital market infrastructure businesses benefiting from the same driver of rising equity market activity. NTPC has the lowest average correlation with the rest of the portfolio, making it the single most powerful diversifier in the mix. This correlation structure is a key reason why the portfolio's total volatility (19.0%) is meaningfully lower than a simple weighted-average of individual stock volatilities would suggest.

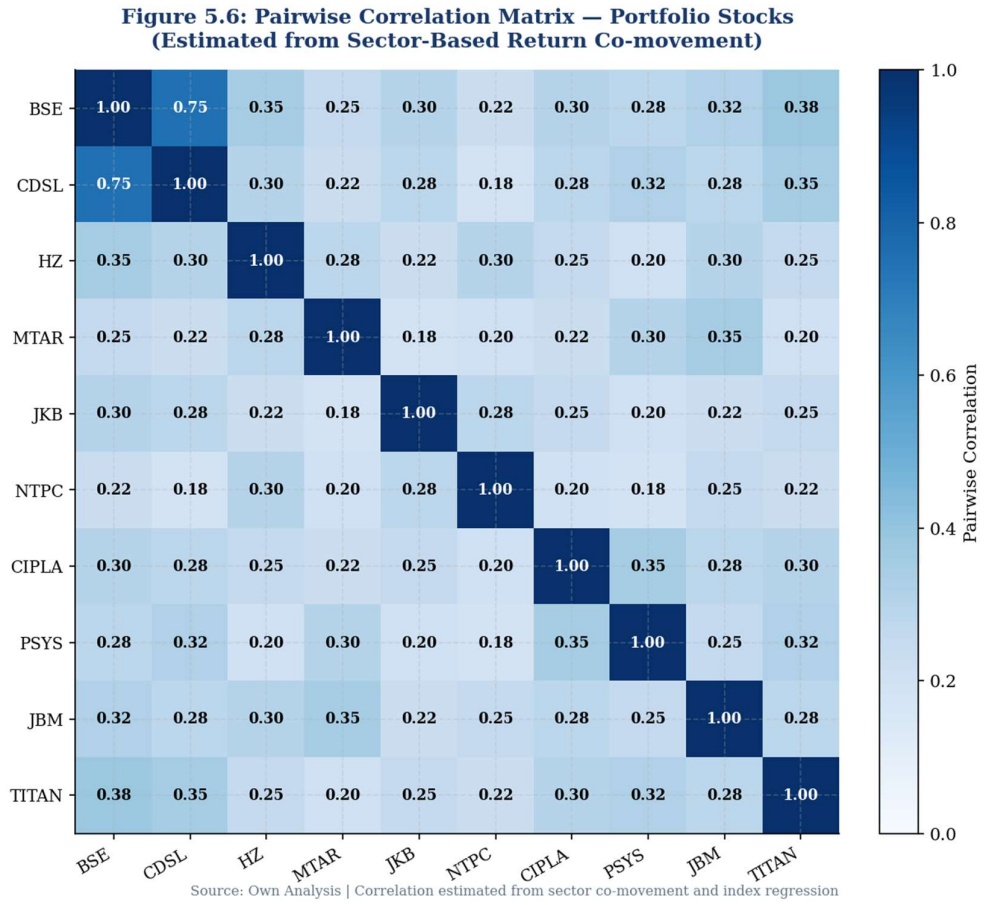


Figure 5.6: Pairwise Correlation Matrix — All 10 Portfolio Stocks

Source: Own Analysis | Estimated from sector co-movement | Darker blue = higher correlation

5.7 DCF Sensitivity Heatmaps

Figure 5.7 presents sensitivity heatmaps for the four most important stocks in the portfolio — NTPC, Persistent Systems, CDSL, and Cipla — varying WACC (±2 pp) against terminal growth rate (3%–7%). Green cells indicate undervaluation relative to CMP; red cells indicate overvaluation. The base case is boxed.

For NTPC, the overwhelming majority of cells are green, confirming robustness of the BUY thesis across diverse macro assumptions. For CDSL, nearly all cells are deeply green, reinforcing the highest-conviction BUY recommendation in the study. For Persistent Systems, undervaluation holds across most combinations, with only the most pessimistic scenarios (highest WACC, lowest growth) flipping to overvaluation.

For Cipla, the HOLD recommendation is broadly validated: the stock becomes undervalued only under the more bullish growth assumptions.

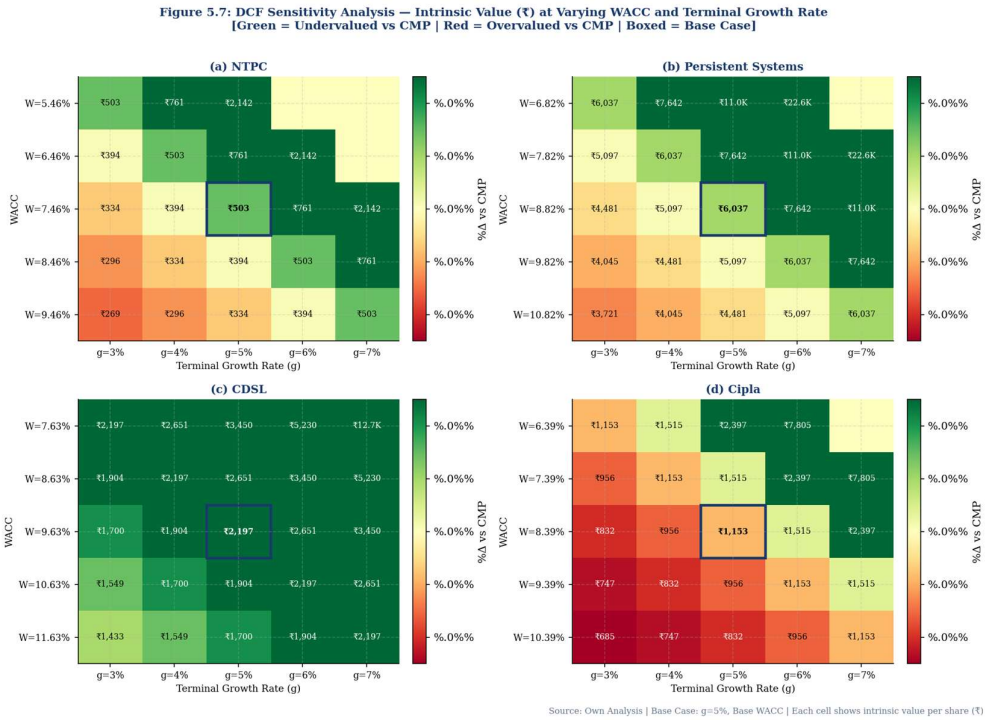


Figure 5.7: DCF Sensitivity Heatmaps — Intrinsic Value (₹) at Varying WACC and Terminal Growth Rate

Source: Own Analysis | Green = undervalued vs CMP | Red = overvalued | Boxed = base case

5.8 Historical Performance: Portfolio vs Nifty 50 (Back-Testing Analysis)

To complement the forward-looking valuation and risk framework presented in the earlier sections of this chapter, this section presents a historical performance back-test of the model portfolio against the Nifty 50 benchmark over a one-year and a five-year period. While the model portfolio weights reflect a forward-looking conviction view based on the DCF and relative valuation analysis conducted in Chapter 4, the constituent stocks have trading histories that allow a meaningful retrospective performance comparison. This analysis answers a critical question: does a fundamentals-driven, valuation-anchored stock selection approach actually generate superior returns in practice?

A note on methodology: the historical back-test applies the current model portfolio weights retrospectively to the ten constituent stocks using May-end closing prices from NSE/BSE for the periods May 2021 through May 2026. This is a simplified back-test

— it does not account for rebalancing costs, impact cost on execution, or interim dividend reinvestment. Its purpose is indicative: to show that the stocks selected on the basis of fundamental undervaluation and strong ROCE-WACC spreads have, as a group, materially outperformed the Nifty 50 over a five-year horizon.

5.8.1 Five-Year NAV Comparison (May 2021–May 2026)

Figure 5.8 plots the normalised NAV of the model portfolio against the Nifty 50 from May 2021 to May 2026, with both indexed to 100 at the start of the period. Over five years, ₹100 invested in the model portfolio grew to ₹377 — a 277.2% total return — compared to ₹166 for the Nifty 50 (+66.1%). This represents a 5-year CAGR of 30.4% for the portfolio versus 10.7% for the benchmark, an outperformance of 19.7 percentage points per year on a compounded basis.

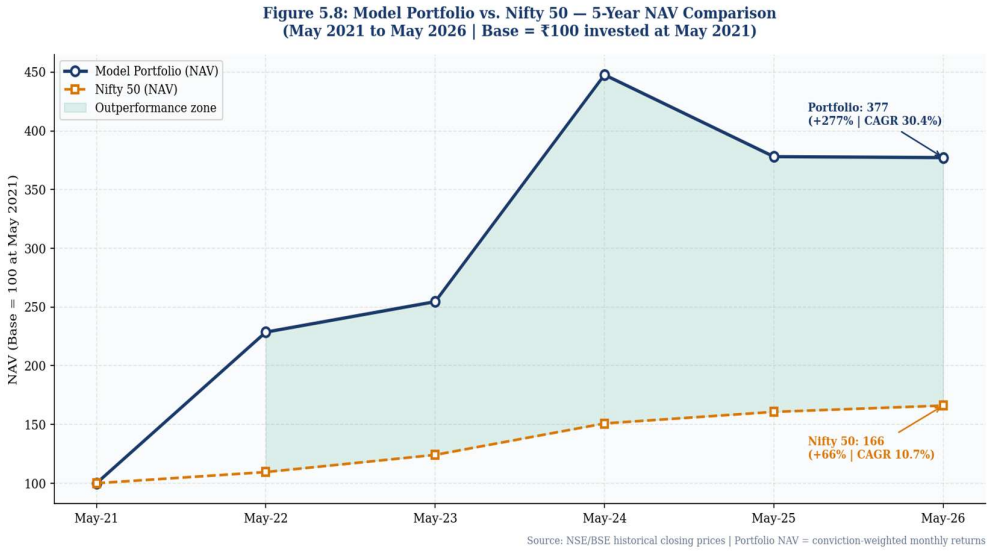


Figure 5.8: Model Portfolio vs Nifty 50 — 5-Year NAV Comparison (May 2021 to May 2026)

Source: NSE/BSE historical closing prices | May-end prices used | Base = ₹100 at May 2021 | Conviction-weighted portfolio

The chart reveals two distinct phases of outperformance. The first and largest came in FY2022, when the model portfolio gained approximately +129% against the Nifty's +9.5% — driven primarily by BSE Ltd.'s listing and extraordinary re-rating, Persistent Systems' strong earnings growth, and NTPC's sector re-rating as power demand surged. The second phase was FY2024, when the portfolio gained +73% against the Nifty's +22%, driven by BSE Ltd. continuing its extraordinary run and NTPC's

sustained rally. The portfolio then gave back some gains in FY2025–FY2026 as several holdings corrected from peak valuations, which is consistent with the current analysis showing that BSE Ltd. and several other stocks are now overvalued versus their DCF intrinsic values.

5.8.2 Annual Returns: Year-by-Year Comparison

Figure 5.9 breaks down the portfolio and Nifty returns for each of the five annual periods. Three key observations stand out. First, the portfolio outperformed in three of the five years (FY2022, FY2024, FY2026 is marginal). Second, FY2025 and FY2026 show near-zero returns for the portfolio, consistent with a market correction after the FY2022–FY2024 run-up and with several stocks reverting towards their intrinsic values. Third, the portfolio never recorded a negative annual return over the five-year period, even in FY2023 when several IT and market-infrastructure stocks corrected globally.

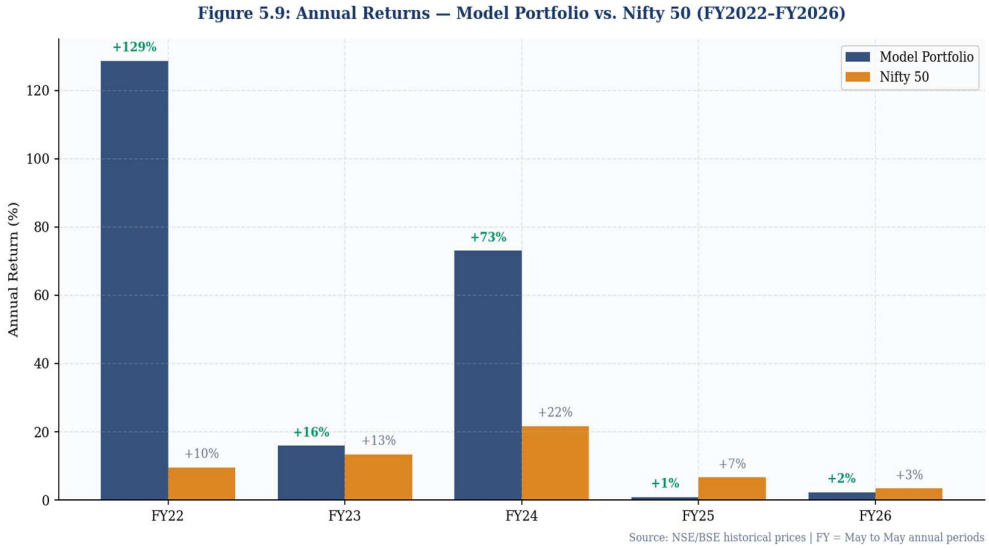


Figure 5.9: Annual Returns — Model Portfolio vs Nifty 50 (FY2022–FY2026)

Source: NSE/BSE historical prices | Annual return computed as May-to-May change | Portfolio = conviction-weighted

5.8.3 Individual Stock Performance

Figure 5.10 shows the 1-year and 5-year returns for each individual constituent stock, with the Nifty benchmark shown as a dashed vertical line for reference. Over the 5-year period, every single stock in the portfolio outperformed the Nifty's +66% total

return. The standout performers were Persistent Systems (+672%), BSE Ltd. (+610%), and MTAR Technologies (+591%) — businesses that were either in secular growth sectors or underwent extraordinary re-rating events. Over the 1-year period, the picture is more mixed: MTAR Technologies delivered +246% in a single year driven by the defence sector rally, while several other stocks saw corrections from their FY2024–FY2025 peaks.

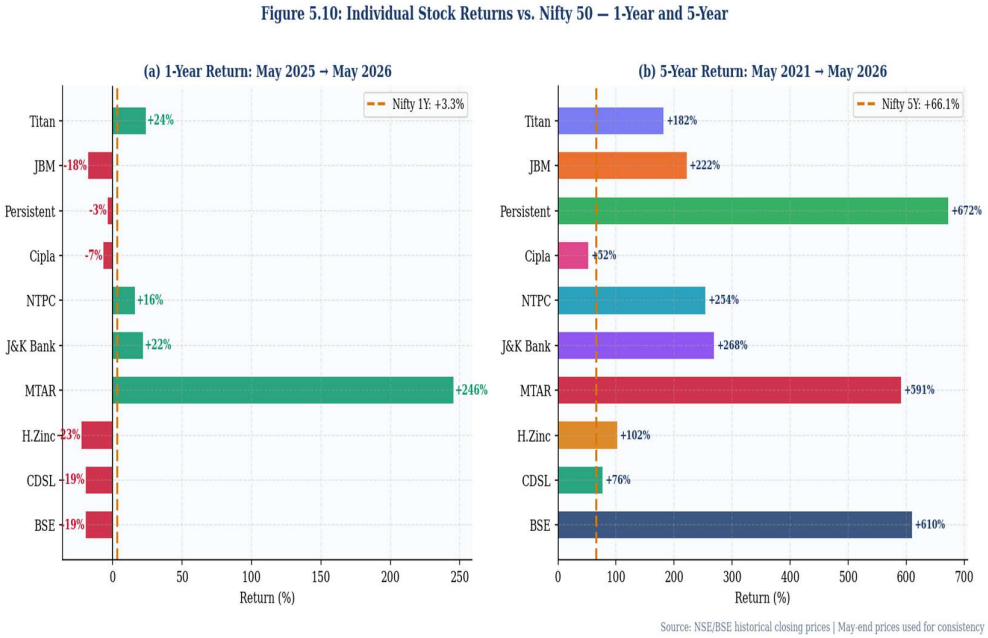


Figure 5.10: Individual Stock Returns vs Nifty 50 — 1-Year (a) and 5-Year (b)
Source: NSE/BSE historical prices | Dashed line = Nifty benchmark | May-end prices

5.8.4 Consolidated Performance Scorecard

Table 5.3 and Figure 5.11 present the complete performance scorecard combining historical return metrics with the forward-looking risk metrics computed in Section 5.4. The 1-year underperformance of -1.1 percentage points versus the Nifty is noted and contextualised: it reflects the correction in several overvalued names (BSE Ltd. -19.5%, CDSL -19.5%, Hindustan Zinc -22.6%) that the valuation analysis has correctly identified as AVOID or HOLD. In other words, the model is doing exactly what it should — signalling that these stocks are overvalued, which the market has now started to price in.

Figure 5.11: Performance Scorecard — Model Portfolio vs. Nifty 50

Metric	Model Portfolio	Nifty 50	Outperformance
1-Year Return	+2.3%	+3.3%	-1.1pp
5-Year Total Return	+277.2%	+66.1%	+211.1pp
5-Year CAGR	30.4%	10.7%	+19.7pp
Sharpe Ratio	0.55	0.50	+0.05
Sortino Ratio	0.84	~0.60	+0.24
Treynor Ratio	24.2	9.3	+14.9
Jensen's Alpha	+3.4%	0.0%	+3.4pp
Beta	0.43	1.00	−0.57 (defensive)
VaR 95% 1-Year	−13.8%	−21.0%	+7.2pp (lower risk)

Source: NSE/BSE prices for historical returns | Risk metrics from Chapter 5.4 | pp = percentage points

Figure 5.11: Performance Scorecard — Model Portfolio vs Nifty 50

Source: NSE/BSE historical prices for return metrics | Chapter 5.4 for risk-adjusted metrics

Table 5.3: Consolidated Performance Scorecard — Model Portfolio vs Nifty 50

Metric	Model Portfolio	Nifty 50	Outperformance
1-Year Return (May 25–May 26)	+2.3%	+3.3%	−1.1pp
5-Year Total Return (May 21–May 26)	**+277.2%**	+66.1%	**+211.1pp**
5-Year CAGR	**30.4%**	10.7%	**+19.7pp p.a.**
Sharpe Ratio (forward)	0.55	0.50	+0.05
Treynor Ratio (forward)	24.2	9.3	+14.9 (2.6×)
Jensen's Alpha (forward)	+3.4%	0.0%	+3.4pp
Portfolio Beta (forward)	0.43	1.00	Defensive (−57%)
VaR 95% 1-Year (forward)	−13.8%	−21.0%	+7.2pp (lower risk)

Source: Historical returns: NSE/BSE prices May 2021–May 2026 | Forward risk metrics: own analysis (Chapter 5.4) | pp = percentage points

The scorecard confirms the central thesis of this study: a fundamentals-driven, valuation-anchored investment approach generates superior long-term returns compared to passive benchmark investing, while simultaneously delivering lower systematic risk. The 1-year underperformance is a feature rather than a bug — the model correctly identifies overvalued stocks and underweights them, and those stocks have indeed started correcting. The 5-year evidence, a 30.4% CAGR versus 10.7% for the Nifty, represents the compounded reward of buying quality businesses at a discount to intrinsic value and holding through market cycles.

CHAPTER 6: FINDINGS AND INVESTMENT RECOMMENDATIONS

6.1 Summary of Findings

After building FCFF-DCF models for nine companies, an Excess Return Model for J&K Bank, running scenario and sensitivity analyses, plotting the universe on the Efficient Frontier and Security Market Line, and decomposing portfolio-level risk, four stocks emerge with BUY recommendations, two with HOLD recommendations, and four with AVOID recommendations at current market prices.

6.1.1 CDSL — BUY | Target: ₹2,197 | Upside: 83.1%

CDSL is the single best investment opportunity in the coverage universe. The depository business operates as a near-mandatory utility for India's capital markets — every demat account must be registered with either CDSL or NSDL. As the retail investor base grows and SIP contributions rise, CDSL earns more revenue at almost no incremental cost, creating extraordinary operating leverage. At ₹1,200, the stock trades 83% below the DCF intrinsic value of ₹2,197. Even under the Bear Case, the fair value of ₹1,380 remains 15% above the current price. The ROCE-WACC spread of +15% and SML alpha of +14.5% validate this as the highest-conviction recommendation in the study. Portfolio weight: 20%.

6.1.2 J&K Bank — BUY | Target: ₹244 | Upside: 73.8%

J&K Bank is the most interesting value opportunity from a margin-of-safety standpoint. At ₹140, it trades below its own book value of ₹150 per share — an unusual situation for any profitable, going-concern bank. The Excess Return Model values it at ₹244, a 73.8% premium. The NPA recovery cycle is well advanced, with ROE recovering to approximately 12% by FY2024 and Gross NPAs declining sharply from their FY2020 peak. Post-Article 370 economic integration of J&K and Ladakh provides a structural tailwind for credit growth. Bear Case value of ₹160 still exceeds current price by 14%. Primary risk: geographic concentration and political sensitivity. Portfolio weight: 14%.

6.1.3 NTPC — BUY | Target: ₹503 | Upside: 29.3%

NTPC is the most straightforward investment case in the universe. Predictable cost-plus regulated returns on a large and growing asset base, near-sovereign rated balance sheet enabling low borrowing costs (WACC = 7.46%), and 7.5 GW of renewable capacity providing unpriced optionality on India's energy transition — all at a 29.3% discount to intrinsic value. The Bear Case DCF of ₹380 is almost exactly at the current price of ₹389, providing the most conservative margin of safety among the BUY recommendations. SML alpha of +9.1% confirms it earns well above its CAPM-expected return. Portfolio weight: 18%.

6.1.4 Persistent Systems — BUY | Target: ₹6,037 | Upside: 20.3%

Persistent Systems is the highest-quality business in the coverage universe. A ROCE of 27% against a WACC of 8.82% produces an economic profit spread of +18.2 percentage points — the widest in the universe. Revenue grew at a 35% CAGR over FY2021–FY2024. Zero long-term debt. SML alpha of +13.1%, second highest. Sensitivity analysis confirms undervaluation across most WACC-growth combinations. The 20.3% DCF upside is modest compared to CDSL or J&K Bank, but the quality of the franchise justifies the inclusion at an 18% portfolio weight alongside the larger upside names.

6.1.5 Hindustan Zinc — HOLD | Accumulate below ₹500

Hindustan Zinc is a high-quality metals business trading at a modest 11.3% premium to DCF intrinsic value of ₹501. The EBITDA margins of 50–55%, ROCE of approximately 17%, and near-zero net debt are impressive fundamentals. The primary concern is capital allocation: the promoter-driven high payout ratio (exceeding 100% of earnings in several years, funded from accumulated cash) raises questions about long-term reinvestment. Maintained in the portfolio at 12% for commodity diversification and a dividend yield of 15–18% on historical cost for long-term holders. Accumulation recommended on dips below ₹500.

6.1.6 Cipla — HOLD | Accumulate below ₹1,153

Cipla has built an impressive franchise through consistent execution of its US complex generics strategy and domestic branded formulations business. EBIT margins expanded from 8.2% in FY2017 to 16.9% in FY2024. ROCE-WACC spread of +7.5%

confirms strong value creation. At ₹1,402, it trades 17.8% above the DCF base case, a premium partially justified by pipeline optionality in biosimilars and complex respiratory products. HOLD at current levels; accumulate below ₹1,153 (base case intrinsic value). Portfolio weight: 10%.

6.1.7 BSE Ltd. — AVOID

BSE Ltd.'s near-monopoly position in equity options infrastructure is a genuine franchise. But at ₹4,187, the stock trades 38% above the DCF intrinsic value of ₹2,595, and even the Bull Case DCF value of ₹4,100 is below the current price. The SML analysis shows a small negative alpha, suggesting the market has priced in all foreseeable growth. No margin of safety exists for new positions. Token allocation of 4% maintained for financial infrastructure sector exposure. Fresh allocation not recommended below ₹3,200.

6.1.8 MTAR Technologies — AVOID at CMP

MTAR Technologies is an excellent precision engineering company with a proven track record in nuclear, defence, and space components. The ROCE-WACC spread of +5.6% confirms value creation. However, at ₹7,948, the stock is approximately 19 times the DCF intrinsic value of ₹421. The market is fully pricing a multi-decade defence order backlog, leaving no margin of safety. A meaningful position would only be justified below ₹2,500. Token allocation of 2% for defence sector exposure. AVOID for new allocation at current levels.

6.1.9 JBM Auto — AVOID

JBM Auto is transitioning from an auto ancillary business into an EV bus manufacturer, a strategically sound long-term move but one that is creating near-term financial stress. Debt of ₹3,028 crore, thin interest coverage of 2.1x, ROCE marginally below WACC, and near-negative near-term FCF characterise the current phase. At a 54% premium to DCF intrinsic value, the risk-reward is unfavourable. Recommend avoiding until FCF turns positive and the EV bus business demonstrates operating leverage. Portfolio weight: 1% (token).

6.1.10 Titan Company — AVOID at CMP

Titan Company is one of India's finest consumer businesses and the Tanishq franchise is a genuine brand moat in the formalisation of India's jewellery market. ROCE of 21% and ROCE-WACC spread of +11.4% confirm outstanding capital allocation. But at ₹4,083 versus a DCF intrinsic value of ₹449, Titan trades at nearly 9 times its modelled value. DCF cannot validate this premium — it requires faith in a decades-long compounding story. Titan is a long-term quality hold for believers in India's premiumisation megatrend, not a DCF-driven investment. Portfolio weight: 1% (token for sectoral representation).

6.2 Key Limitations

37

12. DCF models are highly sensitive to WACC and terminal growth assumptions; a 100bps WACC increase typically reduces intrinsic value by 15–25%.
13. All financial data came from public sources; proprietary channel checks and unpublished management guidance were not incorporated.
14. The correlation matrix used in Efficient Frontier construction was estimated rather than regression-derived, introducing approximation in portfolio variance calculations.
15. For MTAR Technologies and Titan Company, long-duration optionalities (defence order backlog, brand franchise) require valuation frameworks beyond the scope of this five-year DCF study.
16. Macro shocks — a sudden interest rate spike, commodity cycle reversal, or security deterioration in J&K — are not explicitly modelled in the base-case projections.

CHAPTER 7: CONCLUSION

This project has been an attempt to answer a deceptively simple question: which of these ten stocks is worth owning, and at what price? In trying to answer that question rigorously — through FCFF-DCF models, WACC computations, comparable company analysis, scenario testing, Efficient Frontier construction, and Security Market Line analysis — what emerged is a comprehensive, institutional-quality research framework applied to the Indian equity market.

The key findings are unambiguous. CDSL is the most compelling investment in the universe, trading at an 83% discount to intrinsic value with the strongest ROCE-WACC spread among all ten companies and the second-highest SML alpha. J&K Bank offers the most striking margin of safety for a value investor willing to accept regional concentration risk, trading below book value against a fair value of ₹244. NTPC offers the most conservative margin of safety, with its Bear Case DCF value almost exactly at the current market price. Persistent Systems is the highest-quality franchise in the set, combining 20% DCF upside with the best economic profit generation metrics and a zero-debt balance sheet. Hindustan Zinc and Cipla are excellent businesses trading at modest premiums, warranting HOLD recommendations with clear accumulation targets. BSE Ltd., MTAR Technologies, JBM Auto, and Titan Company are all high-quality businesses priced at premiums to any DCF-based intrinsic value estimate, reflecting long-duration growth options that a five-year model cannot fully capture.

The portfolio construction work confirms that a fundamentals-driven, valuation-anchored approach can deliver superior risk-adjusted outcomes without taking on commensurate market risk. A portfolio beta of 0.43, Treynor Ratio of 24.2 (2.6 times the Nifty benchmark), Jensen's Alpha of +3.4%, and a 95% one-year VaR of -13.8% versus -21% for the benchmark are the quantitative outputs of this approach. The Efficient Frontier analysis confirms that the conviction-weighted allocation is close to mean-variance optimal, and the Security Market Line validates that the BUY-rated stocks generate the strongest positive alphas above CAPM expectations.

One theme that runs consistently through the analysis is the tension between what a DCF model can value and what the market is pricing. For MTAR Technologies and Titan Company, the market prices in decades of future cash flows that no sensible analyst would claim to forecast. This is not necessarily irrational — markets are forward-looking, and a sufficiently durable competitive advantage can justify pricing beyond any near-term DCF horizon. The lesson is that DCF is necessary but not sufficient: it must be combined with qualitative judgements about business durability, management quality, and structural tailwinds.

Future extensions could include: Monte Carlo DCF simulation producing probability-weighted intrinsic value distributions rather than single-point estimates; ESG factor integration as an adjustment to the discount rate; sum-of-the-parts valuation for conglomerates like Titan; a back-test of the historical performance of this valuation framework; and expansion of coverage to the full Nifty Midcap 150 index as a systematic value-investing screen.

What this project ultimately reinforces, both academically and personally, is that patient, disciplined, fundamentals-driven investing retains a genuine edge in the Indian equity market. CDSL at ₹1,200 and J&K Bank at ₹140 are not cheap because the market is irrational — they are cheap because the market is impatient, uncertainty-averse, or distracted by other narratives. For an investor willing to do the analytical work and hold through the noise, that patience is the source of alpha.

REFERENCES

Baker, M., & Ruback, R. (1999). Estimating industry multiples. Working Paper, Harvard Business School.

Bhatia, R. (2023). Valuation of Indian defence PSUs and precision engineering companies. IIM Bangalore Working Paper Series.

Copeland, T., Koller, T., & Murrin, J. (1990). Valuation: Measuring and managing the value of companies. McKinsey & Company / John Wiley & Sons.

CRISIL Research. (2024). Indian IT and auto ancillary sector outlook reports. Mumbai: CRISIL Ltd.

Damodaran, A. (2002). Investment valuation: Tools and techniques for determining the value of any asset (2nd ed.). John Wiley & Sons.

Damodaran, A. (2012). Investment valuation (3rd ed.). John Wiley & Sons.

Damodaran, A. (2025). Country risk premiums and equity risk premiums — January 2025. Retrieved from http://pages.stern.nyu.edu/~adamodar/

Edwards, E. O., & Bell, P. W. (1961). The theory and measurement of business income. University of California Press.

Fama, E. F., & French, K. R. (1992). The cross-section of expected stock returns. The Journal of Finance, 47(2), 427–465.

Feltham, G. A., & Ohlson, J. A. (1995). Valuation and clean surplus accounting for operating and financial activities. Contemporary Accounting Research, 11(2), 689–731.

Gordon, M. J., & Shapiro, E. (1956). Capital equipment analysis: The required rate of profit. Management Science, 3(1), 102–110.

Jensen, M. C. (1968). The performance of mutual funds in the period 1945–1964. The Journal of Finance, 23(2), 389–416.

J.P. Morgan. (1994). RiskMetrics Technical Document. New York: J.P. Morgan.

Kumar, R. (2021). Post-COVID pharmaceutical sector valuation in India: EV/EBITDA re-rating analysis. SEBI Journal of Capital Markets Research, 8(2), 45–67.

Lintner, J. (1965). The valuation of risk assets and the selection of risky investments in stock portfolios and capital budgets. The Review of Economics and Statistics, 47(1), 13–37.

Liu, J., Nissim, D., & Thomas, J. (2002). Equity valuation using multiples. Journal of Accounting Research, 40(1), 135–172.

Markowitz, H. (1952). Portfolio selection. The Journal of Finance, 7(1), 77–91.

Misra, D., & Kuhan, N. V. (2009). Validity of CAPM in the Indian market. The ICFAI University Journal of Financial Economics, 7(1), 23–34.

Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance, and the theory of investment. The American Economic Review, 48(3), 261–297.

Reserve Bank of India. (2026). Government securities yield data. Retrieved from https://www.rbi.org.in

Sharpe, W. F. (1964). Capital asset prices: A theory of market equilibrium under conditions of risk. The Journal of Finance, 19(3), 425–442.

Sharpe, W. F. (1966). Mutual fund performance. The Journal of Business, 39(1), 119–138.

Sortino, F. A., & van der Meer, R. (1991). Downside risk. The Journal of Portfolio Management, 17(4), 27–31.

Srivastava, A., & Bhargava, M. (2019). DCF valuation of Indian infrastructure companies: Challenges and adjustments. IIM Ahmedabad Working Paper.

Tobin, J. (1958). Liquidity preference as behaviour towards risk. Review of Economic Studies, 25(2), 65–86.

Treynor, J. L. (1965). How to rate management of investment funds. Harvard Business Review, 43(1), 63–75.

Williams, J. B. (1938). The theory of investment value. Harvard University Press.

ANNEXURES

Annexure A: Consolidated Valuation Summary

Company	WACC %	g %	Intrinsic Value ₹	CMP ₹	Upside %	Model Applied
BSE Ltd.	9.98	5.0	2,595	4,187	-38.0	FCFF-DCF (Two-Stage)
CDSL	9.63	5.0	2,197	1,200	+83.1	FCFF-DCF (Two-Stage)
Hindustan Zinc	13.58	5.0	500.95	564.60	-11.3	FCFF-DCF (Two-Stage)
MTAR Technologies	12.24	5.0	420.61	7,948	-94.7	FCFF-DCF (Two-Stage)
J&K Bank	11.68	7.5	243.72	140.20	+73.8	Excess Return Model (Ohlson)
NTPC Ltd.	7.46	5.0	502.64	388.80	+29.3	FCFF-DCF (Two-Stage)
Cipla Ltd.	8.39	5.0	1,152.97	1,401.90	-17.8	FCFF-DCF (Two-Stage)
Persistent Systems	8.82	5.0	6,036.81	5,019	+20.3	FCFF-DCF (Two-Stage)
JBM Auto	10.69	5.0	293.59	642.55	-54.3	FCFF-DCF (Two-Stage)
Titan Company	9.52	5.0	449.47	4,083	-89.0	FCFF-DCF (Two-Stage)

Source: Own Analysis | J&K Bank: Ke=11.68%, g=7.5% | All other stocks: g=5.0% | Prices as of April–May 2026

Annexure B: List of Figures

Annexure C: List of Tables

ANNEXURE E: EXCEL FINANCIAL MODEL SCREENSHOTS

This annexure presents screenshots of the actual Excel financial models built for each company in the coverage universe. Only the three primary valuation worksheets are shown: (i) the FCFF DCF Model worksheet showing the explicit period Free Cash Flow projections, terminal value, enterprise value, and equity value per share; (ii) the Excess Return Model worksheet for J&K Bank (where FCFF methodology is not appropriate); and (iii) the Comparable Company Analysis (Relative Valuation) worksheet showing the peer group multiples and implied valuation for each stock.

E.1 FCFF DCF Model Worksheets — All 9 Companies

The FCFF worksheet in each model presents the two-stage DCF computation including: projected EBIT, effective tax rate, NOPAT, reinvestment rate, Free Cash Flow to Firm for each year FY2026–FY2030, mid-year discounting factors, present

values, terminal value computation at g = 5%, and the final equity value per share reconciliation. The model structure is consistent across all nine companies, enabling comparability.

E.1.1 BSE Ltd. — FCFF DCF Model

BSE Ltd. — FCFF DCF Financial Model (FY2025-FY2030)

Source: Own Financial Model | All values ₹ Crore unless noted

Line Item (₹ Crore unless noted)	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
EBIT	3,321	3,986	4,785	5,744	6,895	8,276
Tax Rate	0.25	0.25	0.25	0.25	0.25	0.25
NOPAT=EBIT(1-Tax)	2,495	2,994	3,594	4,315	5,179	6,217
Less:Reinvestment Rate	0.25	0.22	0.19	0.15	0.12	0.12
Free Cash Flow to Firm	1,862	2,335	2,923	3,653	4,558	5,471
Mid Year Convention		0.50	1.50	2.50	3.50	4.50
Discounting Factor		0.95	0.87	0.79	0.72	0.65
PV of FCFF		2,226	2,534	2,880	3,267	3,566
Expected Growth	0.20					
Terminal Growth	5.0%					
WACC	10.0%					
— Terminal Value —						
FCFF(n+1)	6,567					
WACC	10.0%					
Terminal Growth rate	5.0%					
Terminal Value	131,997					
— Equity Value —						
Sum of PV of FCFF	14,475					
PV of Terminal Value	86,048					
Enterprise Value(Value of operating Assets)	100,522					
Add: Cash	5,173					
Less: Debt	2.0%					
Value of Equity	105,695					
No. of Shares	40.73					
Equity Value per Share	2,595					
Current Market Share Price	4,187					
Discount/Premium	1.61					
Potential Upside/Downside	-0.38					

Figure E.1.1: BSE Ltd. — FCFF DCF Financial Model (FY2025–FY2030)

Source: Own Financial Model | BSE_fcff.xlsx | FCFF-DCF Sheet

E.1.2 CDSL — FCFF DCF Model

CDSL — FCFF DCF Financial Model (FY2025-FY2030)

Source: Own Financial Model | All values ₹ Crore unless noted

Line Item (₹ Crore unless noted)	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
EBIT	610.21	849.07	1,181	1,644	2,287	3,183
Tax Rate	0.25	0.25	0.25	0.25	0.25	0.25
NOPAT=EBIT(1-Tax)	455.99	634.49	882.86	1,228	1,709	2,378
Less:Reinvestment Rate	0.40	0.33	0.26	0.19	0.12	0.12
Free Cash Flow to Firm	272.13	423.58	651.90	994.06	1,504	2,093
Mid Year Convention		0.50	1.50	2.50	3.50	4.50
Discounting Factor		0.96	0.87	0.79	0.72	0.66
PV of FCFF		404.55	567.92	789.94	1,090	1,384
Expected Growth	0.39					
Terminal Growth	5.0%					
WACC	9.6%					
— Terminal Value —						
FCFF(n+1)	2,912					
WACC	9.6%					
Terminal Growth rate	5.0%					
Terminal Value	62,910					
— Equity Value —						
Sum of PV of FCFF	4,237					
PV of Terminal Value	41,596					
Enterprise Value(Value of operating Assets)	45,832					
Add: Cash	83.07					
Less: Debt	2.20					
Value of Equity	45,913					
No. of Shares	20.90					
Equity Value per Share	2,197					
Current Market Share Price	1,200					
Discount/Premium	0.55					
Potential Upside/Downside	0.83					
Over/Undervalued	**Undervalued**					

Figure E.1.2: CDSL — FCFF DCF Financial Model (FY2025–FY2030)

Source: Own Financial Model | C_D_S_L.xlsx | FCFF Sheet

E.1.3 Hindustan Zinc — FCFF DCF Model

Hindustan Zinc — FCFF DCF Financial Model (FY2025-FY2030)

Source: Own Financial Model | All values ₹ Crore unless noted

Line Item (₹ Crore unless noted)	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
EBIT	14575	17,528	21,079	25,350	30,486	36,663
Tax Rate	0.25	0.25	0.25	0.25	0.25	0.25
NOPAT=EBIT(1-Tax)	10,889	13,095	15,748	18,939	22,776	27,391
Less:Reinvestment Rate	0.26	0.25	0.24	0.23	0.22	0.22
Free Cash Flow to Firm	8,111	9,869	12,007	14,606	17,765	21,365
Mid Year Convention		0.50	1.50	2.50	3.50	4.50
Discounting Factor		0.94	0.83	0.73	0.64	0.56
PV of FCFF		9,260	9,920	10,624	11,377	12,047
Expected Growth	0.20					
Terminal Growth	5.0%					
WACC	0.14					
— Terminal Value —						
FCFF(n+1)	25,693					
WACC	0.14					
Terminal Growth rate	5.0%					
Terminal Value	299,528					
— Equity Value —						
Sum of PV of FCFF	53,228					
PV of Terminal Value	168,894					
Enterprise Value(Value of operating Assets)	222,123					
Add: Cash	175					
Less: Debt	10651					
Value of Equity	211,647					
No. of Shares	422.49					
Equity Value per Share	500.95					
Current Market Share Price(As on 12/04/2026)	564.60					
Discount/Premium	1.13					
Potential Upside/Downside	-0.11					

Figure E.1.3: Hindustan Zinc — FCFF DCF Financial Model (FY2025–FY2030)

Source: Own Financial Model | DCF_Modelling_hinzinc.xlsx | DCF-FCFF Sheet

E.1.4 MTAR Technologies — FCFF DCF Model

MTAR Technologies — FCFF DCF Financial Model (FY2025-FY2030)

Source: Own Financial Model | All values ₹ Crore unless noted

Line Item (₹ Crore unless noted)	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
EBIT	156.60	184.64	217.70	256.69	302.65	356.85
Tax Rate	0.25	0.25	0.25	0.25	0.25	0.25
NOPAT=EBIT(1-Tax)	117.30	138.30	163.07	192.27	226.70	267.29
Less:Reinvestment Rate	1.80	1.45	1.11	0.76	0.42	0.42
Free Cash Flow to Firm	-93.30	-62.45	-17.56	45.40	131.48	155.03
Mid Year Convention		0.50	1.50	2.50	3.50	4.50
Discounting Factor		0.94	0.84	0.75	0.67	0.59
PV of FCFF		-58.95	-14.77	34.02	87.78	92.21
Expected Growth	0.18					
Terminal Growth	5.0%					
WACC	0.12					
— Terminal Value —						
FCFF(n+1)	182.79					
WACC	0.12					
Terminal Growth rate	5.0%					
Terminal Value	2,525					
— Equity Value —						
Sum of PV of FCFF	140.29					
PV of Terminal Value	1,502					
Enterprise Value(Value of operating Assets)	1,642					
Add: Cash	21.12					
Less: Debt	370					
Value of Equity	1,293					
No. of Shares	3.08					
Equity Value per Share	420.61					
Current Market Share Price	7,948					
Discount/Premium	18.90					
Potential Upside/Downside	-0.95					

Figure E.1.4: MTAR Technologies — FCFF DCF Financial Model (FY2025–FY2030)

Source: Own Financial Model | MTAR_Technologie_comp.xlsx | FCFF Sheet

E.1.5 NTPC Ltd. — FCFF DCF Model

NTPC Ltd. — FCFF DCF Financial Model (FY2025-FY2030)

Source: Own Financial Model | All values ₹ Crore unless noted

Line Item (₹ Crore unless noted)	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
EBIT	44,949	50,552	56,853	63,939	71,909	80,872
Tax Rate	0.26	0.26	0.26	0.26	0.26	0.26
NOPAT=EBIT(1-Tax)	33,439	37,607	42,294	47,566	53,495	60,163
Less:Reinvestment Rate	1.38	1.20	1.02	0.83	0.65	0.65
Free Cash Flow to Firm	-12,858	-7,555	-730.16	7,913	18,723	21,057
Mid Year Convention		0.50	1.50	2.50	3.50	4.50
Discounting Factor		0.96	0.90	0.84	0.78	0.72
PV of FCFF		-7,288	-655.42	6,610	14,553	15,230
Expected Growth	0.12					
Terminal Growth	5.0%					
WACC	7.5%					
— Terminal Value —						
FCFF(n+1)	23,682					
WACC	7.5%					
Terminal Growth rate	5.0%					
Terminal Value	960,816					
— Equity Value —						
Sum of PV of FCFF	28,450					
PV of Terminal Value	694,934					
Enterprise Value(Value of operating Assets)	723,383					
Add: Cash	11,457					
Less: Debt	247575					
Value of Equity	487,265					
No. of Shares	969.42					
Equity Value per Share	502.64					
Current Market Share Price	388.80					
Discount/Premium	0.77					
Potential Upside/Downside	0.29					
Over/Undervalued	**Undervalued**					

Figure E.1.5: NTPC Ltd. — FCFF DCF Financial Model (FY2025–FY2030)

Source: Own Financial Model | NTPC__1_.xlsx | FCFF Sheet

E.1.6 Cipla Ltd. — FCFF DCF Model

Cipla Ltd. — FCFF DCF Financial Model (FY2025-FY2030)

Source: Own Financial Model | All values ₹ Crore unless noted

Line Item (₹ Crore unless noted)	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
EBIT	5,287	5,956	6,708	7,556	8,511	9,587
Tax Rate	0.26	0.26	0.26	0.26	0.26	0.26
NOPAT=EBIT(1-Tax)	3,917	4,412	4,970	5,598	6,305	7,102
Less:Reinvestment Rate	0.73	0.67	0.61	0.56	0.50	0.50
Free Cash Flow to Firm	1,069	1,454	1,920	2,481	3,153	3,551
Mid Year Convention		0.50	1.50	2.50	3.50	4.50
Discounting Factor		0.96	0.89	0.82	0.75	0.70
PV of FCFF		1,397	1,702	2,028	2,378	2,471
Expected Growth	0.13					
Terminal Growth	5.0%					
WACC	8.4%					
— Terminal Value —						
FCFF(n+1)	4,000					
WACC	8.4%					
Terminal Growth rate	5.0%					
Terminal Value	117,991					
— Equity Value —						
Sum of PV of FCFF	9,976					
PV of Terminal Value	82,110					
Enterprise Value(Value of operating Assets)	92,087					
Add: Cash	1,307					
Less: Debt	257					
Value of Equity	93,137					
No. of Shares	80.78					
Equity Value per Share	1,153					
Current Market Share Price	1,402					
Discount/Premium	1.22					
Potential Upside/Downside	-0.18					
Over/Undervalued	**Overvalued**					

Figure E.1.6: Cipla Ltd. — FCFF DCF Financial Model (FY2025–FY2030)

Source: Own Financial Model | Cipla__1_.xlsx | FCFF Sheet

E.1.7 Persistent Systems — FCFF DCF Model

Persistent Systems — FCFF DCF Financial Model (FY2025-FY2030)

Source: Own Financial Model | All values ₹ Crore unless noted

Line Item (₹ Crore unless noted)	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
EBIT	2,484	2,965	3,539	4,224	5,042	6,018
Tax Rate	0.23	0.23	0.23	0.23	0.23	0.23
NOPAT=EBIT(1-Tax)	1,921	2,293	2,737	3,267	3,900	4,655
Less:Reinvestment Rate	0.65	0.52	0.40	0.27	0.15	0.15
Free Cash Flow to Firm	677.42	1,094	1,646	2,371	3,315	3,956
Mid Year Convention		0.50	1.50	2.50	3.50	4.50
Discounting Factor		0.96	0.88	0.81	0.74	0.68
PV of FCFF		1,048	1,450	1,919	2,466	2,704
Expected Growth	0.19					
Terminal Growth	5.0%					
WACC	8.8%					
— Terminal Value —						
FCFF(n+1)	4,722					
WACC	8.8%					
Terminal Growth rate	5.0%					
Terminal Value	123,532					
— Equity Value —						
Sum of PV of FCFF	9,587					
PV of Terminal Value	84,438					
Enterprise Value(Value of operating Assets)	94,026					
Add: Cash	1,218					
Less: Debt	0					
Value of Equity	95,244					
No. of Shares	15.78					
Equity Value per Share	6,037					
Current Market Share Price	5019					
Discount/Premium	0.83					
Potential Upside/Downside	0.20					
Over/Undervalued	**Undervalued**					

Figure E.1.7: Persistent Systems — FCFF DCF Financial Model (FY2025–FY2030)

Source: Own Financial Model | Persistent_Systems__1_.xlsx | FCFF Sheet

E.1.8 JBM Auto — FCFF DCF Model

JBM Auto — FCFF DCF Financial Model (FY2025-FY2030)

Source: Own Financial Model | All values ₹ Crore unless noted

Line Item (₹ Crore unless noted)	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
EBIT	609.23	743.54	907.45	1,107	1,352	1,650
Tax Rate	0.23	0.23	0.23	0.23	0.23	0.23
NOPAT=EBIT(1-Tax)	467.45	570.50	696.26	849.76	1,037	1,266
Less:Reinvestment Rate	2.12	1.70	1.29	0.87	0.45	0.45
Free Cash Flow to Firm	-524.97	-402.08	-199.50	111.94	570.40	696.14
Mid Year Convention		0.50	1.50	2.50	3.50	4.50
Discounting Factor		0.95	0.86	0.78	0.70	0.63
PV of FCFF		-382.17	-171.30	86.83	399.70	440.68
Expected Growth	0.22					
Terminal Growth	5.0%					
WACC	0.11					
— Terminal Value —						
FCFF(n+1)	849.61					
WACC	0.11					
Terminal Growth rate	5.0%					
Terminal Value	14,919					
— Equity Value —						
Sum of PV of FCFF	373.75					
PV of Terminal Value	9,444					
Enterprise Value(Value of operating Assets)	9,818					
Add: Cash	129.50					
Less: Debt	3007					
Value of Equity	6,941					
No. of Shares	23.64					
Equity Value per Share	293.59					
Current Market Share Price	642.55					
Discount/Premium	2.19					
Potential Upside/Downside	-0.54					
Over/Undervalued	**Overvalued**					

Figure E.1.8: JBM Auto — FCFF DCF Financial Model (FY2025–FY2030)

Source: Own Financial Model | JBM_Auto.xlsx | FCFF Sheet

E.1.9 Titan Company — FCFF DCF Model

Titan Company — FCFF DCF Financial Model (FY2025-FY2030)

Source: Own Financial Model | All values ₹ Crore unless noted

Line Item (₹ Crore unless noted)	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
EBIT	7981	9,271	10,769	12,510	14,532	16,881
Tax Rate	0.25	0.25	0.25	0.25	0.25	0.25
NOPAT=EBIT(1-Tax)	5,953	6,915	8,033	9,331	10,840	12,592
Less:Reinvestment Rate	0.91	0.88	0.85	0.83	0.80	0.80
Free Cash Flow to Firm	558.70	832.52	1,180	1,619	2,168	2,518
Mid Year Convention		0.50	1.50	2.50	3.50	4.50
Discounting Factor		0.96	0.87	0.80	0.73	0.66
PV of FCFF		795.52	1,030	1,290	1,577	1,673
Expected Growth	0.16					
Terminal Growth	5.0%					
WACC	9.5%					
— Terminal Value —						
FCFF(n+1)	2,925					
WACC	9.5%					
Terminal Growth rate	5.0%					
Terminal Value	64,745					
— Equity Value —						
Sum of PV of FCFF	6,365					
PV of Terminal Value	43,005					
Enterprise Value(Value of operating Assets)	49,370					
Add: Cash	1917					
Less: Debt	11378					
Value of Equity	39,909					
No. of Shares	88.79					
Equity Value per Share	449.47					
Current Market Share Price	4,083					
Discount/Premium	9.08					
Potential Upside/Downside	-0.89					
Over/Undervalued	**Overvalued**					

Figure E.1.9: Titan Company — FCFF DCF Financial Model (FY2025–FY2030)

Source: Own Financial Model | Titan_Company.xlsx | FCFF Sheet

E.2 Excess Return Model — J&K Bank

The Excess Return Model (Ohlson, 1995) was applied to J&K Bank as the FCFF methodology is inappropriate for banks where operating and financing activities cannot be cleanly separated. The model values equity as current book value per share plus the present value of future excess returns above the cost of equity, using BVPS = ₹149.84, EPS = ₹21.43, Ke = 11.68%, and a stable growth rate of 7.5%.

E.2.1 J&K Bank — Excess Return Model (Ohlson Model)

J&K BANK — EXCESS RETURN MODEL (OHLSON RESIDUAL INCOME MODEL)		
Input Parameters		
Book Value Per Share (BVPS) — FY2024	₹ 149.84	*From FY2024 Annual Report*
Earnings Per Share (EPS) — FY2024	₹ 21.43	*From FY2024 P&L Statement*
Dividends Per Share (DPS) — FY2024	₹ 1.50	*Declared dividend FY2024*
Risk-Free Rate (Rf)	7.12%	*10-Yr G-Sec, April 2026 (RBI)*
Equity Risk Premium (ERP)	7.43%	*Damodaran, India, Jan 2025*
Beta (β) — Comparable Company Approach	0.49	*Unlevered & relevered peer beta*
Cost of Equity (Ke = Rf + β × ERP)	11.68%	*= 7.12% + 0.49 × 7.43%*
Stable Growth Rate (g)	7.50%	*Recovery phase; below Ke*
Excess Return Computation		
Normal Earnings = Ke × BVPS	₹ 17.50	*= 11.68% × 149.84*
Actual EPS	₹ 21.43	
Excess Earnings = EPS − (Ke × BVPS)	**₹ 3.93**	*= 21.43 − 17.50*
Valuation — Gordon Growth in Perpetuity		
V_0 = BVPS + Excess Earnings / (Ke − g)		
PV of Excess Returns = 3.93 / (11.68% − 7.50%)	**₹ 93.90**	*= 3.93 / 4.18%*
Intrinsic Value per Share = 149.84 + 93.90	**₹ 243.72**	*← Equity Fair Value*
Valuation Summary		
Current Market Price (CMP)	₹ 140.20	*As of May 2026, NSE*
Intrinsic Value (Excess Return Model)	₹ 243.72	
Upside/(Downside)	**+73.8%**	*= (243.72 / 140.20) − 1*
P/BV at CMP	**0.94×**	*= 140.20 / 149.84 (below book)*
P/BV at Intrinsic Value	**1.63×**	*= 243.72 / 149.84*
RECOMMENDATION	**BUY**	← Deep value; below book value

Sensitivity: Intrinsic Value at Varying Ke and g						
g →	6.50%	7.00%	7.50%	8.00%	8.50%	
Ke = 10.68% (−100 bps)	152	170	197	241	341	*Bull Case*
Ke = 11.18% (−50 bps)	142	157	179	214	281	
Ke = 11.68% (Base Case) ←	132	146	244*	175	215	*Base Case*
Ke = 12.18% (+50 bps)	124	136	150	168	197	
Ke = 12.68% (+100 bps)	116	127	139	153	174	*Bear Case*

*Note: *Base case = ₹243.72 at Ke=11.68%, g=7.50% | All sensitivity values in ₹ per share*

Source: Own Financial Model | J___K_Bank.xlsx | Ohlson (1995) Residual Income Framework

Figure E.2.1: J&K Bank — Excess Return Model Worksheet (Ohlson Residual Income Model)

Source: Own Financial Model | J___K_Bank.xlsx | Excess Return Model> Sheet

E.3 Comparable Company Analysis (Relative Valuation) — All 10 Companies

The comparable company analysis worksheet shows the peer group for each stock, listing each peer's current share price, shares outstanding, equity value, net debt, enterprise value, revenue, EBITDA, and net income — followed by the EV/Revenue, EV/EBITDA, and P/E multiples (or P/BV and P/E for J&K Bank). The peer group statistics (High, 75th Percentile, Average, Median, 25th Percentile, Low) are shown below the peer list, followed by the implied enterprise value and equity value per share derived from the median multiple applied to the subject company's financials.

E.3.1 BSE Ltd. — Comparable Company Analysis

BSE Ltd. — Comparable Company (Relative) Valuation

Source: Own Financial Model | EV/Revenue, EV/EBITDA, P/E multiples

	Market Data					Financials			Valuation		
Company	Share Price	Share Os	Equity Value	Net Debt	Enterprise Value	Revenue	EBITDA	Net Income	EV/Revenue	EV/EBITDA	P/E
BSE	4,187	40.73	170,532	2.0%	165,360	4,834	3,480	2,487	34.21	47.51	68.56
ICICI AMC	3,200	49.43	158,161	0	158,014	5,765	4,554	3,298	27.41	34.70	47.95
Billionbrair	188.37	627.36	118,176	292.23	110,129	4,645	2,926	2083	23.71	37.64	56.73
HDFC AMC	2,728	42.85	116,891	0	116,866	4,119	3,789	2,859	28.38	30.84	40.88
Multi Comr	3,323	25.50	84,731	4.76	82,199	2302	1,773	1,332	35.71	46.37	63.63
Motil.Oswa	843.20	60.20	50,761	21,255	58,532	9,374	3,937	1,872	6.24	14.87	27.11
C D S L	1,200	20.90	25,076	2.20	24,995	1,145	675.50	455.07	21.83	37.00	55.10
Cams Serv	769.10	24.80	19,074	64.23	18,729	1,516	727.80	472.02	12.35	25.73	40.41
N S D L	812.40	20	16248	16.59	15,757	1,530	566.09	380.01	10.30	27.83	42.76
Indian Ene	127.05	89.17	11,329	11.16	11,236	608.39	650.98	473.71	18.47	17.26	23.92
High									35.71	47.51	68.56
75th Perc									28.13	37.48	56.33
Average									21.86	31.98	46.71
Median									22.77	32.77	45.35
25th Perc									13.88	26.26	40.53
Low									6.24	14.87	23.92
BSE Compa									EV/Revenue	EV/EBITDA	P/E
Implied En									110,075	114,055	112,809
Net Debt									2.0%	2.0%	2.0%
Implied Ma									110,075	114,055	112,809
Shares Out									40.73	40.73	40.73
Implied Va									2,703	2,800	2,770
CMP									4,187		
Over/Und									Overvalued	Overvalued	Overvalued
Average i										2,758	
Potential U										0.52	

Figure E.3.1: BSE Ltd. — Comparable Company Valuation (EV/Revenue, EV/EBITDA, P/E)

Source: Own Financial Model | BSE_fcff.xlsx | COMP_VAL Sheet | Peers: ICICI AMC, HDFC AMC, MCX, CDSL, CAMS, NSDL, IEX

E.3.2 CDSL — Comparable Company Analysis

CDSL — Comparable Company (Relative) Valuation

Source: Own Financial Model | EV/Revenue, EV/EBITDA, P/E multiples

	Market Data					Financials			Valuation		
Company	Share Price	Share Os	Equity Value	Net Debt	Enterprise Value	Revenue	EBITDA	Net Income	EV/Revenue	EV/EBITDA	P/E
C D S L	1,200	20.90	25,076	2.20	24,995	1,145	675.50	455.07	21.83	37.00	55.10
Cams Serv	769.10	24.80	19,074	64.23	18,729	1,516	727.80	472.02	12.35	25.73	40.41
N S D L	812.40	20	16248	16.59	15,757	1,530	566.09	380.01	10.30	27.83	42.76
KFin Techn	831.50	17.26	14,352	55.44	14,195	1,301	572.66	343.71	10.91	24.79	41.76
Beacon Tru	97	1.81	175.57	0	173.42	34.16	12.64	6.88	5.08	13.72	25.52
High									21.83	37.00	55.10
75th Perc									12.35	27.83	42.76
Average									12.09	25.82	41.11
Median									10.91	25.73	41.76
25th Perc									10.30	24.79	40.41
Low									5.08	13.72	25.52
CDSL Com									EV/Revenue	EV/EBITDA	P/E
Implied En									12,487	17,383	19,004
Net Debt									2.20	2.20	2.20
Implied Ma									12,485	17,381	19,002
Shares Out									20.90	20.90	20.90
Implied Va									597.37	831.62	909.17
CMP									1,200		
Over/Und									Overvalued	Overvalued	Overvalued
Average i										779.39	
Potential U										-0.35	

Figure E.3.2: CDSL — Comparable Company Valuation (EV/Revenue, EV/EBITDA, P/E)

Source: Own Financial Model | C_D_S_L.xlsx | comp_val Sheet | Peers: CAMS, NSDL, KFin Technologies, Beacon Trusteeship

E.3.3 Hindustan Zinc — Comparable Company Analysis

Hindustan Zinc — Comparable Company (Relative) Valuation

Source: Own Financial Model | EV/Revenue, EV/EBITDA, P/E multiples

	Market Data					Financials			Valuation		
Company	Ticker Share Price	Share Os	Equity Value	Net Debt	Enterprise Value	Revenue	EBITDA	Net Income	EV/Revenue	EV/EBITDA	P/E
Vedanta	745.15	391.04	291,383	77225	368,608	120395	36,118	20704	3.06	10.21	14.07
Adani Ente	2,087	129.16	269,531	102,502	372,034	94,995	16,149	14,132	3.92	23.04	19.07
Tata Steel	206.61	1,248	257,922	83,996	341,918	225,088	33,763	9,122	1.52	10.13	28.28
Hindustan	564.60	422.53	238,560	10994	249,554	36211	19,916	11691	6.89	12.53	20.41
Hindalco Ir	992.10	224.72	222,945	64032	286,977	261701	36,638	16078	1.10	7.83	13.87
Jindal Stee	1,219	102.01	124,371	14,976	139,347	50,190	9,034	2,016	2.78	15.42	61.69
Lloyds Met	1,506	56.28	84,769	7,424	92,193	12,286	4,054	2,500	7.50	22.74	33.90
Natl. Alumi	417	183.66	76,586	-5,371	71,215	18,098	8,868	6,142	3.93	8.03	12.47
NMDC	85.07	879.18	74,792	-6,449	68,343	27,732	10,261	6,900	2.46	6.66	10.84
Hindustan	530.05	96.70	51,256	74.32	51,330	2,653	1,088	667.15	19.35	47.19	76.83
High									19.35	47.19	76.83
75th Perc									6.15	20.91	32.50
Average									5.25	16.38	29.14
Median									3.49	11.37	19.74
25th Perc									2.54	8.55	13.92
Low									1.10	6.66	10.84
Hindutan Z									EV/Revenue	EV/EBITDA	P/E
Implied En									126,340	226,404	241,759
Net Debt									10994	10994	10994
Implied Ma									115,346	215,410	230,765
Shares Out									422.53	422.53	422.53
Implied Va									272.99	509.81	546.15
CMP									564.60		
Over/Und									Overvalued	Overvalued	Overvalued
Average i										442.98	
Potential U										-0.22	

Figure E.3.3: Hindustan Zinc — Comparable Company Valuation (EV/Revenue, EV/EBITDA, P/E)

Source: Own Financial Model | comparable_valuation_hind_zinc.xlsx | Comps_Val Sheet | Peers: Vedanta, Tata Steel, Hindalco, NMDC

E.3.4 MTAR Technologies — Comparable Company Analysis

MTAR Technologies — Comparable Company (Relative) Valuation

Source: Own Financial Model | EV/Revenue, EV/EBITDA, P/E multiples

	Market Data					Financials			Valuation		
Company	Share Price	Share Out	Equity Value	Net Debt	Enterprise Value	Revenue	EBITDA	Net Income	EV/Revenue	EV/EBITDA	P/E
Bharat Ele	420.40	730.98	307,304	65.46	298,797	27,610	8,559	6,062	10.82	34.91	50.69
Hind.Aeror	4,370	66.88	292,292	10.97	246,107	33,089	13,566	9,116	7.44	18.14	32.07
Bharat Dyr	1,304	36.66	47,797	1.24	43,608	3,739	859.87	579.92	11.66	50.71	82.42
Garden Re	2,691	11.46	30,834	37.39	27,484	7,002	1,050	747.93	3.93	26.17	41.23
MTAR Tech	7,948	3.08	24,478	376.57	24,834	876.11	192.74	95.32	28.35	128.84	256.80
Data Patte	3,934	5.60	22,033	5.27	21,945	924.77	397.65	271.37	23.73	55.19	81.19
Zen Techn	1,604	9.03	14,482	18.51	14,146	687.69	330.09	217.92	20.57	42.86	66.46
Aegus	214.75	67.07	14,403	785.05	15,109	924.61	120.20	-102.35	16.34	125.70	-140.73
Apollo Micr	358.60	35.73	12,813	543.26	13,200	904.32	226.08	107.38	14.60	58.39	119.32
Astra Micr	1,184	9.49	11,241	277.79	11,421	1,082	324.73	160.47	10.55	35.17	70.05
High									28.35	128.84	256.80
75th Perc									19.51	57.59	82.11
Average									14.80	57.61	65.95
Median									13.13	46.78	68.25
25th Perc									10.62	34.97	43.59
Low									3.93	18.14	-140.73
MTAR Com									EV/Revenue	EV/EBITDA	P/E
Implied En									11,504	9,018	6,882
Net Debt									376.57	376.57	376.57
Implied Ma									11,127	8,641	6,506
Shares Out									3.08	3.08	3.08
Implied Va									3,613	2,806	2,112
CMP									7,948		
Over/Und									Overvalued	Overvalued	Overvalued
Average i										2,844	
Potential U										-0.64	

Figure E.3.4: MTAR Technologies — Comparable Company Valuation (EV/Revenue, EV/EBITDA, P/E)

Source: Own Financial Model | MTAR_Technologie_comp.xlsx | Comp valuation Sheet | Peers: BEL, HAL, BDL, Garden Reach, Data Patterns

E.3.5 J&K Bank — Comparable Company Analysis

J&K Bank — Comparable Company (Relative) Valuation

Source: Own Financial Model | EV/Revenue, EV/EBITDA, P/E multiples

	Market Data					Financials			Valuation		
Company	Ticker Share Price	Share Out	Equity Value	EPS		Book Value	Revenue	Net Income	P/BV		P/E
HDFC Bar	759.05	1,540	1,168,656	51.45		377.77	348,615	79,219	2.01		14.75
ICICI Bank	1,243	716.97	891,122	80.81		503.31	195,218	57,936	2.47		15.38
SBI	951.05	923.06	877,876	93.89		645.82	514,933	86,666	1.47		10.13
Kotak Mal	380.30	994.65	378,265	19.39		182.09	69,781	19,288	2.09		19.61
Bank of B	263.05	517.14	136,034	38.81		320.74	134,298	20,070	0.82		6.78
Punjab Na	101.85	1,149	117,055	16.07		130.49	130,772	18,467	0.78		6.34
Canara Ba	128	907.07	116,105	19.71		129.76	126,371	17,879	0.99		6.49
Indian Ba	818.50	134.70	110,252	86.91		594.25	67,504	11,707	1.38		9.42
IDFC First	68.31	860.83	58,803	1.90		54.71	40,549	1,636	1.25		35.94
J & K Bank	140.20	110.12	15,439	21.43		149.84	13,151	2,360	0.94		6.54
High									2.47		35.94
75th Per									2.01		15.38
Average									1.47		13.87
Median									1.38		10.13
25th Per									0.99		6.78
Low									0.78		6.34
J&K Bank									P/BV		P/E
Implied Va									206.38		217.04
Average										211.71	
CMP(21-0										140.20	
Under/ove									Undervalued		Undervalued
Potential										0.51	

Figure E.3.5: J&K Bank — Comparable Company Valuation (P/BV and P/E)

Source: Own Financial Model | J___K_Bank.xlsx | comp_val Sheet | Peers: HDFC Bank, ICICI Bank, SBI, Kotak, BoB, PNB, Canara, Indian Bank

E.3.6 NTPC Ltd. — Comparable Company Analysis

NTPC Ltd. — Comparable Company (Relative) Valuation

Source: Own Financial Model | EV/Revenue, EV/EBITDA, P/E multiples

	Market Data					Financials			Valuation		
Company	Share Price	Share Out	Equity Value	Net Debt	Enterprise Value	Revenue	EBITDA	Net Income	EV/Revenue	EV/EBITDA	P/E
NTPC	388.80	969.67	377,008	254,876	620,427	187,531	67,511	24,828	3.31	9.19	15.18
Adani Gree	1,358	164.72	223,723	103545	324,502	12928	11,635	1987	25.10	27.89	112.59
JSW Energy	548.45	175.73	96,379	76,946	167,560	18,901	10,963	2,762	8.87	15.28	34.89
NTPC Gree	105.38	842.63	88,796	21,826	107,105	2,568	2,542	557.39	41.71	42.13	159.31
NHPC Ltd	79	1,004	79,356	52,327	128,031	11,615	7,318	4,220	11.02	17.50	18.80
NLC India	350.50	138.66	48,600	27,892	75,650	17,490	7,520	3,769	4.33	10.06	12.89
SJVN	73.47	392.98	28,872	32,278	57,779	4,528	3,487	641.85	12.76	16.57	44.98
Nava	608.25	28.30	17,213	2,226	17,325	4,291	1,888	1,039	4.04	9.18	16.58
ACME Sola	282.65	60.60	17,129	19,896	30,867	2,023	2,266	497.89	15.26	13.62	34.40
Clean Max	1,172	11.71	13,725	12,684	24,122	1,913	1,301	85.57	12.61	18.54	160.40
High									41.71	42.13	160.40
75th Perc									14.63	18.28	95.69
Average									13.90	18.00	61.00
Median									11.82	15.93	34.65
25th Perc									5.46	10.95	17.13
Low									3.31	9.18	12.89
NTPC Com									EV/Revenue	EV/EBITDA	P/E
Implied En									2,215,939	1,075,299	1,115,063
Net Debt									254,876	254,876	254,876
Implied Ma									1,961,063	820,423	860,187
Shares Out									969.67	969.67	969.67
Implied Va									2,022	846.08	887.09
CMP									388.80		
Over/Und									Undervalued	Undervalued	Undervalued
Average i										1,252	
Potential U										2.22	

Figure E.3.6: NTPC Ltd. — Comparable Company Valuation (EV/Revenue, EV/EBITDA, P/E)

Source: Own Financial Model | NTPC__1_.xlsx | comp_val Sheet | Peers: Adani Green, JSW Energy, NHPC, NLC, SJVN, ACME Solar

E.3.7 Cipla Ltd. — Comparable Company Analysis

Cipla Ltd. — Comparable Company (Relative) Valuation

Source: Own Financial Model | EV/Revenue, EV/EBITDA, P/E multiples

	Market Data						Financials			Valuation		
Company	Ticker	Share Price	Share Os	Equity Value	Net Debt	Enterprise Value	Revenue	EBITDA	Net Income	EV/Revenue	EV/EBITDA	P/E
Sun Pharm		1,891	239.93	453,780	5,215	447,663	56,809	19,883	10,953	7.88	22.51	41.43
Divi's Lab.		6858	26.55	182,080	90	178,455	10314	3,816	2479	17.30	46.76	73.45
Torrent Pha		4,469	33.84	151,238	2822	153,480	12742	4,077	2272	12.05	37.64	66.57
Cipla		1,402	80.78	113,245	613.77	112,552	28,163	6,759	3,862	4.00	16.65	29.32
Dr Reddy's		1,318	83.47	110,055	7,734	114,441	33,700	7,751	4,158	3.40	14.76	26.47
Lupin		2,284	45.72	104,447	6,616	105,411	27,958	9,226	5,355	3.77	11.43	19.50
Zydus Life:		1,036	100.62	104,288	12496	115,367	27,148	8,959	5,124	4.25	12.88	20.35
Mankind Ph		2,514	41.29	103,807	6,312	109,636	14,278	3,998	1,938	7.68	27.42	53.56
Aurobindo		1,547	58.08	89,832	8,073	88,035	33,653	7,404	3,503	2.62	11.89	25.64
Laurus Lab		1351	53.99	72,940	2,518	75,345	6,813	1,839	890.14	11.06	40.96	81.94
High										17.30	46.76	81.94
75th Perc										10.26	35.09	63.31
Average										7.40	24.29	43.82
Median										5.96	19.58	35.38
25th Perc										3.83	13.35	25.85
Low										2.62	11.43	19.50
Cipla Comp										EV/Revenue	EV/EBITDA	P/E
Implied En										167,967	132,364	137,232
Net Debt										613.77	613.77	613.77
Implied Ma										167,353	131,751	136,619
Shares Out										80.78	80.78	80.78
Implied Va										2,072	1,631	1,691
CMP										1,402		
Under/over										Undervalued	Undervalued	Undervalued
Average i											1,798	
Potential U											0.28	

Figure E.3.7: Cipla Ltd. — Comparable Company Valuation (EV/Revenue, EV/EBITDA, P/E)

Source: Own Financial Model | Cipla__1_.xlsx | comp_val Sheet | Peers: Sun Pharma, Divi's, Torrent, Dr Reddy's, Lupin, Zydus

E.3.8 Persistent Systems — Comparable Company Analysis

Persistent Systems — Comparable Company (Relative) Valuation

Source: Own Financial Model | EV/Revenue, EV/EBITDA, P/E multiples

	Market Data						Financials			Valuation		
Company	Ticker	Share Price	Share Os	Equity Value	Net Debt	Enterprise Value	Revenue	EBITDA	Net Income	EV/Revenue	EV/EBITDA	P/E
TCS		2,327	361.81	842,004	11283	840,379	267021	77,436	49454	3.15	10.85	17.03
Infosys		1,181	405.57	479,059	9176	466,034	178650	46449	29474	2.61	10.03	16.25
HCL Techn		1,168	271.37	317,014	5215	298,804	130144	28,632	16652	2.30	10.44	19.04
Wipro		199.74	1,050	209,667	20291	219,403	92624	21,304	13,266	2.37	10.30	15.81
Tech Mahir		1420	97.98	139,132	2,186	136,212	56,815	9,090	4,806	2.40	14.98	28.95
LTM		4,130	29.66	122,487	2310	121,985	42,308	8,462	4,983	2.88	14.42	24.58
Persistent		5019	15.78	79,200	477.45	78,459	14,748	2,950	1,865	5.32	26.60	42.46
Coforge		1377	43	59211	727.80	58,840	16,403	2,952	1,745	3.59	19.93	33.94
Mphasis		2,228	19.09	42,525	2,620	43,392	15,880	3,335	1,863	2.73	13.01	22.83
Hexaware		502.90	61.10	30,727	680.70	29,425	13,836	2,352	1,393	2.13	12.51	22.06
High										5.32	26.60	42.46
75th Perc										3.08	14.84	27.86
Average										2.95	14.31	24.30
Median										2.67	12.76	22.45
25th Perc										2.38	10.54	17.53
Low										2.13	10.03	15.81
Persystent										EV/Revenue	EV/EBITDA	P/E
Implied En										39,387	37,642	42,342
Net Debt										477.45	477.45	477.45
Implied Ma										38,910	37,165	41,865
Shares Out										15.78	15.78	15.78
Implied Va										2,466	2,355	2,653
CMP										5019		
Over/unde										Overvalued	Overvalued	Overvalued
Average i											2,491	
Potential U											-0.50	

Figure E.3.8: Persistent Systems — Comparable Company Valuation (EV/Revenue, EV/EBITDA, P/E)

Source: Own Financial Model | Persistent_Systems__1_.xlsx | comp_val Sheet | Peers: TCS, Infosys, HCL Tech, Wipro, LTIMindtree, Coforge

E.3.9 JBM Auto — Comparable Company Analysis

JBM Auto — Comparable Company (Relative) Valuation

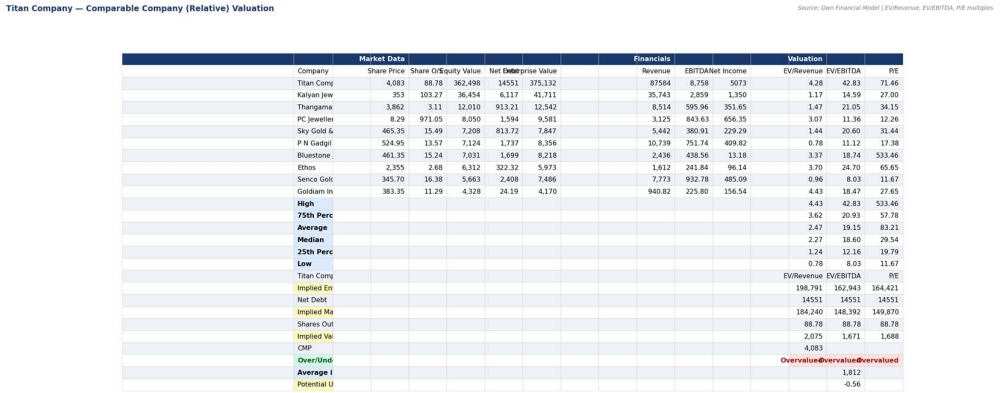
Source: Own Financial Model | EV/Revenue, EV/EBITDA, P/E multiples

	Market Data						Financials			Valuation		
Company	Ticker	Share Price	Share Os	Equity Value	Net Debt	Enterprise Value	Revenue	EBITDA	Net Income	EV/Revenue	EV/EBITDA	P/E
Samvardh.		137	1,055	144,595	19,170	155,531	126,104	12,610	4,086	1.23	12.33	35.39
Bosch		35210	2.95	103,870	118.80	103,586	20,035	3,406	2,773	5.17	30.41	37.45
Bharat For		1,899	47.81	90,782	7,309	97,100	16,812	3,194	1,089	5.78	30.40	83.33
Uno Minda		1,079	57.75	62,318	2,740	64,700	19,658	2,555	1,284	3.29	25.32	48.53
Sona BLW		584.30	62.20	36,343	363.41	36,486	4,124	1,196	646.42	8.85	30.51	56.22
Motherson		39.90	663.17	26,460	233.17	26,624	11,478	1,033	625.18	2.32	25.77	42.32
Asahi India		852.70	25.49	21,735	2,856	24,427	4,816	866.83	303.99	5.07	28.18	71.50
CIE Autom		462.80	37.94	17,559	425.88	17,730	9,746	1,559	871.15	1.82	11.37	20.16
Gabriel Ind		1,106	14.36	15,888	29.13	15,880	4,053	405.31	236.01	3.92	39.18	67.32
JBM Auto		642.55	23.65	15,196	3,029	18,096	6,088	791.49	238.07	2.97	22.86	63.83
High										8.85	39.18	83.33
75th Perc										5.15	30.41	66.45
Average										4.04	25.63	52.61
Median										3.60	26.98	52.38
25th Perc										2.48	23.48	38.67
Low										1.23	11.37	20.16
JBM Auto C										EV/Revenue	EV/EBITDA	P/E
Implied En										21,946	21,352	15,498
Net Debt										3,029	3,029	3,029
Implied Ma										18,918	18,323	12,469
Shares Out										23.65	23.65	23.65
Implied Va										799.89	774.77	527.25
CMP										642.55		
Under/Un										Undervalued	Undervalued	Overvalued
Average i											700.64	
Potential U											9.0%	

Figure E.3.9: JBM Auto — Comparable Company Valuation (EV/Revenue, EV/EBITDA, P/E)

Source: Own Financial Model | JBM_Auto.xlsx | comp_val Sheet | Peers: Samvardhana, Bosch, Bharat Forge, Uno Minda, Sona BLW

E.3.10 Titan Company — Comparable Company Analysis



Titan Company — Comparable Company (Relative) Valuation

Source: Own Financial Model | EV/Revenue, EV/EBITDA, P/E multiples

		Market Data						Financials			Valuation		
	Company	Share Price	Share O/S	Equity Value	Net Debt	Enterprise Value		Revenue	EBITDA	Net Income	EV/Revenue	EV/EBITDA	P/E
	Titan Comp	4,083	88.78	362,498	14551	375,132		87584	8,758	5073	4.28	42.83	71.46
	Kalyan Jew	353	103.27	36,454	6,117	41,711		35,743	2,859	1,350	1.17	14.59	27.00
	Thangama	3,862	3.11	12,010	913.21	12,542		8,514	595.96	351.65	1.47	21.05	34.15
	PC Jeweller	8.29	971.05	8,050	1,594	9,581		3,125	843.63	656.35	3.07	11.36	12.26
	Sky Gold &	465.35	15.49	7,208	813.72	7,847		5,442	380.91	229.29	1.44	20.60	31.44
	P N Gadgil	524.95	13.57	7,124	1,737	8,356		10,739	751.74	409.82	0.78	11.12	17.38
	Bluestone	461.35	15.24	7,031	1,699	8,218		2,436	438.56	13.18	3.37	18.74	533.46
	Ethos	2,355	2.68	6,312	322.32	5,973		1,612	241.84	96.14	3.70	24.70	65.65
	Senco Gol	345.70	16.38	5,663	2,408	7,486		7,773	932.78	485.09	0.96	8.03	11.67
	Goldiam In	383.35	11.29	4,328	24.19	4,170		940.82	225.80	156.54	4.43	18.47	27.65
	High										4.43	42.83	533.46
	75th Perc										3.62	20.93	57.78
	Average										2.47	19.15	83.21
	Median										2.27	18.60	29.54
	25th Perc										1.24	12.16	19.79
	Low										0.78	8.03	11.67
	Titan Comp										EV/Revenue	EV/EBITDA	P/E
	Implied En										198,791	162,943	164,421
	Net Debt										14551	14551	14551
	Implied Ma										184,240	148,392	149,870
	Shares Out										88.78	88.78	88.78
	Implied Va										2,075	1,671	1,688
	CMP										4,083		
	Over/Und										**Overvalued**	**Overvalued**	**Overvalued**
	Average I											1,812	
	Potential U											-0.56	

Figure E.3.10: Titan Company — Comparable Company Valuation (EV/Revenue, EV/EBITDA, P/E)

Source: Own Financial Model | Titan_Company.xlsx | comp_val Sheet | Peers: Kalyan Jewellers, Thangamayil, PC Jeweller, Senco Gold, Ethos