GROWTH OF INDIAN ECONOMY AND PERFORMANCE OF PUBLIC AND PRIVATE SECTOR BANKS: A COMPARATIVE ANALYSIS

P K Mishra
Sr. Lecturer in Economics, Siksha O Anusandhan University,
Bhubaneswar, Orissa, India, E-mail: pkmishra1974@gmail.com

S K Mishra
Lecturer in Economics, TITE, Bhubaneswar, Orissa, India
E-mail: sk_mishra@yahoo.co.in

Abstract
This paper attempts to analyze the impact of growth of Indian economy on the performance of public and private sector banks of the country. The results suggest that the growth of Indian economy is significant in explaining the performance of public and private sector banks. This result is in line with the 'demand-following' hypothesis. Thus, the outlook is that the planners and policy makers should architect prudential norms in line with international standards and best practices to ensure sustainable development of the Indian banking system.

Keywords: Indian Economy, Public Sector Banks, Private Sector Banks, Performance Analysis

GROWTH OF INDIAN ECONOMY AND PERFORMANCE OF PUBLIC AND PRIVATE SECTOR BANKS: A COMPARATIVE ANALYSIS

I. Introduction

There will always be a business cycle, and white-collar workers will get hit in the next recession like they always do in recessions. He who does not economize will have to agonize. When the biggest, richest, glassiest buildings in town are the banks, you know that town's in trouble and that's the reason they say the safe way to double your money is to fold it over once and put it in your pocket.

In India, as in many developing countries, the commercial banking sector has been the dominant element in the country's financial system. The sector has performed the key functions of providing liquidity and payment services to the real sector and has accounted for the bulk of the financial intermediation process (Saha, 2008). Besides institutionalizing savings, the banking sector has contributed to the process of economic development by serving as a major source of credit to households, government, business and weaker sectors of the economy like village and small scale industries and agriculture.

Banks over the years have become a significant aspect of an economy. The banking sector forming a portion of the financial sector primarily works as a financial intermediary generating money supply. From the different macroeconomic models, banks have been found to be a part of the supply side of the economy. However, over time banks have transformed from merely money spawning organizations to a multi tasking entity.

The economic slowdown of the advanced countries which started around mid-2007, as a result of sub-prime crisis in USA, led to the spread of economic crisis across the globe (Choudhari, 2009). World over the impact has diversified and its impact can be observed from the very fact of falling Stock market, recession in jobs availability and companies following downsizing in the existing available staff and cutting down of the perks and salary corrections. Many hegemonic financial institutions like Lehman Brothers or Washington Mutual or General Motors collapsed and several became bankrupt in this crisis.

A recession is a decline in a country's Gross Domestic Product (GDP) growth for two or more consecutive quarters of a year. A recession normally takes place when consumers lose confidence in the growth of the economy and spend less. This leads to a decreased demand for goods and services, which in turn leads to a decrease in production, lay-offs and a sharp rise in unemployment. Investors spend less; as they fear stocks values will fall and thus, stock markets fall on negative sentiment.

Thus, life is going to be decently livable, and if at all some around us are going to find their life not livable decently, the problem is not with the recession but with their belief that it is only money that makes life livable (www.merinews.com/article, 2008). Tighten your belts the whole world is under the grip of recession and the markets of all sorts are facing cash crunch, and banks of all sizes are going extra media and marketing miles to make their service takers and clientele confident of what they believe. They are constantly saying that recession is not going to affect their banks in any way, and they have enough liquidity and assets to bank up the shares, deposits and assets of customers.

The nationalized banks in India, taking cue from the RBI, keeps the Indian liquidity as liquid as possible as to keep the global monetary Tsunami off our financial bays. It's all good from the bankers' point of view. When it comes to one's hard earned money and its fate, there needs to be much more to the recession than meets the eye, and the ordinary man has no other way but to keep his bills short, manage whatever he has and whatever is in the pipeline meticulously so that he could lead a life not that different from what he had been going through prior to the recession.

In this context, the present research paper is aimed at finding out the nature and extent of the impact of Indian economic growth indicator upon the overall financial performances of both public and private sector banks. The rest of the paper is organized as follows: Section II describes the data and methodology; Section III makes the review of literature; Section IV makes the empirical analysis; and Section V concludes.

II. Data and Methodology

The very objective of this study is to examine the impact of economic growth of Indian economy on the performance of the public and private sector banks for the period 2004-05 to 2009-10 using quarterly data. There are two sources of data considered over here, one for quarterly figures of Profit After Tax (PAT) of different public and private banks in India indicating the performances of banks, and another one for collecting the quarterly figures of Gross Domestic Product (GDP) at factor cost at constant price with base year 2004-05 indicating the overall economy of the country. Data of PAT and GDP are collected in crores of Indian Rupees from the database of Cygnus Business Consulting & Research Pvt. Ltd. and Ministry of Statistics and Programme Implementation respectively. Four banks in public sector (State Bank of India, UCO Bank, Andhra Bank, Punjab National Bank) and same numbers in private sector (Axis Bank, HDFC Bank, ICICI Bank, IDBI Bank) banking industry of India are selected purposively in collecting the PAT figures. All the data are considered in their levels.

As the methodology of data analysis, Karl Pearson's correlation matrix is made to understand the underlying relationships among the variable under study keeping the broad objectives in mind. Then the paired samples t- test and one way-Analysis Of Variance (ANOVA) are prepared to know the presence of significant difference among the sample data of study. In addition, varieties of graphs and plots are also developed and analyzed for the requirement of current study. Lastly, regression models both for public and private sector banks are developed and analyzed on the basis of its output statistics.

III. Literature Review

Worldwide, banking is one of the most cyclical and risk-prone sectors of the economy (Banking Services Industry Year Book-2009, Cygnus Business Consulting Pvt. Ltd.). Due to its dependence on the credit market for earnings growth, the banking sector is one of the most vulnerable in an economic downturn and credit crisis and vice-versa.

India has presently entered a high-growth phase of 8-9 per cent per annum, from an intermediate phase of 6 per cent since the early 1990s (Rangarajan, 2007). The growth rate of real GDP averaged 8.6 per cent for the four-year period ending 2006-07; if one considers the last two years (2004-05 & 2005-06); the growth rates are even higher at over 9 per cent. There are strong signs that the growth rates will remain at elevated levels for several years to come. This strengthening of economic activity has been supported by higher rates of savings and investment. The modern economic system depends on a reliable flow of financing through intermediaries (Report on Trend & Progress of Banking in India, 2008-09, RBI). India too has a well-diversified financial system which is still dominated by bank intermediation, though the size of the capital market has expanded significantly with financial liberalization in the early 1990s. Important components of the financial sector in India broadly fall into categories namely, commercial banks, co-operative banks, non-banking financial institutions (NBFIs) and the insurance sector. Commercial banks together with cooperative banks account for nearly 70 per cent of the total assets of Indian financial institutions.

According to RBI report in 2009, the Indian banking system has been relatively in good health. Balance sheets of the banks appear healthy and little affected by the unsettled conditions in financial markets. The asset quality and soundness parameters of the Indian banking sector have improved significantly in the recent period. RBI report in 2009 also highlights that the Scheduled Commercial Banks (SCBs) in India, unlike their global counterparts, showed considerable resilience against the backdrop of global financial crisis and its effects on India economy. Nonetheless, the balance sheets of SCBs shrank and their financial performance decelerated suggesting that the Indian banking system was not completely insulated from the effects of the slowdown of the India economy.

India has a long history of both public and private banking. Modern banking in India began in the 18th century, with the founding of the English Agency House in Calcutta and Bombay (Banerjee et al, 2004). In the first half of the 19th century, three Presidency banks were founded. After the 1860 introduction of limited liability, private banks began to appear, and foreign banks entered the market. The beginning of the 20th century saw the introduction of joint stock banks. After nationalization, the breadth and scope of the Indian banking sector expanded at a rate perhaps unmatched by any other country. Indian banking has been remarkably successful at achieving mass participation. Since 1980, has been no further nationalization, and indeed the trend appears to be reversing itself, as nationalized banks are issuing shares to the public, in what amounts to a step towards privatization (Banerjee et al, 2004). The considerable accomplishments of the Indian banking sector notwithstanding, advocates for privatization argue that privatization will lead to several substantial improvements.

Following the 1991 report of the Narasimham Committee, more comprehensive reforms took place that same year. The reforms consisted of (a) a shift of banking sector supervision from intrusive micro-level intervention over credit decisions toward prudential regulations and supervision; (b) a reduction of the CRR and SLR; (c) interest rate and entry deregulation; and (d) adoption of prudential norms (Shirai, 2001). As a result of the reforms, the number of banks increased rapidly. In 1991, there were 27 public-sector banks and 26 domestic private banks with 60,000 branches, 24 foreign banks with 140 branches, and 20 foreign banks with a representative office. Between January 1993 and March 1998, 24 new private banks (nine domestic and 15 foreign) entered the market; the total number of scheduled commercial banks, excluding specialized banks such as the Regional Rural Banks rose from 75 in 1991-92 to 99 in 1997-98.

The structure of the Indian economy has undergone considerable change in the last decade. These include increasing importance of external trade and of external capital flows. The services sector has become a major part of the economy with GDP share of over 50 per cent and the country becoming an important hub for exporting IT services (Economic Survey, 2008-09). India could not insulate itself from the adverse developments in the international financial markets, despite having a banking and financial system that had little to do with investments in structured financial instruments carved out of subprime mortgages, whose failure had set off the chain of events culminating in global crisis. The effect on the Indian economy was not significant in the beginning. The initial effect of the sub-prime crisis was, in fact, positive, as the country received accelerated Foreign Institutional Investment (FII) flows during September 2007 to January 2008. All thought the emerging economies could remain largely insulated from the crisis and provide an alternative engine of growth to the world economy. The argument soon proved unfounded as the global crisis intensified and spread to the emerging economies through capital and current account of the balance of payments (BoP). The net portfolio flows to India soon turned negative as Foreign Institutional Investors (FIIs) rushed to sell equity stakes in a bid to replenish overseas cash balances.

The drying up of credit funding to banks and corporations was the determining factor in the growth rate declines in India due to global recession in recent past. By mid-2008, as pessimism about the economy in general set in and corporate profits were expected to drop, the shortage of credit threatened to increase the value of nonperforming assets (NPAs) in the banking sector (Muzart, 2009). The banks had been a significant source of credit to the private sector and a major facilitator of growth in the past years. To make matters worse, banks and corporate had significant amounts of foreign exchange debt. Out of total corporate debt, between 20% and 30% was foreign exchange debt. In January 2009, a large number of foreign bonds and loans to domestic banks and corporate were set to fall due. Although the legally allowed degree of foreign exchange exposure of Indian banks had been low, there was no telling how many corporate borrowers had not hedged their foreign debt. By late 2008, the number of corporations unable to service their debt was thought to have doubled. Potential maturity mismatches in banks' books also presented risks.

In India, the impact of global crisis held in mid 2007 has been deeper than what was estimated by our policy makers although it is less severe than in other emerging market economies (Choudhari, 2009). The extent of impact has been restricted due to several reasons such as, Indian financial sector particularly our banks have no direct exposure to tainted assets and its off-balance sheet activities have been limited. The credit derivatives market is in an embryonic stage and there are restrictions on investments by residents in such products issued abroad.

In later stages of recent global crisis, rapid depreciation of the rupee against the dollar caused large losses to exporters who had hedged their export receivables (Varma, 2009). In most cases, this was a problem for their shareholders rather than for their banks. Indian banks need to consider organizing their foreign operations as subsidiaries that have full access to the liquidity and deposit insurance support of the host country. As India enters a period of low inflation due to economic reforms, the upward trajectory of nominal property prices could be far more muted and loans against property could be riskier than thought earlier.

Some of the major factors that helped India escape the onslaught of ripple effects of US economic crisis have been in the areas of regulation of financial institutions and substantially less reliance on derivatives (Bhattacharya, 2009). The Indian banks, in general, do not offer loans for consumption of goods and services, the only exception in the recent times being such lending in the metros and bigger cities. For the rest of India, the culture of conservative lending still continues. In an aggressive risk centric lending approach, which US-based banks ordinarily follow, coupled with its flexible labor market, the American economy naturally suffers from the downsides of numerous loan underwriters, underwriting loans without necessarily verifying the antecedents of the borrowers thoroughly.

In the recent global economic slowdown, every sector of business is being affected and is witnessing a hard time. But IKON Marketing Consultants reports that in India there are few sectors including banking sector which will grow in this adverse situation (CAPITALVIA International Services, 2009). As seen in the private sector much of the job cuts due to global slowdown, it's the public sector undertaking (PSU) banks which gained much confidence due to job safety and security. More and more people are likely to turn towards government institutions, particularly banks in the quest for safety and security. A report "Opportunities in Indian Banking Sector", by market research company, RNCOS, forecasts that the Indian banking sector will grow at a healthy compound annual growth rate (CAGR) of around 23.3 per cent till 2011.

IV. Results and Discussions

Data of quarterly estimates of GDP in India at constant prices with base year of 2004-05 shows the upward movement of figures with some serial fluctuations. Figures 1 and 2 describe the sequence or time series plots of average bank performances (PAT) in public and private sector respectively. From Figure-1, it is observed that the pattern of public bank performances was towards downward movement from 3rd to 4th quarter of 2006 and again it repeats the same downward pattern from the beginning of 2008. Figure-2 depicts a heavy fall in PAT of private sector banks from 1st quarter to 3rd quarter of 2008. The downward movement of PAT pattern in both types of banking sectors of India in 2008 may be due to the impact of economic slowdown at that time period.

Figures-3 and 4 represent the interactive scatter plots of public and private banks respectively. In these types of scatter plots average PAT of banks are taken along vertical axis and time in quarter years are on the horizontal axis. In case of public banks the residuals are more as compared to private banks as Fig-3 is comparatively more scattered. This shows the rate of fluctuations in PAT is more in public sector banks in India with reference to increasing time periods.

Figures-5 and 6 represent the quadratic regression model plot of curve fit for both public and private banks respectively, where banks' performance in the form of average PAT is considered along vertical axis with time sequence along horizontal axis. As figures show, in case of public sector banks the banks performance begins to slope down as one move to the right side of the plot, but after reaching a certain point it slopes upward where as in case of private sector banks it slopes upward from beginning.

Table-1 and 2 describe the One- Way Analysis of Variance both for public and private sector banks in India respectively. In case of public banks, the value of test statistic (F) equals to 94.408 with a corresponding P-value of 0.000, whereas in case of private sector banks this value equals to 48.772 with P- value of 0.000. Hence we would reject the null hypothesis that there is no significant difference between individual bank performances under each category. The data provide substantial evidence of the existence of significant differences in mean PATs among the four banks considered in both public and private sector.

Table-3 describes the result of paired samples t- test, by considering one pair of average PAT of both public and private banks. The test statistic (t) value equals to 7.507, and the P- value is 0.000. Thus we may conclude that there exists a significant difference between the average performance of public and private sector banks in India.

The Karl S. Pearson Correlation Matrix of GDP at factor cost and all the PAT figures under consideration on the basis of individual banks is shown in Table-4. From Table-4, it is observed that all the bank performances are highly correlated with each other and GDP as well with $P < 0.01$, except UCO Bank of public sector. However the correlation between UCO bank's and SBI's PAT is significant at 5 % level.

Table-5 and Table-6 highlight the statistical outputs of linear regression models of public and private sector banks respectively. In both of the models, average PAT of banks is taken as dependent and GDP in different year quarters as independent variables. From these two tables it is observed that both of the models are well fitted to the data under consideration. Both of the regression outputs show a significant linear relationship between bank performance and GDP such that a higher level of GDP results in higher figures of PAT of banks. R-square is an accurate value for the sample considered but is considered an optimistic estimate for the population value. The adjusted R-square is considered a better population estimate. Adjusted R-square values in case of public and private banks are 0.73930 and 0.90887 respectively showing higher degree of effects of explanatory variables. In both of the models the F-statistic values are highly significant at 1% level showing the measure of overall significance of the estimated regression model. The coefficients of independent variable (B) as well as the constant terms in both of the regression equations corresponding to public and private banks are also highly significant.

This result corroborates the 'demand-following' hypothesis of Patrick (1966). This hypothesis posits that the increasing demand for financial services might lead to the aggressive expansion of the financial system as the real sector of the economy grows. Thus, the policy implication is that the economic growth of the country may be considered as the policy variable to generate banking sector development in the economy. Hence, the planners and policy makers should define prudential norms in line with international standards and best practices to make the fundamentals of the Indian more robust and congenial for stability of the banking sector.

V. Conclusion

In the empirical literature the evidence on finance-growth nexus is mixed and yet a moot point. Researchers at different points of time and in different countries addressed to this issue using different techniques and could not suggest a consensus. Even some economists including Loayza and Ranciere (2006) and Saci et al (2009) provide evidence of a negative impact of financial sector activity (banking activity) upon economic growth. Keeping in mind this unresolved issue, an attempt has been made in this paper to analyze the impact of growth of Indian economy on the performance of public and private sector banks of the country. The results suggest that the growth of Indian economy is significant in explaining the performance of public and private sector banks. This result is in line with the 'demand-following' hypothesis. Thus, the outlook is that the planners and policy makers should architect prudential norms in line with international standards and best practices to ensure sustainable development of the Indian banking system.

References

1 (2009):"10 Industries that could do Well During Time of Recession"; CAPITALVIA International Services; pp 1-4; www.capitalvia.com

2 (2009): "Banking Services Industry Year Book-2009"; Cygnus Business Consulting Pvt. Ltd.; Hyderabad;; www. cygnusindia.com

3 (2009): "Economic Survey 2008-09"; State of the Economy; 2009; pp 9-14; www.indiabudget.nic.in

4 (2008): "Evolution of Banking in India: Pre- and Post-Independence"; Reserve Bank of India.

5 (2010)"India during Recession"; www.oppapers.com

6 (2010): "Indian Banking System: The Current State and Road Ahead"; Annual Survey, Federation of Indian Chambers of Commerce & Industry;; pp 1-23

7 (2009): "Report on Trend and Progress of Banking in India 2008-09"; Reserve Bank of India

8 Acharya S. (2009): "Global Crisis, India and Agriculture"; 9th Convocation Address of Rajasthan Agricultural University, Bikaner; 2; pp 1-13

9 Aleksashenko, S (2009) "The collapse is Over, the Crisis Continues"; Problems of Economic Transition; Vol. 52; No. 4;; pp 3-24

10 Banerjee, A. V., Cole, Shawn, and Duflo, Esther (2004); "Banking Reform in India", Brooking papers on Economic Activity, economic studies program, The Brooking Institution, Vol.1, No.1, pp.277-332.

11 Bhattacharya, S. (2009): "US Economic and Financial Meltdown: How India is Braving Its Global Domino Effects"; Vikalpa; Vol. 34; No. 3; pp 35-45

12 Choudhari, N (2009): "Global Recession and its Impact on Indian Financial Markets", AIMA Journal of Management and Research, Article No. 177; Vol. 3; Issue. 3-4, pp.1-12.

13 Gopalakrishnan, R (2009): "The post-recession

challenge of innovation"; Vikalpa; Vol. 34; No. 3; pp 73-78
14 Grigor'ev, L. and Salikhov, M. (2009): "Financial crisis-2008, Entering Global Recession"; Problems of Economic Transition; Vol. 51; No. 10; pp 35-62
15 Lin J. Y. (2008): "The Impact of the Financial Crisis on Developing Countries"; Paper Presented at Korea Development Institute, 31 October, Seoul.
16 Loayza, N. & Ranciere, R. (2006): "Financial Development, Financial Fragility, and Growth". Journal of Money Credit and Banking, Vol.38, pp.1051-1076
17 Madgavkar, A, Puri, L, Sengupta J. (2001); "Revitalizing India's Banks"; The McKinsey Quarterly; No. 4; pp 113-116
18 Mahajan, S. (2009): "The Causes and Effects of Recession"; The Views Paper; www.theviewspaper.net
19 Mahesh, H. P. and Rajeev, M. (2008): "Producing Financial Services: An Efficiency Analysis of Indian Commercial Banks"; Journal of Services Research; Vol. 8; No. 2; pp 7-29
20 Muzart, T. (2009): "India's Economic Prospects and Challenges"; USAID / EGAT's Business Growth Initiative Project; pp 1-5
21 Paranjape, A. (2009): "Economic Slowdown and the Indian Corporate Sector"; Vikalpa; Vol. 34; No. 3; pp 53-58
22 Patrick, H. T. (1966): "Financial Development and Economic Growth in Underdeveloped Countries", Economic Development and Cultural Change, Vol.14, 174-189.
23 Pattanaik, S. (2009): "The Global Financial Stability Architecture Fails Again: Sub-Prime Crisis Lessons for Policy Makers"; Asian- Pacific Economic Literature; pp 21-47
24 Powell, S. and Watts, R. (2009): "The Wrong Direction: Why the EU-India Free Trade Agreement will not Help India through the Economic Crisis"; TRAIDCRAFT; 2009; pp 1-14
25 Rangarajan, C. (2007): "The Indian Banking System-Challenges Ahead"; First R. K Talwar Memorial Lecture-2007; Indian Institute of Banking and Finance.
26 Reddy, Y. V. (2005): "Banking Sector Reforms in India-An Overview"; Institute of Bankers of Pakistan; Karachi.
27 Rezvanian, R. Rao, N. and Mehdian, S. M. (2008): "Efficiency change, technological progress and productivity growth of private, public and foreign banks in India: evidence from the post-liberalization era"; Applied Financial Economics; Vol. 18; pp 701-713
28 Saci, K., Giorgioni, G. & Holden, K. (2009): "Does financial Development affect growth?", Applied Economics, Vol.41, Issue.13, pp.1701-1707.
29 Saha, S. K. (2008): Macroeconomics Research Paper; Calcutta Business School; West Bengal; India
30 Sharma, Anurag (2008): "Incomplete reform or opportunity: the role of the banking sector in the credit transmission mechanism in India"; Journal of Economic Policy Reform; Vol. 11; No. 4; pp 273-288
31 Shirai, S. (2001): "Assessment of India's Banking Sector Reforms from the Perspective of the Governance of the Banking System"; ESCAP-ADB Joint Workshop on Mobilizing Domestic Finance for Development: Reassessment of Bank Finance and Debt Markets in Asia and the Pacific; Bangkok.
32 Subbarao, D. (2009): "Impact of the global financial crisis on India: Collateral damage and response"; Institute of International Monetary Affairs, Tokyo; pp 1-14
33 Varma, J. R. (2009): "Indian financial sector and the global financial crisis"; Vikalpa; Vol. 34; No. 3; pp 25-34
34 Vaatupura, A. (2008):"Banking on Recession"; www.merinews.com/article
35 Verma, B. P. (2002): "Economic Value Addition by Indian Banks: A Study"; www.oppapers.com

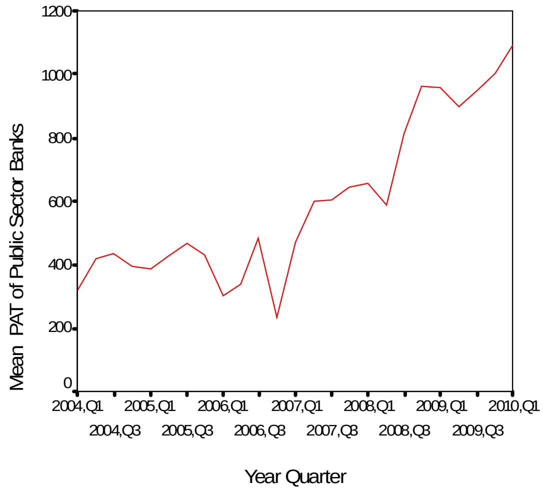

Fig-1: TS Plot (Public Sector Banks)

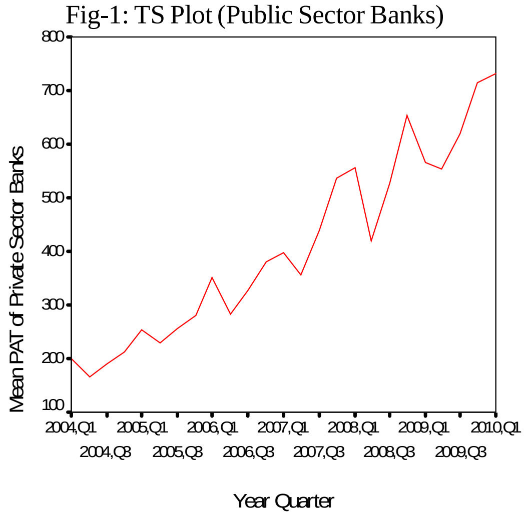

Fig-2: TS Plot (Private Sector Banks)

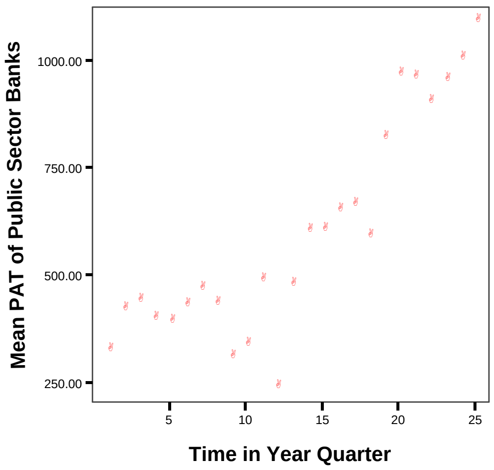

Fig-3: Scatter Plot (Public Sector Banks)

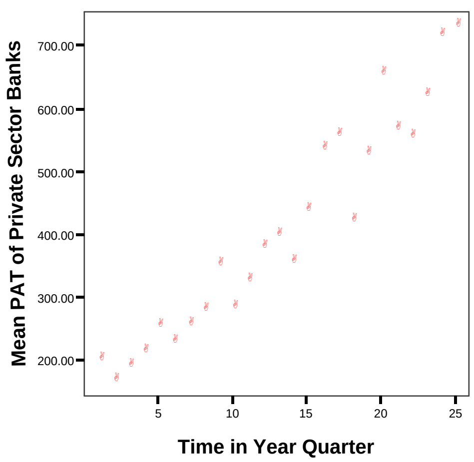

Fig-4: Scatter Plot (Private Sector Banks)

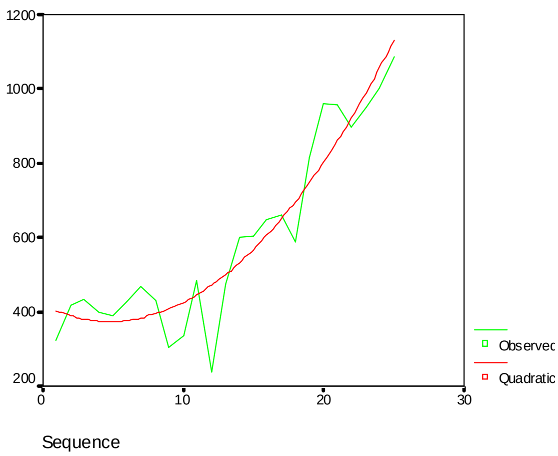

Fig-5: Curve Fitting (Public Sector Banks)

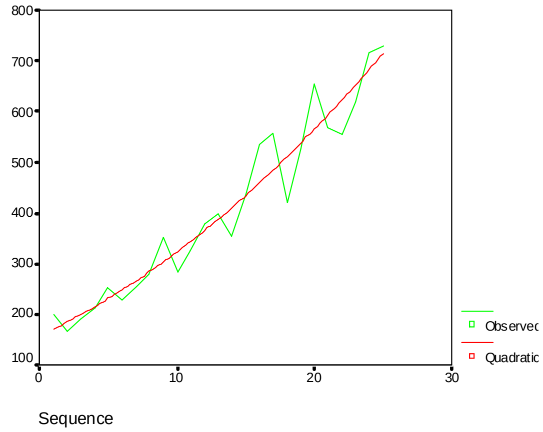

Fig-6: Curve Fitting (Pvt. Sector Banks)

Table-1: ANOVA (Public Sector Banks)

Dependent Variable: PAT

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	37645162.194	3	12548387.398	94.408	0.000
Within Groups	12759923.349	96	132915.868		
Total	50405085.542	99			

Table-2: ANOVA (Private Sector Banks)

Dependent Variable: PAT

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5765764.795	3	1921921.598	48.772	0.000
Within Groups	3783000.574	96	39406.256		
Total	9548765.369	99			

Table-3: Paired Samples t - Test

		Paired Differences					t	d.f	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Mean PAT of Public Sector Banks - Mean PAT of Private Sector Banks	188.3545	125.45298	25.09060	136.5701	240.1389	7.507	24	0.000

Table-4: Pearson Correlations

	GDP at Factor Cost with base year 2004-05	PAT of SBI	PAT of PNB	PAT of UCo Bank	PAT of Andhra Bank	PAT of Axis Bank	PAT of HDFC Bank	PAT of ICICI Bank	PAT of IDBI Bank
GDP at Factor Cost with base year 2004-05	1								
PAT of SBI	.888(**)	1							
PAT of PNB	.836(**)	.880(**)	1						
PAT of UCo Bank	.226	.408(*)	.302	1					
PAT of Andhra Bank	.727(**)	.715(**)	.750(**)	.310	1				
PAT of Axis Bank	.909(**)	.958(**)	.866(**)	.332	.784(**)	1			
PAT of HDFC Bank	.941(**)	.951(**)	.880(**)	.331	.771(**)	.987(**)	1		
PAT of ICICI Bank	.836(**)	.694(**)	.637(**)	.078	.583(**)	.697(**)	.756(**)	1	
PAT of IDBI Bank	.815(**)	.805(**)	.711(**)	.233	.553(**)	.848(**)	.866(**)	.677(**)	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table-5: Regression Model Output (Public Sector Banks)

Dependent variable: Mean PAT of Public Banks   Method.. LINEAR

Multiple R	.86612
R Square	.75016
Adjusted R Square	.73930
Standard Error	129.35207

Analysis of Variance:

	DF	Sum of Squares	Mean Square
Regression	1	1155507.0	1155507.0
Residuals	23	384835.0	16732.0

F = 69.05988   Sig. F = .0000

-------------------- Variables in the Equation --------------------

Variable	B	SE B	Beta	T	Sig T
GDP	.001366	.000164	0.866119	8.310	.0000
(Constant)	-692.793163	157.263784		-4.405	.0002

Table-6: Regression Model Output (Private Sector Banks)

Dependent variable: Mean PAT of Private Banks   Method.. LINEAR

Multiple R	.95534
R Square	.91267
Adjusted R Square	.90887
Standard Error	52.23121

Analysis of Variance:

	DF	Sum of Squares	Mean Square
Regression	1	655733.46	655733.46
Residuals	23	62746.29	2728.10

F = 240.36271   Sig. F = .0000

-------------------- Variables in the Equation --------------------

Variable	B	SE B	Beta	T	Sig T
GDP	.001029	6.6397E-05	.955337	15.504	.0000
(Constant)	-563.149380	63.501718		-8.868	.0000