An Analysis With Mathematical Approach - Major Reasons Behind the Crisis of Yes Bank from the Indian Stock Market

Ananya Paliwal, Antra Sharma, Nandini Kapoor, Shambhavi Thakur
Maitreyi College, University of Delhi, Delhi

DOI:10.37648/ijrssh.v13i04.021

[1]*Received: 10 November 2023; Accepted: 23 December 2023; Published: 24 December 2023*

ABSTRACT

Yes Bank is a big private bank that faced a huge crisis in March 2020. Several things led to such a downfall. There was improper governance and no proper maintenance of the balance sheet which led RBI to impose a 30-day moratorium to save the bank. After the moratorium was placed on the yes bank the shares of the bank crashed by nearly 85% hitting a record low of Rs.5.55. The RBI had posted a limit of cash withdrawal of Rs. 50000. This heavily affected the stock market as this heavy sell-off added more pressure to the stock market. The BSE Sensex ended at 37,576.62, down 893.99 points, which was 2.32%, and the Nifty ended at 10,989.45, down 279.55 points, which was 2.48% and BSE Bankex ended at 3.46% down. Since banks affect a huge part of the economy, RBI took the initiative to save it from any huge collapse and save other financial institutes from its impact as well. Based on our findings, suggestions and precautionary measures can be drawn on multiple levels for the prevention of similar incidents.

Keywords: *Yes Bank; NPA; Moratorium; Cash Inflow Statement; Profit & Loss Statement; BSE; Banking Sector.*

1. Introduction

In March 2020, Yes Bank faced a deep crisis. The news came out that there were high chances that the bank would collapse which caused panic. Since a bank is an important part of the economy, its failure can affect the entire economy including stock markets.

Yes Bank was incorporated on 21st Nov 2003 by Rana Kapoor & late Ashok Kapoor. In June 2005 they came out with public issues & their shares (MOQ 1000) were listed on the stock market at Rs. 12 to Rs. 13 per equity share. The bank did fairly well in the next coming years and globally became the first bank to receive funding from International Finance Corporation (IFC), World Bank group. It was ranked no. 1 in an annual survey by KPMG in 2008. But despite all this, this successful bank faced a crisis later due to many factors. In 2017 RBI first noticed bad loans of Yes Bank and in 2018 ordered the then CEO, Rana Kapoor to vacate his chair. Later further high post officials resigned from their seats as well. A large number of loans were provided to firms & companies at high risk. There were huge liabilities of about 24 thousand crore dollars and improper governance. The financial state of the bank had

[1]How to cite the article: Paliwal A., Sharma A., Kapoor N., Thakur S 2023; An Analysis With Mathematical Approach - Major Reasons Behind the Crisis of Yes Bank from the Indian Stock Market; *International Journal of Research in Social Sciences and Humanities*, Vol 13, Issue 4, 244-259, DOI: http://doi.org/10.37648/ijrssh.v13i04.021

worsened as well. The share price of Yes Bank in March 2018 was Rs. 400 which stood at Rs. 16.60 as of 6th March 2020. They failed to raise capital to cover the huge loan losses since the corporate companies which took loans from Yes bank were later at loss and unable to repay on time which affected the bank. The founder Mr. Rana Kapoor was arrested as well under the allegations of approving corporate loans this time, Yes Bank's credit rate had decreased as the loans were lent at high risk which caused the loans to increase in such a way that the Bank faced a crisis.

There is a saying "A bank is too big to collapse" which is why in India, no public or private bank is allowed to collapse. The RBI intervenes before that happens as it further needs to safeguard the depositor's money. So on 5th March 2020, a 30-day moratorium was imposed on Yes Bank. The lender board was displaced and instead, Mr. Prashant Kumar was appointed to manage the functioning of the bank. Then the onus was placed on SBI, India's largest bank to save Yes bank from the crisis.

2. Preliminaries

- **Balance Sheet-** The balance sheet is a financial statement that illustrates the total assets of the business and how those assets are financed at a specific point in time, whether through debt or equity. It is also known as a statement of financial situation or a statement of net worth.

- **Cash Flow Statement-** A cash flow statement is a type of financial statement that gives total information about all of the cash inflows a business makes from continuing activities and outside investment sources as well as any cash outflows made within a specific time period to cover investments and business expenses.

- **Profit & Loss Statement-** The profit and loss (P&L) statement refer to a financial statement that includes the receipts, expenditures, and costs for a given time frame, typically a quarter or fiscal year. These records reveal if a business is able to increase income, cut expenditures, or do both in order to turn a profit.

- **Moratorium-** A moratorium is a temporary suspension of action or legislation until further consideration justifies its lifting, such as if and when the problems that gave rise to the moratorium are overcome. Governments, regulatory agencies, and private companies can all enforce moratoriums.

- **SMA-** The average of a chosen range of prices, typically closing prices, divided by the number of periods in that range is used to calculate a simple moving average (SMA)**.**

- **NPA-** A loan or advance that is in default or in arrears is categorized as an "NPA" (non-performing asset). Any late or missed payments on the principal or interest of a loan constitute arrears. When the lender deems the loan agreement to be violated and the debtor is incapable of fulfilling his commitments, the loan is in default.

- **AT1 bonds-** In a bank there are different types of capital namely T1(equity capital) and then there are different types of bonds (AT1 & AT2). We also have depositors' money which is the safest type of capital and equity being the riskiest. Perpetual bonds are Additional Tier 1 (AT1) bonds. These are used by banks to enhance their core equity base. Mutual funds are the most significant holders of perpetual debt instruments. They never mature, indicating that bondholders will never repay the principal. Banks, on the other hand, pay regular interest. However, if the bank's capital ratio falls below a certain percentage point or if the bank is losing money, interest payments can be skipped.

- **Credit to deposit ratio**- The ratio which indicates how much of the money raised as deposits by the banks are deployed as loans.

- **RSI(Relative Strength Indicator)-** It is a technical indicator used in the analysis of financial markets which charts the current and historical strength or weakness of a market based on the closing prices of the recent trading period.

- **MACD(Moving Average Convergence Divergence)-** This is used in the technical analysis of the stock prices which reveals the strength, direction, momentum, and duration of a trend in a stock's price.

3. Methodology

This research paper aims to analyze the crisis of Yes Bank with two primary focuses. It analyzes the factors responsible for the failure of the biggest private sector bank through a mathematical approach and undertakes its impact analysis on its stock, shareholders, etc. The study has been divided into four objectives. The objectives include analyzing the factors that led to the imposition of the moratorium, analyzing the impact of the crisis, studying the macroeconomic and statistical factors relating to the banking system and investment sector, and proposing a precautionary solution to the issue.

The four objectives of the paper are addressed individually in detail. For highlighting the purpose,a descriptive study has been carried out and a mixed approach is followed i.e. we have taken both qualitative and quantitative aspects of data. This research includes a rigorous analysis of data collected from secondary resources. The data sources include the website of the Yes bank, RBI, Financial newspapers like Economic Times, Financial Express, other business magazines, and related web information.

Within the qualitative approach, the study includes in detail the impact of the crisis on the economy. We have analyzed the impact on the stock market, its various investors: present & potential stakeholders, depositors, and the economy as a whole. We also focussed on the factors that led to the imposition of the moratorium. A brief history of the bank's activities has also been included and examined to provide a proper foundation for studies about the 2020 crisis. The potential and expected future precautionary measures to avoid any such crisis are also discussed in detail.

Within the quantitative aspect, we have used a mathematical approach for technical and fundamental analysis to find the major reasons for the crisis of Yes Bank in the Indian Stock Market. We have made use of the balance sheet, cash flow statement, and profit and loss account of the bank as a base of our fundamental analysis. The study also makes use of financial health indicators such as SMA, MACD, and RSI to analyze the situation technically. The data corresponding to the Yes bank is applied to the formulae to arrive at conclusive interpretations. The observations and interpretations are meticulously depicted through tables and graphs prepared making use of Microsoft Excel.

4. Fundamental Analysis of Yes Bank

Fundamental analysis (FA) is a technique for determining intrinsic value by investigating associated economic and financial factors. Fundamental analysts investigate everything that has the potential to affect the value of a security, from macroeconomic factors like the state of the economy and industry conditions to microeconomic factors like the efficiency of the company's management.

4.1. Balance Sheet (in Rupees crores)

Particulars	**Mar 2016**	**Mar 2017**	**Mar 2018**	**Mar 2019**	**Mar 2020**
Shares Capital	420.53	456.49	460.59	463.01	2,510.09
Reserves	13,366.07	21,597.57	25,297.69	26,441.19	19,216.2
Borrowings	31,658.98	38,606.67	74,893.58	108,424.11	113,790.5
Other Liabilities	8,098.30	11,525.33	11,055.60	17,887.68	16,946.18

Particulars	**Mar 2016**	**Mar 2017**	**Mar 2018**	**Mar 2019**	**Mar 2020**
TOTAL LIABILITIES	165,263.41	215,059.92	312,445.61	380,826.17	257,826.91
Fixed Assets	470.72	683.54	832.39	817	1,009.09
Investments	48,838.47	50,031.80	68,398.94	89,522.03	43,914.83
Other Assets	9,525.88	12,532.46	14,946.04	22,098.02	33,076.71
TOTAL ASSETS	165,263.41	215,059.92	312,445.61	380,826.17	257,826.91

Interpretation

1. The Total Assets and Liabilities have increased from Rs. 165,263.41 cr in FY-16 to Rs. 257,826.91 cr in FY-20. The values have initially increased till FY-19 to Rs. 380,826.17cr and declined towards FY-20.
2. The investments of the company have increased from Rs. 48,838.47 cr in FY-16 to Rs.89,522.03 cr in FY-19 and have declined towards FY-20.

4.2. Cash Flow Statement (in Rupees crores)

Particulars	**March 2016**	**March 2017**	**March 2018**	**March 2019**	**March 2020**
CASH FOR OPERATING ACTIVITY	-363.15	4,378.65	-21,877.72	-24,661.17	-57,640.53
CASH FOR INVESTING ACTIVITY	-4,035.28	-4,473.12	-8,691.86	-6,281.79	14,159.30
CASH FOR FINANCIAL ACTIVITY	5,059.70	11,429.21	35,747.92	33,039.32	25,038.31
NET CASH FLOW	661.27	11,331.02	5,184.92	2,155.15	-18,506.51
NPA PROVISION	497.9	747.4	1,248	4,818.4	25,865
NET NPA	284.47	1,072.27	1,312.75	4,484.85	8,623.78

Interpretation

1) The Net Cash Flow decreased from Rs.661.27 cr in FY- 16 to Rs. -18,506.51 cr in FY-20. The values have initially increased till FY- 17 to Rs.11331.02 cr and have decreased to a negative trend.
2) The Net NPA value has increased from Rs.284.47 cr in FY-16 to Rs.8623.78 cr in FY-20. The increase in the value of Net NPA throws light upon the trouble encountered.

4.3. Profit and Loss Statement (in Rupees crores)

Particulars	March 2016	March 2017	March 2018	March 2019	March 2020
REVENUE	13,533.44	16,424.64	20,267.42	29,624.75	26,066.60
EXPENSES	13,706.14	17,251.3	21,266.69	32,494.62	54,241.13
FINANCIAL PROFITS	6,759.5	8,874.78	12,157.96	12,095.58	-5,658.47
OTHER INCOME	2,712.15	4,156.76	5,223.83	4,590.15	11,856.49
NET PROFIT	2,539.45	3,330.1	4,224.56	1,720.28	-16,418.03
NET PROFIT %	15.63	16.18	16.57	5.02	-43.29
EPS in Rs.(basic)	60.62	15.78	18.43	7.45	-56.07

Net profit % or Net profit margin = (Net profits/Revenue)x100

Interpretation:

1. The net profit of the company has gradually declined from Rs.3,330.10 cr in FY-17 to Rs.1,720.28 cr in FY-19. It further touched a minimum of Rs.-16,418.03 cr in FY-20 throwing light upon the trouble encountered.
2. The company's fall is further highlighted with a declining EPS i.e.from Rs. 60.62 in FY-16 to Rs. -56.07 in FY-20.

5. Technical Analysis of Yes Bank

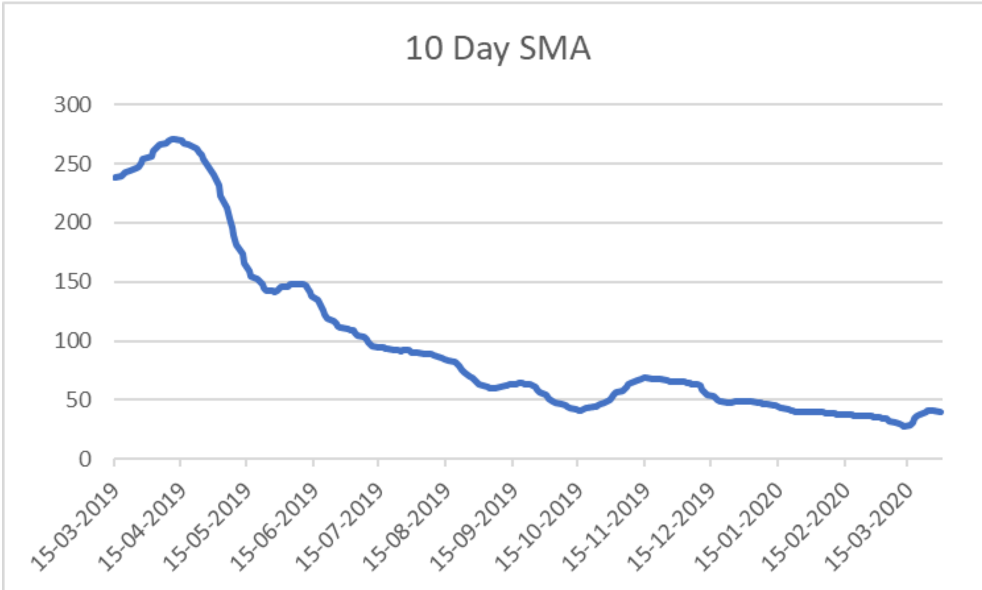
Technical analysis focuses on historical data to forecast future price movement. By examining statistical trends derived from trading activity, such as price movement and volume, it is a trading discipline used to assess investments and pinpoint trading opportunities. It helps to guide traders to know what is most likely to happen given past information.

5.1. SMA- (Simple Moving Asset)

A Simple Moving price is calculated by adding recent prices and then dividing the sum by the number of time periods in the calculation. It is used to determine if an asset is in an uptrend or downtrend.

$SMA = (A_1+ A_2+\ldots+A_n)/ n$

Where n = total number of time periods and A_n = Price of an asset at time period n.



Interpretation:
Here the simple moving average has fallen drastically over the period of time and it points downwards which indicates that the security's price is decreasing over the time period.

5.2. RSI (Relative Strength Index)

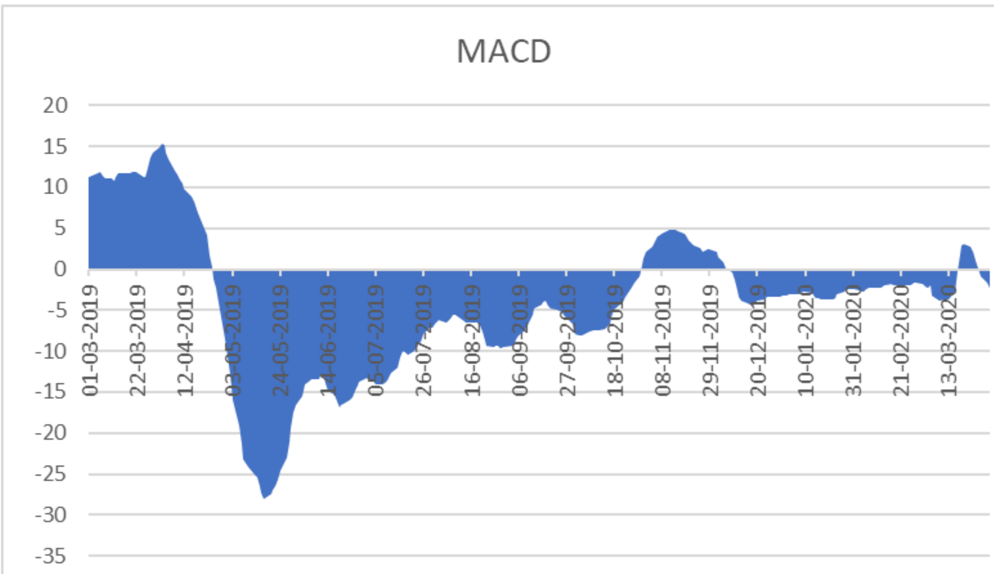
A momentum indicator used in technical analysis is the relative strength index (RSI). An evaluation of overvalued or undervalued situations in a security's price is done using RSI, which gauges the speed and magnitude of recent price fluctuations.

RSI= 100 - 100/1+RS

Interpretation:
The RSI chart of Yes Bank shows a bullish trend. It shows that stock price neither falls under an overbought position nor in an oversold position.

5.3. MACD (Moving Average Convergence and Divergence)

A momentum trend-following indicator called moving average convergence divergence (MACD) depicts the relationship between two moving averages of the price of a security. Convergence happens when the two moving averages move in the same direction, while divergence happens when they move in the opposite direction. The exponential moving average (EMA) of 26 periods is subtracted from the EMA of 12 periods to calculate the MACD.



Interpretation:
MACD value has resulted in the reduction of price value since after the sudden fall below the signal line during May and remained below the signal line till October.

6. Factors That Led RBI to Impose Moratorium on the Yes Bank

A moratorium is a suspension of activity in response to a temporary financial hardship. It is often implemented due to some crisis that disrupts the normal routine. These can include drought, flood, an outbreak of a disease, etc. If it's placed on some financial activity of a bank then it is granted by the government or the central bank and is lifted when conditions get better.

On 5th March 2020, the Reserve Bank of India, in the exercise of the powers of the Banking Regulation Act, 1949, in consultation with the Central Government imposed a 30-day moratorium on Yes Bank Ltd. due to the bank's inability to raise capital to address potential loan loss.
Under the terms of the moratorium, certain restrictions were imposed on the bank:

- The Deposit withdrawals by customers of the bank during this period were capped at Rs 50,000 per person regardless of the number of accounts they have with the bank, with certain exceptions:

1. Due to some medical treatment of the depositor or any person dependent on him.
2. Towards the cost of higher education of the depositor or any person actually dependent on him for education in India or outside India.
3. to pay for mandatory expenses linked with marriage or other ceremonies of the depositor or his children or of any other person that depends upon him.
4. in connection with any other unavoidable emergency.

● During the period of moratorium the bank was not supposed to grant any new loan or renew one, make any investment, including any liabilities, enter into any agreement, or payout any liabilities or any payments.

● The only expenditure allowed to the bank was to incur were salaries of employees, rent, stationery, postage, taxes, telegram, printing, or any legal expenses not exceeding Rs. 50,000. And any other necessary expenditure to carry out day-to-day activities.

● An emergency expenditure that the bank desired to incur had to be taken with special permission from the RBI.

Conditions that led RBI to impose a moratorium were:

Financial Condition:

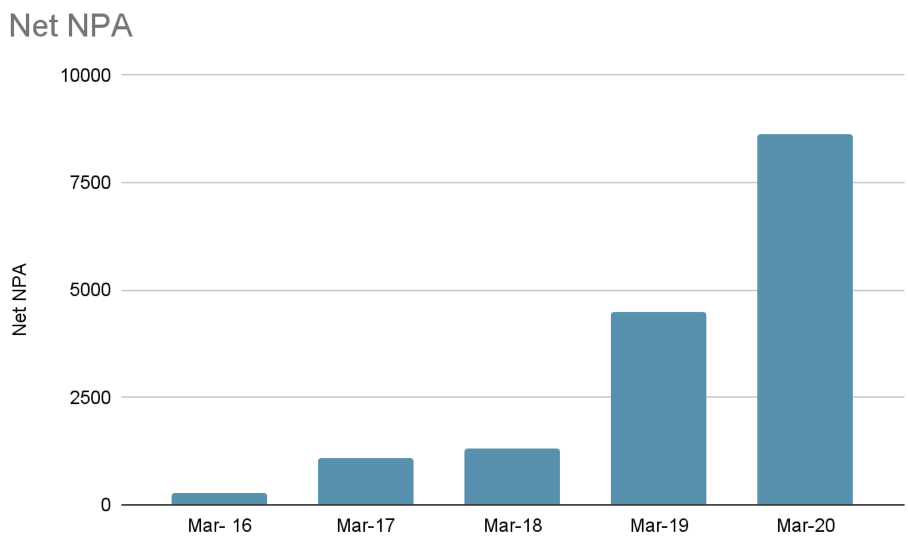
Yes Bank Ltd.'s (the bank's) financial condition has gradually deteriorated over the last two years. This is due to the following reasons:-

A. Bad Loans- Yes Bank granted loans and advances up to 334 percent, they advance loans more than their net worth. The majority of loans and advances were granted to NBFCs, real estate firms, and construction companies, three of the highly dynamic sectors of the Indian economy. In FY-20, Yes Bank reported a loss of Rs 16,418.03 crore, compared to a profit of Rs 1720.28 crore in FY-19. Loans that are not repaid is a serious issue for banks. These are referred to as Non-Performing Assets (NPA). NPA worth of Rs. 12,800 crores belonged to Anil Ambani Group, Rs. 8,400 crores belonged to Shubham Chandra's Essel Group, Rs. 1000 crores belonged to Kerkar Group, Rs. 4,373 crore belonged to M. Khaitan Group, Rs. 1,200 crores belonged to Radius Developers, Rs. 500 crores belonged to CG Thapar Group, Rs. 1,100 crores belonged to Jet Airways, Rs. 2,710 crores belonged to Omkar Realtors and Developers, Rs. 2,500 crores belonged to IL & FS.

Yes Bank's bad loans are estimated to be worth roughly Rs.33,000 crore (Gross NPA) in FY-20. While Gross NPA was approximately 17 percent of advances, Net NPA was about 5.03 percent of loans at the end of March 2020. Albeit there are no such standard limits on NPA's, it's considered to be manageable if they are under 3%. In this case we clearly see that the Net NPA % was 5.03% which is higher than the preferred limit.

Particulars	**March 2016**	**March 2017**	**March 2018**	**March 2019**	**March 2020**
Gross NPA	748.98	2,018.56	2,626.80	7,882.56	32,877.59
Gross NPA (%)	1.00	2.00	1.00	3.00	17.00
Net NPA	284.47	1,072.27	1,312.75	4,484.85	8,623.78

Net NPA (%)	0.00	1.00	1.00	2	5.03



B. Outflow of Liquidity- Since the bank had a large number of bad loans (to the tune of Rs.10,000+ crore), it required new money to run its operations. Large number of depositors of the bank also started withdrawing their deposits from the bank during the same period, this burdened the balance sheet and the bank collapsed. The loan extended in FY-20 was 162.71% more than the deposits received in FY-20. The failure of the bank to obtain capital resulted in rating downgrades, making capital-raising even more difficult.

Absence of Credible Revival Plan:

Since a bank and market-led revival is preferable to a regulatory restructuring, that means RBI doesn't intervene much and believes that banks will bring the investors themselves and will handle themself. The Reserve Bank made every effort to assist such a process and provided the Yes bank's management enough opportunity to develop a credible revival plan, which did not materialize.

Meanwhile, the Yes bank was seeing a constant loss of liquidity, along with increasing bad loans. The bank's net profit was also gradually declining & in FY-20 it touched a minimum of Rs. -16418.03 crores, after taking these developments into account, the Reserve Bank concluded that there is an absence of a credible revival plan.

Governance Failure:

YES Bank faced several governance issues that led to its decline. The RBI had stated that the bank had experienced serious governance issues and practices in recent years which led to the steady decline. The banks are required to make reserves to absorb the losses of bad loans but the bank was aggressively lending money, disregarding any risks and also under-reporting them.

- False assurance was given by YES bank management to the RBI that they were in talk with many investors to strengthen their balance sheet when in reality, there were no concrete proposals from the investors to invest any money that the bank needed to survive.

- During Rana Kapoor's tenure the bank was lending huge amounts to corporates that were already in risky businesses and facing challenges. Loans to such bad companies were huge and further, the bank also misreported and hid the actual values of the NPAs (Non-performing assets).
- Rana Kapoor had invested a huge amount of Rs. 1,000 crores in a risky business like Dewan Housing Finance Ltd (DHFL) ignoring the warning of treasury and risk management teams due to personal interest on 5th April 2018, without discussing the matter of investment with other officials of YES bank who were against such investments.
- Rana Kapoor has misused his official position to gain undue financial benefit for himself and his family members. Yes Bank between April 2018 and June 2018 had bought debentures (a long-term debt instrument used to borrow money at a fixed rate of interest) worth ₹3,700 crores from DHFL. This amount after being transferred to DHFL subsequently was used to give a loan of ₹600 crores to DOIT Urban Ventures Pvt Ltd, which was owned by Rana Kapoor and his three daughters were 100% shareholders.
- In 2018-19, the bank under-reported NPAs to the tune of Rs 3,277 crore which prompted RBI to dispatch R Gandhi (former deputy governor) to the board of the bank. Rana Kapoor, who was instrumental in building YES Bank from scratch, was asked to step down as chief executive in January 2019.
- On January 10, 2020, independent director Uttam Prakash Agarwal quit citing the deteriorating corporate governance standards and compliance failure at the lender. He states that the bank was not going according to the laws because of which he quit. This event led to a dip in the share prices by 7%.

RBI's "Scheme of Reconstruction" recommended a reconstitution of YES Bank's board with a new CEO and managing director.

7. Impact of the Crisis

The YES bank, being one of India's biggest banks, faced a historical crisis in March 2020. Being one of the most crucial banks of the nation, the crisis had a substantial impact on the economy. Below we discuss the impact of the crisis on investors and the stock market and thus the overall economy.

Impact on depositors, investors, and stocks:

- *Panic among depositors*:

While bad loans were the main problem, the reaction of the depositors added to the already messy situation. The imposition of a moratorium came as a shock for depositors, borrowers, and investors alike, even though the writing had been on the wall for some time. The depositors were worried about getting back their money albeit the finance minister Nirmala Sitharaman advised the yes bank customers not to panic.

- *Payment of loan EMI's affected:*

5th of March being the beginning week of the month, many customers had scheduled payments and deductions such as EMI's, SIP's, fees, rent, etc. Impact of the moratorium on these EMI's, SIP's,fees, rent, etc faced issues if the amount to be deducted from the account was more than Rs.50,000.

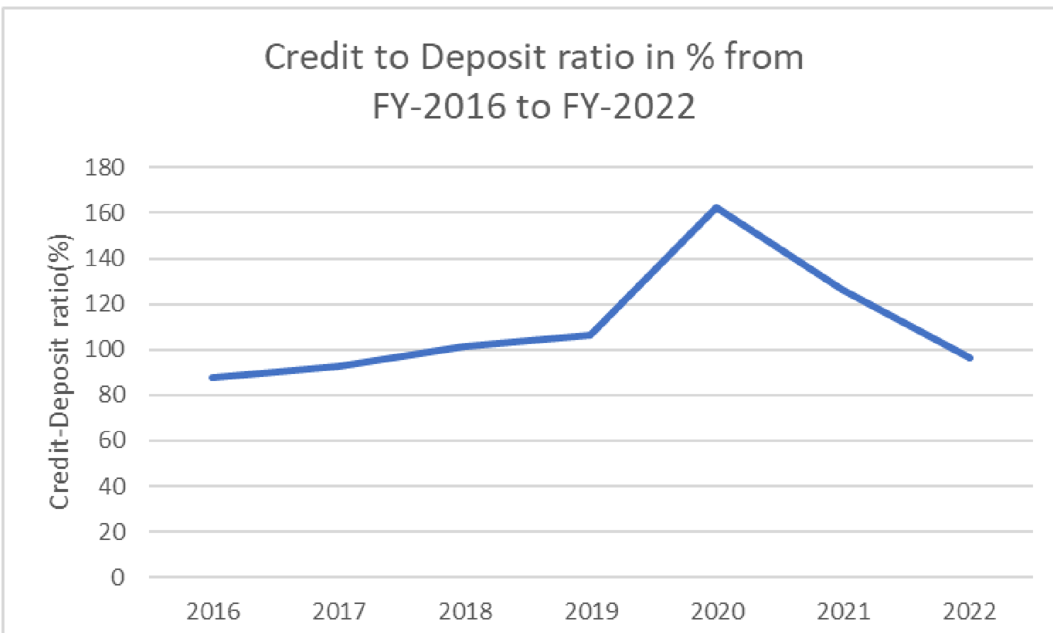
- *Clients whose salary account was connected to the Yes bank affected:*

It was analyzed that people with large amounts stuck in the frozen account would have to review their expenses and liquidate some investments in case of the absence of emergency funds. This draws our focus towards the importance of spreading money across multiple bank accounts.

● *The degree of Credit syndication and external investment proposals had a declining trend:*
The moratorium had an obvious impact on the credit system. Also, the banking system works on trust. The breach of the same led to a fall in credit.

LIQUIDITY POSITION OF THE BANK:

	2016	2017	2018	2019	2020	2021	2022
Credit to Deposit ratio(%)	87.91	92.57	101.39	106.1	162.72	126.10	96.61
Current ratio(%)	1.18	1.09	1.35	1.24	1.95	-	-
Quick Ratio(%)	14.02	13.17	20.8	15.34	12.42	-	-



Interpretation:
Credit to Deposit ratio has been increasing rapidly from 87.91 % in 2016 to 162.72 % in 2020 which means the bank lent more than it received leading to the imposition of the moratorium and thus decline in the credit thereafter in 2021 and 2022.

● *Fall of public confidence towards the private sector banking system:*
As Yes bank showed a wobbly situation with its NPA's, the public confidence towards it fell. This episode with a highly trusted bank would widen the gap between current depositors and potential customers and the private banking system. The fall of one bank would lead to the withdrawal of deposits from several banks due to lower confidence,

ultimately leading to the fall in the banking system due to bank run. This contagion impact was likely to worsen due to the rising coronavirus cases during those times.

● *Slowdown in production:*

Due to the imposition of the moratorium and with large-sized withdrawals disallowed, various companies connected with Yes bank for funds faced disruptions in their operations which restricted their ability to service financial obligations on time. This would affect the production, demand, and thus the overall economy.

● *Impact of the reconstruction scheme:*

1. Under this scheme, RBI stated that the State Bank of India (SBI) had expressed its willingness to make an investment in Yes Bank Ltd. and participate in its reconstruction scheme. But everything is never hunky-dory. Most of the shareholders of YES bank would have been happy to see a credible investor like SBI investing heavily in YES Bank. However, the shareholders of SBI would be worried about the top public sector bank's investment in a loss-making private bank, which may not give any immediate returns.

2. Yes Bank said that the additional tier-1 bonds issued by the lender would need to be written down since the bank has reached the 'point of non-viability trigger. As per Basel rules, AT-1 bonds are loss-absorbing capital instruments and should be written down when a bank breaches certain thresholds of core equity tier-1 capital. Bond owners, that is the mutual funds who loaned the money to Yes Bank, argued that they are being unfairly written off. They argued that equity capital should be written off before AT1.

● *A dip in stock prices:*

The dawn of March 6 saw a dip of 7% which happened due to rumors about SBI buying a stake in Yes Bank. However, after the RBI issued a moratorium, Yes Bank's shares fell by 25% as markets opened. Deposits fell by 7% and the bank reported a loss of $85 million. The BSE Sensex cracked under the pressure tumbling by nearly 3% to 37,497 in the morning of March 6, 2020, with 90% of the stocks trading in the red. The rupee also dipped to 73.90, the lowest it's been since October 2018.

***Source**: Economic Times*

Impact on the economy:

- The crisis saw a shrink in public confidence in the private banking system
- The stock prices of Yes bank declined drastically.
- There was negative signaling in the market with the stepping back of the foreign institutional investors and foreign portfolio investors due to the failing banking system and reduced credit syndication.
- Digital payment distrust Yes Bank had one of the widest digital payment networks in India but unforeseen checks on its operations, and limited functionality of its cards, led to merchant's money getting frozen.
- The debt finances of numerous asset operation companies(AMCs) took a severe blow as numerous of them had exposure to the bonds and non-convertible debentures(NCDs) of the bank.
- Yes Bank is also an element of the Nifty 50 indicator, and hence it's present in numerous indicator finances, whose values deteriorated.

8. Precautionary Solutions to Prevent Any Such Future Crisis

The fall of reputed banks lead to the overall breakdown of the economy. After two stressful years, the bank finally stepped out of the bog with the joint efforts of RBI, SBI, and other private sector banks. The following are some points that discuss the expected meticulous steps to be taken to prevent anything of such an extent from happening in the future.

- *Strict supervision*

The Yes bank had been lending large amounts of sum for too long. The reserve bank of India overlooked the same which worsened the situation and forced the RBI to take extreme measures. All the stakeholders are expected to maintain a constant vigil, given the high stakes for safety and stability. They are expected to diagnose the problem in time and thus act quickly. The default cases should be handled strictly.

- *Prudent selection of the team*

The bank chief executing officers should not be allowed long tenure. The board of directors should be selected meticulously who are capable of preventing the aggressive lending which became the main reason for the fall of the bank. There needs to be more careful and mindful employment of the auditors.

- *Increase the limit of deposit insurance*

Deposit insurance's role is to stabilize the financial system in case of bank failures by guaranteeing depositors that they will have easy accessibility to their insured funds even though their bank fails, reducing their incentive to conduct a "run" on the bank. The deposit insurance should also be increased to secure the depositor's money in case of any such crisis in the future.

- *Better Governance*

Good Commercial governance should be an important part of bank operation in order for banks to work efficiently. Good Commercial governance is essential in banks and must be further than just complying with legal and nonsupervisory needful. It promotes good business operation and regulation, allowing banks to uphold good business ethics and thereby furnishing value additions to stakeholders. This can be done by careful evaluation of the performance of the board by assessing the minutes of meetings to ensure that these meetings are held regularly and the board members have access to all the relevant information and resources.

- *Template to deal with weak lenders*

The regulator should review its overall framework for dealing with troubled lenders.The prompt corrective action framework, which was enforced under former governor Urjit Patel, is now effectively dead. At the moment, systemically important banks must hold more capital than others, but a model for dealing with the layer of lenders below that is also required.

- *Monitoring of the NPA Rate:*

There is not any acceptable or acknowledged limit for the NPA, but it isn't advisable to be more than 3% while India's NPA stands at 9.85%. Many developed countries like China, and South Korea have an NPA rate below 2%. High NPA acts like a red flag for investors determining that a certain bank is not viable which in return impacts the banks' cash flow and future earnings. In order to achieve a lower NPA rate, there is a need for stricter rules and regulations and further steps for amalgamation and mergers can be analyzed for immediate measures for poorly performing banks.

9. Conclusion

Yes bank went through a serious crisis in march 2020. The analysis shows how the problem had always been there and gradually grew over the years. It involved serious lapses at all levels. The bank reported a gradual fall in the net profit due to the increasing credit-to-deposit ratio. There was an alarming increase in the value of NPA. The carelessness of the bank coupled with the massive governance failure led to the famous Yes bank crisis. The crisis was successful in damaging the public confidence in private sector banks. This breached the reputation of the banking sector. An alarming increase in the credit to deposit ratio in the years preceding 2020 eventually led to a falling ratio due to the imposition of the moratorium. The ignorance on part of the authority was unexpected and thus ignited the crisis-like situation. The profits of the bank witnessed a downward trend. The stock market was affected massively with the stock prices falling drastically. With the increasing need to bail out the private banks in times of crisis, it's high time that the government and RBI take necessary actions through policy reforms to prevent such events in the future. There is a need for stricter rules and regulations to eliminate faults of risky loans, lenient management, and corruption.

References

Business Standard. (2020). *Yes Bank crisis*. https://www.business-standard.com/about/what-is-yes-bank-crisis

Chauhan, N. (2021, September 7). Rana Kapoor ignored warnings by Yes Bank's risk, treasury teams. *Mint*. https://www.livemint.com/industry/banking/rana-kapoor-ignored-warnings-by-yes-bank-s-risk-treasury-teams-11631040409652.html

Choudhury, A. R. (2021). Factors that affected the downfall of YESBANK. *JETIR*, *8*(2). http://www.jetir.org/papers/JETIR2102207.pdf

Dangi, V. (2020, March 9). Yes Bank debacle raises serious governance issues. *KnowFunda*. https://knowfunda.com/yes-bank-debacle-raises-serious-governance-issues/

E.T. (2020, March 17). Yes Bank crisis: Ten lessons to prevent bank failures in future. *ETBFSI.Com*. https://bfsi.economictimes.indiatimes.com/news/banking/yes-bank-crisis-ten-lessons-to-prevent-bank-failures-in-future/74668041

Finance, T. P. (2020, March 9). What the Yes Bank crisis means for its customers and investors. *Mint*. https://www.livemint.com/money/personal-finance/what-the-yes-bank-crisis-means-for-its-customers-and-investors-11583670918487.html

George, A. A. (2020, March 15). Yes Bank crisis and reconstruction: Explained. *ClearIAS*. https://www.clearias.com/yes-bank-crisis-reconstruction/

Gill, P. (2020a, March 6). India's largest bank stock sees the sharpest fall in over 7 years — investors want to say "no" to Yes Bank. *Business Insider*. https://www.businessinsider.in/finance/news/indias-largest-bank-stock-sees-the-sharpest-fall-in-over-7-years-investors-want-to-say-no-to-yes-bank/articleshow/74504449.cms

Gill, P. (2020b, March 6). Yes Bank share price nose dives 72% after RBI limits withdrawals. *Business Insider*. https://www.businessinsider.in/finance/news/yes-bank-share-price-falls-10-after-rbi-limits-withdrawals/articleshow/74504094.cms

Gill, P. (2020c, March 12). Yes Bank crisis and its domino effect on bonds, mutual funds and other corporate defaults. *Business Insider*. https://www.businessinsider.in/finance/news/yes-bank-crisis-and-its-domino-effect-on-bonds-mutual-funds-and-other-corporate-defaults/articleshow/74586858.cms

I. (2022, May 11). Yes Bank – The bank that never said no. *Ithought*. https://ithought.co.in/yes-bank-the-bank-that-never-said-no/

Khude, D. (2021, December 13). Non-performing asset (NPA) in India – Meaning and its impact. *Discount Brokers in India - Samco Securities*. https://www.samco.in/knowledge-center/articles/non-performing-asset/

Misra, U. (2020, March 10). Explained: How Yes Bank ran into crisis. *The Indian Express*. https://indianexpress.com/article/explained/how-yes-bank-ran-into-crisis-rana-kapoor-arrest-6307314/

Prabu, V., & Dharani, M. S. (2021). Major reasons behind the whitewash of Lakshmi Vilas Bank from the Indian stock market – An analysis with mathematical approach. *Kongunadu Research Journal*, *8*(1), 17-20. https://www.krjournal.com/index.php/krj/article/view/492/538

Radhakrishnan, V., & Singaravelu, N. (2021, December 3). Data | The Yes Bank crisis explained in six charts. *The Hindu*. https://www.thehindu.com/data/data-the-yes-bank-crisis-explained-in-six-charts/article61965529.ece

Sarkar, P. (2020). The crisis of Yes Bank Ltd. *International Journal of Multidisciplinary Educational Research*, *9*(5), 243-249. https://doi.org/10.31235/osf.io/pvgm9

Team, C. (2020, March 6). Moratorium imposed on Yes Bank- Withdrawal capped to Rs 50,000. *CAclubindia*. https://www.caclubindia.com/news/moratorium-imposed-on-yes-bank-withdrawal-capped-to-rs-50-000-18088.asp

U. (2022, July 21). Yes Bank crisis will take a toll on Indian banking, economy. *Quartz*. https://qz.com/india/1819624/yes-bank-crisis-will-take-a-toll-on-indian-banking-economy/