

An Assessment of Uttar Pradesh's Economic Growth Trajectory in Comparison to BIMARU States: A Post-2011-12 NSDP Analysis

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Abstract

This study critically examines the economic growth trajectory of Uttar Pradesh (UP) in comparison to other BIMARU states (Bihar, Madhya Pradesh, Rajasthan) in the post-2011–12 period, using Net State Domestic Product (NSDP) at current prices as the core metric. Since the 2011–12 base year revision in national accounts, UP has undergone structural transformation driven by policy reforms, industrialization, and infrastructure development. Through a comparative quantitative analysis, this research evaluates absolute and per capita NSDP growth, growth rates, and sectoral shifts across BIMARU states. Findings reveal that UP has experienced robust economic growth, outperforming Bihar and approaching the levels of Rajasthan and Madhya Pradesh. The study highlights UP's accelerated post-pandemic recovery, sectoral diversification, and rise in investment inflows, which suggest a maturing economy on the verge of economic catch-up. However, challenges persist in per capita income growth and employment transitions. The paper concludes that UP's growth trajectory, if sustained through targeted reforms and human capital development, could offer a replicable model for other lagging regions in India.

Keywords: Uttar Pradesh, BIMARU states, NSDP, Economic Growth, Per Capita Income, Sectoral Shifts, Infrastructure Development, One District One Product (ODOP), GSDP, Post-2011 Analysis, Policy Reforms, Comparative Study, CAGR, Economic Transformation, Regional Development.

Introduction

The Indian economy has undergone significant structural transformations since the 2011-12 base revision of national accounts. Uttar Pradesh (UP), as India's most populous state and a member of the historically underperforming BIMARU group (Bihar, Madhya Pradesh, Rajasthan, Uttar Pradesh), has witnessed notable economic growth in recent years. However, whether this growth is outpacing its BIMARU peers in real terms remains underexplored.

This study aims to analyse the NSDP data to determine if UP has indeed surpassed the rest in terms of absolute economic growth since 2011–12. Uttar Pradesh (UP), India's most populous state, has exhibited notable economic growth in recent years, transitioning from a historically underdeveloped region to a significant contributor to the national economy. The economy of the state has been experiencing robust economic growth, often surpassing the national average. Uttar Pradesh's economic development, in recent times, has been shaped by a series of strategic policies and reforms aimed at transforming the state into an investment-friendly and industrialized economy. These policies have focused on infrastructure, industrial development, ease of doing business, skill development, and agriculture modernization. Some notable infrastructure development projects such as Purvanchal, Bundelkhand & Ganga Expressways have contributed in improving regional connectivity, logistics, and attract investment in backward regions.

UP Defence Industrial Corridor (UPDIC), one of the two defence corridors in India, is attracting major players like HAL, BEL, and private defence companies, which are focusing on technology-intensive manufacturing and exports of defence goods. Smart Cities and AMRUT Mission has helped the state in renewing urban infrastructure in cities like Lucknow, Kanpur, Varanasi, Prayagraj and also boosted urban

services, housing, and public transport. UP Industrial Investment and Employment Promotion Policy (2017) offers capital subsidy, stamp duty exemption, and interest subsidy to industries with focus on MSMEs, textile, electronics, food processing, and logistics. Electronics Manufacturing Policy (2020) aims to make UP a hub for mobile manufacturing and component production, especially in Noida and Greater Noida. For ease of doing business and investment promotion, Nivesh Mitra Single Window Portal is operative which helps in providing online clearance of over 200 services from 20 departments. It has made UP one of the top 10 states in EODB rankings by DPIIT. The Invest UP & Global Investors Summits (2018, 2023) has attracted multi-billion-dollar investment commitments across sectors like green energy, data centers, semiconductors, and logistics. The state has aligned itself with centre's Skill India Mission which focuses on skilling youth, especially in semi-urban and rural areas. Extensive Skill Development Missions and ITIs have been set up with private sector collaboration. Apart from these, the Labour Law Reforms (2020), introduced temporary relaxations and simplified compliance to attract MSMEs and new businesses. The unique ODOP initiative of Uttar Pradesh has emerged as a transformational step forward towards realization of the true potential of each and every district of the state. It has fostered economic growth, generated employment at local level, and increased the standard of living of artisans/entrepreneurs. (Tripathi, 2021)

2. Research Question: Has Uttar Pradesh exhibited higher absolute growth in Net State Domestic Product compared to other BIMARU states since 2011–12?

3. Objectives: The objective of the study is

- To assess and compare the absolute NSDP growth of UP with Bihar, Madhya Pradesh, and Rajasthan from 2011–12 to 2023–24.
- To analyse year-wise growth patterns and identify trends.
- To contextualize UP's performance within national and regional frameworks.
- To explore policy implications of UP's economic trajectory for other lagging regions.

4. Hypothesis:

H_0 (Null Hypothesis): There is no significant difference in absolute NSDP growth between Uttar Pradesh and other BIMARU states.

H_1 (Alternative Hypothesis): Uttar Pradesh has experienced significantly higher absolute NSDP growth compared to other BIMARU states during the period 2011–12 to 2023–24.

5. Methodology: The study will adopt a quantitative, comparative, and descriptive research design. It will rely on secondary data analysis of state-wise NSDP (at current prices) from 2011–12 to 2023–24. We will be using published data (secondary) from Ministry of Statistics and Programme Implementation (MoSPI), Government of India and Economic Survey 2024 table 1.10A for Net State Domestic Product at Current Prices (2011–12 Series). The study will be Supplemented by data from RBI and NITI Aayog reports for validation. Descriptive statistics used in the study are Growth calculation using

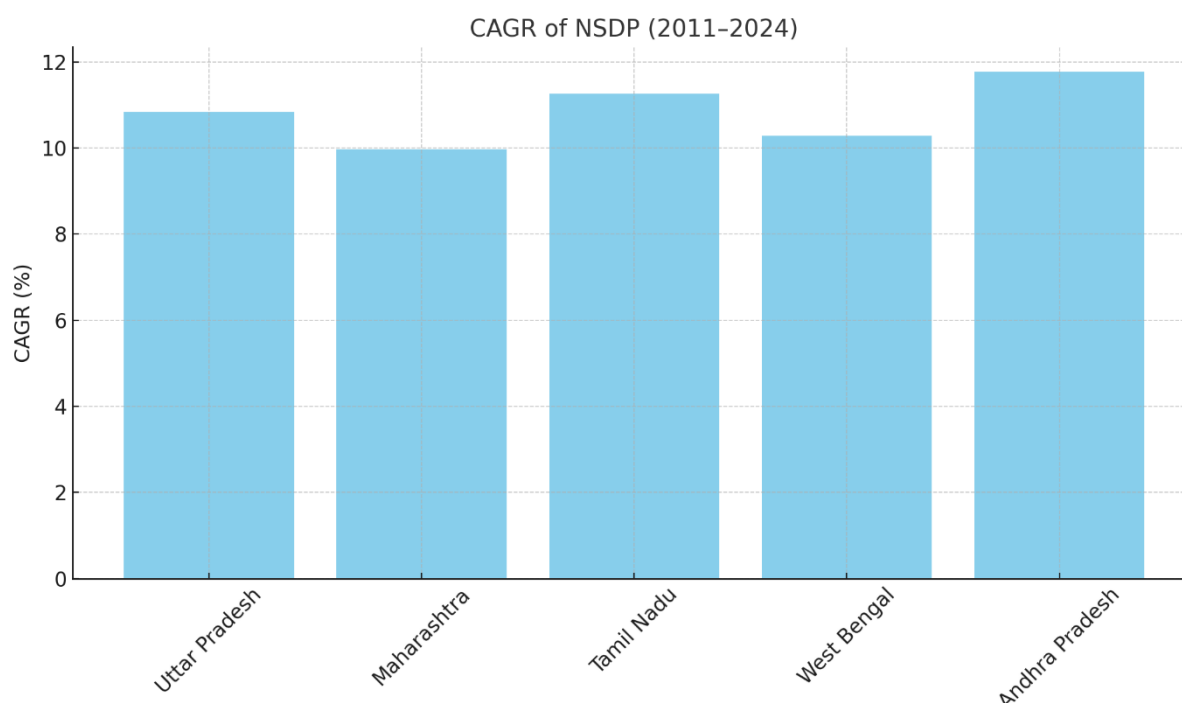
$$\text{Absolute Growth} = \text{NSDP}_{2023-24} - \text{NSDP}_{2011-12}$$

Also, annual growth trends and CAGR (Compound Annual Growth Rate) will be used, along with comparative graphs such as line and bar charts to visualize NSDP trends, among BIMARU states, for better understanding.

6. Detailed Analysis and Findings:

UP's Gross State Domestic Product (GSDP) increased from ₹22.84 lakh crore in 2022–23 to over ₹25.48 lakh crore in 2023–24. The state's GSDP is projected to reach ₹27.51 lakh crore in 2024–25, nearly doubling from ₹12.89 lakh crore in 2017–18, reflecting substantial growth across sectors such as agriculture, mining, construction, transport, and real estate. The state now accounts for 9.2% of India's GDP, positioning it as the second-largest state economy after Maharashtra, surpassing Tamil Nadu and Gujarat. As per Economic Survey (2024-25) the **Net State Domestic Product (NSDP)** at current prices (2011–12 series) for selected major Indian states from 2011–12 to 2023–24 **Uttar Pradesh**, despite starting lower, demonstrates rapid growth, especially post-2016, reaching over ₹22 lakh crore in 2023–24.

Comparing the compound annual growth rate (CAGR) of **Net State Domestic Product (NSDP)** at current prices, with other big states shows that Uttar Pradesh has achieved higher growth in NSDP than Maharashtra and West Bengal. Though, it lags behind two other big states Tamil Nadu and Andhra Pradesh.



Uttar Pradesh's line is steeper than Maharashtra's and West Bengal's, placing it **in the middle tier**, just below the highest performers. **West Bengal** follows a similar trajectory to UP but with **slightly slower acceleration**. Uttar Pradesh's **CAGR of 10.8%** reflects **robust growth**, especially considering the state's size, population, and past developmental challenges. A **strong economic momentum** in the economy has helped it in **catching up with other larger state economies**. While it still lags behind **Maharashtra** and **Tamil Nadu** in absolute NSDP, UP is **closing the gap more rapidly** than before. The momentum in economy can be an outcome of **positive policy and investment climate**. This trend likely implies **successful policy reforms**, infrastructure development, and investment inflows in sectors like manufacturing, logistics, and services, which has been in main focus of the current state government since last eight years. The state government through its economic policies is trying to tap its **Demographic Potential** and it seems it is going in right direction, as India's most populous state, UP's rising NSDP is suggesting **better utilization of its human capital** and increasing urbanization.

Based on the table 1.11(a) of the India's Economic Survey (2024-25) titled “**Per Capita Net State Domestic Product at Current Prices (2011-12 Series)**”, is analysed for the growth in Uttar Pradesh's per capita Net State Domestic Product (NSDP) from 2011-12 to 2023-24. here is a detailed analysis of the growth in **Uttar Pradesh's per capita Net State Domestic Product (NSDP)** from 2011-12 to 2023-24:

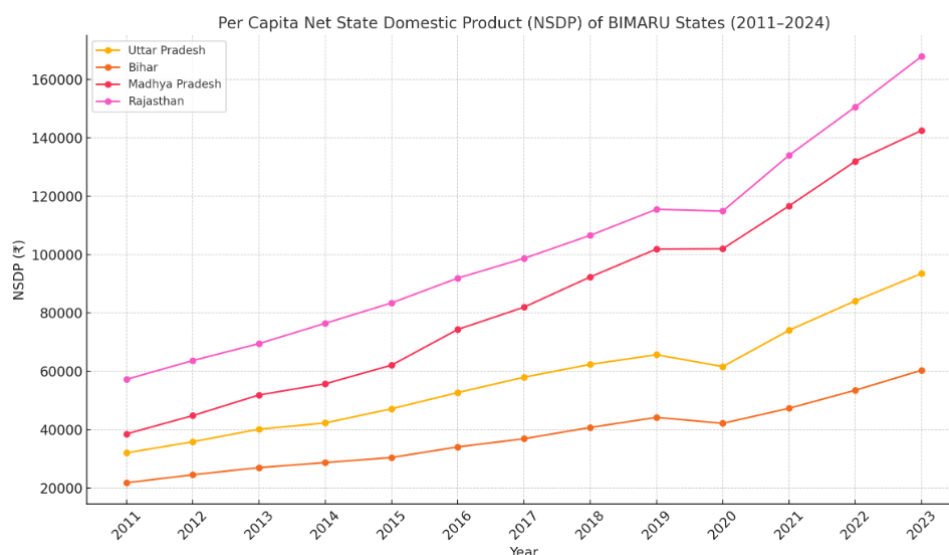
Per Capita NSDP of Uttar Pradesh (₹ in Crore):

Year	NSDP (₹)
2011–12	32,002
2012–13	35,812
2013–14	40,124
2014–15	42,267
2015–16	47,118
2016–17	52,671
2017–18	57,944
2018–19	62,350
2019–20	65,660
2020–21	61,598
2021–22	74,055
2022–23	84,126
2023–24	93,514

6.1 Growth Insights: The overall growth of **Per Capita Net State Domestic Product** of Uttar Pradesh between 2011-12 to 2023-24 in absolute terms was **₹61,512** (₹93,514 – ₹32,002). In percentage term it was 192.2%. Average annual growth rate (CAGR) during this period was 9.3 percent annually. If we see year-wise trends we can observe a steady growth from 2011–12 to 2019–20. A dip was observed during 2020–21 due to pandemic impact (from ₹65,660 to ₹61,598; ~6% decline). Afterwards a strong recovery from 2021–22 onwards is observed with double-digit growth. In 2021–22, it grew 20.2%, in 2022–23 the growth was 13.6% and in 2023–24: the growth in per capita NSDP of Uttar Pradesh was 11.2%. Further, if we see the decadal growth in per capita NSDP of Uttar Pradesh, it grew from ₹32,002 to ₹52,671 that is, 64.6% growth over 5 years (**2011–12 to 2016–17**). During next 5 years, **2016–17 to 2021–22** it increased from ₹52,671 to ₹74,055 which was a growth **40.6%** despite of having the period of pandemic disruption in it. Again during **2021–22 to 2023–24**, it grew from ₹84,126 to ₹93,514 that is 11.15% growth in one year. Based on above analysis, we can comprehend that-

- Uttar Pradesh has shown **consistent and healthy economic growth**, despite being a lower-middle-income state.
- The **post-pandemic recovery is robust**, with significant jumps in the last three years.
- **CAGR of 9.3%** over 12 years is commendable given the state's large population and development challenges.

6.2 Comparison with BIMARU States: When we draw the comparative trend of Per Capita Net State Domestic Product (NSDP) for the BIMARU states—Bihar, Madhya Pradesh, Rajasthan, and Uttar Pradesh—from 2011 to 2024 (in ₹ at current prices), we find **Rajasthan** and **Madhya Pradesh** have shown significant and consistent growth, with Rajasthan reaching the highest NSDP (~₹1.68 lakh in 2023). **Uttar Pradesh** has improved steadily but still lags behind MP and Rajasthan. **Bihar** remains the lowest among the four, though it has also grown considerably over the years.



6.3 Per Capita Net State Domestic Product (NSDP) Trends: UP's per capita NSDP grew from ₹32,002 in 2011-12 to ₹93,514 in 2023-24, showing nearly 3 times growth in 13 years. Despite the COVID-19 dip in 2020-21, UP rebounded well with double-digit growth in the following years.

Year	Uttar Pradesh	Bihar	Madhya Pradesh	Rajasthan
2011-12	₹32,002	₹21,750	₹38,497	₹57,192
2016-17	₹52,671	₹34,045	₹74,324	₹91,924
2020-21	₹61,598	₹42,128	₹102,007	₹114,925
2023-24	₹93,514	₹60,337	₹1,42,565	₹1,67,964

Uttar Pradesh has outperformed Bihar, but slightly lagged behind Madhya Pradesh and Rajasthan in terms of CAGR. Ranked 3rd among BIMARU states in per capita growth rate.

6.4 Compound Annual Growth Rate (CAGR) from 2011-12 to 2023-24:

State	CAGR (%)
Madhya Pradesh	11.53%
Rajasthan	9.39%
Uttar Pradesh	9.35%
Bihar	8.87%

UP's post-2020 growth appears sharper—suggesting that recent reforms and infrastructure projects (like expressways, defence corridor, etc.) are starting to bear fruit. If this trend continues, UP might overtake MP/Rajasthan in future growth rates. Economic growth historically involves a transition from agriculture to industry and then to services. Agriculture has low productivity and low capital intensity. Industry and services have higher productivity, driving per capita income growth.

Sectoral Composition of BIMARU States (2021)

State	Agriculture (%)	Industry (%)	Services (%)
Bihar	19.9	21.5	58.6
Madhya Pradesh	47.0	19.0	34.0
Rajasthan	27.0	24.0	41.0
Uttar Pradesh	28.4	24.6	47.0

Among the BIMARU states, Bihar is predominantly a service-driven economy, with services contributing 58.6% to its GSDP. Agriculture and industry have relatively lower shares. Madhya Pradesh has a significant reliance on agriculture, which constitutes 47% of its GSDP. The industrial and service sectors are less developed in comparison.

Rajasthan exhibits a balanced economic structure, with agriculture at 27%, industry at 24%, and services at 41%. Uttar Pradesh shows a diversified economy with agriculture at 28.4%, industry at 24.6%, and services at 47%. Compared to Bihar and MP, UP is less reliant on a single sector, which makes it more resilient to sector-specific shocks like drought, global recessions.

However, the composition of output and employment has been almost unchanged over time, the **imbalances between sectors** in Uttar Pradesh has been persistent.

Sectoral Composition Changes (2011–12 to 2023–24)

Sector	2011–12 Share of GSDP	2023–24 Share of GSDP
Agriculture	26.9%	27.0%

Sector	2011–12 Share of GSDP	2023–24 Share of GSDP
Industry	27.6%	26.5%
Services	45.5%	46.5%

Services & Industry contribute over 70% of GSDP, but they employ less than 30% of the workforce. Agriculture employs over 60% of the population, but contributes only around 27% to the state's GSDP.

7. Conclusion: While UP has improved governance in recent years (e.g., ease of doing business), **bureaucratic bottlenecks** and **historical underinvestment in infrastructure** still weigh on long-term momentum. Rajasthan and MP have had **more aggressive state-level reforms** in power, infrastructure, and investment attraction. The 'One District One Product' (ODOP) initiative has bolstered local industries, leading to a significant rise in exports and employment opportunities. Infrastructure enhancements, including improved connectivity and industrial clusters, have attracted investments, with the state receiving proposals worth over ₹40 lakh crore through the Global Investors Summit 2023. Uttar Pradesh's economy has made significant strides, becoming a key player in India's economic landscape. Despite progress, UP's **per capita income** remains low due to its large population. Sustaining growth with equitable distribution remains key. Which can be achieved by shifting of labor from low-productivity agriculture to high-productivity services/industry, improving education, skilling, infrastructure, and ease of doing business and strengthening export-oriented manufacturing.

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