

THE TRILEMMA OF MODERN GROWTH: EVALUATING INDIA'S PATH TO SUSTAINABLE MACROECONOMIC DEVELOPMENT

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ABSTRACT

Over the past three decades, India's economic trajectory has shifted from a state-directed import-substitution model to a dynamic, market-oriented, high-growth economy. Having secured its position among the world's largest GDPs, India faces a complex "growth trilemma": balancing rapid aggregate output expansion with formal job creation, structural economic transition, and sustainable macro-fiscal management.

This paper provides a rigorous analysis of contemporary Indian macroeconomics, evaluating four structural domains:

KEYWORDS: Development Economics, Macroeconomic Policy, Indian Economy, Structural Transformation, Economic Growth Trilemma

1. INTRODUCTION:

The Post-Reform Economic Trajectory

The Indian economic landscape has undergone structural realignment following the 1991 Liberalisation, Privatisation, and Globalisation (LPG) reforms. Unlike standard East Asian growth models (e.g., South Korea, China) which relied on labor-intensive, export-oriented manufacturing—India's transformation bypassed industrialization, moving from agriculture directly into services.

Traditional East Asian Model:

Agriculture —► Low-Skill Industrial Manufacturing —► High-Tech Services

India's Empirical Path:

Agriculture —► High-Skill Services & IT —► (Attempted) Manufacturing Push

While services generate over 50% of national Gross Value Added (GVA), agriculture continues to employ approximately 40–45% of the total labor force. This asymmetry creates a dual-economy paradox: high labor-productivity growth in a capital- or skill-intensive sector (services) coupled with low labor-productivity growth in a labor-heavy sector (agriculture).

2. SECTORAL TRANSFORMATION AND THE MANUFACTURING IMPERATIVE

2.1 The Services Dominance Paradigm

The expansion of India's services sector driven by Information Technology (IT), Business Process Outsourcing (BPO), Global Capability Centres (GCCs), and digital financial services has given India a sustained net services trade surplus. Services exports act as a critical hedge against the nation's structural merchandise trade deficit.

However, high-value service sectors remain skill-intensive. They absorb a small fraction of the millions of young entrants joining the workforce annually.

2.2 The "Make in India" Realities and PLI Initiatives

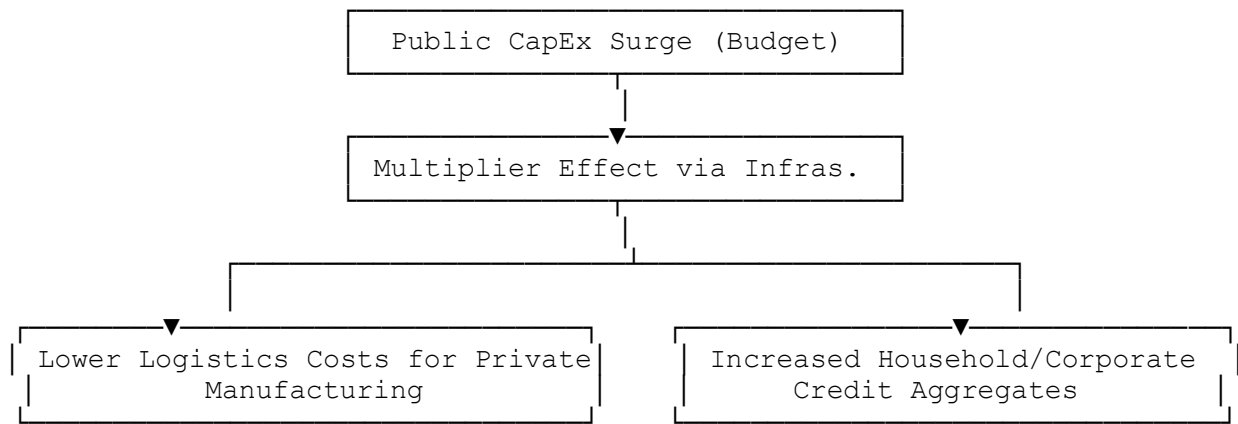
To address structural unemployment, institutional programs such as "**Make in India**" and **Production-Linked Incentive (PLI) schemes** were introduced to raise manufacturing's share of GDP. While high-value assembly (e.g., consumer electronics, pharmaceuticals) has grown, manufacturing's overall GDP contribution has hovered around 15–17%.

Economic Sector	Share of GVA (%)	Share of Employment (%)	Structural Bottlenecks
Agriculture & Allied	~17–18%	~42–45%	Land fragmentation, weather dependency, supply chain gaps
Industry & Manufacturing	~27–28%	~25%	Rigid land/labor laws, logistics costs, capital intensity
Services Sector	~54–56%	~30–33%	Skill mismatches, informal urban services absorption

3. MACRO-FISCAL MANAGEMENT, MONETARY POLICY, AND DIGITAL PUBLIC INFRASTRUCTURE

3.1 Fiscal Consolidation vs. Capital Expenditure Push

Post-COVID-19 macroeconomic policy saw a pivot toward **public-capital expenditure (CapEx)**. By prioritizing infrastructure buildout railways, national expressways, ports, and renewable energy grids the fiscal authorities aimed to crowd in private fixed capital formation.



Concurrently, the central government has pursued a path toward fiscal consolidation, targeting a Union fiscal deficit below 4.5% of GDP. High public debt-to-GDP ratios (~80–84%) continue to constrain fiscal bandwidth, making tax compliance, digitised collection (via GST), and targeted welfare key to revenue sustainability.

3.2 Inflation Targeting and Monetary Architecture

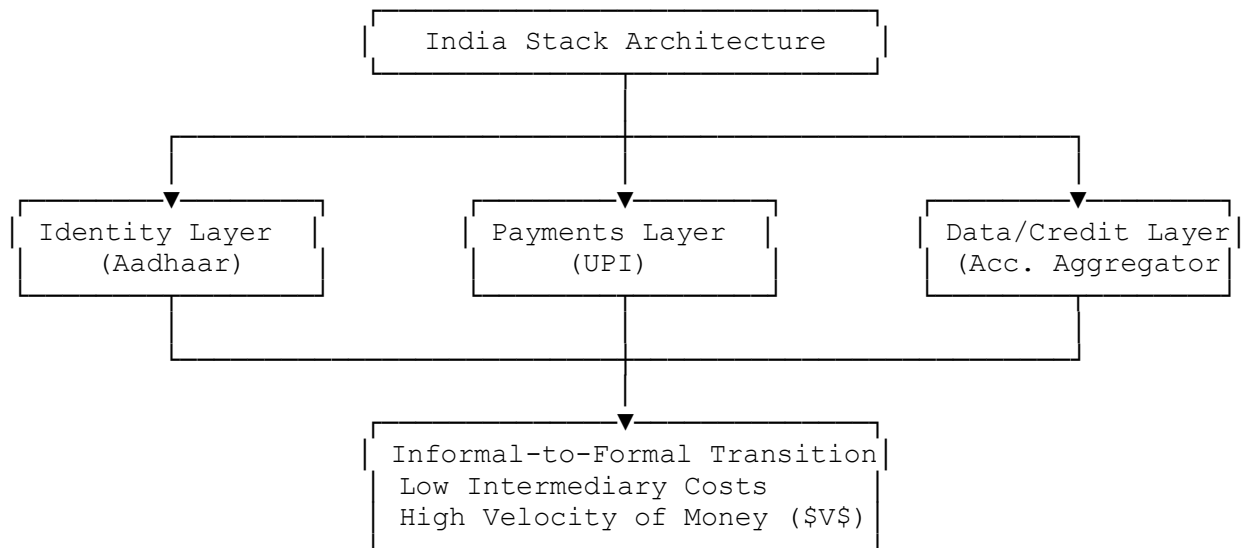
Under the Flexible Inflation Targeting (FIT) framework, the Reserve Bank of India (RBI) targets a Consumer Price Index (CPI) level of 4% with a band of $\pm 2\%$.

$$\text{Target CPI} = 4\% \pm 2\%$$

The RBI's primary challenge centers on supply-side food price volatility. Core inflation (excluding food and fuel) has shown moderation, but food components (which comprise ~46% of the CPI basket) remain subject to climate shocks, extreme weather events, and global supply distortions.

3.3 Digital Public Infrastructure (DPI) as a Macroeconomic Catalyst

India's investment in **Digital Public Infrastructure (India Stack: Aadhaar, UPI, Account Aggregator)** has altered transaction costs and financial inclusion dynamics.

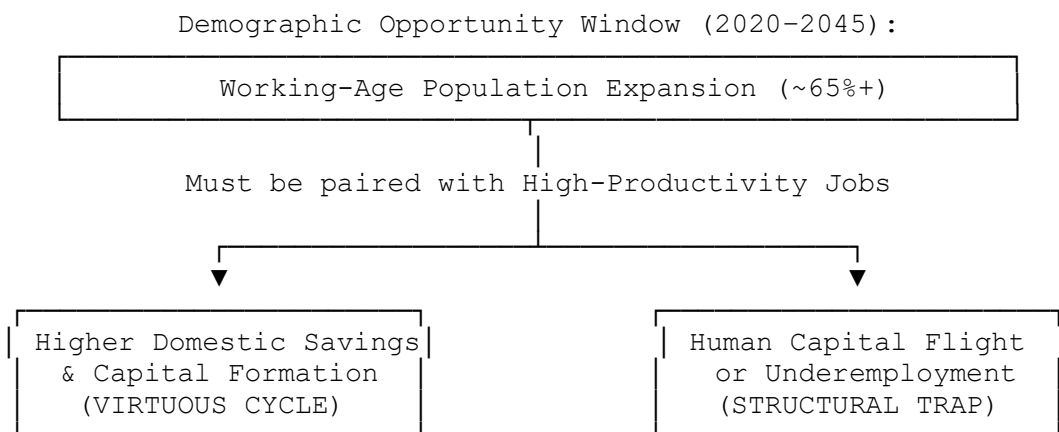


1. **Transaction Drag Reduction:** UPI and real-time payment rails lower cash management overheads and boost money velocity.
2. **Formalisation of the Informal Sector:** Digital footprints allow micro and small enterprises (MSMEs) to secure cash-flow-based underwriting rather than asset-backed collateral.
3. **Direct Benefit Transfer (DBT):** Target welfare delivery reduces leakage, protecting the federal bottom line.

4. LABOUR MARKETS, DEMOGRAPHICS, AND THE HUMAN CAPITAL PARADOX

4.1 The Demographic Dividend Window

India holds one of the world's youngest demographic profiles, with a median age under 30. This "demographic dividend" offers a prospective multi-decade surge in the support ratio (working-age to dependent population)



However, converting demographic expansion into GDP growth requires absorbing millions of annual entrants into formal work.

4.2 Female Labour Force Participation (FLFP) and Informal Employment

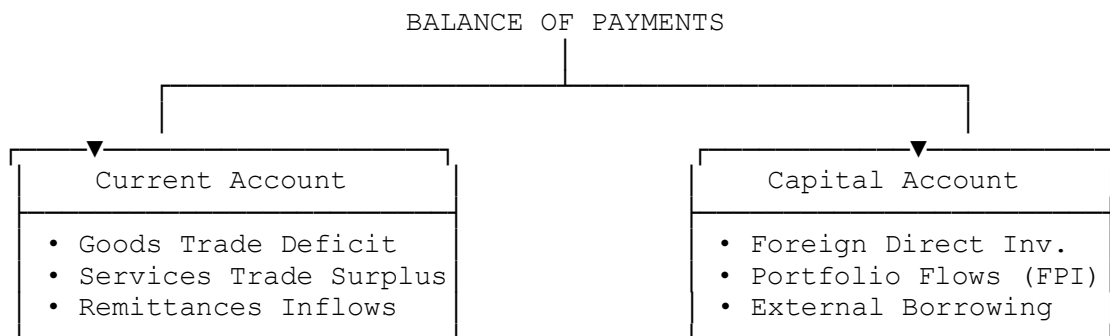
Two structural features define the labor market:

1. **Pervasive Informality:** Over 85% of total employment remains informal, lacking contractual security, social protection, or institutional credit access.
2. **Female Labour Force Participation Rates:** Despite gains via rural self-help groups and agricultural mechanization, female participation rates lag behind global standards, representing an underutilized source of productive capacity.

5. EXTERNAL VULNERABILITIES, ENERGY TRANSITION, AND CLIMATE ECONOMICS

5.1 Balance of Payments and Exchange Rate Equilibrium

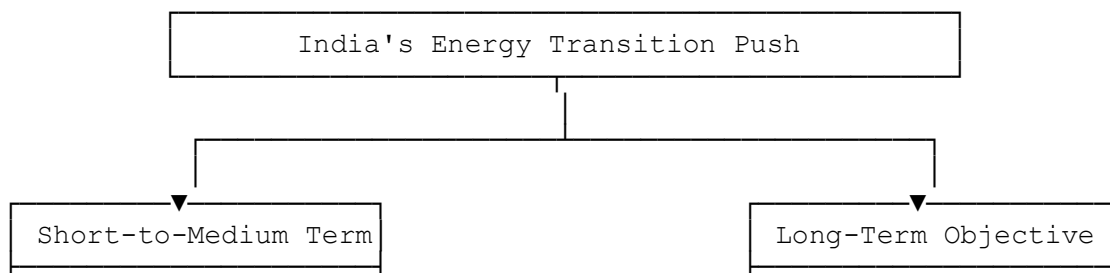
India's current account balance shows a persistent trade deficit in physical goods, offset by a surplus in services exports and robust remittance inflows.



Because crude oil, natural gas, and electronic components make up a large portion of imports, imported cost-push inflation can directly affect the domestic currency exchange rate whenever global commodity markets fluctuate.

5.2 The Energy Transition Paradigm

As a major global energy consumer, India faces a dual requirement: expanding power generation capacity to support industrial growth while executing a clean energy transition to meet its **Net-Zero by 2070** target.



- Coal Capacity for Baseload Power
- High Oil Imports

- 500 GW Non-Fossil Target Expansion
- Green Hydrogen & Grid Storage

Deploying grid-scale renewable installations (solar and wind) helps lower the energy import bill over time, though it requires substantial initial capital investment.

6. POLICY RECOMMENDATIONS AND STRATEGIC ROADMAP

To sustain non-inflationary real GDP growth of 7% or higher over the coming decades, policy efforts should prioritize four key areas:

1. Modernizing Industrial Policy

- **Target Labour-Intensive Manufacturing:** Re-orient incentives (e.g., PLI expansion) toward textiles, apparel, leather, and food processing to absorb rural labor transfers.
- **Reduce Logistics and Factor Costs:** Accelerate single-window clearances, improve freight corridors, and lower industrial power tariffs.

2. Human Capital and Labor Reforms

- **Streamline Labor Regulations:** Fully operationalize the simplified Labor Codes across all sub-national jurisdictions to reduce compliance friction for growing firms.
- **Vocational Alignment:** Align TVET (Technical and Vocational Education and Training) curricula with domestic automation and high-tech manufacturing demands.

3. Agricultural Productivity

- **Supply Chain Infrastructure:** Expand private and cooperative cold-chain logistics to limit post-harvest wastage and smooth seasonal food price spikes.
- **Crop Diversification:** Shift price support mechanisms from water-intensive staples (rice/wheat) toward high-value crops, oilseeds, and horticulture.

4. Deepening Capital Markets

- **Corporate Bond Market Development:** Broaden institutional investor guidelines to direct long-term pension and insurance funds into green bonds and infrastructure investments.

7. CONCLUSION

India's macroeconomic journey demonstrates the viability of a services-and-technology-driven growth path. However, securing long-term economic development requires resolving its underlying structural imbalance: the divergence between aggregate GDP growth and labor market absorption. By addressing supply-side constraints, improving human capital outcomes, expanding labor-intensive manufacturing, and maintaining fiscal discipline, India can turn its demographic potential into sustained macroeconomic stability and shared prosperity.

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