

# TRACE MARKETS (TM) — Master Tracker

Living execution tracker for TRACE MARKETS platform. Focus: what exists, what is locked, what is next.

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## PROJECT VISION

Calm, structured manual for understanding markets. Explainable, forensic, long-term oriented decision system.

Not a trading bot. Not a charting toy.

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## PHASE 0 — FOUNDATIONS (LOCKED)

Status:  COMPLETE

- Project structure
  - Config system
  - Logging system
  - Raw → Processed → Intelligence pipeline
  - Weekly snapshot architecture
  - Deterministic snapshots
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## PHASE 1 — DATA INGESTION (LOCKED)

Status:  COMPLETE

- Weekly price ingestion
  - Raw fundamentals ingestion
  - Raw write-once storage
  - Skip existing raw files
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## PHASE 2 — PROCESSING LAYER (LOCKED)

Status:  COMPLETE

- build\_processed\_fundamentals
- financials table

- balance\_sheet table
  - cashflow table
  - quality\_metrics
  - valuation\_metrics
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## PHASE 2.5 — DATA QUALITY SYSTEM (LOCKED)

Status:  COMPLETE

- Coverage score
- Freshness score
- Confidence band
- Raw profiler
- Raw schema inspector
- Raw field inventory

Outputs embedded in processed:

processed["quality"] processed["raw\_profile"] processed["raw\_schema"] processed["raw\_field\_inventory"]

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## PHASE 3 — FORENSIC GOVERNANCE ENGINES

Status:  COMPLETE

Plugin-based registry architecture.

### Registry

src/trace\_invest/validation/registry.py

Engines:

1. Earnings Quality Engine
2. CLEAN / MINOR\_MISMATCH / REPEATED\_MISMATCH
3. Unusual Items Persistence Engine
4. NONE / ONE\_TIME / PERSISTENT
5. Tax Rate Volatility Engine

6. STABLE / MODERATE / VOLATILE
  7. Capital Allocation Discipline Engine
  8. DISCIPLINED / QUESTIONABLE / POOR
  9. Balance Sheet Stress Engine
  10. STABLE / MANAGED / STRESSED
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## PHASE 3.6 — GOVERNANCE RISK SCORE

Status:  COMPLETE

Composite scoring:

- governance\_score (0-100)
- governance\_band (LOW / MEDIUM / HIGH)
- top\_risks[]

Based on weighted risk points from engines.

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## PHASE 3.7 — VALIDATION ORCHESTRATION

Status:  COMPLETE

- run\_validation(processed)
  - Fraud flags
  - Governance engines
  - Governance score
  - total\_flags
  - overall\_risk
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## PHASE 4 — DECISION INTELLIGENCE

Status:  COMPLETE (V1)

- conviction\_score()
- generate\_signal()
- Decision zones:

- EXIT
  - REDUCE
  - HOLD
  - ACCUMULATE
  - Journal entry creation
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## PHASE 5 — BATCH MARKET PIPELINE

Status:  COMPLETE

- Universe-driven execution
- Per-stock try/except isolation
- Gentle rate limit
- Weekly snapshot writer
- Market summary generator

Outputs:

- snapshot.json
  - market\_summary.json
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## CURRENT UNIVERSE MODE

Target: NIFTY 500

Universe file:

data/universe/nifty500.json

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## MARKET SUMMARY (CURRENT)

Generated fields:

- total\_stocks
  - by\_decision\_zone
  - by\_overall\_risk
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# ARCHITECTURAL PRINCIPLES (LOCKED)

- Plugin engines
  - Registry based wiring
  - Defensive parsing
  - No exact string dependencies
  - Explainable outputs only
  - Immutable snapshots
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## NEXT PHASE — PHASE 4B

Stability & Medians Layer

Planned engines:

- 5Y Median ROE
- 5Y Median Operating Margin
- 5Y Revenue CAGR
- 5Y FCF CAGR
- Variance bands

Purpose: Reduce noise and improve conviction accuracy.

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## FUTURE PHASES (NOT STARTED)

Phase 5 — Market Leaders Tables Phase 6 — UI Information Architecture Phase 7 — Watchlist & Journal UI  
Phase 8 — Backtesting / Replay

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## NON-GOALS

- Intraday trading
  - Real-time streaming
  - Chart heavy UI
  - Black-box ML
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# ONE-LINE STATUS

TRACE MARKETS is now a working forensic market intelligence engine capable of scanning hundreds of stocks weekly with explainable governance and decision outputs.

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## LATEST COMMIT — PHASE 4C / 4D

Status:  COMMITTED

Included:

- Stability Engines
- median\_roe
- median\_operating\_margin
- revenue\_cagr
- fcf\_cagr
- consistency
- Stability Composite Score
- stability\_score
- stability\_band
- Valuation Sanity Engine
- valuation\_sanity
- Master Score Engine
- master\_score
- master\_band
- Pipeline Hardening
- Safe JSON load for fundamentals.json
- Per-stock isolation
- Market summary generator

Commit Meaning: TRACE MARKETS now produces Trust (Governance), Strength (Stability), Price Sanity (Valuation), and a Master Composite Score for each stock.

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(End of tracker)