Applied Management Perspectives

BI ANNUAL JOURNAL SCHOOL OF MANAGEMENT PRESIDENCY UNIVERSITY, BANGALORE

GAIN MORE KNOWLEDGE
REACH GREATER HEIGHTS

IMPACT OF GDP ON INDIAN FINANCIAL SERVICES - A STUDY OF THE NIFTY FINANCIAL STOCKS

Prof. B. K. Surya Prakasha Rao

Professor, School of Business, PNG University of Technology, Lae, Morobe Province, Papuva New Guinea. Email: surya.bolla@pnguot.ac.pg

Dr. B. Hari Babu

2Sr.Assistant Professor, Department of Management Studies, Vignan's Foundation for Science, Technology and Research (Deemed to be University), Vadlamudi, Guntur District, Andhra Pradesh, India. Email: drhb_mgt@vignan.ac.in

ABSTRACT

The financial services sector in India exemplifies the advancement and potential of its economy. The sector is projected to have significant growth until 2035, fueled by increasing incomes, a greater emphasis from the government on financial inclusion, and the widespread adoption of digital technology. By the year 2030, it is considered possible that India's digital payments will have surpassed one trillion dollars. This study investigates the influence of Gross Domestic Product (GDP) on Financial Services in India. It aims to determine the correlation between the growth rates of GDP and Nifty Financial Services. This study incorporates data from external sources and encompasses a time frame of 11 years, specifically from 2013 to 2023. Descriptive statistics and one-way ANOVA were employed as statistical methods.

Key Words: *GDP, NIFTY Financial Services, Indian Economy, NSE, Economic Growth, Investments, etc.*

I. INTRODUCTION

Every nation's capital market is essential because it has the power to alter the national budget and regulate the economy. The capital market is instrumental in the expansion of the economy by facilitating the transfer of capital and enticing new resources. The degree to which the capital market is comprehended and controlled has played a significant role in the industrial and commercial growth of the nation. To expand, the commercial and industrial sectors require long-term funding, which the capital markets supply.

The Gross Domestic Product (GDP) per capita is calculated by dividing a country's total market value of all final goods and services produced by its population. Gross domestic product is a measure of economic size. In terms of nominal GDP, India's economy is currently the sixth biggest in the world. According to purchasing power parity (PPP), it is ranked third. Gross domestic product and GDP per capita are two of the best indicators of industrial activity and living standards. Officials and decision-makers in charge of policymaking must have a firm grasp of the Gross Domestic Product among the most important topics. One way to tell if the economy is growing, shrinking, or in a depression is to look at GDP. The GDP is a measure of a country's wealth and economic vitality. To calculate GDP, one uses the following formula:

GDP = (X-M) + C + I + G.
Whereas C stands for consumption (personal consumer expenditure) annually.
I = All of the nation's private investment
G stands for government expenditure.
X represents the total amount of exports.
M represents the aggregate value of imports, while X-M represents the aggregate value of net exports (which might be negative).

Many factors affect India's GDP growth. These include consumer demand, investment, infrastructure, workforce, etc. Every year, the Economic Survey is presented before the Union Budget providing data on India's GDP growth for the following fiscal year and the current economic situation. Industry, agriculture, and services make up India's gross domestic product. New estimates show that manufacturing will grow by 1.6%, mining by 2.4%, and energy by 9% in FY2023, while agriculture will expand by 3.5%, up from 3% in FY2022.

II. THE INDIAN FINANCIAL SERVICES

India's financial services sector is expected to expand due to increasing incomes, substantial government focus, and the growing rate of digital usage. The sector's long-term fundamentals are strong, but the Indian Government's willingness to involve private firms and foreign participants is expected to be inconsistent.

India's financial sector has encountered numerous obstacles in recent decades, including a significant rise in non-performing assets (NPAs) during the global financial crisis (GFC) and the spike in non-banking financial businesses (NBFCs) in 2018-2019. Credit has not experienced a substantial increase for an extended period, which has resulted in a substantial, unfavorable, and enduring disparity between credit and GDP since 2012. The economy was abruptly disrupted by the COVID-19 pandemic, which raised concerns about the potential rise in corporate defaults and non-performing loans (NPLs) as the financial sector's balance accounts were beginning to improve. Meanwhile, the average growth rate of real GDP was 6.7 percent from 2011 to 2018, but it plummeted to 3.7 percent in 2019 as a result of the NBFC crisis, which occurred prior to the COVID-19 pandemic. Maintaining a robust GDP growth in the near- and medium-term is essential for India to achieve its development objectives and recover from the pandemic.

III THE NATIONAL STOCK EXCHANGE

In 1992, the National Science Foundation (NSF) was established. In April 1993, SEBI accorded it recognition as a stock exchange. The wholesale debt market was introduced by the exchange in 1994, marking the beginning of its operations. The cash market segment was subsequently introduced shortly thereafter. The NSE has been instrumental in driving reforms across the Indian securities market with regards to market practices, trading volumes, and microstructure. Streamlined and open clearing, settlement, and trading are hallmarks of today's markets made possible by state-of-the-art information technology. Additionally, the market has experienced a multitude of product and service innovations.

The NSE has operated as a demutualized exchange since its inception; ownership, management, and trading are each controlled by a distinct group of three individuals. A number of well-known banks, insurance firms, and other financial intermediaries' own shares in the National Stock Exchange (NSE). The NSE's management team abstains from all forms of trading on the platform. Because of this, NSE is free to promote public-benefitting policies and practices without fear of bias or conflict of interest. However, the NSE model does not exclude trading members from participation, support, or contribution in any manner; on the contrary, it encourages it. Public representatives, nominees from SEBI, one full-time executive of the Exchange, and renowned specialists in accounting, taxation, law, economics, and finance are all members of the Board. Prominent persons from promoter institutions round out the membership.

IV GDP AND INDIAN FINANCIAL SERVICES

One of the many problems that India's banking sector has had to deal with in the last several decades is the large and negative credit-to-GDP ratio, which has been around since 2012. We look at the link between bank balance sheets, credit expansion, and long-term growth using bank-level panel regressions, and we apply a growth-at-risk (GaR) approach to analyze the impact of cyclical financial conditions on GDP growth. Our sample includes institutional and retail banks. Higher negative tail risks and lower projected growth are the results of a cyclical shift to the left in the distribution of growth caused by negative shocks to credit or increases in macro vulnerability. Higher GDP growth is connected with better capitalized banks with lower non-performing loans (NPLs), according to the long-term results.

Stock exchanges, insurance companies, and NBFCs are all part of the country's financial services industry. In 2023, 30.2% of India's GDP came from its gross savings. There will likely be 12,069 UHNWIs in 2022, and 19,119 in 2027, according to projections. Over the next five years, the number of Ultra-High Net Worth Individuals (UHNWIs) in India is expected to rise by 63%. There will likely be 16.57 lakh UHNWIs in India by the year 2027. Based on the reforms implemented by SEBI, India has secured an impeccable score of 10 in protecting shareholder interests, according to the World Bank's Ease of Doing Business 2020 report.

Within India, the mutual fund business has grown a great deal. In May 2021, mutual fund companies were in charge of more than 100 million folios. There are $658.72 billion (Rs. 54.54 trillion) in assets under management (AUM) in mutual funds as of February 2024. The Systemic Investment Plans (SIPs) that were used in India from April 2023 to February 2024 brought in Rs. 1.79 lakh crore, which is about US$21.73 billion. There was a net flow of $294.15 billion (Rs. 22.16 trillion) into equity mutual funds by the end of 2021. This is better than the 21-month low of $274.8 million (or Rs 2,258.35 crore) seen in November 2022, when there was a net inflow of $888 million (or Rs 7,303.39 crore).

V OBJECTIVES OF THE STUDY

a) Emphasize the significance of GDP in the expansion of the Financial Services in India.
b) Compare the GDP growth rates to those of the Nifty Financial Services Index for the purpose of analysis.
c) Predict the growth of the Nifty Financial Services Index in relation to GDP.

VI METHODOLOGY OF THE STUDY

The investigation is founded upon pre-existing information sourced from the official NSE website. The data was collected throughout the course of eleven years, from 2013 to 2023.

Tools for analysis founded on statistics
Descriptive statistics and one-way ANOVA were employed to analyze the data in the study.

VII DATA ANALYSIS

Table - 1
Annual growth rates of GDP and Nifty Financial Services (Figures in %)

Year	GDP	Nifty Financial Services
2013	6.39	-7.23
2014	7.41	57.34
2015	8.00	-5.41
2016	8.26	4.93
2017	6.80	41.42
2018	6.45	10.6
2019	3.74	25.65
2020	-6.60	4.47
2021	8.95	13.96
2022	7.00	9.52
2023	7.23	13.2
Average	**5.78**	**15.31**
Standard Deviation	**4.32**	**19.44**
Co-efficient of Variance	**0.7469**	**1.2696**

(Source: Calculation based on information from web)

Table 1 shows that the GDP and Nifty Financial Services' yearly growth rates over an 11-year period were compared. There was variation in GDP growth rates across all years. The growth peaked in 2021 at 8.95% and peaked in 2020 at -6.60%. GDP growth from 2013 to 2016 was more than 5%. From 2016 to 2020, it consistently fell from 8.26% to -6.60%. COVID-19 caused a 10.34% decline in GDP growth in 2020. The Nifty Financial Services growth rates saw a high of 57.34 in 2014 and a low of -7.23 in 2013. All years saw a constant fluctuation in growth returns, with a few exceptions.

Table - 2
Descriptive Statistics of GDP and Nifty Financial Services

GDP	Nifty Financial Services	
Mean	5.78	15.31
Standard Error	1.30	5.86
Median	7	10.6
Standard Deviation	4.32	19.44
Sample Variance	18.67	377.98
Range	15.55	64.57
Minimum	-6.6	-7.23
Maximum	8.95	57.34
Sum	63.63	168.45
Count	11	11

Table 2 displays the statistical measures of the average growth rates of GDP and Nifty Financial Services. The GDP growth rate ranges from a maximum of 8.95 to a minimum of -6.60, resulting in a standard deviation of 4.32. The mean GDP growth rate is 5.78, the median growth rate is 7, and the range is 15.55. The variance of the GDP growth rates is 18.67. The maximum growth rate of Nifty Financial Services is 57.34, while the smallest growth rate is -7.23. The calculated value for the standard deviation is 19.44. The Nifty Financial Services has an average growth rate of 15.31, a median rate of 10.6, and a range of 64.57. The variance of the growth rates in the Nifty Financial Services index is 377.98.

One - way ANOVA – test

H0: The growth rates of GDP and Nifty Financial Services are homogeneous during the study period.
H1: The growth rates of GDP and Nifty Financial Services during the study period are not homogeneous.
Significance Level: The appropriate significance level is 5%.

Table 3
One-way ANOVA Test

Source of Variation	Sum of Squares (SS)	Degrees of Freedom (Df)	Mean Square (MS)	F Calculated Value	F Table Value
Between Groups	499.4197	1	499.4197	2.51823	4.351244
Within Groups	3966.434	20	198.3217		
Total	**4465.854**	**21**			

Table 3 presents a one-way analysis of variance of the growth rates of GDP and Nifty Financial Services. In this experiment, the hypothesis is being tested at a significance level of 5%. The tabulated value exceeds the calculated value. Therefore, the null hypothesis (H0) is deemed to be valid. The study period indicates a similarity in the growth rates of GDP and Nifty Financial Services, suggesting homogeneity.

VIII CONCLUSION

Based on this study, it is evident that the two variables, GDP and Nifty Financial Services, exhibit a positive correlation in most years. This demonstrates a correlation between GDP and the Financial Services, with both indices exhibiting parallel growth rates. It is evident that the GDP growth rate is positive in all years, except for 2020, when it was negatively affected by the impact of COVID-19. Similarly, the growth of Nifty Financial Services exhibits oscillations in certain years, which can be attributed to the volatility in the Capital Market over the study period. The data suggests that the growth rates of GDP and Nifty Financial Services have exhibited homogeneity, indicating that these two metrics have similar frequencies of increase. Ultimately, it is evident that the Financial Services is greatly impacted by India's GDP.

REFERENCES

1. Ang, Andrew, Min Wei, and Monika Piazzesi (2006). "What economic growth indicators can we learn from the yield curve?," Publication: Elsevier's Journal of Econometrics, Volume 131, Issues 1-2, Pages 359–403.
2. In their 2011a publication titled "Financial Cycles: What? When? How?" Claessens, Kose, and Terrones discuss financial cycles. Paper number 8379 from the Centre for Economic Policy Research in London's CEPR Discussion

Series.

3. In 2013, Dabla-Norris and Narapong published a study.Back to the drawing board: how financial markets affect overall economic uncertainty. Report No. 13/29 from the International Monetary Fund, chapters 1–35.
4. Hininetal, Ghildiyal. 2015.The effect of financial deepening on GDP development from an Indian viewpoint: the Ardl Bound testing method for internal integration. Journal of Asian Development Policy, vol. 3, issue 3, pages 49–60.
5. “House prices, money, credit, and the macroeconomy,” by Charles Goodhart and Boris Hofmann (2008) Oxford University Press, Oxford Review of Economic Policy, Vol. 24(1), pages 180-205, spring.
6. B. Hari Babu, et al. (2023), A Study on Growth of Indian Stock Market: A Comparative Analysis between BSE Sensex and NSE Nifty. European Economic Letters (EEL), 13(5), 1823–1828. https://doi.org/10.52783/eel.v13i5.983
7. Khalil, M. (2014). A dynamic panel data analysis of financial development and economic growth. Vol. 2, Issue 2, Pages 48–58, International Journal of Econometrics and Financial Management.
8. Ross Levine and Philippe Aghion and Steven Durlauf (eds.) 2005, “Finance and Growth: Theory and Evidence,” in Handbook of Economic Growth, volume 1, chapter 12, pages 865-934, Elsevier.
9. Hari Babu Bathini, et al. (2024), Statistical Arbitrage in the Indian Stock Market, Empirical Economics Letters, 23 (Special Issue 2): (May 2024), pp 31-42, ISSN: 1681-8997. https://doi.org/10.5281/zenodo.12512781.