Indian Economy · GS - III

The expansion of artificial intelligence is creating investment opportunities beyond conventional technology companies, particularly in data-centre infrastructure and aerospace. Examine the economic opportunities and associated risks of this emerging investment trend.

EXAM YEAR	PAPER	SUBJECT
DAILY PRACTICE 23/11/2026	GS - III	Indian Economy

MARKS	WORD LIMIT
15	~250 words

Answer Hint

AI infrastructure expansion, data centres, power and cooling requirements, aerospace and defence applications, capital expenditure, valuation risks, technological innovation, regulatory safeguards

Model Answer

Introduction

The rapid adoption of artificial intelligence is transforming investment opportunities across interconnected sectors. Apart from software and semiconductor companies, data centres, power infrastructure, cooling technologies and aerospace industries are emerging as important beneficiaries of this technological transition.

Emerging Economic Opportunities

1. **Data-centre expansion:** Growing demand for AI computing requires advanced data centres, servers, storage facilities and high-speed connectivity, creating opportunities across the digital infrastructure value chain.

2. **Power and cooling infrastructure:** Energy-intensive AI operations increase demand for reliable electricity, efficient power-management systems, cooling technologies and renewable energy solutions.

3. **Aerospace and defence applications:** AI is strengthening surveillance, autonomous platforms, predictive maintenance, aircraft systems and defence research, potentially increasing demand for technologically advanced aerospace products.

4. **Industrial development:** Investment in these sectors can encourage domestic manufacturing, skilled employment, research and development, and greater integration into global supply chains.

Risks and Challenges

1. **High capital expenditure:** Data centres and aerospace manufacturing require substantial upfront investment, creating financial and execution risks.

2. **Valuation concerns:** Excessive market optimism may push share prices beyond underlying business fundamentals, increasing the possibility of investment losses.

3. **Energy and environmental pressures:** Rising electricity and water consumption by data centres can intensify resource constraints and environmental concerns.

4. **Technological uncertainty:** Rapid innovation may make existing infrastructure obsolete, while geopolitical tensions and supply-chain dependencies can disrupt operations.

Way Forward

1. Strengthen domestic semiconductor, power and data-centre ecosystems through targeted infrastructure investment.
2. Encourage energy-efficient data centres and sustainable cooling technologies.
3. Promote transparent corporate disclosures regarding order books, debt and capital expenditure.
4. Support aerospace research, indigenous manufacturing and responsible AI adoption.

Conclusion

BECOME IAS
AI POWERED UPSC PREP

AI-led investment can become an important driver of economic growth and technological transformation. However, sustainable returns will depend on sound financial fundamentals, efficient resource utilisation and long-term technological competitiveness rather than market enthusiasm alone.

BECOME
IAS
AI POWERED UPSC PREP