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1. NEP 2020 – From policy to campus practice(TH)

General Studies Paper – GS II (Governance & Social Justice)

Topic – Issues relating to development and management of Social Sector/Services relating to Education.

Sub-Topic – Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

1. Introduction

The National Education Policy (NEP) 2020 marks a historic shift in India's pedagogical landscape, replacing the 34-year-old National Policy on Education (1986). Approved in July 2020, it envisions an India-centric education system that contributes directly to transforming our nation into an equitable and vibrant knowledge society. It aims to make education more holistic, flexible, and multidisciplinary, aligning with 21st-century global requirements.

2. Key Objectives & Vision

- Universal Access** – Achieve 100% Gross Enrolment Ratio (GER) from Pre-school to Secondary level by 2030.
- Higher Education Expansion** – Raise the GER in higher education to 50% by 2035.
- Global Standard** – Transform India into a "Global Knowledge Superpower."
- Skill-Centricity** – Shift from a "content-heavy" to a "competency-based" curriculum to foster critical thinking and creativity.

3. Structural Reforms in School Education

The most visible change is the transition from the traditional 10+2 model to a more developmentally appropriate **5+3+3+4** structure –

- Foundational Stage (5 Years)** – Ages 3–8. Includes 3 years of Anganwadi/Pre-school + Classes 1 & 2. Focus on play-based and activity-based learning.
- Preparatory Stage (3 Years)** – Ages 8–11. Classes 3–5. Focus on interactive classroom learning and building a foundation in reading, writing, and math.
- Middle Stage (3 Years)** – Ages 11–14. Classes 6–8. Introduction of abstract concepts in sciences, math, and arts. Coding and vocational internships start here.
- Secondary Stage (4 Years)** – Ages 14–18. Classes 9–12. Multidisciplinary study with greater depth, critical thinking, and student choice of subjects.

4. Curricular & Pedagogical Overhaul

- Multilingualism** – The policy advocates for the mother tongue, local language, or regional language as the medium of instruction at least until Grade 5.
- Integration of Subjects** – No rigid separation between "arts and sciences," "curricular and extra-curricular," or "vocational and academic" streams.
- Vocational Integration** – 10-day "bagless" periods for middle schoolers to intern with local vocational experts (potters, gardeners, etc.).
- Literacy & Numeracy** – Launch of a National Mission on Foundational Literacy and Numeracy to ensure basic skills are attained by Grade 3.

5. Assessment & Evaluation Reforms

1. **PARAKH** – Establishment of a National Assessment Centre, **PARAKH** (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development), to set standards for student evaluation.
2. **Redesigning Board Exams** – Board exams will be made "easier" to test actual capacities rather than rote memorization. Students may be allowed to take them twice a year.
3. **360-Degree Report Card** – Holistic progress reports including self-assessment, peer-assessment, and teacher-assessment.

6. Higher Education – Flexibility & Regulation

1. **Multiple Entry and Exit** – 1 Year – Certificate
 - 2 Years – Advanced Diploma
 - 3 Years – Bachelor's Degree
 - 4 Years – Bachelor's with Research
2. **Academic Bank of Credits (ABC)** – A digital storehouse of academic credits earned to facilitate seamless transfer and mobility between institutions.
3. **Single Regulator** – The **Higher Education Commission of India (HECI)** will serve as an umbrella body (excluding medical and legal education), replacing UGC and AICTE.
4. **Internationalization** – Allowing top global universities to set up campuses in India and vice versa.

7. Teacher Training & Inclusion

1. **B.Ed. Integration** – By 2030, the minimum qualification for teaching will be a 4-year integrated B.Ed. degree.
2. **Gender Inclusion Fund** – Created to assist female and transgender students in accessing education.
3. **Special Education Zones (SEZs)** – Targeting regions with a high population of Socially and Economically Disadvantaged Groups (SEDGs).

8. Challenges to Implementation

1. **Funding** – The policy envisions spending 6% of GDP on education, a target India has struggled to meet for decades.
2. **Digital Divide** – Integrating technology requires robust internet and hardware access in rural and remote areas.
3. **State Cooperation** – As Education is a Concurrent List subject, the Centre requires proactive cooperation from diverse state governments.
4. **Teacher Readiness** – Training millions of teachers to shift from rote-based instruction to creative, competency-based teaching is a massive logistical task.

9. Conclusion

The NEP 2020 is a visionary document that seeks to decolonize the Indian mind and align the youth with the needs of the Fourth Industrial Revolution. Its success hinges on seamless coordination between the Centre and States, sustainable funding, and a mindset shift among educators and parents alike

Source – <https://www.thehindu.com/education/colleges/nep-2020-from-policy-to-campus-practice/article70669559.ece>

"The National Education Policy (NEP) 2020 seeks to shift the focus from 'what to think' to 'how to think.' Critically analyze the structural reforms proposed in the policy and the challenges in achieving a 6% GDP expenditure on education." (250 Words, 15 Marks)

1. Introduction

The National Education Policy (NEP) 2020 is the first education policy of the 21st century in India, replacing the 34-year-old policy of 1986. Built on the foundational pillars of Access, Equity, Quality, Affordability, and Accountability, it aims to transform India into a "Global Knowledge Superpower" by aligning the Indian education system with the Sustainable Development Goal 4 (SDG 4).

2. Structural Reforms – Shifting the Paradigm

The policy introduces several transformative structural changes to foster critical thinking –

1. **From 10+2 to 5+3+3+4** – The new structure integrates Early Childhood Care and Education (ECCE) starting from age 3. This recognizes that over 85% of a child's cumulative brain development occurs prior to the age of 6.
2. **Multidisciplinary Higher Education** – The introduction of a 4-year undergraduate program with **Multiple Entry and Exit options** (Certificate, Diploma, Degree) reduces dropout waste and allows students to combine diverse subjects (e.g., Physics with Fashion Design).
3. **Vocational Integration** – By introducing vocational exposure and coding from Class 6, the policy attempts to remove the social stigma attached to manual skills and improve the employability of the Indian workforce.
4. **Regulatory Simplification** – The creation of the **Higher Education Commission of India (HECI)** as a "light but tight" single regulator aims to reduce the bureaucratic overlap of UGC and AICTE.

3. The 6% GDP Challenge – A Critical Analysis

The NEP 2020 reiterates the long-standing goal of spending **6% of GDP** on education. However, several hurdles persist –

1. **Historical Shortfall** – Since the Kothari Commission (1966), India's actual public spending on education has stagnated around **3% to 4.6% of GDP**, leading to an "investment deficit" in infrastructure.
2. **Fiscal Constraints** – High fiscal deficits (as seen in the 2026 revisions) and the need for massive capital expenditure in other sectors (infrastructure, defense) often lead to "expenditure compression" in the social sector.
3. **State-Centre Dynamics** – Since education is in the **Concurrent List**, the 6% target requires a synchronized commitment from both the Union and States. Many states face revenue constraints that prevent them from matching the Centre's vision.
4. **Private Sector Reliance** – To bridge the funding gap, there is a risk of over-commercialization if the public sector fails to lead the investment charge.

4. Other Implementation Hurdles

1. **The Digital Divide** – While the policy pushes for "Digital India," the lack of high-speed internet and devices in rural areas creates an "equity gap."
2. **Language Barrier** – Implementing the mother tongue as a medium of instruction requires a massive overhaul of textbooks and teacher training in regional languages.
3. **Teacher Shortage** – The 4-year integrated B.Ed. requirement is visionary, but the current shortage of qualified teachers remains a bottleneck.

5. Conclusion

The NEP 2020 is a blueprint for a decolonized and futuristic education system. However, its success does not lie in the document itself but in its implementation (Execution). To achieve the \$4 trillion economy and the "Viksit Bharat" vision, India must treat the 6% GDP expenditure not as a target, but as a mandatory prerequisite for human capital development.

Source – <https://www.thehindu.com/education/colleges/nep-2020-from-policy-to-campus-practice/article70669559.ece>

2. New GDP series makes meeting fiscal targets, \$4-trillion economy aim more difficult(IE)

General Studies Paper – GS III (Economic Development)

Topic – Indian Economy and issues relating to planning, mobilization of resources, growth, development, and employment.

Sub-Topic – Government Budgeting; Fiscal Policy; GDP Calculation Methodology; Debt Sustainability.

1. Introduction

The Ministry of Statistics and Programme Implementation (MoSPI) recently revised the GDP base year to 2022–23. While intended to capture the structural shifts in a post-pandemic economy, this statistical "re-basing" has led to a 3.3% to 4% reduction in the nominal GDP estimates. Consequently, the mathematical denominator for key fiscal ratios has shrunk, making the Union Government's target of a 4.3% fiscal deficit and the \$4 trillion economy milestone more computationally demanding.

2. The GDP Revision – Mechanism and Impact

Why the Base Year Changed

1. **Structural Reflection** – Periodic updates (from 2011–12 to 2022–23) ensure that the GDP basket reflects modern consumption patterns, technological shifts, and new industries.
2. **Data Accuracy** – The revision incorporates improved databases, updated corporate filings (MCA-21), and more granular sectoral reclassifications.

The "Denominator Effect"

1. **Nominal GDP Shrinkage** – The new series reduced the absolute rupee value of the nominal GDP.
2. **The Math** – Since Fiscal Deficit is calculated as $\frac{\text{Total Borrowings}}{\text{Nominal GDP}} \times 100$, a smaller denominator automatically inflates the deficit percentage even if the borrowing amount remains the same.
3. **Growth Recalibration** – Real GDP growth for FY24 was revised downward from 9.2% to 7.2%, indicating a more conservative measurement of post-COVID recovery.

3. Fiscal Deficit – The New Math

Revised Deficit Projections

1. **FY26 Shift** – Under the old series, the deficit was projected at 4.4%. Under the new series, it effectively climbs to **4.5%**.
2. **The FY27 Challenge** – To hit the target of 4.3%, the economy now requires a 13–14% nominal growth rate, significantly higher than the 10.5%–11% usually assumed in recent budgets.

Constitutional and Statutory Context

1. **Article 112** – Relates to the Annual Financial Statement (Budget), where the fiscal deficit highlights the gap between expenditure and non-debt receipts.
2. **FRBM Act (2003/2018)** – This framework mandates fiscal prudence. The revision complicates the "glide path" toward reducing the deficit to below 4.5% of GDP.

4. The Quest for 14% Nominal Growth

To maintain fiscal targets without slashing essential spending, India needs aggressive nominal growth.

1. **Composition** – Nominal Growth = Real GDP Growth + Inflation (GDP Deflator).
2. **The Trade-off** – While inflation helps increase nominal GDP (the denominator), high inflation erodes purchasing power. Therefore, the focus must be on high real output.
3. **Policy Implications** – If growth stays at 10%, the government faces a choice –
 - **Reduce Borrowing** – Drastic cuts in spending to meet the 4.3% target.
 - **Expenditure Compression** – Risking a slowdown by cutting capital expenditure (Capex).

5. Debt Sustainability & \$4 Trillion Milestone

The Debt Burden

1. **Combined Debt** – General government debt (Centre + States) hovers between 80–85% of GDP.

2. **Interest Payments** – A higher deficit leads to a larger debt stock, where interest servicing "crowds out" social sector spending (education, health).

The Currency Factor

1. **Exchange Rate Sensitivity** – India's GDP is roughly \$3.8 trillion at an exchange rate of ~₹90/USD.
2. **The Barrier** – Any significant depreciation of the Rupee against the Dollar makes the \$4 trillion goal a moving target, regardless of domestic growth.

6. Macroeconomic Implications

1. **Monetary-Fiscal Coordination** – The RBI must manage inflation carefully; if inflation is too low, nominal GDP growth falls, making fiscal targets harder to reach.
2. **Investor Confidence** – Maintaining a "predictable" fiscal path is vital for sovereign credit ratings and attracting Foreign Direct Investment (FDI).
3. **Viksit Bharat 2047** – Fiscal stability is the bedrock for the long-term vision of becoming a developed nation. Structural reforms in the tax base are necessary to increase revenues without raising rates.

7. Conclusion

The shift in GDP base year serves as a reality check for India's fiscal math. To achieve a 4.3% deficit and cross the \$4 trillion mark, the strategy must shift from purely statistical reliance to aggressive productive capital expenditure and tax-to-GDP ratio improvements. Fiscal consolidation should not be contractionary; rather, it should be driven by a broader tax base and a stable exchange rate environment.

Source – <https://indianexpress.com/article/explained/explained-economics/india-gdp-revision-nominal-cut-fiscal-deficit-impact-10558015/>

"The recent revision of the GDP base year to 2022–23 has introduced new challenges to India's fiscal consolidation roadmap. In this context, discuss the implications of a shrinking nominal GDP on the fiscal deficit targets and the feasibility of achieving a \$4 trillion economy by FY27." (250 Words, 15 Marks)

1. Introduction

The Ministry of Statistics and Programme Implementation (MoSPI) recently shifted the GDP base year from 2011–12 to 2022–23. While this recalibration captures structural changes and modern data points (like MCA-21), it has resulted in a 3.3–4% reduction in the absolute nominal GDP. This "denominator effect" complicates the government's target of reaching a 4.3% fiscal deficit and the \$4 trillion milestone.

2. Implications on Fiscal Deficit Targets

The fiscal deficit is expressed as a ratio of the gap between expenditure and receipts to the nominal GDP. A lower nominal GDP directly impacts this math –

1. **The Denominator Effect** – Even if the government maintains its absolute borrowing levels, a smaller nominal GDP base automatically inflates the fiscal deficit ratio.
2. **Target Slippage** – For instance, the FY26 deficit target, previously seen as 4.4%, effectively rises to **4.5%** under the new series.
3. **Pressure on Nominal Growth** – To maintain a 4.3% deficit target by FY27, India now requires a 13–14% nominal GDP growth, which is significantly higher than the standard budget assumption of 10.5%.
4. **Fiscal Consolidation Strain** – To meet these targets, the government may be forced to either curtail capital expenditure (Capex)—which could hurt long-term growth—or aggressively expand the tax base.

3. Challenges to the \$4 Trillion Economy Goal

Achieving the \$4 trillion milestone is a function of domestic growth and external currency dynamics –

1. **Growth Requirement** – Higher real GDP growth and moderate inflation (comprising nominal growth) are now essential to compensate for the reduced base.

Building Bureaucrats Since 2006

2. **Exchange Rate Volatility** – Since the milestone is measured in USD, a depreciating Rupee (currently near ₹90/USD) acts as a headwind. Constant nominal growth in Rupees must outpace currency depreciation to hit the \$4 trillion mark.
3. **Investment Ratios** – A lower GDP estimate might slightly improve the **Investment-to-GDP ratio** (as the denominator is smaller), but it requires actual "ground-level" capital formation to sustain 7%+ real growth.

4. The Way Forward

To navigate this "Fiscal Math" challenge, the government must adopt a multi-pronged strategy –

1. **Enhancing Tax Elasticity** – Improving GST compliance and direct tax collection to increase the tax-to-GDP ratio without raising rates.
2. **Protecting Capex** – Ensuring that fiscal consolidation does not come at the cost of infrastructure, which has a high multiplier effect on growth.
3. **Monetary-Fiscal Coordination** – Aligning RBI's inflation targeting with the government's growth objectives to ensure nominal growth remains in the "Goldilocks" zone (11-13%).

5. Conclusion

The GDP revision underscores that fiscal targets are not just accounting entries but dynamic indicators of economic health. While the new base year provides a more accurate picture of the economy, it necessitates **accelerated structural reforms and fiscal discipline**. Achieving a 4.3% deficit and a \$4 trillion economy will require a delicate balance between aggressive growth and prudent debt management to ensure long-term macroeconomic stability.

Source – <https://indianexpress.com/article/explained/explained-economics/india-gdp-revision-nominal-cut-fiscal-deficit-impact-10558015/>

3. Indian economy – Macro 100. Micro 0 .(BUSINESS LINE)

General Studies Paper – General Studies Paper III – Indian Economy

Topic – Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

Sub-Topic – Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Introduction

India has made significant progress in maintaining macroeconomic stability, reflected in steady GDP growth, controlled inflation, and improved fiscal management. However, strong macroeconomic indicators have not always translated into efficient microeconomic performance, particularly in the business environment and firm-level productivity. Understanding the gap between macroeconomic success and microeconomic constraints is essential for analysing the structural challenges in India's economic governance.

Indian business is subject to political, judicial and bureaucratic oppression

1. Concept of Macro-Micro Economic Divergence

1. Macroeconomic performance refers to indicators such as GDP growth, inflation stability, fiscal deficit control, and external sector balance.
2. Microeconomic performance refers to firm-level productivity, regulatory environment, business competitiveness, and entrepreneurial conditions.
3. India demonstrates a macro-micro divergence, where aggregate economic indicators show improvement while enterprise-level efficiency remains constrained.
4. This gap affects investment, employment generation, and innovation capacity in the economy.

2. Historical Evolution of Economic Governance

Building Bureaucrats Since 2006

1. Between the 1960s and 1980s, the Indian economy experienced slow growth due to heavy state control, commonly described as the “licence–permit–quota raj.”
2. The 1991 economic reforms introduced liberalisation, privatisation, and globalisation, reducing industrial licensing and trade restrictions.
3. Despite reforms, several bureaucratic and regulatory structures inherited from earlier economic systems continue to affect the business ecosystem.

3. Nature of Microeconomic Constraints

1. Firms face complex regulatory procedures, compliance burdens, and administrative delays.
2. Multiple clearances from different authorities increase transaction costs and uncertainty.
3. Judicial delays in dispute resolution weaken contract enforcement and investor confidence.
4. These constraints reduce entrepreneurial dynamism and private sector competitiveness.

4. Institutional and Constitutional Factors

1. India’s Constitution distributes legislative powers through the Union List, State List, and Concurrent List.
2. Subjects in the Concurrent List allow both the Union and States to legislate, which can create regulatory overlap.
3. Such overlaps may produce policy ambiguity, duplication of regulations, and administrative inefficiency.
4. Strengthening decentralised governance and cooperative federalism can improve economic decision-making.

5. Bureaucratic and Regulatory Challenges

1. Businesses encounter multiple inspections, licensing requirements, and compliance obligations.
2. Excessive administrative procedures raise the cost of doing business and slow down investment decisions.
3. In some sectors, regulatory frameworks still resemble aspects of the earlier licence-based control system.

6. Structural Contradictions in Economic Governance

1. **Policy Reform vs Implementation Gap** – Policy announcements often face delays in execution due to administrative constraints.
2. **Centralisation vs Federal Flexibility** – Excessive central oversight may limit state-level innovation in economic governance.
3. **Macro Stability vs Micro Efficiency** – National economic stability does not automatically translate into **firm-level productivity and competitiveness**.

7. Policy Directions for Reform

1. Regulatory simplification and digitisation of approvals can reduce compliance burdens.
2. Judicial reforms and faster dispute resolution mechanisms are necessary for improving the investment climate.
3. Strengthening cooperative and competitive federalism can enable states to implement context-specific economic policies.
4. Sustainable growth requires alignment between macroeconomic stability and microeconomic dynamism, ensuring that national growth leads to productive investment, entrepreneurship, and employment generation.

For sustainable and inclusive economic growth, macroeconomic stability must be complemented by efficient microeconomic institutions and a supportive business environment. Addressing regulatory complexities, improving governance, and strengthening federal coordination can help bridge the macro–micro gap and enable India to realise its full economic potential.

PRACTISE QUESTION

Q. India has achieved considerable macroeconomic stability in recent decades, yet microeconomic inefficiencies continue to constrain business growth and productivity. Examine the reasons for this macro-micro divergence in the Indian economy and suggest measures to address it. (250 words)

MODEL ANSWER

Introduction

Macroeconomic stability refers to the management of broad economic indicators such as GDP growth, inflation, fiscal deficit, and external balance, while microeconomic efficiency relates to firm-level productivity, regulatory environment, and ease of doing business. India has witnessed significant improvement in macroeconomic indicators since the economic reforms of 1991; however, several structural and institutional constraints at the microeconomic level continue to limit business dynamism and investment.

Reasons for Macro-Micro Divergence

1. Persistence of Regulatory Complexity

1. Businesses face multiple licences, inspections, and compliance requirements across different departments.
2. Overlapping regulations increase transaction costs and administrative delays.

2. Institutional and Governance Constraints

1. Weak coordination between regulatory agencies leads to policy uncertainty and inconsistent implementation.
2. Administrative discretion often results in delays and unpredictability in approvals.

3. Federal and Constitutional Challenges

1. Economic subjects placed in the Concurrent List allow both Union and State governments to legislate, creating regulatory overlaps.
2. Such overlaps produce conflicting rules and duplication of compliance requirements.

4. Judicial Delays and Contract Enforcement Issues

1. Slow judicial processes reduce efficiency in dispute resolution and contract enforcement.
2. This weakens investor confidence and increases the cost of doing business.

5. Legacy of the Licence-Permit System

Despite liberalisation, bureaucratic procedures inherited from earlier regulatory systems continue to affect entrepreneurial activity and market efficiency.

Measures to Address the Gap

1. Regulatory Simplification—Rationalisation of laws and introduction of single-window clearance mechanisms.

2. Strengthening Cooperative Federalism—Greater policy autonomy to states for designing business-friendly regulations suited to local conditions.

3. Judicial and Institutional Reforms—Faster dispute resolution through commercial courts, arbitration mechanisms, and digital case management.

4. Administrative Reforms—Expansion of digitised governance platforms and time-bound approvals to reduce bureaucratic delays.

Conclusion

Sustained economic growth requires not only macroeconomic stability but also efficient microeconomic institutions that promote entrepreneurship, innovation, and investment. Bridging the

macro-micro gap through regulatory, institutional, and federal reforms is essential for transforming India into a globally competitive and investment-friendly economy.

4. India's innovation gap shows up in the financial data of our firms (MINT)

General Studies Paper – General Studies Paper III – Indian Economy

Topic – Science and Technology – developments and their applications and effects in everyday life.

Sub-Topic – Role of innovation, research and development (R&D) in economic growth.

Introduction

Innovation and research & development (R&D) are essential for improving productivity, technological capability, and long-term economic competitiveness. Despite rapid economic growth, India faces an innovation gap, as reflected in the relatively low level of R&D investment by corporate firms and limited breakthrough technological innovations.

1. Concept of Innovation Gap

1. The innovation gap refers to the difference between a country's economic size and its capacity to generate technological innovations and patents.
2. In India, corporate innovation remains limited because private sector investment in research and development (R&D) is relatively low.
3. Innovation-driven economies rely on continuous R&D spending, technological experimentation, and industry-academia collaboration.

2. Low Corporate R&D Expenditure

1. India's gross expenditure on R&D (GERD) is around 0.6–0.7% of GDP, which is significantly lower than innovation-driven economies.
2. Countries such as South Korea, Israel, and the United States invest between 2–4% of GDP in R&D.
3. A large share of R&D spending in India comes from the public sector, while private firms contribute relatively less.

3. Financial Data Reflecting Weak Innovation

1. Corporate financial statements show limited allocation of profits toward research activities.
2. Many Indian firms prioritise short-term profitability and cost efficiency over long-term technological development.
3. This results in incremental improvements rather than breakthrough innovations.

4. Structural Factors Behind the Innovation Gap

Weak Industry–Academia Linkages–Collaboration between universities and private companies remains limited, reducing technology transfer and commercialization of research.

Risk–Averse Corporate Culture–Firms often avoid large investments in R&D due to uncertain returns and long gestation periods.

Limited Venture Capital for Deep Technology–Funding ecosystems are stronger for digital startups but weaker for advanced manufacturing, biotechnology, and deep-tech innovation.

Dependence on Imported Technology–Many industries rely on foreign technology licensing, reducing incentives for indigenous innovation.

5. Sectoral Implications

1. Weak innovation capacity affects manufacturing competitiveness and technological upgrading.
2. It limits India's ability to move up the global value chain in sectors such as electronics, semiconductors, and advanced engineering.
3. This also constrains the country's ambition of becoming a global innovation hub.

6. Policy Measures to Strengthen Innovation

Building Bureaucrats Since 2006

1. Increase private sector R&D incentives through tax benefits and innovation-linked subsidies.
2. Strengthen industry-academia partnerships and technology transfer mechanisms.
3. Expand public funding for research institutions and technology clusters.
4. Promote deep-tech startups through venture capital support and innovation ecosystems.
5. Align initiatives such as Startup India, Atmanirbhar Bharat, and production-linked incentives (PLI) with long-term innovation goals.

7. Way Forward

1. Sustained economic growth requires innovation-led industrial transformation rather than cost-based competitiveness.
2. Increasing corporate investment in R&D can enable technological self-reliance, higher productivity, and global industrial competitiveness.

Conclusion

1. Strengthening innovation requires greater corporate investment in R&D, stronger industry-academia collaboration, and supportive policy incentives.
2. Bridging the innovation gap will help India move toward technology-driven growth, higher industrial competitiveness, and sustainable economic development.

Source - <https://www.livemint.com/opinion/online-views/india-innovation-gap-financial-numbers-indian-companies-r-d-research-and-development-11772121676151.html>

PRACTISE QUESTION

Q. India's innovation gap is reflected in the low research and development (R&D) spending of its corporate sector. Examine the causes and discuss its implications for India's long-term economic competitiveness. (250 words)

Model Answer

Introduction

Innovation and research & development (R&D) are crucial drivers of technological advancement, industrial competitiveness, and sustained economic growth. Despite being one of the world's fastest-growing major economies, India exhibits a significant innovation gap, reflected in low corporate investment in R&D and limited breakthrough technological developments.

Causes of Low Corporate R&D in India

- 1. Low Overall R&D Expenditure**—India's gross expenditure on R&D (GERD) is about 0.6–0.7% of GDP, significantly lower than innovation leaders like South Korea, Israel, and the United States.
- 2. Risk-Averse Corporate Culture**—Many firms prioritise short-term profitability and cost competitiveness rather than long-term innovation investments.
- 3. Weak Industry-Academia Collaboration**—Limited interaction between universities, research institutions, and private firms restricts technology transfer and commercialization of research.
- 4. Dependence on Imported Technology**—Several industries rely on foreign technology licensing and imports, reducing incentives for domestic innovation.
- 5. Limited Deep-Tech Financing**—Venture capital investment in India is concentrated in digital startups, while sectors like advanced manufacturing, biotechnology, and semiconductors receive limited funding.

Implications for India's Economic Competitiveness

- 1. Weak Technological Leadership**—Low innovation capacity restricts India's ability to develop cutting-edge technologies and patents.
- 2. Limited Movement in Global Value Chains**—Industries remain concentrated in low-value manufacturing and services, rather than high-value innovation-driven sectors.

3. Dependence on Foreign Technology–Excessive reliance on external technology can create strategic and economic vulnerabilities.

Conclusion

Bridging India's innovation gap requires greater corporate investment in R&D, stronger industry–academia linkages, and supportive innovation ecosystems. Enhancing research capacity and encouraging private sector innovation will be essential for achieving technological self-reliance and sustained economic competitiveness.

Source – <https://www.livemint.com/opinion/online-views/india-innovation-gap-financial-numbers-indian-companies-r-d-research-and-development-11772121676151.html>

