REGIME A — Monetary Credibility

What must be true

- Central bank can keep real rates positive
- Bonds hedge equities reliably
- Inflation risk is controlled

Variable	Source	Why
Ex-post real policy rate	FRED (FEDFUNDS – CPI YoY)	Proof of credibility
Inflation expectations (5y5y)	FRED	Anchoring
Bond–equity correlation	Market data	Hedge validity
Term premium	FRED (ACM)	Policy transmission

Mathematical Mapping

Regime A score increases when:

- Real rate percentile > 70%
- Eq–bond corr < −0.3
- Inflation vol < growth vol

Use a **thresholder linear score**

REGIME B — Disinflationary Growth

What must be true

- Inflation falling credibly
- Rate cuts not forced by debt
- Bonds still work

Variable	Source
CPI YoY & momentum	FRED
GDP growth & momentum	FRED
Yield curve slope	FRED
Eq–bond correlation	Market data

Mapping Logic

Regime B dominates when:

- Inflation momentum < 0
- Growth momentum < 0
- Eq–bond corr still < 0

This is a transitional regime, not a destination.

REGIME C — Fiscal Dominance / Financial Repression

Variable	Source
Ex-post real rates	FRED
Debt/GDP & interest expense	FRED / Treasury
Equity–bond correlation	Market
CB gold accumulation	WGC
Inflation vs growth volatility	FRED

Mapping Logic

Regime C probability rises when:

- Real rates capped near zero
- Debt servicing rising
- Eq–bond corr ≥ 0
- CB gold z-score > +1

This is structural, not cyclical.

REGIME D — Crisis / Trust Shock

What makes this different

- It is **non-linear**
- Short-lived
- Overlaps others temporarily

Variable	Source
Credit spreads	FRED
Funding stress (TED / SOFR)	FRED
VIX / MOVE	Market
FX volatility	Market

Mapping Logic

Regime D spikes when:

- Funding spreads explode
- Volatility exceeds thresholds
- Correlations go to 1

This regime must **decay fast**.

How the optimizer consumes regimes

The optimizer **never sees the data**.

It only sees: Blended allocation bands, Adjusted covariance matrix, Mild return tilts

This is critical.

A. Allocation bands

Effective bounds:

$$LB_i = \sum_r P_r \cdot LB_{i,r} UB_i = \sum_r P_r \cdot UB_{i,r}$$

B. Covariance adjustment

Each regime carries a correlation template:

- Regime A/B → historical correlations
- Regime C → bond hedge weakened
- Regime D → correlation spike

Blend them by regime probabilities.

Expected return tilts (minimal)

Only enough to stop optimizer from zero-weighting:

$$E[R_i] = E[R_i^{base}] + \sum_r P_r \cdot \delta_{i,r}$$

How regimes should be *detected* vs *expressed*

This is the key architectural separation.

Regime detection (GLOBAL)

- Uses FRED + global plumbing
- Determines **which assumptions are broken**

Regime expression (LOCAL)

- Uses Indian macro + market data
- Determines **how the regime manifests**

Indian inputs (mandatory):

- EPS growth & revisions
- Nominal GDP growth
- Credit growth

- Domestic liquidity (M3, system liquidity)
- FII flows (not sentiment — funding)

This determines:

- Equity allocation *within* regime
- Large vs mid vs small tilt

Indian inputs (dominant):

- RBI policy stance
- CPI vs WPI gap
- Fiscal deficit trajectory
- G-Sec supply calendar
- Banking system liquidity

Indian bonds **do not behave like USTs** under Regime C. Don't copy-paste logic.

GLOBAL REGIME ENGINE (FRED, WGC)
↓
REGIME PROBABILITIES (A/B/C/D)
↓
LOCAL EXPRESSION LAYER (India data)
↓
EXPECTED RETURNS + COVARIANCE ADJUSTMENT
↓
OPTIMIZER

Sanity checks (must pass)

Before moving to India layer, your regime engine must pass:

- 1970s → C dominant
- 2008 → D spike → C aftermath
- 2010–13 → C
- 2017–19 → A/B mix
- 2020 → D → C
- 2022–25 → C dominant

If not → **fix this first**

India Specific Expression layer

Indian data required

Variable	Why it matters
Nominal GDP growth	Equity revenue anchor
CPI (headline & core)	Policy reaction
Credit growth (bank + NBFC)	Earnings leverage
Fiscal deficit (% GDP)	Bond supply pressure
Current account balance	FX stability

Indian market and Liquidity Data

Variable	Why
System liquidity (₹ surplus/deficit)	Bond behaviour
G-Sec yield curve	Duration expression
FII net flows (rolling)	Funding pressure
Equity valuation percentiles	Return asymmetry
Corporate profit/GDP	Margin regime

Expression logic by asset class this is the important regime by regime.

REGIME A — Monetary Credibility (India Expression)

Global truth:

- Tight policy works
- Bonds hedge equities

Indian expression:

- RBI conservative
- Liquidity tight
- Equity multiples compress

Portfolio implications:

Equity

- Large caps preferred
- Mid/small caps penalized
- Lower equity risk premium

Debt

- Duration rewarded
- Long bonds viable
- Credit spreads stable

Hybrids

- Traditional 60:40 works

REGIME B — Disinflationary Growth (India Expression)

Global truth:

- Easing credible
- Growth slowing

Indian expression:

- RBI cuts with confidence
- Liquidity improves
- Earnings growth decelerates gently

Portfolio implications:

Equity

- Stable returns
- Broad participation
- Valuation support

Debt

- Duration performs
- Accrual + duration sweet spot

Hybrids

- Balanced advantage thrives

REGIME C — Fiscal Dominance (India Expression)

Global truth**:**

- Real rates capped
- Bond hedge broken
- Financial repression

Indian expression:

- Nominal growth resilient
- RBI prioritizes stability
- Duration risky
- Gold demand persistent

Portfolio implications:

Equity

- Earnings hold up
- Multiples capped
- Quality bias critical

Debt

- Short duration preferred
- Long duration volatile
- Accrual > duration

Hybrids

- Dynamic allocation valuable
- Static 60:40 breaks

REGIME D — Crisis / Trust Shock (India Expression)

Global truth:

- Liquidity stress
- Correlations spike

Indian expression:

- FII outflows
- FX pressure
- RBI intervenes

Portfolio implications:

Equity

- Sharp drawdowns
- Large caps relatively resilient

Debt

- Flight to safety
- Only highest quality holds

Hybrids

- Equity-light positioning essential

Liquidity constraint mapping (India-specific)

Use system liquidity to:

- Penalize leverage
- Penalize mid/small caps in tight regimes
- Cap duration when liquidity tight

This keeps portfolios realistic.

From this layer, we export:

1. Expected return adjustment vectors (by asset)
2. Covariance overrides (India-specific)
3. Regime-conditioned allocation **preferences** (not weights)

Sanity checks (must pass)

- Strong Indian growth + Regime C → equities don't explode
- RBI cuts + Regime C → long bonds still risky
- FII outflows + Regime D → hybrids de-risk automatically

If not → expression logic flawed.

Debt Structure Bands (India-specific)

Regime	Short	Medium	Long
A	5–15	10–20	10–25
B	5–15	10–20	15–30
C	15–30	10–20	0–10
D	20–40	5–15	0–5