

A study evident in determinants of global economic crisis its impact on Indian economy

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Abstract: *In this paper, the impact of global financial crisis on India's Gross Domestic Product (GDP) is using quarterly data for the pre crisis period from 1997-1998 to 2006-2007 and post crisis period from 2007-2008 to 201-2017. Exports, current account and capital account remain the key driver of GDP growth of Indian economy. In this analyse to check the Augmented Dickey Fuller (ADF) test during the pre crisis period and post crisis period. Following that other using multiple regressions an extension in three independent variables(X) is used to predict a single dependent variable(Y). The study results found that export has increase significant impact on GDP (at factor cost) in the pre and post crisis period.*

Key Words: *Global Economic Crisis, GDP, Exports, Current account and Capital account.*

1. INTRODUCTION:

The US housing bubble crack of 2008-2009 had serious economic consequences not only in the USA, but also spread in many developing, developed countries and emerging economies such as India. The crisis also affected growth of GDP in India. Thus, it would be very relevant to investigate whether the determined in GDP growth between economic indicators impacted in India by global economic recession. The remaining paper is structured as follows: The next section provides objectives, hypothesis and review of Literature. Its subsequent section explains the data and methodology. The section that follows it elucidates the empirical results. The final section provides the conclusion.

2. REVIEW OF THE LITERATURE:

Muthukumar.T, Sirajudeen.M, Tamilenth.S (2012) in their identified the global financial crisis and its impact on Indian economy. It challenged the growth-related in the short to medium term; there seem to be some opportunities for managing the bottom line for the rest of the year. The macroeconomic environment was depressing and had impacted the overall confidence in the sector from a market perspective. A US recession, in all probability, will last through 2009 and more, in making this period a challenging one for growth. Despite the foreboding financial crisis, the opportunities are massive. To conclude that growth vs. profitability trade-off early on during the slowdown is just one of them. Profitability levers are still available if growth is sacrificed where required, and managed well. These areas, if tapped intelligently, would enable the Indian industries firms to ease the blow of this financial crisis and help them tide through the tough times.

Suraj Walia (2012) in this paper confirmed that various sectors of Indian economy are affected by global recession, to a certain extent. The conclude words we can say, India cannot escape unscathed present crisis because its economy has become more integrated with rest of the world over the past two decades. In order to overcome the global economic crisis, monetary and fiscal stimulus package are essential. More transparency is required in the process of setting bank rate, repo rate, reverse repo rate, CRR, SLR etc. The RBI must lower the policy rates further to bring down the costs of funds and boost the growth momentum. The link between monetary policy and financial stability need to be understood and more autonomy to the central bank should be given to maintain the enviable reputation earned by RBI.

3. OBJECTIVE OF THE STUDY:

This paper focuses on the macroeconomic indicators determinants in impact on GDP (at factor cost) during the pre and post crisis period of Indian economy.

HYPOTHESES USED IN THE STUDY:

The following null hypothesis were tested

H0: GDP (at factor cost), India's exports, current account and capital account has unit root during the pre and post crisis period of Indian economy.

4. METHODOLOGY:

The study is descriptive in nature and covers a period of 10 years from 1997-1998 to 2006-2007 for the pre crisis period and for a period of ten years post economic crisis period (2007-2008 to 2016-2017). Secondary data was collected from Hand book of statistics on the Indian economy and RBI annual reports were the main sources for the data collection. Data from journals, articles, publications were also utilised for the study. The macroeconomic indicators such as India's exports, current account and capital account were considered as independent variables, GDP (at factor cost) being dependent variables. Empirical estimation has been undertaken using the E-views software. In this analyse to check the Augmented Dickey Fuller (ADF) test during the pre crisis period and post crisis period. Following that other using multiple regression an extension in three independent variables(X) is used to predict a single dependent variable(Y). The predicted value of Y is a linear transformation of the X variables such that the sum of the squared deviations of the observed and predicted Y is a minimum. The inter relationship between all the variables are taken.

The GDP (at factor cost) is taken to be a function of the independent variables

$$Y = \text{GDP (at factor cost) (Rs. in Billion)}$$

$$X_1 = \text{India's exports}$$

$$X_2 = \text{Current account (CUAC) (Rs. in Billion)}$$

$$X_3 = \text{Capital account (CAPAC) (Rs. in Billion)}$$

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3$$

5. RESULTS AND DISCUSSION:

ADF test was conducted to test the stationarity among the select economic variables on the Indian economy. The results are presented in pre crisis period and post crisis period following Table 1 and 2

Table No.1.1: Augmented Dickey Fuller (ADF) test during the pre crisis period

Pre Crisis Period				
Variables	Level/difference/ Trend and Intercept/None	t-Statistics	p-value	Results
GDP	II difference Trend and Intercept	-9.377	0.0013	S
Exports	II difference and Intercept	-5.703	0.0041	S
Current Account	I difference and Intercept	-3.275	0.0584	S
Capital Account	II difference and Intercept	-5.077	0.0211	S

*S-Stationary

Table No.1.1 shows that results of ADF statistic for the variables considered for the pre crisis period. The results of t- statistic and p-values state that there is stationary among the select variables namely GDP, Exports, current account and capital account. The p-values indicate that the variables GDP, Exports, current account and capital account of significance differential are stationary at 5 per cent level of significance. This tests the null hypothesis that indicators follow a unit root test process. So the null hypothesis reject during the pre crisis period.

Table 1.2: Augmented Dickey Fuller (ADF) test during the post crisis period

Post Crisis Period				
Variables	Level/difference/ Trend and Intercept/None	t-Statistics	p-value	Results
GDP	II difference Intercept	-9.377	0.0013	S
Exports	II difference and None	-5.703	0.0041	S
Current Account	Level and Intercept	-3.275	0.0584	S
Capital Account	II difference and Intercept	-5.077	0.0211	S

*S-Stationary

Table No.1.2 shows that results of ADF statistic for the variables considered for the post crisis period on these variables. The results of t- statistic and p-values state that there is stationary among the select variables namely GDP, Exports, Current account and Capital account. The p-values indicate that the variables GDP, Exports, Current account and Capital account of significance differential are stationary at 5 per cent level of significance. This tests the null hypothesis that indicators follow a unit root test process. So the null hypothesis reject during the post crisis period. The next following multiple regression analysis mentions the impact of global economic crisis on Indian economy determining the GDP (at factor cost) and the selected economic indicators during the pre and post crisis period.

Table 1.3: Results of Multiple Regressions during the pre crisis period

Pre crisis period					
Variables	Regression coefficient	Standard error	t	sig.	R Square
Constant	16028.699	537.869	29.800	0.000	0.99
Exports	4.057	0.462	8.776	0.000	
Current Account	1.429	0.694	2.061	0.085	
Capital Account	-1.315	1.237	-1.064	0.328	

Table 1.3 shows the regression results during the pre crisis period India's exports and Balance of payment - current account have positive impact and capital account has negative impact of GDP at factor cost. Exports only the results are found to be statistically significant. Current account and capital account are not significant. R square value was at 99.1 per cent implying the extent of influence of the exports on the GDP (at factor cost) for the pre crisis period.

Table 1.4: Results of Multiple Regressions during the post crisis period

Post crisis period					
Variables	Regression coefficient	Standard error	t	sig.	R Square
Constant	-332.227	11161.277	-0.030	0.977	0.915
Exports	5.672	0.742	7.643	0.000	
Current Account	1.763	2.813	0.627	0.554	
Capital Account	-0.199	2.508	-0.79	0.939	

Table 1.4 shows the regression results during the post crisis period India's exports and Balance of payment - current account have positive impact and capital account has negative impact of GDP at factor cost. Exports only the results are found to be statistically significant. Current account and capital account are not significant. R square value was at 91.5 per cent implying the extent of influence of the exports on the GDP (at factor cost) for the post crisis period.

6. LIMITATIONS OF THE STUDY:

The limitations of secondary data, if any, will too influence study. The main factors have been discussed, yet there exist more issues which have not been detailed due to time constraints as well as unavailability of data in the predetermined time. The study is limited to ten years pre and ten years only post the crisis period.

7. CONCLUSION:

The study was an attempt to identify the macroeconomic determinants affecting GDP (at factor cost) during the pre and post crisis period. It is mainly dependent on the growth forces of the Indian economy. The shows regression coefficient of the independent variable for total exports and current account has positive impact on GDP (at factor cost) and capital account has negative impact on GDP (at factor cost) insignificantly in the pre and post crisis period. The study results found that export has increase significant impact on GDP (at factor cost) in the pre and post crisis period.

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