# Strategic Investment Portfolio Report (2025–2033)

Prepared by: Meet Vanja & Shreyas Institute: IIT BOMBAY

June 19, 2025

## Client: Mr. Karan Malhotra & Mrs. Meenal Malhotra

GitHub Repository: https://github.com/codedemon123/Portfolio-Managment

# 1 Executive Summary

This report presents a detailed, phased investment strategy for Mr. Karan and Mrs. Meenal Malhotra to meet long-term financial goals over an 8-year period (2025–2033). The portfolio includes a combination of gold, silver, large-cap stocks, mid-cap stocks, and tactical themes in lithium and Indian electronics, with adjustments based on key economic triggers.

# 2 Investment Philosophy

• Approach: Core & Satellite

• Focus: Value + Tactical Growth

• Horizon: Long-term (8 years)

• Risk Profile: Moderate to Aggressive

• Principles: Data-driven selection using Sharpe Ratio, ROE, ROA, Volatility, and Modern Portfolio Theory (MPT)

• Sectoral Preferences: Avoid sectors heavily reliant on Chinese imports post-2030

# 3 Investment Objectives

Objective	Corpus Needed	Timeline	Purpose
Buy Home	50L	2030	Downpayment for 3.5Cr property
Child's Education	2Cr	2033	Abroad education
Retirement Savings	1.5Cr	2033	Financial security

## 4 Investment Phases

## 4.1 Phase 1: 2025–2028

#### **Asset Allocation**

• Gold: 15,00,000

• Silver: 5,00,000

• Large Cap Stocks: 40,00,000

• Mid Cap Stocks: 20,00,000

#### Purpose of Each Asset

• Gold & Silver: Hedge against inflation and a store of value

• Large Cap Stocks: Stability and consistent returns

• Mid Cap Stocks: Growth potential, optimized through MPT

### **Key Financial Ratios**

• Sharpe Ratio:  $\frac{E[R_i]-R_f}{\sigma_i}$ 

• ROA: Net Income Total Assets

• ROE: Net Income Shareholders' Equity

• CAGR:  $\left(\frac{V_f}{V_i}\right)^{1/n} - 1$ 

• Volatility: Standard deviation of returns

• Correlation Matrix: Used to reduce risk through diversification

## Modern Portfolio Theory (MPT)

• Expected Return:  $E[R_p] = \mathbf{w}^T \mathbf{E}[R]$ 

• Portfolio Variance:  $\sigma_p^2 = \mathbf{w}^T \Sigma \mathbf{w}$ 

• Sharpe Optimization:  $\max_{\mathbf{w}} \frac{E[R_p] - R_f}{\sigma_p}$ 

#### **Excel References:**

Phase 1 Portfolio Sheet: https://docs.google.com/spreadsheets/d/19G4aEJ\_rjv8WqzX-uj7rznKedit?usp=sharing

• Mid Cap Stock Sheet: https://docs.google.com/spreadsheets/d/1XMoUO2ChwW6oOT7\_ B5EOflpTwCR4BxLjQVBCDJ50kUo/edit?usp=sharing

2

#### 4.2 Phase 2: 2028-2031

#### Strategic Reallocation and Growth Focus

- Retain 20L in Gold and Silver for continued macroeconomic hedge.
- Reinvest equity gains from Phase 1:
  - 65% Allocation: Lithium Sector Stocks

Target companies include Vedanta, Tata Chemicals, Exide, Amara Raja Energy & Mobility, Gujarat Fluorochemicals, Kabra Extrusion, etc.

These firms are involved in lithium mining, battery materials, cell manufacturing, pack assembly, and EV integration, as documented in the below PDF.

- 35% Allocation: Original Large-Cap Holdings
 Focused on maintaining portfolio stability through high-quality blue-chip stocks.

Excel Link Placeholder: Excel Sheet of Phase 2

Reference PDF: Phase 2 Detialed Report

# 4.3 Phase 3: 2031–2033 — Strategic Reallocation During Policy Maturity

In January 2031, the Indian government enacts a landmark decision under its Tech Sovereignty initiative by imposing a 30% import tariff on electronics and components originating from China. This move aims to strengthen domestic manufacturing capabilities and reduce strategic dependencies on foreign supply chains.

The policy sends immediate ripples across sectors like:

- Consumer Electronics: Companies relying on imported kits and finished components face margin compression and production delays.
- **Telecom Equipment:** Firms dependent on low-cost Chinese networking gear must pivot to local alternatives.
- Semiconductors and Embedded Systems: Supply disruptions force a reconfiguration of sourcing strategies.
- EV Components: Imported drivetrains and battery parts become 30% more expensive, impacting cost structures.

To safeguard the portfolio and capitalize on structural shifts, the following investment actions are recommended:

- Exit positions in companies significantly exposed to Chinese imports (Note: While companies like Blue Star, Voltas, Havells, V-Guard, and Optiemus Infracom are considered vulnerable, they are not part of the current portfolio so no selling is necessary.)
- Reallocate capital to domestic beneficiaries of the Tech Sovereignty Policy:

- Allocate 60% to high-growth Indian Electronics & Telecom manufacturers:
  - \* Dixon Technologies
  - \* Tejas Networks
  - \* Syrma SGS
  - \* HFCL
  - \* Tata Elxsi
  - \* Vedanta Ltd
  - \* Bharat Forge
- Retain 40% exposure in stable large-cap companies:

#### • Supporting Documents:

- PDF Report Phase Phase 3 Detailed Report
- Excel summary: Indian\_Stocks\_Tech\_Sovereignty\_Impact.xlsx

**Note:** Withdraw 50L from large-cap portfolio by end of 2030 for real estate downpayment.

# 5 Methodology

#### Mid Cap Criteria:

- Sharpe Ratio > 1
- ROE > 15%
- ROA > 5%
- CAGR > 12%
- Volatility < 30%
- Sectoral Diversification + Low Correlation

#### Lithium & Electronics Stocks:

- Based on market cap exposure, supply chain integration, growth potential
- From reports:
  Best Lithium Stocks PDF, Tech Sovereignty Impact Report

# 6 Event-Based Adjustments

Event	Year	Action	
Lithium Discovery	2028	Shift equity into lithium stocks	
China Tariff	2031	Exit import-dependent electronics	
Property Downpayment	2030	Withdraw 50L from large-cap	

# 7 Performance Metrics (Optional)

- Sharpe Ratio (expected): Weighted excess return / portfolio volatility
- Beta: Calculated using 5-year monthly data (source: Investing.com)
- Jensen's Alpha and Treynor Ratio: In GitHub repo

#### References:

- https://www.investing.com/
- https://e-vehicleinfo.com/top-lithium-ion-battery-manufacturers/
- https://upstox.com/news/market-news/stocks/top-stocks-in-battery-recycling-space-in-
- https://finance.yahoo.com/

## 8 Conclusion

This report provides a clear and thoughtful investment plan for Mr. and Mrs. Malhotra to help them achieve their financial goals by the year 2033. The plan is divided into three phases, each designed to balance growth, safety, and flexibility.

We started with a strong foundation using gold, silver, and reliable large- and mid-cap stocks. In Phase 2, we moved into fast-growing sectors like lithium, which are expected to benefit from the rise of electric vehicles. In Phase 3, we adjusted the portfolio to respond to a major policy change — the 30% tariff on Chinese electronics — by focusing more on Indian companies that are set to grow as a result.

All investments were chosen based on solid data such as Sharpe Ratio, ROE, and other important financial metrics. This makes the plan strong, not just in theory, but also in real-world market conditions.

In summary, this portfolio is designed to grow steadily, adapt to big changes in the economy, and provide enough money for key life goals such as buying a home, funding a child's education, and securing retirement.

**Disclaimer:** All assumptions (zero inflation, no salary hike, etc.) are as per competition guidelines. This is a hypothetical academic portfolio.