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Developmental Banking, Monetary Expansion, and Rotational Capital Stewardship in India: A Multidisciplinary Political-Economic Research Framework

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Abstract

This paper introduces M_5 as a proposed extension of monetary analysis, examining its potential to connect monetary resources with their developmental utilisation. It evaluates the need for a clearly defined aggregate, free from overlapping components, and explores its relationship with conventional money velocity (GDP/M_3) through a proposed M_5-based measure, subject to empirical validation.

The study connects monetary analysis with development finance, focusing on how financial resources can be mobilised, allocated and recycled to expand productive capacity, infrastructure, employment and social welfare. It proposes a hypothetical Indian banking model combining ultra-loose monetary conditions, low-cost liquidity, direct productive investment and temporary developmental ownership, conceptualised as **Rotational Development Banking (RDB) and Rotational Capital Stewardship (RCS)**. Under this model, completed projects are transferred to eligible stakeholders at cost or regulated minimum profit, allowing recovered capital to finance subsequent developmental projects.

The research examines the macroeconomic, financial, institutional and socio-political implications of this framework, integrating monetary theory, political economy, gender economics, healthcare, education, actuarial economics and forensic auditing. Its potential outcomes are evaluated across GDP growth, inflation, currency stability, investment, employment, industrialisation, financial markets and social welfare.

While productive capital allocation may strengthen long-term development, the framework also recognises risks of banking concentration, crony capitalism, political capture, asset bubbles, maturity mismatches and systemic fragility. Ultimately, its viability depends on institutional quality, technocratic governance, forensic auditing, anti-corruption mechanisms and disciplined capital allocation.

Keywords

Developmental Banking, Rotational Capital Stewardship, Monetary Expansion, Political Economy, Productive Capital Formation, Forensic Economic Auditing, Gender Economics, Infrastructure-Led Industrialization

Introduction

Background of Indian Monetary Structure

India operates a bank-dominated financial system where monetary transmission occurs primarily through the banking sector rather than through capital markets alone. The Reserve Bank of India (RBI) tracks monetary aggregates through M_0, M_1, M_2, M_3 and M_4 . M_3, commonly known as broad money, remains the principal measure of liquidity and credit expansion in the Indian economy.

The traditional monetary system relies on reserve requirements, liquidity regulations, policy rates, and government securities to maintain macroeconomic stability. Commercial banks

primarily act as intermediaries between savers and borrowers. However, in the proposed developmental banking framework, banks evolve beyond intermediaries and become direct creators of productive national assets.

The proposal introduces a conceptual monetary aggregate termed M_5:

$M_5 = C + BD + OD + DD + SDPO + TD + TPOD$

Where:

- C= Currency with Public
- BD= Bankers' Deposits with RBI
- OD= Other Deposits with RBI
- DD= Demand Deposits
- $SDPO$= Savings Deposits with Post Offices
- TD= Time Deposits with Banks
- $TPOD$= Total Post Office Deposits

The proposed M_5 aggregate attempts to capture the domestic liquidity ecosystem including both monetary base and multiplied deposit layers.

This is an alternative to the traditional monetary approach.

Developmental Banking Framework

The framework examined in this paper assumes:

- CRR approaching 0%
- SLR approaching 0%
- Repo rate approaching 0%
- Reverse Repo Rate approaching 0%
- Development-oriented directed liquidity
- Direct bank investment in productive assets
- Temporary developmental ownership
- Mandatory post-completion transfer of projects at cost or minimum regulated profit
- Continuous capital recycling into productive infrastructure

This system differs fundamentally from speculative capitalism because banks are not expected to maximize perpetual rent extraction. Instead, they function as temporary capital stewards whose primary purpose is national productive expansion.

Research Objectives

This paper seeks to:

1. Conceptualise and develop the proposed M_5 Monetary Framework, Rotational Capital Stewardship (RCS), Rotational Developmental Banking (RDB) by establishing their theoretical foundations and examining the relationship between monetary aggregates, velocity of money, monetary resources, development finance, and development banking through appropriate mathematical and economic models.

2. Examine the macroeconomic and developmental implications of RDB and RCS by evaluating its effects on inflation and price stability, GDP growth, employment generation, industrialisation, national productivity, the Indian rupee, public finances, and fiscal sustainability, alongside its potential to eliminate extreme poverty through productive asset creation and universal access to essential services.

3. Evaluate the institutional, financial, and socio-economic implications of the proposed framework by analysing its potential impact on gender economics, social equity, securities markets, startups, cooperative institutions, foreign direct investment (FDI), and the broader developmental financing ecosystem.

4. Develop and assess the governance, accountability, and sustainability mechanisms required for implementation by examining forensic audit frameworks, institutional safeguards, governance risks, systemic vulnerabilities, and long-term financial and economic sustainability.

Literature Review

Monetary Aggregates and Liquidity Theory

Classical monetary theory distinguishes between narrow money and broad money aggregates. Monetarist economists such as Milton Friedman emphasized that excessive money supply growth causes inflation when money growth exceeds real output growth.

However, post-Keynesian economists argue that money creation is endogenous because banks create credit in response to economic demand. Modern Monetary Theory (MMT) further argues that sovereign currency issuers possess significantly greater fiscal capacity than traditionally assumed.

The proposed M_5 and developmental banking system partially aligns with endogenous money theory because banks actively create liquidity through productive investment. It is important that we move away from the traditional monetary approach. We should ask “Should monetary aggregates reflect the entire liquidity ecosystem instead of only transaction money?”

Existing money aggregates were created during World War II and post War era, also it was when the technology was limited. Existing aggregates serve established purposes, but whether it captures the liquidity relevant to this proposal is the empirical question. The technology for financial services is massive deciding factor. Currently there is shadow banking, digital banking, digital wallets, money market funds, fintech balances and even repo markets behaving like real money.

M_5 measure could track total liquidity stress, reserve backing, deposit expansion, savings migration, specially during Government investments into the economy like QE-style injections, liquidity crunches, demonetisation, banking crises or financial crises.

M_5 can be used as the “Total Financial Liquidity Index”. It can be for macro liquidity analysis, financialization studies, credit saturation analysis etc.. It is very important in developing economies like India where banks dominate the finance and financing activities, as well as post office savings also matter and finally RBI liquidity transmission is extremely critical.

So M_5 is actually a hybrid of traditional money supply, systemic liquidity and macro-financial balance sheet analysis (it is similar to and be compared with cash and cash equivalents in a company’s balance sheet). Basil Moore’s endogenous money framework suggests that credit creation is largely demand-driven within modern banking systems (Moore 1988). Stock-flow consistent approaches developed by Godley and Lavoie emphasize the interconnected relationship between credit, income, production, and financial balances (Godley and Lavoie 2007).

Now to explain why M_5 is important and why should we take monetary aggregates that reflect the entire liquidity ecosystem instead of only transaction money?

M_5 could help answer:

- How is the monetary resource base changing?
- How does it evolve relative to GDP?
- How does it relate to bank credit and financial savings?
- Does it provide information beyond existing monetary aggregates?
- How do monetary conditions relate to economic development?

But M_5 alone cannot tell us whether resources are reaching productive enterprises or underserved communities.

That requires the next component.

Development Finance: The allocation mechanism

Development finance concerns the mobilisation and allocation of financial resources to activities that support economic and social development.

These may include:

- Agriculture and rural enterprises.
- Micro, small, and medium enterprises.
- Manufacturing.
- Infrastructure.
- Renewable energy.
- Affordable housing.
- Education and healthcare.

Development finance asks:

How should financial resources be allocated to address developmental needs and financing gaps?

Suppose M_5 increases because households and businesses accumulate more eligible deposits.

That does not automatically mean productive investment will increase.

The additional resources might support government securities, household savings, existing loans, or other financial assets.

Alternatively, financial institutions might extend more credit to productive businesses.

Development finance examines this allocation process.

C. Development Banking: The institutional mechanism

Development banking provides institutional channels through which financing can support economic transformation.

Development banks and other specialised financial institutions may address financing needs that commercial markets underserve, particularly where projects involve long maturities, substantial upfront costs, or significant developmental externalities.

Their activities may include:

- Long-term project finance.
- Infrastructure finance.
- Industrial development.
- Agricultural and rural finance.
- Refinancing eligible lending institutions.
- Financing strategically important sectors.
- Supporting projects whose social benefits exceed the returns that private investors can capture.

The precise role depends on the institution's mandate and funding model.

For example, India's National Bank for Agriculture and Rural Development supports agriculture and rural development, while Small Industries Development Bank of India supports the MSME sector.

Their official websites provide information on their respective mandates: NABARD and SIDBI.

Development banking therefore connects financial resources to actual financing programmes, projects, and borrowers.

However, development banks do not simply redistribute an existing monetary stock. Depending on their structure, they may raise deposits where authorised, borrow from markets, receive government capital, obtain multilateral funding, or refinance other

institutions. Their financing operations must be distinguished from the creation of commercial-bank deposits and the issuance of central-bank money.

D. Velocity of Money: The expenditure relationship

The velocity of money measures how frequently a given monetary stock is used, on average, to support expenditure on final goods and services over a period.

The conventional income-velocity equation is:

$V = PY/M$

Where:

- V = income velocity of money.
- P = price level.
- Y = real GDP.
- PY = nominal GDP.
- M = a consistently defined monetary aggregate.

If we provisionally substitute M_5 for M, we obtain:

$V_5 = PY/M_5$

This gives the proposed M_5 income velocity.

It is a ratio of nominal GDP to the M_5 stock, provided the monetary aggregate is defined consistently and the GDP flow and money stock are measured over compatible periods.

Example

Consider a hypothetical economy with:

- Nominal GDP = ₹300 lakh crore annually.
- M_5 = ₹100 lakh crore.

Then:

$V_5 = 300/100$

$V_5 = 3$

The income velocity of M_5 is 3.

This means annual nominal GDP is three times the measured M_5 stock.

It does **not** mean that every rupee physically changes hands exactly three times. The ratio is an aggregate accounting measure, not a direct count of individual transactions.

A key limitation is that conventional income velocity measures expenditure associated with domestic output, not every financial transaction or every developmental use of money.

The central connection: M_5 determines the scale, development finance allocates resources, development banking enables financing, and velocity measures income circulation

We can now combine the four concepts.

This is a useful starting point, but it requires an important qualification.

Velocity is not necessarily the final stage of the process. It is an aggregate indicator that can change alongside every stage.

Development banking can affect investment, production, incomes, and expenditure. Those changes may alter nominal GDP relative to M_5.

Meanwhile, the financial system can change M_5 through deposit creation, repayment of bank loans, government transactions, and other balance-sheet movements.

Therefore, the relationship is dynamic and potentially bidirectional.

The research challenge is to determine which relationships are strong, under what conditions they operate, and whether the proposed M5 measure provides information that existing measures miss.

Why development banking could affect M_5 velocity

Consider two hypothetical economies.

Both have an M_5 stock of ₹100 lakh crore.

Indicator	**Economy A**	**Economy B**
M_5	₹100 lakh crore	₹100 lakh crore
Nominal GDP	₹200 lakh crore	₹300 lakh crore
M_5 income velocity	2	3
Productive investment	Lower	Higher
Access to productive credit	Limited	Broader

Economy B has a higher M_5 income velocity because its nominal GDP is three times M5, compared with twice M_5 in Economy A.

But the difference in velocity does not, by itself, establish why Economy B performs better.

Its higher output could reflect stronger productivity, a different economic structure, greater aggregate demand, higher prices, or other factors.

Now suppose development banking in Economy A helps finance irrigation, manufacturing, renewable energy, transport, and small businesses.

If those investments successfully increase productive capacity and generate additional expenditure, nominal GDP may rise relative to M_5.

M_5 velocity could increase as a result.

The reverse is also possible. If development banking mobilises deposits and expands credit, M_5 may grow faster than nominal GDP during the investment period. Velocity could initially fall even as the economy builds productive capacity.

That is why a crucial principle must guide the theory:

Higher velocity is not automatically better, and lower velocity is not automatically worse.

The developmental objective is to improve productive capacity, employment, incomes, and welfare, not to maximise velocity regardless of the consequences.

Introducing a Developmental Money Velocity framework

The proposed idea could be extended into a research framework that distinguishes conventional monetary velocity from the way financial resources support developmental activity.

We can begin with two separate indicators.

Indicator 1: M_5 Income Velocity

$V_5=PY/M_5$

This is the conventional income-velocity ratio using your proposed monetary aggregate.

Its value would depend on whether M_5 can be constructed as a valid, non-overlapping measure.

It could be used to investigate:

- Changes in the relationship between broad money and nominal GDP.
- Differences between economic growth and monetary growth.
- The monetary consequences of financial deepening.
- Whether M_5 helps explain economic activity beyond M_3 or other established aggregates.

Indicator 2: Developmental Credit Intensity

We can separately examine how much financing reaches selected productive sectors.

For example:

DCI= (Credit to Selected Productive Sectors)/M_5

Here, DCI stands for Developmental Credit Intensity.

The numerator might include eligible credit to agriculture, MSMEs, manufacturing, or infrastructure, depending on the research question.

This indicator would measure the scale of selected productive-sector credit relative to the monetary aggregate.

It would not measure the quality of lending or the developmental benefits produced by that credit.

A rise in DCI might reflect greater productive-sector lending, a decline in M_5, or both. The numerator and denominator must therefore be examined separately.

Why use both indicators?

Because they answer different questions.

Indicator	**Main question**
M5	What is the defined monetary stock?
M5 income velocity	How large is nominal GDP relative to that stock?
Developmental Credit Intensity	How large is selected productive-sector credit relative to that stock?
Development banking indicators	Which institutions finance developmental activities, on what terms, and with what results?
Developmental outcome indicators	What happens to productivity, employment, poverty, and welfare?

Together, these measures provide a more informative framework than treating velocity as a direct measure of developmental success.

The basic idea is to finance productive activities, recover capital where repayment is appropriate, and redeploy recovered funds into subsequent projects.

For example:

Round 1: A development finance institution supports a food-processing enterprise.

Round 2: The enterprise invests in equipment, employs workers, and begins production.

Round 3: The enterprise generates revenue and repays its loan.

Round 4: The financial institution uses the recovered funds to finance another eligible enterprise.

Round 5: The second enterprise contributes to further production, employment, and local economic activity.

This process concerns the repeated deployment of a financing pool.

It should not be confused with monetary velocity.

The distinction is fundamental:

- **M_5** measures a monetary stock.

- **Income velocity** measures nominal GDP relative to that stock.
- **RCS** concerns the repeated deployment and recovery of selected financial resources.
- **Development banking** provides institutional channels through which eligible projects can receive finance.

A single unit of development finance can be repaid and redeployed multiple times without implying that the country's monetary aggregate has increased by the same amount each time.

Likewise, a loan can create a bank deposit when a commercial bank extends credit. Subsequent repayment of the principal generally reduces bank loans and deposits, all else equal. A development bank's loan disbursement, repayment, or refinancing operation may have different monetary effects depending on its funding source and institutional structure.

This distinction prevents a major accounting error, i.e. adding the same financial resource repeatedly every time it is redeployed.

Developmental State Theory

East Asian developmental states such as Japan, South Korea, Taiwan, and Singapore historically used directed credit systems to accelerate industrialization.

Japan’s post-war banking system coordinated industrial growth through long-term capital allocation. South Korea used directed developmental finance to build export-oriented manufacturing capacity. China used state-bank-led infrastructure financing to accelerate urbanization and industrial growth. Ha-Joon Chang argued that many developed economies historically used state intervention and protectionist industrial policies during their own development phases (Chang 2002).

Research on Indian banking reforms provides an important institutional baseline for the present proposal. Reddy (2005) examines productivity change and its decomposition in Indian banks in the context of deregulation and financial-sector reform. This line of research concerns the efficiency of existing banking institutions, whereas the present paper asks a different question: whether a defined developmental mandate, temporary stewardship of completed assets, and a rule for capital recovery and recycling could be designed alongside prudential banking. The proposed framework therefore extends the discussion from the performance of banks under reform to the institutional design and risks of a potential developmental-finance mechanism. It does not assume that improved bank productivity by itself validates the proposed model. The proposed Indian model resembles these systems but introduces rotational ownership and regulated transfer mechanisms.

Better infrastructure gives higher GDP growth which in turn gives higher tax base which in turn would attract more investments.

Financial Capitalism versus Productive Capitalism

Modern capitalism increasingly exhibits financialization where capital accumulates through financial speculation instead of productive investment. Financialization often increases inequality and asset bubbles. Hernando de Soto argued that formalization of assets and property systems is essential for unlocking productive capital formation in developing economies (de Soto 2000).

The proposed model seeks to redirect financial liquidity toward productive asset creation including:

- Infrastructure
- Manufacturing
- Housing
- Healthcare
- Education
- Agriculture
- Logistics
- Defence production
- Energy systems

Thus, the framework attempts to transform speculative capital into productive capital.

Keynesian Investment Multipliers

Keynesian economics emphasizes the investment multiplier effect:

$$k = \frac{1}{1 - c}$$

Where:

- k= Multiplier
- c= Marginal propensity to consume

Large infrastructure investment generates secondary rounds of consumption, employment, and industrial expansion.

Banking Multiplier Theory

The money multiplier can be expressed as:

$$MM = \frac{1}{RR}$$

Where:

- MM= Money Multiplier
- RR= Reserve Ratio

If reserve requirements approach zero, theoretical credit expansion increases dramatically.

Political Economy Literature

Political economy scholars argue that state-directed finance can either accelerate national development or produce crony capitalism depending on institutional quality.

Strong developmental states require:

- Technocratic governance
- Transparent institutions
- Independent regulation
- Anti-corruption enforcement
- Meritocratic capital allocation

Without these conditions, developmental finance may produce oligarchic concentration and hidden debt crises. Karl Polanyi emphasized that excessive marketization can destabilize social systems unless balanced by institutional safeguards (Polanyi 1944).

Regulatory Fragmentation and Developmental Efficiency

One of the major institutional barriers to productive capital formation in developing economies is the fragmentation of laws, regulations, administrative procedures, and regulatory jurisdictions. Infrastructure, manufacturing, housing, logistics, healthcare, and educational projects frequently require approvals from multiple ministries, departments, state governments, local governments, environmental authorities, tax authorities, and sector-specific regulators.

Regulatory fragmentation increases transaction costs, delays project execution, creates uncertainty, and encourages rent-seeking behaviour. The developmental banking framework therefore assumes progressive regulatory defragmentation through integrated approval systems, harmonized compliance standards, unified digital governance platforms, and coordinated institutional oversight.

Defragmentation reduces administrative friction, accelerates capital deployment, improves project completion rates, and increases the productivity of developmental finance.

Gender Economics Literature

Gender economics examines how economic systems affect women differently from men.

Affordable housing, healthcare, transport, and education disproportionately benefit women because women often bear greater unpaid care burdens.

Reduced infrastructure costs can increase:

- Female labour force participation
- Educational attainment
- Health outcomes
- Entrepreneurial participation
- Financial inclusion

Buddhist Economics and Capital Stewardship

Buddhist Economics, developed initially by E. F. Schumacher and later expanded through contemporary development economics literature, emphasizes sufficiency, welfare

maximization, reduction of suffering, ethical production, social harmony, and long-term sustainability rather than unlimited profit maximization.

Unlike conventional capitalism, which prioritizes perpetual capital accumulation, Buddhist Economics views capital as a temporary social instrument intended to improve collective welfare.

The proposed RDB framework shares several characteristics with Buddhist Economics:

- Temporary stewardship of capital
- Productive rather than speculative investment
- Reduction of economic suffering
- Broad-based access to essential services
- Long-term social welfare orientation
- Intergenerational sustainability

Healthcare Economics

Healthcare infrastructure investment produces long-term productivity gains:

$$GDP = f(K, L, H)$$

Where:

- K= Capital
- L= Labor
- H= Human capital and health

Healthier populations generate higher productivity and lower long-term public costs.

Education Economics

Human capital theory suggests:

$$Y = A \cdot f(K, H)$$

Where:

- Y= Output
- A= Technology
- K= Capital
- H= Human capital

Investment in education raises labour productivity and innovation capacity.

Research Gap

Existing literature separately examines:

- Monetary policy
- Development banking
- Financial capitalism
- Infrastructure financing
- Industrial policy
- Gender economics
- Public finance

However, there is limited integrated research examining:

1. Rotational developmental banking systems.
2. Temporary capital stewardship models.
3. Mandatory low-profit transfer systems.
4. Integration of monetary expansion with productive asset recycling.
5. Combined effects across gender economics, political economy, actuarial economics, and forensic governance.
6. The relationship between developmental banking and rupee appreciation.
7. Interaction between forensic auditing and developmental finance.

This paper attempts to bridge these gaps by constructing a unified multidisciplinary framework.

Methods

Research Methodology

This study uses a multidisciplinary theoretical-policy analytical framework combining:

- Macroeconomic modelling
- Monetary economics
- Political economy analysis
- Institutional analysis
- Gender economics
- Actuarial risk assessment
- Financial systems modelling
- Forensic audit frameworks

The paper uses conceptual economic simulations rather than empirical forecasting because the proposed system does not currently exist in complete form.

Economic Equations and Analytical Models

GDP Growth Model

GDP growth is modelled as:

$$GDP = C + I + G + (X - M)$$

Where:

- C= Consumption
- I= Investment
- G= Government expenditure
- $(X-M)$= Net exports

The proposed system primarily increases:

- Investment
- Industrial productivity
- Export competitiveness

Productivity Expansion Model

$$Y = A \cdot K^{\alpha} L^{\beta}$$

Where:

- Y= National output
- A= Technological efficiency
- K= Capital stock
- L= Labor

Infrastructure investment raises both capital stock and productivity efficiency. The proposed framework partially aligns with Solow's growth framework where capital accumulation contributes to long-term output expansion (Solow 1956).

Inflation-Supply Balancing Framework

Inflationary pressure can be simplified as:

$$\pi = M_g - Q_g$$

Where:

- π= Inflation
- M_g= Money growth
- Q_g= Productive output growth

The developmental banking system attempts to keep output growth close to monetary expansion.

Developmental Capital Recycling Model

$$DC_t = P_t + R_t - L_t$$

Where:

- DC_t= Developmental capital available
- P_t= Project recoveries
- R_t= Recycled returns
- L_t= Losses and defaults

The framework hypothetically explores:

- CRR = 0%
- SLR = 0%
- Repo Rate = 0%
- Reverse Repo Rate = 0%
- MSF Rate = 0%

while simultaneously discouraging or prohibiting banks from passively parking liquidity within RBI systems. This changes the monetary architecture fundamentally.

Liquidity cannot:

- remain idle,
- accumulate passively,
- or recycle through reserve parking.

Instead, liquidity must circulate toward productive developmental systems.

Banking Multiplier

$$m = \frac{1}{CRR + ERR + CDR}$$

Where:

- m= money multiplier
- ERR= excess reserve ratio
- CDR= currency-deposit ratio

As reserve ratios approach zero liquidity expansion potential rises sharply. However, the new framework attempts to structurally redirect this liquidity into productive circulation.

Anti-Hoarding Monetary Architecture

The framework strongly opposes:

- passive reserve accumulation,
- treasury dependency,
- sovereign carry trades,
- and speculative liquidity stagnation.

The system therefore attempts to eliminate idle liquidity behaviour.

The proposal would impose incentives or constraints intended to increase the share of financing allocated to eligible projects. The design must preserve liquidity and prudential buffers. This creates compulsory productive liquidity velocity. Along with it banks should use the hidden reserves like money written off in depreciation account and free reserves.

Rotational Development Banking

Banks become temporary developmental stewards and/or quasi-developmental banks. They can even in a way become quasi-angel investment firm and/or quasi-venture capitalist firm.

They finance:

- ports,
- railways,
- airports,
- industrial corridors,
- healthcare systems,
- educational institutions,
- housing systems,
- agricultural modernization,
- defence manufacturing,
- and logistics ecosystems.

Rotational Development Cycle (RDC)

Phase 1

Liquidity creation

Phase 2

Productive asset development

Phase 3

Temporary stewardship ownership

Phase 4

Transfer at cost or minimal profit

Phase 5

Capital recovery

Phase 6

Capital recycling

This creates continuous developmental circulation**.**

Actuarial Risk Modelling

Expected systemic risk:

$$ER = \sum p_i l_i$$

Where:

- p_i= Probability of project failure
- l_i= Loss magnitude

Forensic Governance Assessment

The paper proposes forensic audit systems across:

- Financial audits
- Cost audits
- Secretarial audits
- Ecological audits
- Governance audits
- Legal audits
- Defence audits
- Agricultural audits
- Weather audits

These are evaluated qualitatively. Douglass North highlighted the importance of institutions in shaping long-term economic performance and developmental outcomes (North 1990).

Fragmentation Leakage Model

Proposed equation:

$$NLD = F + D + C + R + A$$

Where:

- NLD = National Leakage Due to Defragmentation Failure

- F = Financial Leakage
- D = Delay Costs
- C = Compliance Costs
- R = Regulatory Duplication
- A = Administrative Inefficiency

Fragmented legal and regulatory systems generate hidden economic leakages through duplicated approvals, compliance burdens, inter-agency conflicts, legal uncertainty, project delays, and corruption opportunities. These leakages reduce the developmental effectiveness of monetary expansion and productive investment.

Results

Macroeconomic Effects

GDP Expansion

The proposed system significantly increases national investment capacity.

If India's annual public capital expenditure is supplemented by quasi-developmental banking investment, national productive investment could theoretically double.

Potential effects include:

- Accelerated infrastructure creation
- Manufacturing expansion
- Industrial corridor development
- Logistics modernization
- Increased export competitiveness

Under disciplined governance, India could theoretically sustain higher long-term GDP growth. Michael Porter emphasized that national competitiveness depends on productivity, industrial ecosystems, infrastructure, and innovation capacity (Porter 1990).

Employment Generation

Infrastructure and industrial expansion generate direct and indirect employment.

High-employment sectors include:

- Construction
- Transportation
- Manufacturing
- Healthcare
- Education

- Agriculture
- Logistics
- Technology

The employment multiplier may significantly reduce structural unemployment.

Savings to Government

Reduced Borrowing Costs

Traditional government infrastructure financing involves high interest burdens.

If developmental finance reduces financing costs, governments save through:

- Lower debt servicing
- Reduced fiscal deficits
- Lower subsidy burdens
- Faster project completion

Reduced Import Dependence

Industrial expansion reduces import dependence in:

- Energy
- Defence
- Semiconductors
- Manufacturing

This improves trade balances and fiscal stability.

Higher Tax Revenues

Higher GDP generates:

- Higher GST collections
- Increased corporate taxes
- Increased income taxes
- Expanded economic formalization

Savings to Public

Affordable Infrastructure

Transfer of projects at cost or minimum regulated profit lowers:

- Toll costs
- Housing costs

- Transport costs
- Electricity costs
- Healthcare costs
- Education costs

Lower Structural Inflation

Improved logistics and productive capacity reduce:

- Transport inflation
- Supply chain inflation
- Manufacturing costs
- Distribution inefficiencies

Improved Social Mobility

Higher employment and lower living costs improve:

- Savings rates
- Consumption stability
- Urban mobility
- Educational access

Savings to Investors

Completed infrastructure assets provide:

- Stable long-term cash flows
- Lower construction risk
- Pension-compatible returns
- Infrastructure REIT opportunities

Investors gain access to productive national assets rather than speculative bubbles alone.

Supplement to Government Annual Budgets

Developmental banking functions as a parallel national investment engine. This supplements fiscal capacity without requiring proportionate tax increases. The state effectively gains developmental leverage through banking-led capital recycling.

Effect on Indian Rupee

Positive Effects

If industrialization succeeds:

- Exports rise

- Import dependence falls
- Productivity improves
- Trade deficits narrow
- Lower Imported Inflation
- Reserve accumulation

These factors strengthen long-term rupee fundamentals. Improved industrialization may improve the current account. $Current\ Account = Exports - Imports + Net\ Income$

Negative Risks

If liquidity expansion becomes excessive:

- Inflation may rise
- Capital flight risk increases
- Currency confidence may weaken

Thus rupee appreciation depends on productive efficiency.

Effect on FDI

Improved infrastructure and industrial ecosystems may attract:

- Manufacturing FDI
- Technology FDI
- Defence partnerships
- Semiconductor investments
- Healthcare investments

Stable infrastructure ecosystems reduce operational costs for foreign investors.

Effect on Securities Markets

Positive Effects

Developmental expansion may increase:

- Infrastructure stocks
- Manufacturing equities
- Logistics firms
- Defence production firms
- Energy companies

Negative Risks

Ultra-cheap liquidity may also produce:

- Asset bubbles
- Overvaluation
- Excess leverage
- Speculative volatility

Effect on Startups

The proposed framework could significantly benefit startups through:

- Lower financing costs
- Better infrastructure
- Improved logistics
- Larger domestic demand
- Increased digital connectivity

Startup ecosystems in:

- AI
- Manufacturing
- Healthcare
- Agri-tech
- Fintech
- Climate technology

could expand rapidly.

Effect on Cooperatives

Cooperative ownership models may benefit through:

- Access to productive assets
- Affordable financing
- Shared infrastructure
- Agricultural modernization
- Community industrialization

This may strengthen decentralized economic participation.

Effect on Women

Women may benefit through:

- Reduced unpaid care burdens

- Improved transport access
- Affordable healthcare
- Better educational access
- Greater labour force participation
- Financial inclusion

Women entrepreneurs may gain from lower capital costs.

Effect on Children

Improved healthcare and education infrastructure may produce:

- Better nutrition
- Lower mortality
- Higher educational attainment
- Reduced child labour
- Better cognitive development

Long-term human capital quality may improve substantially.

Discussion

Social and Socio-Political Environment

The proposed system fundamentally transforms state-society-market relations. Banks evolve from private profit-maximizing intermediaries into quasi-developmental institutions.

This may increase public trust if:

- infrastructure becomes affordable,
- employment rises,
- regional inequality falls,
- living standards improve.

However, concentration of financial power may also create socio-political tensions.

Political Economy Analysis

The system resembles developmental capitalism rather than neoliberal capitalism. The state indirectly guides national capital allocation through banking structures. This could be a supplement to the Government's budget. This could be a parallel budget of the nation. Kahneman's work on behavioural biases suggests that financial and policy decisions are often influenced by cognitive heuristics and irrational expectations (Kahneman 2011).

Potential Advantages

- Faster industrialization
- Strategic sector prioritization
- Long-term planning capacity
- Reduced infrastructure gaps

Potential Dangers

- Crony capitalism
- Political favouritism
- Regulatory capture
- Banking oligarchies
- Regional inequality

The system's success depends on institutional quality.

Gender Politics and Gender Economics

Economic systems influence gender power structures.

Affordable infrastructure reduces unpaid domestic labour disproportionately carried by women.

Examples include:

- Improved public transportation
- Affordable housing
- Childcare infrastructure
- Healthcare accessibility

Women's economic participation increases when structural barriers fall. Claudia Goldin's work demonstrates how structural economic conditions influence women's labour force participation and career outcomes (Goldin 2021).

Gender-sensitive developmental finance may include:

- Women-led cooperatives
- Female entrepreneurship funding
- Maternal healthcare investment
- Education access programs

Financial Economics Perspective

Traditional banking generates profits through interest spreads.

Quasi-Developmental banking system instead prioritizes:

- Productive asset creation
- National productivity
- Long-term industrial expansion

The idle reserves of the bank that is with RBI and banks' own reserves shall be mobilised to the development of the nation and shall become a quasi- development bank. Currently CRR and SLR of all banks stands at approximately ₹8 lakh crores and ₹48 lakh crores, as per RBI databases and report of 2025. The free reserves of all Public Sector Banks is ₹11.2 lakh crores and all Private Sector Banks is ₹14.6 lakh crores as per RBI database and report of 2025. Together it is approximately ₹80.8-81.8 lakh crores. India's annual budget is approximately ₹53.5 lakh crores only. The entire ₹80.8-81.8 lakh crores can be mobilised as capital investment for the nation. Along with it bank should use hidden reserves from depreciation accounts too. This would help in the development of the economy amicably. The arrangement is intended to alter the allocation strategies, and ownership lifecycle of financed assets. And whether it does so without increasing risk requires evaluation.

Actuarial Economics

Actuarial systems become essential because large-scale infrastructure investment generates systemic risk. Taleb warned that highly improbable but high-impact events can destabilize complex financial systems (Taleb 2007).

Key risks include:

- Construction risk
- Default risk
- Inflation risk
- Currency risk
- Climate risk
- Demand risk

Actuarial modelling improves project sustainability.

Healthcare Economics

Healthcare infrastructure produces long-term economic returns through:

- Higher productivity
- Lower mortality
- Lower long-term treatment costs
- Improved labour efficiency

Preventive healthcare investment reduces fiscal burdens over time.

Education Economics

Educational expansion strengthens:

- Innovation ecosystems
- Productivity growth
- Research capacity
- Startup ecosystems
- Technological upgrading

Human capital becomes the long-term engine of growth. Romer's endogenous growth theory suggests that technological innovation and knowledge accumulation are central drivers of long-term economic growth (Romer 1990). Gary Becker's human capital theory highlights the relationship between education investment and labour productivity enhancement (Becker 1964).

Forensic Audits

The proposed developmental banking framework incorporates a comprehensive system of forensic audits covering economic, financial, cost, secretarial, management, environmental, legal, defence, agricultural and governance dimensions. These audits ensure efficient resource allocation, financial transparency, cost discipline, institutional accountability, regulatory compliance and the detection of fraud, corruption, hidden liabilities and systemic risks. Environmental audits additionally safeguard ecological sustainability, while carbon credit mechanisms may provide supplementary financing for developmental activities. Collectively, forensic auditing establishes continuous oversight over capital allocation, project execution and institutional performance, ensuring that developmental finance translates into productive, accountable and sustainable economic outcomes.

Inflation Dynamics

The system attempts to convert monetary expansion into productive expansion.

Traditional inflation occurs when:

$$Money\ Growth > Output\ Growth$$

The proposed framework attempts to maintain:

$$Money\ Growth \approx Productive\ Capacity\ Growth$$

This potentially reduces destructive inflation.

However, developmental inflation may still occur through:

- Land price increases
- Commodity demand surges
- Wage increases
- Construction booms

Thus inflation may be transformed rather than eliminated.

Risks of Banking Concentration

Basel III reforms introduced stronger capital adequacy and liquidity requirements to improve banking system resilience after the global financial crisis (Bank for International Settlements 2017). If banks control:

- Infrastructure
- Manufacturing
- Housing
- Logistics
- Transportation

economic concentration may become excessive.

This creates risks of:

- Financial oligarchy
- Political capture
- Reduced competition
- Systemic fragility

Therefore, decentralized ownership transfer mechanisms become essential.

Democratic Implications

Developmental finance may strengthen democratic legitimacy if public welfare improves.

However, centralized financial power may also weaken democratic pluralism if institutions become captured.

Thus democratic institutional safeguards remain critical.

Extreme Poverty Eradication Framework

Equation:

$$PE = E + A + H + S$$

Where:

- PE = Poverty Elimination
- E = Employment Generation
- A = Asset Ownership
- H = Human Capital Formation
- S = Social Infrastructure

The developmental banking framework seeks not merely to increase GDP. The framework could affect extreme poverty through productive employment, affordable access to essential services, and democratization of productive asset ownership but the magnitude and the distribution of any effect are not estimated here.

RCS and Buddhist Economics

The proposed RCS and RDB framework draws upon Buddhist Economics by treating capital as an instrument of human welfare rather than an end in itself. It shifts the emphasis from accumulation, rent extraction and speculative financialisation towards ethical wealth creation, productive stewardship, sufficiency and equitable development. Under RCS, banks act as temporary custodians of developmental capital, creating and stabilising productive assets before transferring ownership to public institutions, cooperatives, communities or other eligible stakeholders at regulated terms. The recovered capital is subsequently recycled into new developmental investments, creating a continuous cycle of productive capital formation. By prioritising poverty reduction, healthcare, education, employment, environmental sustainability and intergenerational welfare alongside financial returns, the framework seeks to transform conventional profit-oriented banking into an ethically grounded, socially inclusive and sustainable system of developmental finance.

Leakages Generated by Regulatory Fragmentation

Regulatory fragmentation creates developmental inefficiencies through overlapping institutional jurisdictions, duplicative approvals, administrative delays, compliance costs and rent-seeking, thereby reducing the productivity and circulation of developmental capital. The proposed RDB and RCS framework addresses these challenges through regulatory coordination, harmonised procedures, integrated digital clearances, single-window mechanisms and stronger inter-agency accountability across sectors such as infrastructure, agriculture, MSMEs, healthcare and housing. Efficiency of the DCS can be higher if the same has been addressed. However, regulatory coordination and simplification must not be confused with weakening environmental, labour, public health or occupational safety protections. The objective is to eliminate procedural duplication and administrative inefficiency while retaining substantive safeguards, regulatory scrutiny and accountability. This institutional defragmentation can accelerate project implementation, reduce financial and temporal leakages, and improve the conversion of developmental capital into productive assets without compromising social justice, environmental sustainability or public safety.

Limitations and Implementation Risks

1. Banking mandate and legal feasibility: commercial banks' direct ownership of infrastructure and industrial assets may conflict with existing prudential, exposure, and corporate-governance rules; legal amendments and supervisory design would require specialist analysis.
2. Financial stability: long-duration, illiquid projects financed by deposit-funded banks can create maturity and liquidity mismatch, correlated exposures, concentration, and solvency risks.
3. Political economy: project selection, regional allocation, procurement, transfer pricing, connected lending, and post-transfer ownership can be captured by political or business interests.

4. Valuation and transfer: “at cost or minimum profit” does not specify treatment of overruns, land appreciation, subsidies, maintenance, construction defects, taxes, or cost of capital. A transparent independent valuation and appeal process is required.
5. Fiscal transparency: below-market transfers, guarantees, first-loss support, and re-capitalisation can create explicit or contingent public liabilities. Disclosing fiscal exposures in standard budget and risk statements.
6. Data limitations: the article has no project-level data, no calibrated model, no counterfactual, and no empirical test. The model cannot establish causal effects on growth, inflation, exchange rates, FDI, employment, or poverty.
7. Transition and distribution: who bears losses, who receives the transferred asset, whether users can afford fees, and how benefits vary by region and gender remain open questions.
8. Environmental and social safeguards: faster approvals must not mean weaker scrutiny or reduced community rights.

Conclusion

This research paper examined a hypothetical Indian developmental banking system combining ultra-loose liquidity, direct productive investment, RCS, and compulsory post-completion transfer of projects at cost or regulated minimum profit.

The analysis suggests that such a system could potentially generate:

- Accelerated infrastructure growth
- Industrial expansion
- Higher GDP growth
- Large-scale employment creation
- Lower long-term public costs
- Improved healthcare and education access
- Stronger manufacturing competitiveness
- Better logistics efficiency
- Expanded startup ecosystems
- Cooperative sector growth
- Women’s economic empowerment
- Improved child welfare outcomes

The proposed framework attempts to transform monetary expansion into productive asset creation rather than speculative financial accumulation.

If implemented effectively, developmental banking may reduce long-term structural inflation by increasing productive capacity alongside liquidity expansion.

The model also has the potential to generate significant savings for:

- Governments through reduced financing costs,
- Citizens through affordable infrastructure,
- Investors through stable productive assets.

However, the framework also carries substantial risks including:

- Crony capitalism
- Political capture
- Banking concentration
- Asset bubbles
- Hidden debt accumulation
- Governance deterioration
- Systemic financial fragility

The ultimate success of such a system depends less on monetary mechanics and more on:

- Institutional quality
- Technocratic governance
- Transparent regulation
- Anti-corruption enforcement
- Meritocratic capital allocation
- Robust forensic auditing systems

The paper concludes that developmental banking can become a transformative force only when financial power remains accountable to democratic institutions, productive efficiency, social welfare, ecological sustainability, and long-term national development.

Declarations

Ethics Approval
This study does not involve human participants, personal data, or experimental subjects. Ethical approval was therefore not required.

Consent to Participate
Not applicable.

Consent for Publication
The authors consent to publication.

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