

COVERGENCE OR DIVERGENCE IN THE PERFORMANCE OF COMMERCIAL BANKS IN INDIA DURING POST LIBERALIZED ERA

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Abstract

Commercial banks are the integral and important part of the financial sector. Indian banking sector has gone through a variety of changes. Since, the inception of the Liberalization and Globalization, Indian banking sector is undergoing major transformation. The present paper aims to know the convergence or divergence in the growth of various efficiency parameters of public sector banks, private sector banks and foreign banks. To measure the performance of scheduled commercial banks, average financial ratios are taken for the period 2002-2017. The parameters used in the study are cash deposit ratio, credit deposit ratio, business per employee, and profit per employee, Net NPA to Net advance, Net Interest margin and Return on Assets. The general growth of the performance of banks can be analyzed more meaningfully by comparing their Compound Annual Growth Rate over the period. While analyzing the convergence or divergence in various financial parameters, we test for beta convergence, a conventional Methodology. The beta convergence indicates the presence of convergence in parameter. Liberalization results out significant improvement and the competitiveness of Indian Banking system.

Keywords; CAGR, Convergence, Financial performance and Liberalization.

Introduction

The implementation of various reform measures in the Banking sector coupled with path-breaking reform initiatives taken in the other financial sectors like capital and debt markets and the slew of economic reform measures have enabled the country to rapidly come out of the deep economic crisis of 1991 and emerge as the third largest global economy by 2020. The banks, particularly in the Public Sector, played a stellar role in the Indian economy averting the contagion effect of the global financial crisis triggered by the collapse of Lehman Brothers in the wake of the housing bubble burst in USA in the year 2008.

Financial sector reforms since the early 1990s have brought about a significant improvement in the financial system. The commercial banking sector, which constitutes the most important segment, has witnessed a remarkable improvement both in stability and efficiency parameters such as capital position, asset quality, spread and overall profitability. It is significant to note that the improvement has been noticed in respect of all bank groups. The most significant achievement of financial sector reforms has been a marked improvement in the financial health of the commercial banking sector, which constitutes the most important segment of the Indian financial system. The Asset quality of commercial banks, which before the initiation of reforms, was at a very precarious level, improved significantly even as norms were tightened over the years and the economy slowed down. The capital position of commercial banks also improved significantly and was somewhat higher than the prescribed level. Profitability of the commercial banking sector improved despite decline in spread, which itself is a measure of efficiency, although commercial banks still face the problem of overhang of NPAs, high spread and low profitability in comparison with banks in other emerging market economies, reforms have been successful in enhancing the performance of commercial banks in terms of both stability and efficiency parameters

The most prominent aftermath of the reforms is the increase in competition and impact on profitability of banks. The challenge for banks now is to manage the narrowing down of the profit margins while at the same time improving the productivity. Other challenges includes reinforcing and adapting better technology to meet the customer needs, sharpening of management skills, greater customer orientation, sharpening of risk management skills etc. With ever increasing competition, banks have to address the above issues if they need to survive in the changing millennium

Review of Literature

Satheesh (1998) discussed the trends and development in the banking system in India with particular emphasis on merchant banking. The study has compared the strategies of Indian commercial banking with that of foreign banks operating in India in the field of merchant banking. It was concluded that merchant banks operating in India lack uniformity with regard to the organizational structure, capital, people and promotion and have stressed to focus upon good climate and services.

Ballabh (2001) analyzed challenges in the post-banking sector reforms. With globalization and changes in technology, financial markets, world over, have become closely integrated. For the survival of the banks, they should adopt new policies/strategies according to the changing environment

Khanna (2009) highlighted the impact of trade liberalization and reforms in financial sector. It was concluded that Liberalization positively impacted the growth of financial services, as the share of which has gone up from 55.8 percent to 64.8 percent of GDP during 2009. Therefore, it was considered that to promote higher economic growth and to provide a stable economy, the financial system of developing countries must function effectively and provide the full range of financial services.

Mistry (2012) on the basis of financial characteristics revealed by financial ratios, the study has been carried out with a purpose to classify the public sector banks in India in unified classes. The study found that a bank with higher total capital, deposits, and credit or total assets does not always mean that it has better financial performance. It has been found that asset size, assets utilization, and operational efficiency have an impact on return on assets and interest income. It also depicted that return on assets and interest income size has a negative relationship with operational efficiency and positive relationship with asset management and bank size.

Roy (2014) examined the changes in the asset and investment composition of the banks in the Pre-Basel era, Basel I era and Basel II era in the Indian banking sector. Further, the study also analyzed the impact of Capital

Adequacy Ratio on the performance of the Indian Banking sector measured in terms of profitability, efficiency, productivity and asset quality.

Pandya (2014) tried to know the determinants of profitability of selected Nationalized Banks. The Relationship between financial ratios of the different banks has been studied using statistical techniques such as correlation analysis, multiple regression technique, factor analysis and trend analysis. It was concluded that the profitability of Nationalized banks mostly influenced by overall business productivity factor.

Andrle and Tomsik (2017) shed a light on the strategies of commercial banks in response to higher capital requirements of Basel 3 Reforms. The study focused on the five largest banks in European Countries for the year 2008-2014. It was found in his study that all the banks have maintained high capital adequacy with the retained earnings. The study also suggested the various strategies to achieve higher capital adequacy ratio

Nataraja & Rao (2018) analyzed the performance of three major private sector banks listed on Bombay stock exchange and National stock exchange. Financial ratios were used for analysis. Three indicators namely return on assets, Tobin Q model and return on equity were used to measure the financial performance of banks. Multiple regression analysis was used for analyzing the data. It was concluded that selected ratios have an significant impact on the financial performance of the banks

Objective

- To measure the Financial Performance of Banking sector in India.
- To test the convergence or divergence in the financial performance of commercial banks in India

Research Methodology

The performance of the banks has been analyzed by adopting the selected commercial banks for the financial period 1992-2017. For this purpose, Secondary data has been collected from published and unpublished records of Government Departments RBI Bulletin, Annual Reports of RBI, Handbook of Statistics on the Indian Economy, Banking Statistics - Basic Statistical Returns, Report on Trend and Progress of Banking in India. The study will be exploratory in nature.

β – Convergence: β – Convergence has been applied to test the convergence in parameter as well as efficiency in variable.. The concept of β – Convergence means that banks with low level of efficiency at the beginning of period are growing more rapidly than the highly efficient banks. The value of β indicates the estimated speed or rate of convergence. Convergence is the rate of change of the indicators. This is supported on the assumption that the banks have similar parametric conditions (the banks have access to same technology, customers and so on) but differ only in respect to their level of capital. It is observed empirically by regressing the growth rate of time period. It shows the convergence or divergence phenomenon in various banks on various efficiency parameters. It is expressed as:

$$GR \text{ of CDR} = a + b \log (\text{CDR } 2002-2017)$$

In the equation, a negative and significant estimate of 'b' shows convergence.

Results and Analysis

Convergence in India Banking system means the convergence in financial parameters of various banks including public sector banks, private sector banks and Foreign Banks. The study analyzes the various aspects of convergence in Public sector banks, private sector banks and foreign banks compute β – Convergence and provide suggestions for maintaining more convergence and stability in the performance of banks in India.

The study examines whether the liberalization has led to a convergence in performance between public, private and foreign banks in India. Beta convergence test measure convergence or divergence towards the growth for all the banks and all financial ratios. The table shows the efficiency levels among public, private and foreign sector banks during the period 2002-2017.

	Variables	Bank	Estimated equations
β - Convergence	Cash-deposit ratio	Public	GR of CDR = $7.86125 + (-0.14)** \text{Log}(\text{CDR } 2002-2017)$
		Private	GR of CDR = $1.97315 + (-0.01227)* \text{Log}(\text{CDR } 2002-2017)$
		Foreign	GR of CDR = $2.091705 + 0.009216$
	Credit-deposit ratio	Public	GR of CRDR = $55.23 + 1.5**1\text{log}(\text{CRDR } 2002-2017)$
		Private	GR of CRDR = $4.130537 + 0.019908 \text{log}(\text{CRDR } 2002-2017)$
		Foreign	GR of CRDR = $4.485039 + 0.007372\text{log}(\text{CRDR } 2002-2017)$
	Business employee per	Public	GR of BPE = $3.882271 + 0.108887 \text{log}(\text{BPE } 2002-2017)$
		Private	GR of BPE = $4.072957 + 0.055676\text{log}(\text{BPE } 2002-2017)$
		Foreign	GR of BPE = $4.299471 + 0.161927\text{log}(\text{BPE } 2002-2017)$
	Profit per employee	Public	GR of PPE = $(-1.0403) + 0.061728** \text{log}(\text{PPE } 2002-2017)$
		Private	GR OF PPE = $(-0.73021) + 0.068545*\text{log}(\text{PPE } 2002-2017)$
		Foreign	GR of PPE = $1.191698 + 0.083182* \text{log}(\text{PPE } 2002-2017)$
	Net NPA to Net Advance	Public	GR of NNNA = $0.491057 + 0.025784 \text{log}(\text{NNNA } 2002-2017)$
		Private	GR of NNNA = $0.87079 + (-0.07858)**\text{log}(\text{NNNA } 2002-2017)$
		Foreign	GR of NNNA = $(-0.01219) + 0.010767 \text{log}(\text{NNNA } 2002-2017)$
Net Interest Margin	Public	GR of NIM = $1.223774 + (-0.03096)\text{log}(\text{NIM } 2002-2017)$	

		Private	GR of NIM = 0.888116 + 0.021463log(NIM 2002-2017)
		Foreign	GR of NIM = 1.30048 + (-0.00247)log(NIM 2002-2017)
	Return on Assets	Public	GR of ROA = 194055 + (0.04639)**log(ROA 2002-2017)
		Private	GR of ROA = 0.09703 + 0.013587***log(ROA 2002-2017)
		Foreign	GR of ROA = 0.487056 + 0.007894log(ROA 2002-2017)
<i>Sources: Estimated equations by using data of various ratios. Note: *, ** and *** imply significance at 1, 5 and 10 percent level respectively</i>			

In case of cash-deposit ratio, the results showed that the slope of the coefficient value of cash-deposit ratio is positive in foreign banks, whereas, it is negative in the public sector banks and private sector banks for the entire period. The estimated value of 'b' in the regression equation is positive in case of foreign banks and statistically insignificant which implies β -divergence meaning foreign banks recorded a higher rate of growth in the efficiency parameter cash-deposit ratio. But for the public and private sector banks the coefficient value was negative and statistically significant, thus indicating the presence of β -Convergence in cash-deposit ratio of public and private sector banks for the entire period. This implies absence of β -divergence public and private sector banks with high efficiency recorded a lower rate of growth, thus ultimately leading to convergence.

The results also show that the slope of coefficient value of credit-deposit ratio is positive in public, private and foreign sector banks. The estimated value of 'b' in the regression equation is positive in case of public sector banks and statistically significant which implies β -divergence meaning public sector banks recorded a higher rate of growth in the efficiency parameter credit-deposit ratio. But for the private sector banks and foreign sector banks the coefficient value was positive and statistically insignificant, thus indicating the presence of β -Divergence in credit-deposit ratio of private sector banks for the entire period.

In respect of business per employee, the results showed that the slope of the coefficient value business per employee is positive in foreign banks, public sector banks, private sector banks for the entire period. The estimated value of 'b' in the regression equation is positive in case of all the banks. But it is statistically insignificant implies β -divergence meaning all the banks recorded a higher rate of growth in the efficiency parameter business per employee. But for the public and foreign sector banks the coefficient value was positive and statistically insignificant,

In case of profit per employee, the results showed that the slope of the coefficient value of profit per employee is positive in foreign banks, whereas, it is negative in the public sector banks and private sector banks for the entire period. The estimated value of 'b' in the regression equation is positive in case of foreign banks and statistically significant at 1 percent level of significance which implies β -divergence meaning foreign banks recorded a higher rate of growth in the efficiency parameter profit per employee. But for the public and private sector banks the coefficient value was negative and statistically significant, thus indicating the presence of β -Convergence in profit per employee of public and private sector banks for the entire period. This implies absence of β -divergence public and private sector banks with high efficiency recorded a lower rate of growth, thus ultimately leading to convergence.

As per the parameter Net NPA to Net Advance, the results showed that the slope of the coefficient value of Net NPA to Net Advance is positive in public sector banks, whereas, it is negative in foreign banks and private sector banks for the entire period. The estimated value of 'b' in the regression equation is positive in case of public sector banks and statistically insignificant which implies β -divergence meaning public sector banks recorded a higher rate of growth in the parameter Net NPA to Net Advance. But for the private sector banks, the coefficient value was negative and statistically significant at 5 percent level of significance, thus indicating the presence of β -Convergence in Net NPA to Net Advance of foreign and private sector banks for the entire period. This implies absence of β -divergence in foreign and private sector banks with lower rate of growth in Net NPA to Net Advance, thus ultimately leading to convergence.

In the context of Net Interest Margin, the results showed that the slope of the coefficient value of Net Interest Margin is positive in private banks, whereas, it is negative in the public sector banks and foreign banks for the entire period. The estimated value of 'b' in the regression equation is positive in case of foreign banks and statistically insignificant which implies β -divergence meaning foreign banks recorded a higher rate of growth in the efficiency parameter Net Interest Margin. But for the public and foreign sector banks the coefficient value was negative and statistically insignificant, thus indicating the presence of β -Convergence in Net Interest Margin of public and foreign sector banks for the entire period. This implies absence of β -divergence public and foreign sector banks with high efficiency recorded a lower rate of growth, thus ultimately leading to convergence.

The results also show that the slope of coefficient value of Return on Assets is positive in public, private and foreign sector banks. The estimated value of 'b' in the regression equation is positive in case of public sector banks and private sector banks and it is statistically significant, which implies β -divergence meaning all the banks recorded a higher rate of growth in the efficiency parameter Return on Assets. But for the public sector banks and private sector banks the coefficient value was positive and statistically significant, thus indicating the presence of β -Divergence in credit-deposit ratio of private sector banks for the entire period.

In summing up, the liberalization had significant impact on the performance of public sector banks, private sector banks and foreign banks. It has been found that the entire variable had more or less significant impact on the profitability of banks as shown by the regression coefficients. We can say that ROA is positively related to profit per employee and cash-deposit ratio and having significant relationship with profit per employee in case of public sector banks. While the relationship between credit-deposit ratio, business per employee, net interest margin with Return on assets is negative. The study also proven that there is a negative and significant relation of Return of assets with Net NPA to Net Advances.. In case of private sector banks, we can say that ROA is positively related to cash-deposit ratio, credit-deposit ratio, profit per employee, net interest margin and having negative relationship with business per employee and Net NPA to net advance. While, in case of foreign banks, ROA is positively related to Profit per employee and net interest margin. The study also proven that there is a negative relation of ROA with cash-deposit ratio, credit-deposit ratio, Business per employee, Net NPA to net advance of foreign banks. It also reveals total advance have significant and negative relation of ROA with Business per employee.

Conclusion

The foreign banks seem to be experiencing convergence in most of the financial parameters except Net NPA to Net Advances and Net Interest Margin. The private sector banks and public sector banks seem to be experiencing convergence in most of the efficiency parameter except Profit per employee and cash-deposit ratio indicator. We can say that private sector banks and foreign banks are growing at a faster rate than public sector banks.

REFERENCES

1. **Satheesh, E.K. (1998).** Trend and Development of Banking System in India. *Finance India*. XII (4), 1153-1155.
2. **Ballabh, J. (2001).** The Indian Banking Industry; Challenges a Head. *IBA bulletin*. XXIII, (4), 8-10.
3. **Khanna, Perminder. (2009).** Indian commercial banking services; key policy perspectives in the post reform period. *Political economy Journal of India*. 21(2), 106-113.
4. **Mistry, Dharmendra S. (2012).** A comparative study on the profitability performance in the banking sector: Evidence from Indian public sector banks. *Indian Institute of Finance*, XXVI (2), 531-544.
5. **Roy, D. (2014).** Performance of the Indian banking sector in the basel regime (Doctoral dissertation, Indian Institute of Management Indore).
6. **Pandya, Hemal. (2014).** Identifying Major Determinants of Profitability for selected Nationalized Banks in India. *International Journal of Business and Administration research review*. 2(4), 105-124.
7. **Andrle, Michal. & Tomsik, Vladimir. (2017).** Banks Adjustments to basel 3 reforms; A Bank level perspective for Emerging Europe. *IMF working papers* 1-7.
8. **Nataraja, NS,, Nagaraja, Rao., & Ganesh, L. (2018).** Financial performance of private commercial banks in India; Multiple Regression Analysis. *Academy of accounting and Financial studies Journal*. 22(2), 1-12.