

Economic Recovery and Growth Patterns In India: A Visual Study Of Macroeconomic Aggregates After Covid-19

Pabitra Ghosh¹, Soham Mitra², Suvamita Nath³, Ankush Biswas⁴, Pretty Lata Ray⁵, Sohom Majumder⁶

^{1,2,3,4,5}, BBA (General) Student, Department of Business Administration, JIS College of Engineering, Kalyani

⁶ Assistant Professor, Department of Business Administration, JIS College of Engineering, Kalyani

Abstract

The present study examines the economic recovery and growth patterns of India through a quantitative analysis of major macroeconomic aggregates during the period from FY 2018–19 to FY 2024–25. The study focuses on key indicators such as Gross Domestic Product (GDP), Gross National Income (GNI), Net National Income (NNI), Gross National Disposable Income (GNDI), Gross Saving, Gross Capital Formation (GCF), and selected per capita indicators. Secondary data were collected from the National Accounts Statistics published by the Ministry of Statistics and Programme Implementation (MoSPI), Government of India. A descriptive and analytical research design was adopted, and the data were analyzed using trend analysis, ratio analysis, growth rates, and graphical interpretation. The findings reveal a significant contraction in economic activity during FY 2020–21 due to the COVID-19 pandemic, followed by a strong and sustained recovery in subsequent years. Most macroeconomic indicators demonstrated substantial post-pandemic growth, reflecting India's economic resilience, rising investment activity, and improvement in average income levels. The study concludes that despite temporary disruptions caused by the pandemic, India's economy successfully regained growth momentum and exhibited a robust recovery trajectory.

Keywords : *Macroeconomic Indicators, Economic Recovery, GDP, GNI, Gross Saving, Gross Capital Formation, COVID-19, India*

1. Introduction

India is one of the world's fastest-growing major economies and plays a significant role in the global economic landscape. Over the past few decades, the country has experienced substantial structural transformation, moving from an agriculture-dominated economy toward a service-oriented and industrialized economic system. Economic growth, however, is influenced by various macroeconomic factors such as national income, investment, savings, disposable income, and consumption expenditure.

The period from FY 2018–19 to FY 2024–25 represents an important phase in India's economic history. It includes the pre-pandemic growth period, the severe disruption caused by the COVID-19 pandemic during FY 2020–21, and the subsequent recovery period. The pandemic created unprecedented economic challenges, including declines in production, employment, investment, and household income. Understanding how major macroeconomic aggregates responded during and after this period is essential for evaluating the resilience and recovery capacity of the Indian economy.

This study analyzes key national income indicators, savings, investment trends, and per capita welfare measures to understand India's macroeconomic recovery pattern after COVID-19. The findings provide insights into economic performance, policy effectiveness, and long-term development prospects.

2. Literature Review

Several researchers have examined India's economic growth, macroeconomic stability, and development challenges from different perspectives.

Dipti Gupta et al. (2020) explored India's transition toward low-carbon development pathways and concluded that sustainable economic growth and environmental objectives can coexist. Their study highlighted the importance of investment in renewable energy for long-term economic growth.

N.R. Bhanumurthy et al. (2018) analyzed the macroeconomic effects of public expenditure policies and observed that strategic capital expenditure can significantly improve growth outcomes while maintaining fiscal sustainability.

Jitendra Kumar Sinha (2025) investigated the relationship between inflation, credit availability, agricultural productivity, and economic growth. The study emphasized the importance of infrastructure development and institutional support in enhancing long-term economic performance.

Nitin Kumar Bharti et al. (2026) examined income and wealth inequality in India and reported a substantial increase in wealth concentration in recent decades. Their findings highlighted concerns regarding equitable distribution of economic gains.

Kalim Siddiqui (2025) reviewed India's economic transformation since independence and noted that while economic reforms accelerated growth, challenges such as unemployment, inequality, and human development remain significant.

Isha Jaswal et al. (2025) studied the impact of Foreign Direct Investment (FDI) on India's economy and found that FDI contributes positively to GDP growth, exports, employment generation, and industrial development.

The existing literature primarily focuses on specific dimensions of economic growth, inequality, investment, or sustainability. The present study contributes to the literature by providing an integrated analysis of major macroeconomic aggregates and their behavior during the post-COVID recovery period in India.

3. Objectives of the Study

The study was conducted with the following objectives:

1. To examine the trends in India's major national income aggregates from FY 2018–19 to FY 2024–25.
2. To analyze the growth pattern of GDP, GNI, NNI, and GNDI during the study period.
3. To evaluate trends in Gross Saving and Gross Capital Formation.
4. To assess changes in per capita income and consumption indicators.
5. To understand the macroeconomic impact of COVID-19 on the Indian economy.
6. To evaluate the recovery trajectory of India in the post-pandemic period.

4. Research Methodology

4.1 Research Design

The study adopts a quantitative, descriptive, and analytical research design. It focuses on identifying trends and growth patterns in selected macroeconomic indicators over time.

4.2 Source of Data

The study is based entirely on secondary data obtained from the National Accounts Statistics published by the Ministry of Statistics and Programme Implementation (MoSPI), Government of India.

4.3 Data Collection Tool

Data were collected from official government publications and reports available through MoSPI.

4.4 Sampling Method

As the study uses secondary macroeconomic data, no sampling technique was applied. National-level data published by MoSPI were utilized directly.

4.5 Sample Size

The study covers seven financial years from FY 2018–19 to FY 2024–25.

4.6 Area of Study

The study focuses on India at the national level.

4.7 Tools for Data Analysis

The following analytical tools were used:

- Trend Analysis
- Year-on-Year Growth Rate Analysis
- Compound Annual Growth Rate (CAGR)
- Ratio Analysis
- Gap Analysis
- Graphical Analysis and Interpretation

5. Data Analysis and Interpretation

5.1 Macroeconomic Dataset

Table 1: Macroeconomic Dataset

Year	Population (Lakhs)	GDP (₹ Crores)	GNI (₹ Crores)	NNI (₹ Crores)	GNDI (₹ Crores)
2018–19	13,270	1,88,99,668	1,86,97,344	1,67,13,054	1,91,91,083
2019–20	13,410	2,01,03,593	1,99,10,479	1,77,46,868	2,04,50,843
2020–21	13,554	1,98,54,096	1,95,87,409	1,72,46,821	2,01,39,597
2021–22	13,686	2,35,97,399	2,33,19,590	2,06,52,786	2,39,25,034
2022–23	13,829	2,68,90,473	2,65,20,166	2,33,90,925	2,73,39,378
2023–24	13,950	3,01,22,956	2,97,10,786	2,63,50,374	3,05,94,001

The data indicate a consistent increase in major macroeconomic aggregates over the study period. Although GDP, GNI, NNI, and GNDI experienced a temporary decline during FY 2020–21 due to the COVID-19 pandemic, all indicators recovered strongly in subsequent years. The results suggest that India's economy demonstrated significant resilience. The post-pandemic period witnessed accelerated growth, indicating successful recovery and expansion of economic activity.

5.2 GDP versus GNI

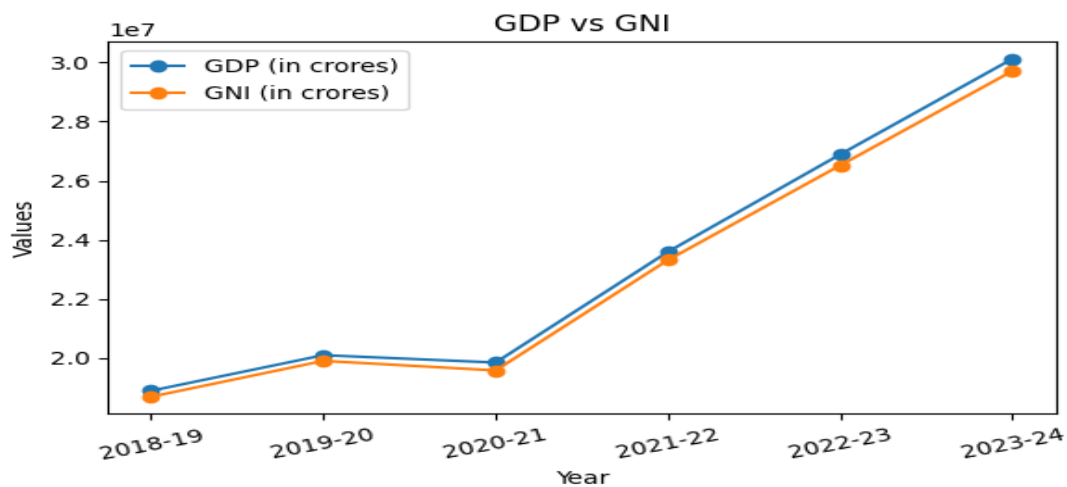


Figure 1: GDP versus GNI Trend

Both GDP and GNI displayed a generally upward trend throughout the study period. A minor decline occurred during FY 2020–21, followed by strong growth in later years. The close movement of GDP and GNI indicates stability in net factor income flows and reflects sustained economic growth.

5.3 NNI versus GNDI

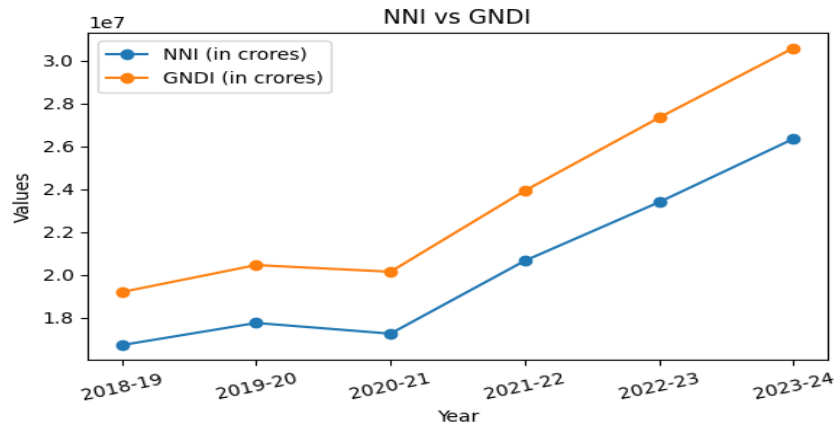


Figure 2: NNI versus GNDI Trend

NNI and GNDI increased steadily over time, with a temporary decline during the pandemic period. The growth of these indicators reflects improvement in national income generation and disposable income available to residents.

5.4 Gross Saving versus Gross Capital Formation

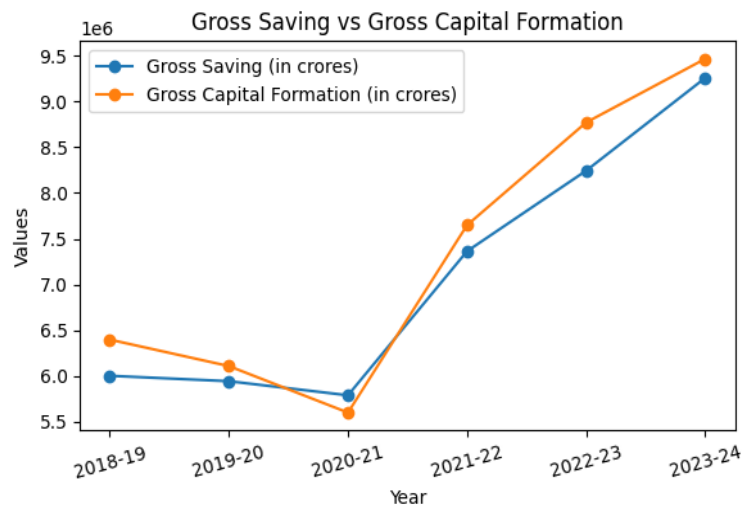


Figure 3: Gross Saving versus Gross Capital Formation

Gross Saving and Gross Capital Formation declined during FY 2020–21 but recovered substantially after the pandemic. The recovery indicates renewed investor confidence, increased capital accumulation, and improved economic prospects.

5.5 Per Capita GDP versus Per Capita GNI

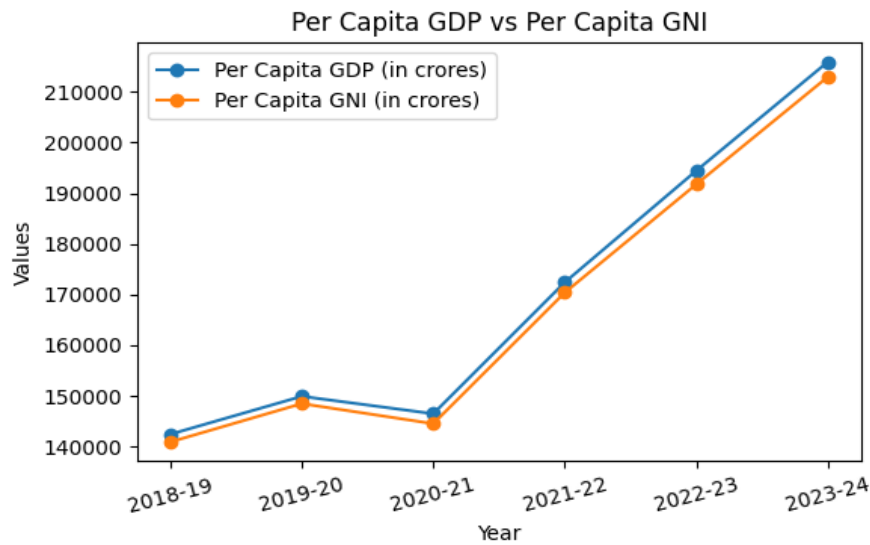


Figure 4: Per Capita GDP versus Per Capita GNI

Both indicators increased consistently after FY 2020–21 and reached their highest levels during the later years of the study. The findings suggest improvement in average income levels and economic well-being of the population.

5.6 Per Capita NNI versus Per Capita PFCE

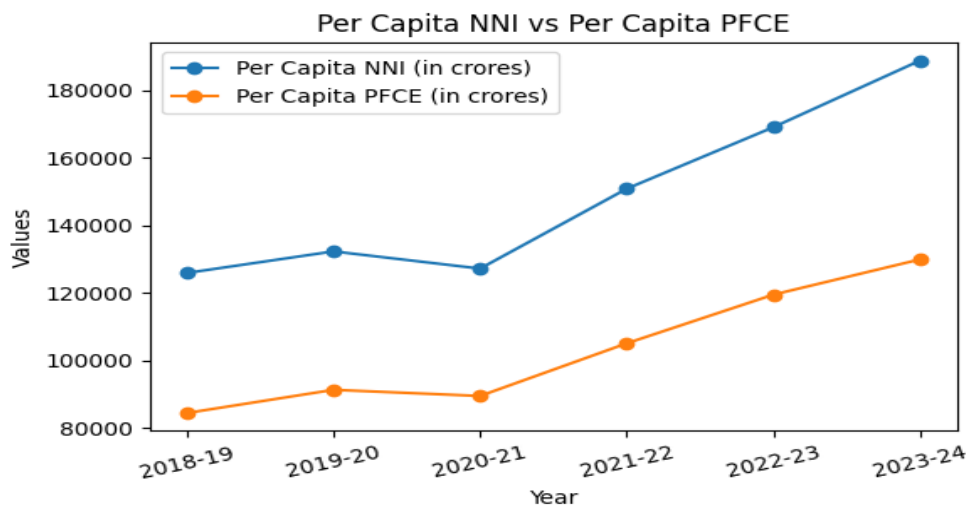


Figure 5: Per Capita NNI versus Per Capita PFCE

The upward trend in both indicators demonstrates a positive relationship between income and household consumption expenditure. As income levels increased, consumer spending capacity also improved, indicating better living standards.

6. Major Findings of the Study

- I. GDP increased significantly during the study period despite the temporary contraction during FY 2020–21.
- II. GNI followed a trend similar to GDP, indicating stability in external factor income.
- III. NNI and GNDI showed strong growth after the pandemic, reflecting improvements in income generation and disposable income.
- IV. Gross Saving and Gross Capital Formation declined during the pandemic but recovered substantially afterward.
- V. Per capita income indicators increased steadily in the post-pandemic period.
- VI. Household consumption expenditure improved alongside rising income levels.
- VII. The Indian economy exhibited a strong V-shaped recovery after COVID-19.
- VIII. Investment activity played a crucial role in supporting economic recovery and growth.

7. Discussion

The findings indicate that the COVID-19 pandemic created a short-term economic shock but did not permanently alter India's long-term growth trajectory. The decline in GDP, GNI, NNI, and investment indicators during FY 2020–21 reflects the widespread disruptions caused by lockdowns and reduced economic activity. However, the rapid recovery observed after FY 2021–22 demonstrates the resilience of the Indian economy.

The growth in Gross Capital Formation suggests that investment remained an important driver of economic expansion. Similarly, increasing levels of Gross Saving indicate improved financial capacity among households and businesses. The continuous rise in per capita income and consumption expenditure reflects improving living standards and stronger consumer confidence.

Overall, the findings support the view that investment, income generation, and consumer expenditure are closely interconnected and collectively contribute to sustained economic recovery and development.

8. Conclusion

The study concludes that India experienced substantial macroeconomic growth during the period under review despite the temporary disruption caused by the COVID-19 pandemic. Major economic indicators, including GDP, GNI, NNI, GNDI, Gross Saving, and Gross Capital Formation, demonstrated strong recovery in the post-pandemic years. Per capita income and consumption indicators also improved considerably, indicating enhanced economic well-being and purchasing power.

The overall evidence suggests that the Indian economy successfully overcame the challenges posed by the pandemic and resumed a strong growth path. The recovery was supported by rising investment, increasing income generation, and expanding consumer expenditure, highlighting India's economic resilience and growth potential.

9. Recommendations

- I. Policymakers should continue promoting investment in infrastructure and productive sectors.
- II. Measures to increase domestic savings should be strengthened to support long-term capital formation.
- III. Economic policies should focus on sustaining employment generation and income growth.
- IV. Greater emphasis should be placed on reducing income inequality and ensuring inclusive growth.
- V. Continued support for innovation, technology adoption, and industrial development is recommended.
- VI. Strengthening resilience against future economic shocks should remain a policy priority.

10. Limitations of the Study

- I. The study is based entirely on secondary data obtained from official government sources.
- II. The analysis is limited to national-level macroeconomic aggregates.
- III. The study uses nominal values rather than constant-price data.
- IV. The research is descriptive and does not establish causal relationships.
- V. Data for Gross Saving and Gross Capital Formation were unavailable for FY 2024–25.
- VI. Sectoral and regional variations were not examined.
- VII. Advanced econometric techniques were not employed.

11. Future Scope of the Study

- I. Future studies may use real (constant-price) data to assess actual economic growth after adjusting for inflation.
- II. Research can be extended to include state-wise and sector-wise analysis.
- III. Comparative studies between India and other emerging economies may provide additional insights.
- IV. Advanced statistical and econometric tools may be used to identify causal relationships.
- V. Future studies may examine the role of digital transformation, technology adoption, and globalization in economic recovery.
- VI. Additional variables such as employment, poverty, inflation, and inequality may be incorporated for a more comprehensive analysis.
- VII. Longitudinal studies covering a longer time horizon may provide deeper understanding of structural economic changes.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution, and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made. The images or other third-party material in this article are included in the article's Creative Commons license unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this license, visit <http://creativecommons.org/licenses/by/4.0/>.

References



1. Bharti, N. K., Chancel, L., Piketty, T., & Somanchi, A. (2026). *The World Bank Economic Review*, lhag013.
2. Bhanumurthy, N. R., Bose, S., & Chakravarti, P. (2018). *Journal of Quantitative Economics*, 16(Suppl. 1), 87–119.
3. Gupta, D., Ghersi, F., Vishwanathan, S. S., & Garg, A. (2020). *Climate Policy*, 20(7), 779–799.
4. Jaswal, I., Narayanan, B. G., & Jain, S. (2025). *Vision*, 29(3), 293–303.
5. Siddiqui, K. (2025). *American Review of Political Economy*, 19(1).
6. Sinha, J. K. (2025). *Journal of Economic Development, Innovation and Policy*, 1(1), 1–18.