Industrial Engineering Journal
ISSN: 0970-2555
Volume : 54, Issue 3, March : 2025

AFTERMATH OF THE INSOLVENCY AND BANKRUPTCY CODE ON THE ECONOMIC DEVELOPMENT OF INDIA THROUGH CORRELATION BETWEEN GDP & NPA

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ABSTRACT

The Insolvency and Bankruptcy Code, 2016 was set in motion to re-conceptualize the framework for insolvency resolution in India by providing a mechanism for the insolvency resolution of debtors in a time bound manner. It envisaged a market mechanism to rescue firms in financial distress and facilitate closure of firms in economic distress. In this research, the impact of various reforms in the insolvency and bankruptcy sector on the economic development is analyzed focusing on Gross Domestic Product and Non-performing Assets. Secondary sources of information are used for carrying out this research. The time series data obtained is analyzed using the quantitative research designs namely auto-correlation and auto regression analysis which is used in the research for finding the relationship and intensity of relationship between the variable and its past values as well as for predicting the future values.

Keywords: Insolvency and Bankruptcy, Gross Domestic Product (GDP), Non-Performing Assets (NPA), Time series, Auto-regression, Auto-correlation

JEL Codes: K35, O11, O12

INTRODUCTION

The Insolvency and Bankruptcy Code, 2016 was a light at the end of the tunnel when India was grappling with the issues of rising NPAs. The Code, which provides for a time-bound process for resolving insolvency in companies and among individuals, was a landmark reform in the Indian Financial Sector for resolving insolvency.

Prior to IBC, India had a fragmented legislative framework for resolving insolvency. The rising NPAs spoke volumes about the inefficiencies of multiple legislations. According to the reports of World Bank, Non-Performing Assets comprised of 2.6% of the total loans issued by banking sector in 2011. By 2016, the numbers climbed up to 9.1%. Further, recovery rates were at 27.7% while the average time required for resolution was approximately 4.3 years. To curb this menace, IBC was introduced.

The Code has improved India's ranking in the World Bank's Ease of Doing Business Report. Within 5 years of implementation, India climbed up the rank from 133rd to the 63rd position. World Bank has listed India among the "top 10 improvers" for the second time in a row[1]. Additionally, IBC has been crucial in bringing down the NPAs from 9.98% in 2016 to 7.94% in 2020. As per the RBI's 2019 report *on Trend and Progress of Banking in India* states that Recovery of stressed assets improved during 2018-19 propelled by resolutions under the IBC, which contributed to more than half of the total amount recovered. Further, it facilitates easy exit and reduced duration of liquidation as little as 200 days. This has been beneficial in attracting foreign investors to set up businesses in India. As per the UNCTAD World Investment Report 2021, India is the 5th largest FDI recipient indicating an increased confidence of foreign players in the Indian market. In 2020-21, India registered annual Foreign Direct Investment (FDI) inflow of 81.9 billion dollars. The Code has also given an immense thrust to Mergers and acquisitions activity in the country as it has increased exponentially over the past years. Thus, it has successfully created a strong legal environment promising fruitful relations with trading blocs such as SAARC, ASEAN, EU, NAFTA etc.

However, the on-going Covid-19 pandemic has turned the tables all together. India's GDP showcased a contraction of 23.9% in the first quarter of 2021, which is the lowest since 1980s, all because of the COVID-19 Lockdown. The economy is sinking into a deeper recession and the operation of critical parts of IBC has been suspended to provide a 'calm period', i.e., prevent the firms from being forced into bankruptcies due to the economic blow waved induced by the pandemic. On the other side, given that firms which were unhealthy prior to the lockdown also receive the benefits of IBC suspension, the NPAs are likely to increase. Apart from this challenge, IBC has been undoubtedly a landmark legislation which is still evolving to adapt to the unforeseen challenges.

Hence, considering the importance of reforms in the insolvency sector, the current research topic has been selected. In this research, the impact of reforms in the insolvency and bankruptcy section on economic development of India is analyzed using GDP, NPA and FDI values. The research question developed is:

"What is the impact of IBC Reforms on the Indian Economic development – focusing on GDP and NPA?"

BACKGROUND

In a country, the existing legal environment always plays an essential role in its economic development. If we take into consideration a country where the legal environment is well-formulated and implemented, it eventually impacts the entire framework of that country, making it strong. Similarly, an effective insolvency mechanism is also an important element for stoutness of the financial system. It is essential for inculcating a proper framework for the transmutation and

[1] Mitter, Sohini. (2018, November 01). "India jumps 23 places to rank 77 in World Bank's Ease of Doing Business, tops South Asia for the first time". *Yourstory*. Retrieved from https://yourstory.com/2018/10/india-ease-doing-business-rank-77-eodb/amp

reestablishment of companies accompanied by an effective framework for winding up and liquidation.

The NPA problem can be severe and widespread in any country and if we talk about developing countries like India, the relevance of this dilemma is enormous. Without a full and strategic revamp of India's banking and monetary zone, financial reforms led by the Indian government will not be able to keep pace with the global economic challenge. NPAs have become a significant concern for both public and private sector banks in India. Large firms had launched substantial projects in capital-intensive industries including energy, ports, airports, housing, and highway construction, for which banks were eager lenders to support capacity creation in core sectors like infrastructure and real estate. These big projects either remained in development or, if completed, were underutilized due to permit delays. For the reason that project owners were unaware of predicted cash flows, bank loans began to pile up over time, resulting in significant NPA accumulation. The problem of non-performing assets (NPAs) is constantly growing, posing a threat to banks' viability, reducing their productivity, and affecting the economy as a whole.

The vital nous for the accumulation of NPAs (non-performing assets) is non-payment by the banks' clients. Simply put, it is like a seller giving a buyer some goods on credit, and the buyer is incapacitated to repay the seller. For a prolonged time, India's banking sector has been scared with the quandary of NPAs stacked in a bulk. Most of the NPAs in India are loans given by government banks as the management of these banks give loans to companies without having knowledge of the potentiality of the project or the calibre of the client to pay back. Most NPAs in the Indian nation have confederated with the public sector banks. This being the sole reason why private banks generally do not inculcate bad debts because they are well versed and acquainted with the fact that if their management lends out to an investor who's a potential defaulter, then the liability would be borne on their shoulders and not that of the government. Likewise, talking about the public sector banks, the administration keeps stashing money into them from the taxpayer's pocket, as a result of which such banks continue getting bailed out and resuscitated rather than having their operations shut down. A significant level of non-performing assets (NPAs) implies a high benefit from the most extreme number of loan defaults, which affects the banks' profitability and total assets, as well as disintegrates the advantage estimation.

RESEARCH OBJECTIVES

a. To assess the impact of the reforms brought by Insolvency and Bankruptcy Code reforms on GDP and NPAs of India during the years 2010-11 to 2022-23

b. To predict the values of NPAs for the years 2023-24 to 2026-27

RESEARCH HYPOTHESIS

H0: There is no significant influence of GDP on NPA.

(Implementation of IBC has accelerated the GDP growth from 2017 and has been successful in reducing the level of NPAs. However, in 2020, the effect was reversed by the COVID-19 pandemic)

H1: There is significant influence of GDP on NPA.

LITERATURE REVIEW

a. **Jaimini Bhagwati, *Insolvency and Bankruptcy Code (IBC) and Long-term Bulk Lending in India, [(CSEP) 2022],*** examines the overall effectiveness of the IBC focusing on the overall time taken to resolve disputes between lenders and borrowers. The article begins with an introduction to the development of financial institutions set up to facilitate long-term projects – from the IFCI to the latest NARCL. With facilitation of long-term bulk lending came the problems of bankruptcies which eventually lead to the establishment of SICA and SARFAESI. The shortcomings of these legislations lead to the introduction of IBC. An in-depth analysis of the default resolution and recovery percentages, roles played by various institutions such as the IBBI, Insolvency Professionals (IPs) and Committee of Creditors, RBI's regulatory role regarding NPAs has been undertaken. The author also compares the GDP Growth rates of India and Major Developed Countries between 1999 and 2021

b. **M. P. Ram Mohan, *The Role of Insolvency Tests: Implications for Indian insolvency Law [2021]*** states that Solvency analysis is the first step of formal insolvency proceedings. Internationally, there are three types of tests available. A company is cash flow insolvent if it is unable to pay its debts as they fall due, or the failure to pay debt upon service of demand notice by the creditor. A company is Balance sheet insolvent when its reported assets as per the financial statements are less than the reported liabilities. The third type of test, namely, capital adequacy test is rarely put into practice except in conjugation with either of the above two test. The author discusses the conceptual basis of the two tests- cash flow test and balance sheet test- and the application of these in the US, UK and India supplemented with supporting as well as conflicting judicial decisions. The next section of the paper analyses the significance of these tests as a remedial measure for the creditors. It is concluded that while jurisdictions like US and UK implement a simultaneous application of the two tests, the Indian Insolvency law specified the cash flow test. However, it is recommended that both the tests may be adopted jointly in India for efficient debt resolution.

c. **Speech by Dr. Bibek Debroy, Chairman, Economic Advisory Council to the Prime Minister at the *Conference on "Insolvency and Bankruptcy Code, 2016*:** Impact on Markets and the Economy" at New Delhi, where he opens his speech with a criticism of the World Bank's Ease of Doing Business. The indicators are based on surveys in just two cities and the sample sizes on those questionnaires for India are around thirty. The rankings are based on only 10 heads and excludes 'Labor'. Further, he observed that the phenomenon of exit was unfamiliar until IBC was introduced. While speaking on the impact on Markets and

Economy, he relied on the case of GST and said that every legislation is a work in progress and results cannot be achieved overnight. Slight improvements in GDP would take place as the result of code, but the process will be gradual. However, in the process, there will be short term costs- including growth costs. Secondly, the code involves a certain judicial process which is heavily subjected to adjournments and delays. Finally, there is a need to address broader issues of corporate governance. Once these hurdles are overcome, the code will shine bright.

d. **Anuradha Guru and Meeti Shikha, *Reviewing Insolvency Law in the Wake of Covid-19-Analysis: Covid-19 [2021]*** crisis had put many firms in distress. The article admits that the markets and court infrastructure may not be able to deal with all the distressed firms, thus making the implementation of the IBC difficult. The lacunas of the system give rise to possibilities of some firms being wrongly liquidated while other firms being kept alive artificially. Thus, the government has decided to suspend the IBC for a year. However, India needs to prepare to tackle a rise in insolvency cases once this hibernation period is over. The situation can be daunting as India has limited options for out-of-court settlements. The article calls for prompt action to fill the voids by providing for semi-formal or hybrid option – blend of informal procedures with sanctity and advantages of a formal process.

e. **Pihu Mishra and Sushanta Kumar Das, Social Ramifications of Bankruptcy Law,** studies the evolution of personal bankruptcy law through the centuries India, the associated stigma i.e., the penal provisions that the debtor had to undergo in addition to the failure of his business. The Indian Insolvency Regime has evolved with the enactment of IBC. The code removed all stigma associated with the status of bankruptcy and provides a dignified exit to the corporate debtor.

METHODOLOGY

The study carried out in this research is ***quantitative*** in nature. The data collection process of the current study has been relied on secondary sources of information which include sources like legislations passed and published by the parliament such as Insolvency and Bankruptcy Code (2016), Sick Industries Act (1995), SARFAESI Act (2002), RDDBFI Act (1993), Banking Regulation Act, Companies Act; Ordinances/Latest amendments such as the IBC (Amendment) Bill, 2021 regarding MSMEs; case laws decided by NCLT, publications, Reports of World Bank, RBI, IBBI such as Financial Stability Report for the years 2010 to 2023, Report on Annual Foreign Direct Investment to India (2010 -2023), Report on NPAs of Commercial banks recovered through various channels (2010- 2023).

For the purpose of this research, the suitable tools used to analyze the quantitative data are: Autocorrelation and Auto Regression of time series data wherein, series of successive observations of the given phenomenon over a period of time is referred to as the time series Further, Excel and SPSS Software has been used to analyze the data and the past trends have been used to evaluate the success or failure of the policies implemented hitherto, as well as to predict the future patterns. Moreover, as this research is in context with economic and business, we have obtained data relating to some time period concerning a given phenomenon viz, GDP, NPA & FDI values for the years 2010 to 2023.

RESULTS AND DISCUSSION

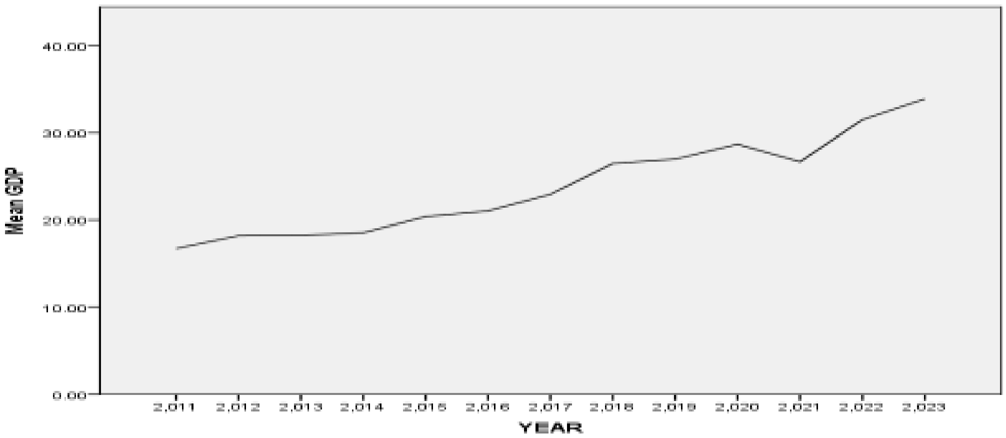
Table 1 & 3 provides the values of GDP and NPA respectively, for the period under consideration. Likewise, **Table 2 & 4** furnishes the predicted values of GDP and NPA obtained through the auto-regression analysis**. Figures 1 & 2** illustrates the graph of GDP and autocorrelation of GDP respectively. Similarly, **Figure 3 & 4** shows the graph of GDP and autocorrelation of NPA respectively.

Gross Domestic Product

Table 1: GDP Values (Source: World Bank Report)

Year	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23
GDP (constant) Billion US$	16.76	18.23	18.28	18.57	20.39	21.04	22.95	26.51	27.01	28.71	**26.71**	**31.50**	**33.89**

Figure 1: Graph showing GDP



Industrial Engineering Journal
ISSN: 0970-2555
Volume : 54, Issue 3, March : 2025

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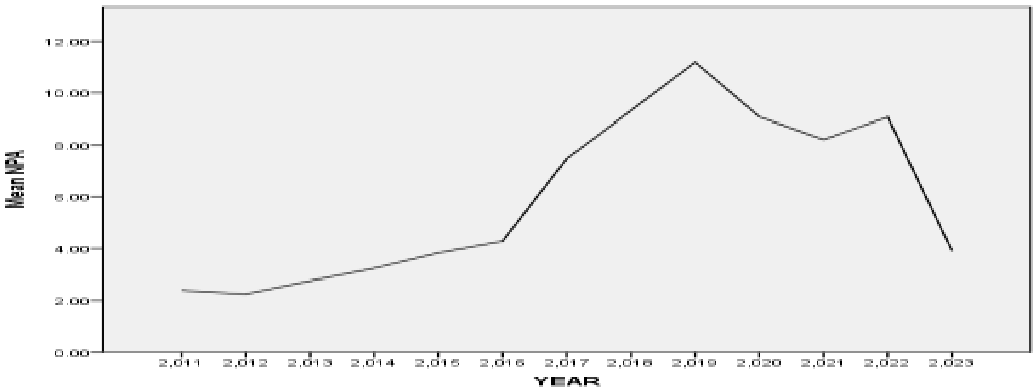
Non-Performing Assets

Table 3: NPA Values (Source: Statista.com)[2]

Year	**10-11**	**11-12**	**12-13**	**13-14**	**14-15**	**15-16**	**16-17**	**17-18**	**18-19**	**19-20**	**20-21**	21-22	22-23
NPA (% to total loan advanced)	2.39	2.25	2.75	3.23	3.82	4.27	7.48	9.32	11.18	9.08	8.21	9.07	3.9

Figure 3: NPA loan Ratio graph



[2] https://www.statista.com/statistics/1013267/non-performing-loan-ratio-scheduled-commercial-banks-india/

Auto-correlation Analysis:

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.659[a]	.434	.382	2.49842	.807
a. Predictors: (Constant), GDP					
b. Dependent Variable: NPA					

Existence of Auto-correlation is determined using Durbin-Watson test which is applicable for small samples and is valid only for First Oder Regressive Models. Therefore, prior to testing for autocorrelation, we need to find out whether AR (1) is appropriate by running OLS (Ordinary Least Square Method).

Step 1: Running OLS and determining auto regressive model / obtain Residuals.

The null hypothesis would be that the successive values of GDP are independent i.e., there is no first order auto-correlation. Therefore, the alternative hypothesis would be that the first order auto-correlation exists between the GDP Values.

By running OLS on MS-Excel, *p- value = 0.0000681* which is much smaller than the standard value, i.e., Alpha = 0.05, we reject the null hypothesis and conclude that AR (1) is an appropriate model. DW test can be performed. Now we proceed to testing for auto-correlation using DW Test.

Step 2: Durbin-Watson Test

As a rule of thumb, if *d*=2, we may assume that there is no first order correlation. The closer the d is to 0, the greater the evidence of positive autocorrelation. Similarly, the closer *d* is to 4, the greater the evidence of negative serial correlation. A negative autocorrelation is rare. However, we can test for it.

By using MS Excel, we obtained *d= 0.005577*, **indicating presence of positive autocorrelation**.

Step 3: Obtaining Upper and Lower Critical Values

UCL – upper critical value = 0.603

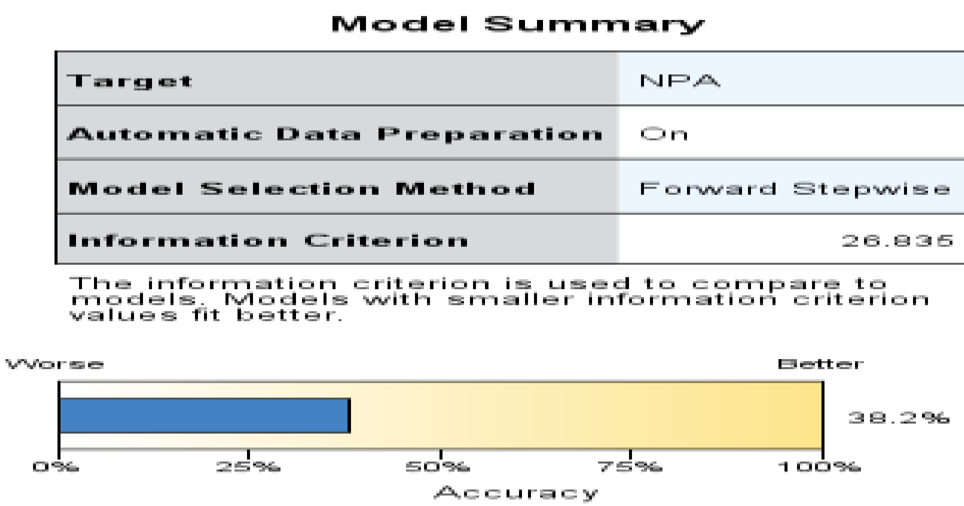
LCL- lower critical value = - 0.603

Step 4: Testing Hypothesis

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	52.578	1	52.578	8.423	.014[b]
	Residual	68.663	11	6.242		
	Total	121.241	12			
a. Dependent Variable: NPA						
b. Predictors: (Constant), GDP						

Above anova table shows significance value i.e. (.014) which is less than the level of significance .05, this suggests that null hypothesis has been rejected and alternative hypothesis has been accepted i.e. there is significant influence of GDP on NPA.

Auto-regression Analysis:



The values of NPA for the next five years are predicted using auto-regression analysis. Observation: Based on previous values, NPA loan ratio is expected to increase over the next five years. The pace of increase is slower compared to earlier years.

Table 4: Predicted values for NPAs.

Year	2023-24	2024-25	2025-26	2026-27
Predicted NPAs	8.8%	8.9%	9.1%	9.2%

CONCLUSION

After glancing at the analysis discussed hereinabove, it can be stated that both GDP and NPA are positively correlated. Test of hypothesis suggests that there is influence of GDP on NPA as data is statistically significant.

All and all, it can be concluded that the Insolvency and Bankruptcy Code has somehow not shown a tremendous positive impact, considering the jump in GDP post implementation of the Code. However, uncertainty created by the pandemic has dulled the efficiency of the Code. The GDP has dropped and NPA is expected to be on a rise. Furthermore, the existing legislations have failed to steer the economy in the desired direction during the pandemic and as unpleasing as it may seem, the pandemic looks like it is here to stay. Therefore, there is a need to develop economic policies that are rather 'pandemic-proof' in order to deal with the unimagined nature of the Covid-19 pandemic hurling in our lives as well as the economy at large.

Likewise, comes the issue NPA loan ratio. Post the enactment of the Code, although the ratio hasn't reduced significantly, still, the pace of increase has significantly slowed down. Positively, the Code was able to steer down the NPA loan ratio in the year 2022-23. However, with the outbreak of the pandemic and resulted slowdown of the economy, the said scenario has been revered. The future values of NPA loan ratio predicted using auto-regression analysis shows a slower increase in NPA loan ratio over the next five years which is not desirable.

Moreover, the prediction of NPA values for the next four years are indicative of the fact that considering the effect of the unprecedented Covid-19 pandemic on Indian Economy coupled with the existing legal and regulatory framework.

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