



(RESEARCH ARTICLE)



Structural Transformation of the Indian Economy Post-1991: An Empirical Analysis of Sectoral Performance and Growth Trends

Baleshwari Panchal *

School of Extension and Development Studies, Indira Gandhi National Open University, New Delhi-110068, India.

International Journal of Science and Research Archive, 2026, 18(02), 823-830

Publication history: Received on 09 January 2026; revised on 13 February 2026; accepted on 16 February 2026

Article DOI: <https://doi.org/10.30574/ijrsra.2026.18.2.0299>

Abstract

This study presents a comprehensive empirical analysis of the structural transformation of the Indian economy in the post-liberalization era, spanning from 1991-1992 to 2020-2021. The research is guided by two primary objectives: first, to analyze the trend of India's Gross Domestic Product (GDP) and its growth rate following the economic reforms of 1991; and second, to evaluate the comparative performance of the primary, secondary, and tertiary sectors, alongside India's export. Employing a descriptive research design the analysis is conducted on constant price (2011-12 base year) data for GDP, Gross Value Added (GVA) by sector, and export value. It is based on secondary databases that includes the Reserve Bank of India Bulletin, the Economic Survey of India, and World Bank publications. The findings illuminate a decisive structural shift characterized by robust aggregate GDP growth driven predominantly by the rapid and stable expansion of the services-led tertiary sector. Conversely, the primary sector exhibits significant volatility and a declining share of GDP, while the secondary sector demonstrates steady but moderated growth. The export further underscores India's global integration, showing a substantial increase in value despite inherent volatility to global shocks. This study concludes that the 1991 reforms successfully catalyzed India's economic modernization and integration into the global economy, albeit resulting in a distinctive and services-dominated growth model with specific implications for policy and inclusive development.

Keywords: Reform; GDP; Liberalisation; Export

1. Introduction

The Indian economy, which is one of the major developing economies in the world, was lagging behind in terms of growth and development compared to other nations after gaining independence. India has adopted various measures in both monetary and fiscal aspects to accelerate its growth. One of the major initiatives that India adopted was its Reform Policy introduced in 1991 which included Liberalization, Privatization, and Globalization. Prior to reform, the Indian economy was regarded as a closed economy, and most development decisions were centrally planned. In the year 1951, it initiated its planning-led growth process with the adaptation of the First Five-Year Plan [1].

In the post-independence period, the challenge of shifting from an agrarian to an industrial economy, creating domestic skills in vital areas, and meeting people's pressing needs and desires weighed heavily. As a result, the government's role in the management of the economy has become more prominent [2]. India implemented a planning procedure that decided how much to save, where to invest, and how to invest. There was no such thing as a command economy here. In practice, India pursued a mixed economic policy in which the public and private sectors competed for limited resources. One of the main goals was to achieve self-sufficiency. Underlying strategic planning was import substitution and export pessimism. Big corporate entities were also given more opportunities to participate in the industrialization process. Direct physical controls were attempted to be replaced with indirect financial incentives and disincentives. In general, the 1980s saw a progressive and significant relaxation of domestic regulations [3].

* Corresponding author: Baleshwari Panchal

However, during the 1980s the government had started to live beyond its means. Consequently, the fiscal deficit, which had remained moderate until the 1980s, started to rise in the second half of the 1980s. The average fiscal deficit of the Central Government alone was 8.2 % of the GDP during 1985-86 to 1989-90. This was mainly due to the fast-rising expenditures on subsidies, interest payments, salaries and defense. As the government borrowed internally and externally to finance the growing fiscal gaps, the economy exhibited serious structural problems which posed obstacles to the sustainability of the higher growth [4].

In the early 1990s, the Indian economy suffered from a very acute macroeconomic crisis, the like of which it had never faced in the past. The foreign currency reserves of the country had tumbled to \$ 1 billion, just enough to pay for two weeks of imports. Access to external commercial credit markets was almost closed as international credit ratings tumbled. Hot money naturally disappeared. The inflation rate climbed to a peak of 17 % by August 1991. The ratio of the fiscal deficit of the Central Government to GDP had reached almost a double-digit level, and the current account deficit rose to nearly 3 % of GDP [4].

India began to undertake bold economic reforms in June 1991, prompted mainly by the balance of payments crisis and partly by the necessity to use domestic resources more efficiently. The balance of payments crisis was aggravated by an unmanageable fiscal imbalance. The response to the crisis was to put in place a set of policies aimed at stabilization and structural reforms. While stabilization policies were meant to put the house in order to correct the fiscal and balance of payments imbalances, the structural reforms were aimed at preventing the recurrence of such crises [4].

The Indian economy's post-reform phase is critical. Reform was implemented to speed up the economy and increase the efficiency of each sector, which includes the primary, secondary, and tertiary sectors. Though the reform was primarily focused on the industrial sector, an individual sector cannot grow without the growth of the other sectors, and there is mutually reinforcing interdependence among these sectors. Thus, it is important to analyse the performance of each sector after the adoption of a reform policy. The aim of this study is to analyse the performance of each sector, viz. primary, secondary, and tertiary, and also to highlight India's performance in the export sector after the implementation of reform.

2. Literature Review

A growing body of literature has examined India's economic reforms and their sectoral as well as overall impacts. Using time-series co-integration analysis, [5] highlighted the significant role of sectoral contributions in driving economic development, pointing to structural changes induced by reforms. Complementing this, [6] emphasized that while reforms accelerated economic growth, their distributional effects were uneven, raising concerns about inclusiveness. Focusing on specific sectors, [7] found that the manufacturing sector's performance improved in the post-reform period, though challenges of efficiency and competitiveness remained. Similarly, [8] noted that industrial development showed marked progress after liberalization, but the pace and pattern of growth differed from the pre-reform phase. Extending the debate to macroeconomic implications, [9] analyzed reforms undertaken after the 1991 balance of payments crisis and concluded that they had a lasting impact on India's overall economic performance, strengthening its global integration. From a broader policy perspective, [10] offers a conceptual analysis of India's growth objectives and identifies key bottlenecks that could impede future development. The study underscores the importance of targeted policy reforms to overcome these challenges and achieve substantial economic gains. Similarly, the "Handbook of Global Economic Policy" (2000) provides a comprehensive context for understanding India's reform strategies within the global economic framework [11]. [12] examined fiscal consolidation efforts post-1991, focusing on measures to address rising fiscal liabilities and external debt. Labor market dynamics and employment effects of reforms have been explored by [13]. The study highlights regional differences in labor market flexibility and their influence on employment outcomes in the formal manufacturing sector, emphasizing that institutional and structural factors shape the reform impacts on employment. Taken together, these studies suggest that while reforms undoubtedly boosted growth and sectoral dynamism, they also exposed persistent structural and distributional challenges.

3. Research gap

An examination of various studies on India's performance in various sectors after reform revealed that many of these studies were limited to highlighting the relationship between various sectors and economic growth, particularly during the post-independence period, as well as the overall significance of these sectors. These sectors have been studied in order to determine their importance. Previous studies failed to highlight the performance of the three sectors of the Indian economy as well as examine the performance of the export, particularly following the reform policies introduced

in 1991. Against this backdrop, the current study aims to fill the lacuna in the literature by examining the performance of India's three sectors of production: primary, secondary, tertiary, and export.

4. Objective

The major objectives of the Study are:

- To analyze the trend of India's Gross Domestic Product (GDP) and its growth rate after the introduction of reform.
- To analyze the performance of the primary, secondary, tertiary sectors and the export after the reform policy of 1991.

5. Database and Methodology

The analysis is primarily done using various statistical tools like percentage, mean, standard deviation, and coefficient of variation. These are calculated using statistical software MS-Excel. Various figures and tables are also used wherever necessary. The sectors that are taken for study are the primary sector, which includes agricultural and allied activities; the secondary sector, which includes industry and related activities; the tertiary sector, which includes activities like trade, hotels, transport, real estate, professional services, and public services; and the export sector, which includes the export of goods and services.

The first objective is analysed by calculating the amount and trend of GDP and the growth rate. The second objective is analysed by calculating the output produced by each sector (that is, primary, secondary, and tertiary), their sectoral contribution to India's GDP (in terms of percentage), the growth rate of each sector and by calculating the amount of exports as well as its growth rate. The time period taken for the study is from 1991-1992 to 2024-2025. Gross Domestic Product (GDP), Gross Value added (GVA) that is, sectoral output and amount of export, are all calculated at constant price with base year 2011-12.

The study is completely based on secondary data collected from various issues of the Reserve Bank of India Bulletin published by the RBI, the Economic Surveys of India and World Bank data.

6. Result and Discussion

This section tries to explain the results and findings of the study. This part is sub-divided into two parts on the basis of the number of objectives to be analyzed.

Part 1: This part tries to achieve the first objective which is to analyze the performance of India in terms of GDP and growth rate since the introduction of reform. This objective is analyzed by using Figure 1.

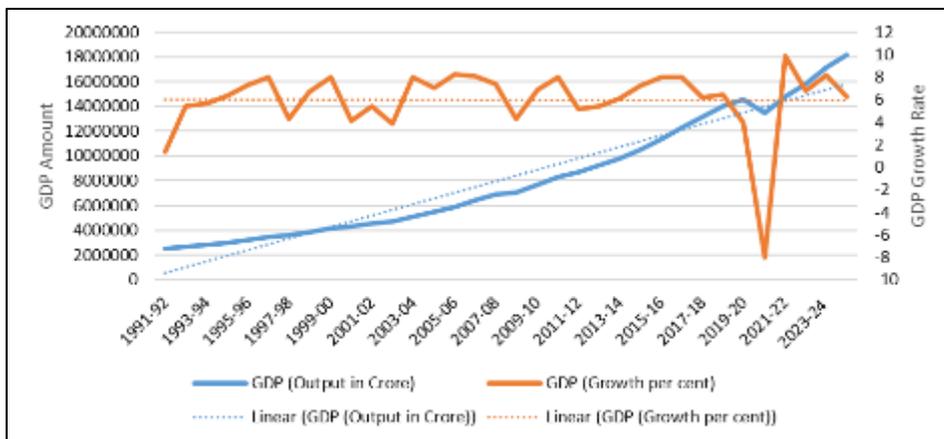


Figure 1 GDP Amount and Growth Rate

Figure 1 shows the amount of GDP and growth rate of India during the period from 1991-92 to 2020-21. If we look at Figure 1, the GDP amount during that period shows a continuous upward movement with minor fluctuations. The GDP amount shows a strong upward trajectory throughout the three decades, a result of post-1991 economic liberalization measures that dismantled the License Raj, opened trade and investment, and strengthened the services sector as a key driver of growth [14]. The GDP amount did take a down turn during the 2019–20 to 2020–21 period, which was primarily caused by the COVID-19 pandemic, but the overall GDP shows an upward trend.

The growth rate of GDP during that period shows a heavy fluctuation. During the mid-1990s to early 2000s, growth accelerated due to reforms and service-sector expansion, though periodic slowdowns reflected structural inefficiencies and external pressures [15]. During the initial period, that is, 1991–1993, the growth rate took a sharp upward turn and continued to increase till 1996–1997. Since then, the economy has seen heavy fluctuations in its growth rate. In 1997–1998, the growth rate declined to 4.3%, which was primarily caused by volatility in the agricultural sector and allied activities like mining, which led to a slowdown in the growth of basic goods and intermediate goods. Even though the economy revived during 1998–2000 with an average 7.45% rate, the growth rate declined in subsequent years. During 2005–2006, the growth rate was the highest, i.e., 8.3%. The growth rate showed a rise after 2011–2012, but later on it declined again due to poor performance of the farm, manufacturing, and mining sectors. The years 2016–2017 marked a visible dip in growth following the demonetisation of high-value currency notes, which created liquidity shortages in the informal sector, alongside disruptions caused by the rollout of the Goods and Services Tax. During the COVID-19 pandemic, the growth rate declined to -8.0%. The sharpest contraction is observed in 2020–21, when GDP growth fell due to the nationwide lockdowns and collapsing domestic demand (World Bank, 2021). Post-pandemic, the economy rebounded strongly, with growth averaging above 6% in subsequent years, supported by private consumption, government infrastructure spending, and a resilient services sector [17]. If we look at the trend of India’s GDP growth rate, then it showed a downward trend during the period. Yet, the trend line for growth remains relatively flat, underscoring persistent challenges such as uneven industrial performance, weak private investment, and global trade headwinds, including tariff pressures on exports.

Part 2: This part of the discussion tries to explain the performance of the primary, secondary, tertiary in terms of output produced, growth rate, and share of each sector in total GDP after the introduction of the reform policy in 1991. This part also tries to highlight the performance of the export after the introduction of the reform policy in 1991. As one of the objectives of reform was to introduce globalization to the Indian economy, export plays a major role in determining India’s overall growth and sectoral performance.

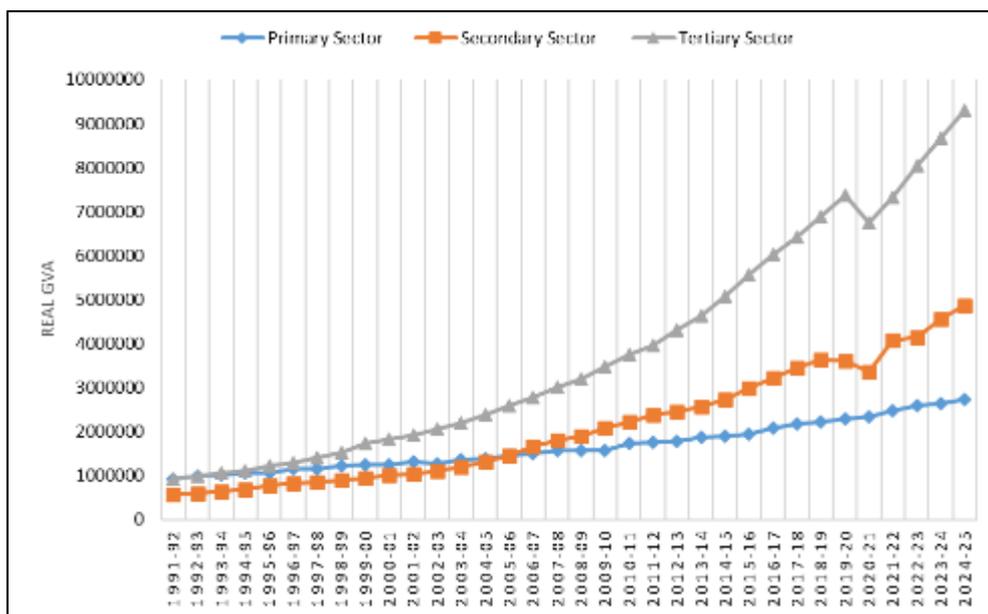


Figure 2 Trend of Sectoral Output

The amount of Gross Value Added (GVA) produced by each sector is shown in Figure 2. As shown in the figure, output produced by all the sectors has increased during the period 1991–2021. The primary sector shows a moderate increase in its output, despite being a primary sector dependent economy. This can be attributed to insufficient public investment for agrarian development, inadequate access to credit, and frequent droughts and floods. Secondary sector output was

also increasing, but at a lower level than the primary sector in the 2005-2007 period. After 2007, the secondary sector's output surpassed the primary sector's output level and was increasing at a higher rate till 2018. After 2018, output produced by the secondary sector started declining. If we look at the tertiary sector's output level, then we can say that output from that sector has increased at a high rate compared to the primary and secondary sectors. This sector has shown the most robust trajectory, underpinned by liberalization, globalization, and India's emergence in IT and business process outsourcing. It faced a downturn only during the COVID-19 pandemic period. It must be noted that it was only the primary sector that did not face any severe downturn during the pandemic period. Overall, India's sectoral composition is evolving from a dominant primary base toward a modern economy led by services.

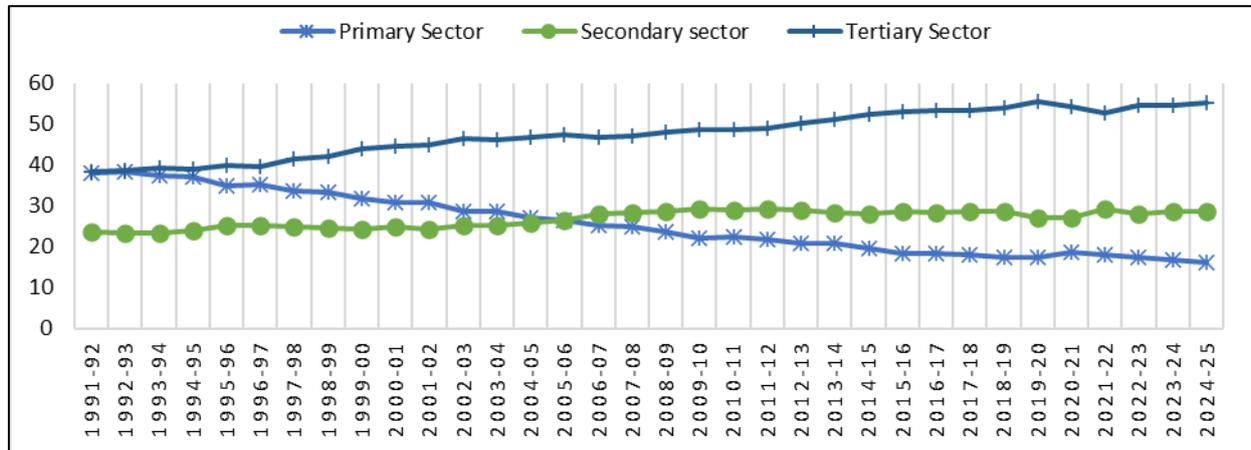


Figure 3 Trend of Sector wise Percentage Contribution

Figure 3 shows the sector wise percentage contribution or share of each sector in GDP since the introduction of reform till 2021. If we look at the primary sector, we can say that its contribution or share in GDP is gradually declining over time, but showed a small increase during the pandemic period as it was not that severely affected by the nationwide lockdown. This trend aligns with the process of economic development, where rising productivity in agriculture frees up labor and capital for other sectors, while its income elasticity of demand remains low [18]. Consequently, despite being the largest employer for a significant part of India's post-independence history, its share in GDP has diminished substantially. The secondary sector showed an increasing trend in share of total GDP with minor fluctuations and faced a decrease in share during the pandemic period. This trajectory has been a subject of policy concern, often referred to as "premature deindustrialization" or the failure of the manufacturing sector to become the dominant employer and contributor to GDP that it was in many East Asian development stories [19]. This phenomenon is attributed to factors such as regulatory hurdles, infrastructural deficits, and rigid labor laws that have constrained industrial growth [2]. The tertiary sector has shown a significant gradual increase in share after the introduction of reform but faced a decline during the pandemic period. This sector has become the principal engine of India's economic growth since the economic liberalization reforms of 1991. The rise of the services sector, particularly modern services like information technology and telecommunications has been propelling India's integration into the global economy [20]. This transition is a classic manifestation of the "Three-Sector Model" first proposed by economists Colin Clark and Simon Kuznets, which posits that as an economy develops, the relative weight of its economic activity shifts sequentially from the primary sector to the secondary and finally to the tertiary sector [21], [22].

Figure 4 shows the trend of the growth rate of each sector during the period 1991–2021. The sector consistently demonstrates the highest volatility in its growth rate, characterized by sharp peaks and troughs. This pattern is fundamentally tied to its dependence on monsoon rains, making it highly susceptible to climatic shocks [18]. Periods of high growth often coincide with favorable weather conditions and strong harvests, while droughts can lead to significant contractions. In certain years, the growth rate became negative, especially during 1997-1998 (-0.9%), 2002-2003 (-4.4%) and 2008-2009 (-0.6%), but the overall growth trend of the primary sector during that period somewhat remained constant. The decennial growth rates were 2.98%, 3.33%, and 3.07% consecutively.

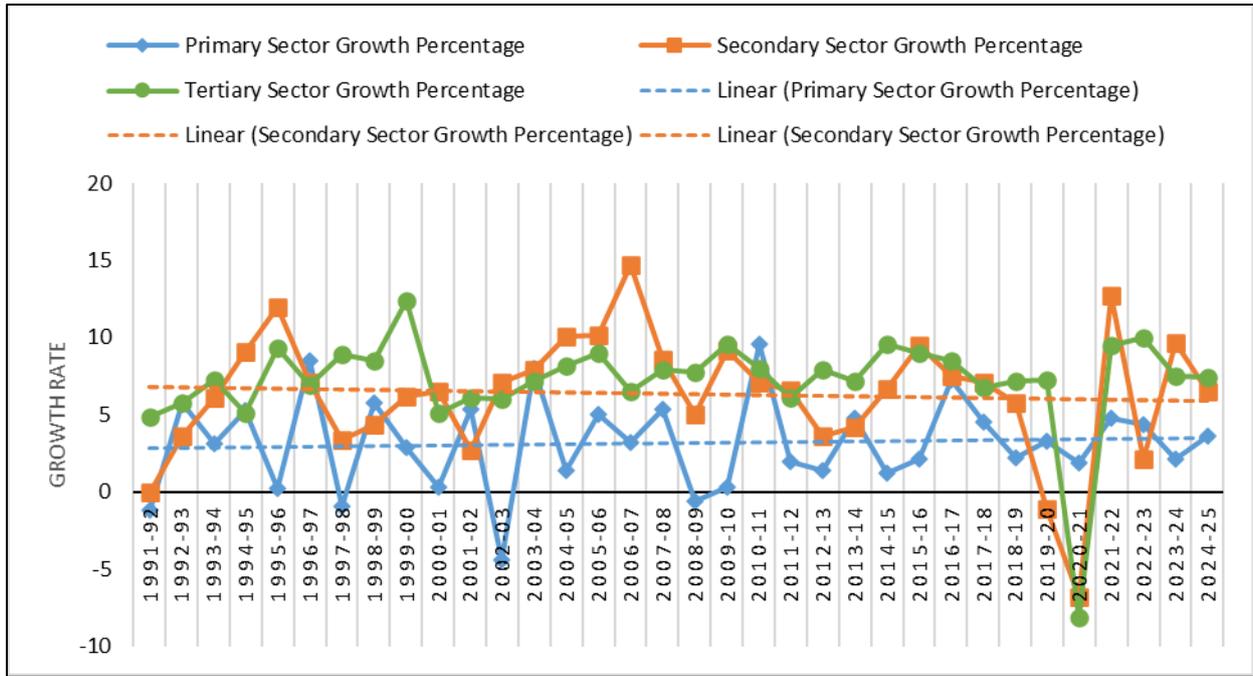


Figure 4 Trend of Sector Wise Growth rate

The secondary sector’s growth received a certain high growth rate during 1995-1996 (12.0%) and 2006-2007 (14.7%). In later years, this sector faced a downturn in growth, which was due to poor performance in electricity generation, mining, and a decline in agricultural production [8] and fell drastically during the COVID-19 pandemic period. The Decennial growth rates were 5.84%, 8.26%, and 4.31% consecutively. The overall growth trend of the secondary sector showed a downward trend during the 1991–2021 period.

The tertiary sector’s growth rate increased at a high rate during the initial decade of 1991–2000, with an average growth rate of 7.43%. The acceleration in the growth of the service sector in India in the last few years was due to fast growth in communication, financial services, business services, and community [23]. Its growth is less dependent on monsoon rains and more on human capital, policy continuity, and technological adoption. The rise of export-oriented services, particularly in information technology (IT) and IT-enabled services (ITES), has been a significant contributor, making the sector more resilient to domestic cycles and more integrated with the global economy [24]. Later on, its growth rate moderated and fell significantly, falling from 7.3% to -8.1% during the pandemic period.

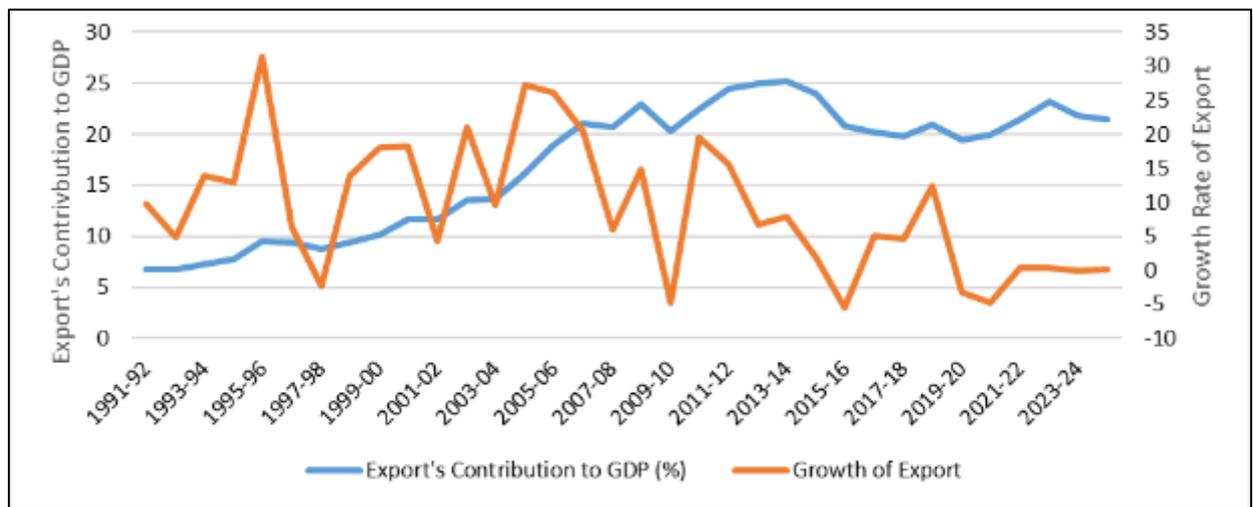


Figure 5 Growth Rate and Share of Export Sector in GDP

In Figure 5, we have the share of the export sector in GDP and the growth rate of India's exports during the period 1991–2021. The deliberate policy shift towards outward orientation, involving the dismantling of trade barriers, devaluation of the rupee, and gradual integration into the global economy, is vividly reflected in the initial surge of both export growth and its share in GDP [25].

The share of the export sector in GDP showed a continuous upward increasing trend and during 2004–2015 the share was significantly high with an average share of 24.07% of GDP. This was due to a weaker rupee, improved demand and increased competitiveness vis-à-vis China and Bangladesh. But later on, this sector's share started declining gradually due to various structural factors like low technological adaptability, absence of technology-intensive foreign investments, and a decline in the export competitiveness of the rupee in the global market. The average share of the export sector during 1991–2021 was 16.3% of GDP. This rising export-to-GDP ratio is a classic indicator of a successful trade liberalization process, suggesting that the Indian economy became more deeply integrated into global value chains over this period [26].

It can be seen that the growth rate of the export sector fluctuated heavily during that period. The growth rate even went negative during certain years like 1997–1998 (-2.3%), 2009–2010 (-4.8%), and 2015–2016 (-5.6%), which was due to volatility in the production sector performance and output produced. It also went negative during the COVID-19 pandemic period. The overall growth rate showed a downward trend during that period. The volatility in export growth underscores the inherent vulnerability of an export-dependent growth model to external shocks. Despite this volatility, the secular increase in the export share suggests an underlying strengthening of India's export competitiveness across sectors. It shows the movement from traditional commodities to include modern services like software and IT-enabled services (ITeS) and skill-intensive manufactured goods [24].

7. Conclusion

In 1991, India adopted a reform policy to address a variety of issues. India's economy has undergone fundamental changes due to reform policies. The most significant developments relate to the liberalization of the domestic industry. The industrial licensing and production control systems have been decommissioned. Significant trade liberalizations have also occurred. Under this reform process, the Indian economy underwent fundamental restructuring, resulting in uneven growth patterns and performance across sectors, resulting in large variations in growth in the economy. The functions of agriculture and the service sector remained interchangeable after the economic changes. Currently, the service sector contributes far more to the Indian economy, followed by industry and agriculture, which is the least important sector. Thus, as explored above, all three sectors of the economy are significantly associated with one another, and if the government makes any strategic decision in any of these sectors, it would affect the performance of the economy as a whole significantly.

Compliance with ethical standards

Disclosure of conflict of interest

No Conflict of interest to disclose.

References

- [1] International Monetary Fund, "The First Five-Year Plan (India, 1951–1956)," 1958.
- [2] A. Panagariya, India: The emerging giant. Oxford University Press, 2008.
- [3] M. S. Ahluwalia, "Economic Reforms in India Since 1991: Has Gradualism Worked?," Journal of Economic Perspectives, vol. 16, no. 3, pp. 67–88, Aug. 2002, doi: 10.1257/089533002760278721.
- [4] L. Klein and T. Palanivel, "Economic reforms and development: The Indian experience," in India's Economic Reforms and Development: Essays for Manmohan Singh, I. J. Ahluwalia and I. M. D. Little, Eds., New Delhi: Oxford University Press, 2000.
- [5] S. SOLANKI, K. M. INUMULA, and A. CHITNIS, "Sectoral Contribution to Economic Development in India: A Time-Series Co-Integration Analysis," The Journal of Asian Finance, Economics and Business, vol. 7, no. 9, pp. 191–200, Sep. 2020, doi: 10.13106/jafeb.2020.vol7.no9.191.

- [6] R. Radhakrishna, "Performance of Indian Economy in the Post-Reform Period," *Indian Journal of Human Development*, vol. 8, no. 1, pp. 5–27, Jan. 2014, doi: 10.1177/0973703020140101.
- [7] K. Kalirajan and S. Bhide, "The Post-reform Performance of the Manufacturing Sector in India," *Asian Economic Papers*, vol. 3, no. 2, pp. 126–157, Mar. 2004, doi: 10.1162/1535351044193367.
- [8] R. K. Sharma, "Industrial Development of India in Pre and Post Reform Period," *IOSR Journal of Humanities and Social Science*, vol. 19, no. 10, pp. 01–07, 2014, doi: 10.9790/0837-191040107.
- [9] M. AGARWAL and J. WHALLEY, "The 1991 Reforms, Indian Economic Growth, and Social Progress," in *World Scientific Reference on Asia and the World Economy*, WORLD SCIENTIFIC, 2015, pp. 3–22. doi: 10.1142/9789814578622_0012.
- [10] N. Singh, "Miracles and Reform in India: Policy Reflections," *Asian Surv.*, 2002, [Online]. Available: https://www.paperdigest.org/paper/?paper_id=doi.org_10.1525_as.2002.42.5.708
- [11] S. S. Nagel, "Handbook of Global Economic Policy," 2000, [Online]. Available: https://www.paperdigest.org/paper/?paper_id=doi.org_10.4324_9781482289923
- [12] D. Vats, "Fiscal Reforms and Consolidation in India Since 1991," *Indian J. Appl. Res.*, 2011, [Online]. Available: https://www.paperdigest.org/paper/?paper_id=doi.org_10.15373_2249555x%2fjune2014%2f175
- [13] N. Shembavnekar, "Economic Reforms, Labour Markets and Formal Sector Employment: Evidence from India," *ECONOMIES*, 2019, [Online]. Available: https://www.paperdigest.org/paper/?paper_id=doi.org_10.3390_economies7020031
- [14] N. Adhia, "The history of economic development in India since independence," *Education About Asia*, vol. 20, no. 3, 2015, [Online]. Available: <https://www.asianstudies.org/publications/ea/archives/the-history-of-economic-development-in-india-since-independence/>
- [15] World Economic Forum, "India's remarkably robust and resilient growth story," Aug. 2018, [Online]. Available: <https://www.weforum.org/stories/2018/04/india-s-remarkably-robust-and-resilient-growth-story/>
- [16] The World Bank, "The World Bank in India: Overview," Aug. 2021. [Online]. Available: <https://www.worldbank.org/en/country/india/overview>
- [17] India Brand Equity Foundation, "Indian Economy Overview," 2024. [Online]. Available: <https://www.ibef.org/economy/indian-economy-overview>
- [18] R. Chand and S. Parappurathu, "Temporal and spatial variations in agricultural growth and its determinants," *Econ. Polit. Wkly.*, vol. 47, no. 26–27, pp. 55–64, 2012.
- [19] S. Dasgupta and A. Singh, "Manufacturing, services and premature deindustrialization in developing countries: A Kaldorian analysis," 2006.
- [20] J. Gordon and P. Gupta, "Understanding India's services revolution," 2004.
- [21] S. Kuznets, *Modern economic growth: Rate, structure, and spread*. Yale University Press, 1966.
- [22] C. Clark, *The conditions of economic progress*. Macmillan, 1940.
- [23] J. Gordon and P. Gupta, "A tale of two giants: India's and China's experience with reform and globalization," in *India's and China's Experience with Reform and Globalization*, International Monetary Fund and N. C. of Applied Economic Research, Eds., Washington, D.C.: International Monetary Fund, 2003.
- [24] B. Eichengreen and P. Gupta, "The service sector as India's road to economic growth?," 2011.
- [25] T. N. Srinivasan and S. D. Tendulkar, *Reintegrating India with the World Economy*. Oxford University Press, 2003.
- [26] P. Topalova and A. Khandelwal, "Trade Liberalization and Firm Productivity: The Case of India," *Rev. Econ. Stat.*, vol. 93, no. 3, pp. 995–1009, 2011.