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## **The impact of Covid-19 pandemic on the non-performing loans: A study on schedule banks in Bangladesh**

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## **The impact of Covid-19 pandemic on the non-performing loans: A study on schedule banks in Bangladesh**

### **Abstract**

The unprecedented Covid-19 has brought eccentric challenges to financial sector around the world including Bangladesh. The pandemic has triggered a series of unprecedented emergency measures, including travel bans, mandatory closures of non-essential businesses, compliance restrictions, and mandatory work from home that led to a sharp decline in economic activity, and huge disruption in financial markets. This study aims to investigate the impact of Covid-19 on non-performing loans (NPLs) at banking financial institutions in Bangladesh. Using the data from secondary sources, this paper employs multiple trend analysis to measure the influence of Covid-19 on NPLs. The study found that Covid-19 has a significant effect on NPLs. This study can be used as a reference when considering credit risk management policy during the emergency alike Covid-19 pandemic.

**Keywords:** Covid-19, Pandemic, NPLs, Banks, Bangladesh.

## **1. Introduction**

Since the coronavirus epidemic, the government of Bangladesh has adopted a policy of social distancing to break the chain of spread of Covid-19. Indirectly, this social distancing coverage hampered numerous commercial enterprise sectors from operating. Some even needed to lay off their personnel to lessen operational costs. This systemic effect additionally influences debtor's incompetence in repaying loans originated from financial institution credit. The banking industry has started to be very cautious in channeling credit score on the way to keep away from the hazard of horrific credits. The issue in paying the debtors has made numerous banks, particularly small-scale ones, enjoy a boom in horrific credit score instances. The incidence of horrific credit score instances in numerous banks is an indication that the financial institution's operational accomplishments are unwell. In Bangladesh, during the Covid-19 pandemic, the level of NPLs in the banking industry increased from 7.70% in December 2020 to 8.10% in March 2021 (Bangladesh Bank Quarterly Report).

Dahlan Siamat revealed that poor loan performance is defined as credit that experiences payment inconveniences due to deliberate factors or due to external influences beyond the debtor's control (Siamat, 2011). The Covid-19 pandemic is an external instigate beyond the capacity of debtors to control, resulting in difficulties for debtors to repay loans derived from the bank loans. Poor loan performance can also be caused by natural disasters such as the coronavirus epidemic. Burhanuddin Abdullah (Former Governor of Bank Indonesia), mentioned that bad credit is triggered by natural disasters or emergencies beyond the capacity of major participants in financial system (Hariyani, 2013). Quite a few researchers have already conducted research on Covid-19 and NPLs. Maria Indriyani Hewe Tiwu spotted that the Covid-19 pandemic had a positive and noteworthy impact on NPLs of Banking financial institutions (Tiwu, 2020). Ade Novaliana and Rosadi specified that the effect of Covid-19 has a significant impact on the rise in bad credit in the banking financial institutions (Novalina, 2020).

Hadiyah Putri Pratamawati indicated that the fundamentals that influence NPLs of banking financial institutions are inflation, exchange rates, Operational Cost of Operating Income and Loan to Deposit Ratio (LDR), Capital Adequacy Ratio (CAR) (Pratamawati, 2018). Vhietrin Gift revealed that the key points that stimulates lending to schedule banks are third party funds, interest rates and NPLs (Gift, 2017). Romo Putra Mada stated that the key attributes that influence NPLs are operational income, operational costs,

and credit interest rates (Mada, 2015). Andreani Caroline Barus disclosed that the elements that influence the NPLs of banking financial institutions in Indonesia are external factors consisting of epidemic and Inflation, and internal factors consisting of CAR, LDR, NIM and Company Size (Barus, 2016). Based on the study on Covid-19 pandemic, the investigation has been conducted to prove if Covid-19 has an impact on the level of NPLs of schedule banking financial institutions in Bangladesh.

## **2. Literature Review:**

NPLs are categorized as substandard loan, doubtful loan, and bad loan (Hariyani, 2013). Bad loan or credit can be expressed as a loan that experiences repayment complications due to deliberate factors or external factors that are beyond the borrower's control (Siamat, 2011). Former Governor of Bank Indonesia, Burhanuddin Abdullah said that bad loan is triggered by (1) emergency or disasters like pandemic which are beyond human capacity; (2) borrower's business is deprecating, hard to advance, has many emerging rivals and other operational difficulties; (3) exercises of understanding services between clients and banks; (4) clients do not have willingness or intentions in carrying out their accountabilities (Hariyani, 2013). Factors that stimulate NPLs of schedule banks are bank internal factors, client internal factors, and external factors of financial institutions and clients (Barus, 2016). Bartoletto et al. (2019) disclosed that unusual confrontations such as world wars, pandemic and the global financial recessions could crash the credit expansion cycle. Dirk Bezemer and Lu Zhang revealed that enervated credit encroachment leads to financial instability and crises (Bezemer & Zhang, 2019).

The Covid-19 that has shaken almost every country in the world has a direct or indirect effect on the economic deterioration in those countries. The banking instability and poor performance is due to a noteworthy debility in economic activity. The systemic impact of the Covid-19 outbreak also has an impact on banking credit operation. The systemic effects of the Covid-19 outbreak are also having an impact on banks' loan performance. Josua Pardede, an expert in the field of economics made a statement in a news outlet (The Jakarta Post) that the Covid-19 pandemic had instigated a slowdown in the economic advancement, which influenced credit progression (Iswara & Rahman, 2020). Kenny et al. (2020) disclosed that the banking crisis has a major effect on the economic slowdown. In another study it is mentioned that the Covid-19 pandemic caused prodigious challenges in all aspects of our life (Asmoro, 2020). The Financial Services Authority (FSA, Indonesia) in a

virtual media coverage confirmed that the Covid-19 pandemic had a considerable impact on the intensification of bank credit (Sitinjak & Ginting, 2020). Bangladeshi connoisseurs also revealed the alike opinion in different newspapers. Bangladesh Bank (Quarterly Report) confirmed that the ratio of NPLs in the banking industry increased from 7.66% in December 2020 to 8.07% in March 2021.

Colombo and Paccagnini drawn a conclusion that credit provision causes an asymmetric impact on macroeconomics (Colombo & Paccagnini, 2020). Dong and Xu have revealed that too much credit enlargement can increase a crisis in the financial institutions and markets (Dong & Xu, 2020). Ramazan Ekinci and Gulden Poyraz strongly believe that banks should be concern more on credit risk management, more specifically on monitoring and appropriate supervision of NPLs (Ekinci & Poyraz, 2019). Ahlem Selma Messai and Fathi Jouini stated that NPLs can be determined by the factors such as GDP, interest rates, unemployment, loan loss reserve to the ratio of total amount of loans and changes in credit structure (Messai & Jouini, 2013). Asrip Putera and Muh Yani Balaka identified in their research that the appropriate strategic decisions for resolving default risk was institutional solidification, a proper framework for credit selection process, and continuous development of service procedures (Putera & Balaka, 2019). One of the major functions of a financial institution is to grant funds in the form of loans. Under the current constitution, loan is the provision of credit in cash or equivalent, based on a loan agreement or arrangement between a bank and another party (client), which obliges the debtor to repay its debt after a certain period with a certain amount of interest (Siamat, 2011). The financial services authority has a statement that banking financial institutions must pay close attention to the compliance of lending arrangements during the Covid-19 pandemic (OJK, 2020).

### **3. Methodology**

The main aim of this study is to find out the facts and figures that are associated with NPLs in the banking sector of Bangladesh. This paper uses all the schedule bank's data from the year 2011 to 2020. The data has been collected from published reports of newspaper, annual report of Bangladesh Bank, annual reports of scheduled banks, related books, journals, articles, seminar paper, publications from national and international research institutions, report of different financial institutions, public records and statistics, different research reports etc. The paper uses different trend analysis

among NPL's, macro-economic factors and Covid-19 pandemic situation in Bangladesh.

#### 4. Analysis and Discussion

Covid-19 pandemic results an increase in NPLs ratio of the banking sector. Compared to December'19, the amount of NPLs increased by BDT 3.52 billion in June'20. Besides, during the second half of 2020, the increase in NPLs amount was BDT 3.01 billion (Bangladesh Bank). Table 2 depicts that NPLs ratio had an increasing trend from December 2015 to December 2018 period and it declined sharply in June 2019 and remained almost stable till December 2019. The ratio again increased in June 2020 by 0.32 percentage point compared to December 2019 and by 0.13 percentage point in December 2020 compared to June 2020. Loan recovery activities were heavily interrupted during general holidays, declared in the wake of Covid-19 pandemic.

Types	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 (End of June)
SOCBs	91.7	215.2	166.1	227.6	272.8	310.3	373.3	487.0	439.9	429.4
SDBs	56.5	73.3	83.6	72.6	49.7	56.8	54.3	47.9	40.6	45.2
PCBs	72.0	130.4	143.1	184.3	253.3	230.6	294.0	381.4	441.7	465.9
FCBs	6.3	8.5	13.0	17.1	18.2	24.1	21.5	22.9	21.0	20.6
Total	226.5	427.4	405.8	501.6	594.0	621.8	743.1	939.2	943.3	961.2

Source: BRPD, Bangladesh Bank.

Types	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 (End of June)
SOCBs	11.3	23.9	19.8	22.2	21.5	25.0	26.5	30.0	23.9	22.7
SDBs	24.6	26.8	26.8	32.8	23.2	26.0	23.4	19.5	15.1	15.9
PCBs	2.9	4.6	4.5	4.9	4.9	4.6	4.9	5.5	5.8	5.9
FCBs	3.0	3.5	5.5	7.3	7.8	9.6	7.0	6.5	5.7	5.5
Total	6.1	10.0	8.9	9.7	8.8	9.2	9.3	10.3	9.3	9.2

Source: Department of Off-site Supervision (DOS), Bangladesh Bank.

At the end of second quarter of 2020, the ratio of default loans in the country’s banking industry increased to 9.16% from the total amount of outstanding credits BDT 10,49,725 crore. Banks’ NPLs increased by BDT 3,606 crore at the end of June 2020, despite the Bangladesh Bank’s directive not to classify loans till third quarter of 2020 due to consequences arising from the Covid-19. At the end of second quarter 2020, the amount of NPLs in the banking industry reached at BDT 96,116 crore, which was 9.16% of the total granted loans in the economy (Bangladesh Bank Quarterly Report). The default loans in the banking industry were BDT 92,510 crore at the end of first quarter of 2020. Default loans had increased in the April quarter for some technical reasons. NPLs declined in the September quarter of 2020 as the BB had asked banks not to downgrade any defaulting loans till September. On June 15, 2020, the BB asked banks not to downgrade any loan over a failure to pay installments during January to September period to assist businesspeople combat the economic fallout due to Covid-19. "It may have increased for some technical reason, as a regulatory restriction on degrading loans was in place and will remain valid till September 2020," said Ahsan H Mansur, executive director of the Policy Research Institute. Given the regulatory forbearance of the BB, the NPLs data has become meaningless as a major portion of the outstanding loans became irregular due to non-payment, said by Mr. Mansur, Chairman of Brac Bank (Dhaka Tribune). The BB should extend the deadline on degrading loans further in a way that businesses could regain their strength within the period. At the end of June, the ratio of default loans in the country’s banking industry increased to 9.16% against outstanding loans worth BDT 10,49,725 crore. In March, the NPL ratio in the country’s banking sector was 9.03% against total amount of outstanding loans BDT 10,24,498 crore. NPLs declined by BDT 1,821 crore in three months to BDT 92,510 crore till March 2020. NPLs in the country’s banking sector hit an all-time high at BDT 1,16,288 crore at the end of September 2019, but the figure dropped to BDT 94,331 crore at the end of December 2019, owing to the BB’s flexible loan rescheduling policy.

Variable	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Unemployment Rate	3.71	4.06	4.43	4.39	4.38	4.35	4.37	4.29	4.22	5.30
Inflation Rate	7.86	8.17	7.18	5.67	5.87	6.73	6.28	5.60	4.46	5.51



GDP Growth (Annual %)	6.46	6.52	6.01	6.06	6.55	7.11	7.28	7.86	8.15	2.38
Sources: Unemployment Rate: International Labour Organization, ILOSTAT database. Inflation Rate: World Bank national accounts data, and OECD National Accounts data files. GDP Growth Rate: World Bank national accounts data, and OECD National Accounts data files.										

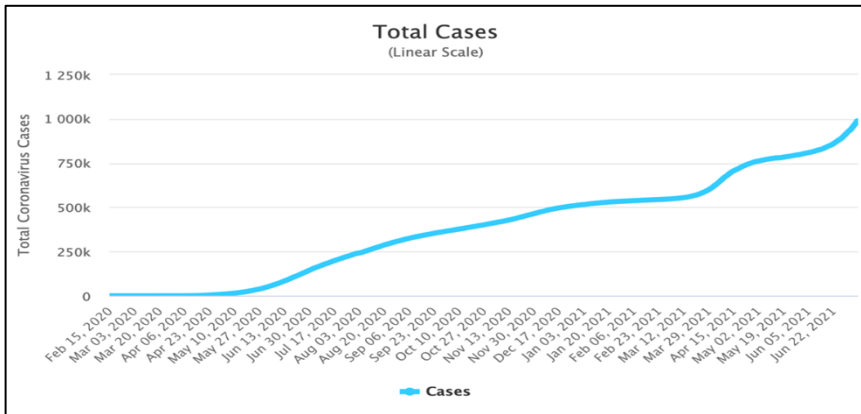


Figure 1: Total Covid-19 Positive Cases; Source: Worldometer.

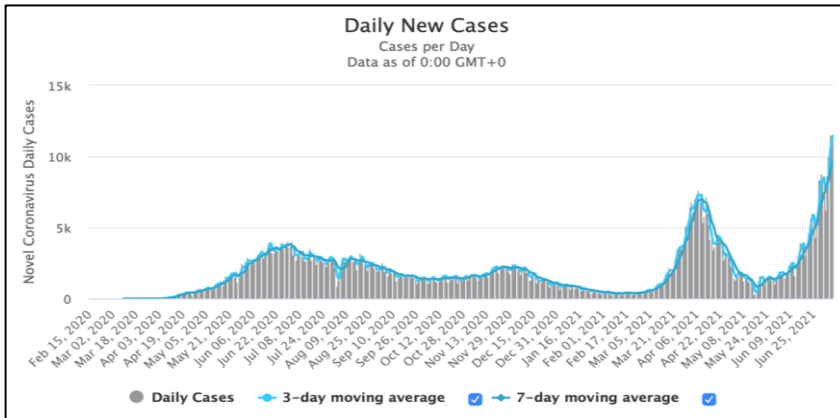
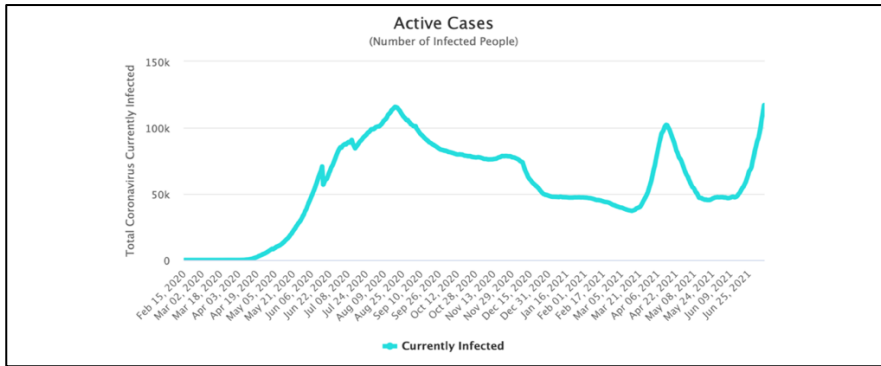
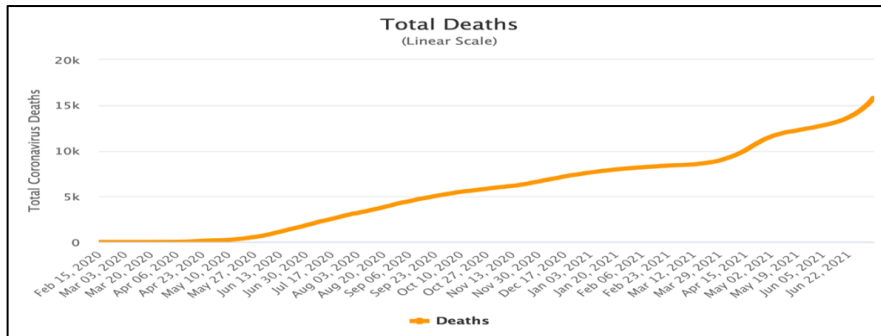


Figure 2 Daily Covid-19 Positive Cases; Source: Worldometer

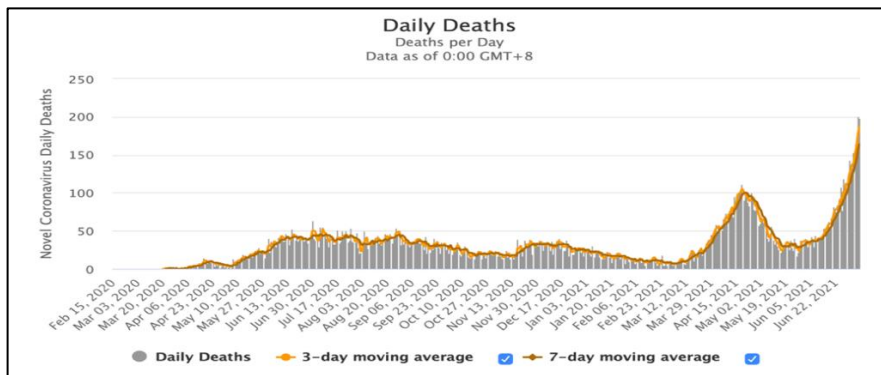
*The impact of Covid-19 pandemic on the non-performing loans: A study on schedule banks in Bangladesh*



**Figure 3 Active Covid-19 Positive Cases; Source: Worldometer.**



**Figure 3 Total Covid-19 Deaths Cases; Source: Worldometer.**



**Figure 4 Daily Covid-19 Deaths Cases; Source: Worldometer.**

Macro-economic factors of Bangladesh deteriorated due to the Covid-19 pandemic. Bangladesh was enjoying stable macro-economic factors during the time of 2011-2019. In contrast, due to Covid-19 pandemic, 2020 experienced a recession in macro-economic factors. With gradual increase in daily new positive cases, total positive cases, daily active cases, daily deaths cases and total deaths, unemployment rate and inflation rate increased along with decrease in GDP growth rate. The graph of Figure 2 represents daily new positive cases of Covid-19. Since the first cases reported on March of 2020, a gradual increase had been witnessed which reached to around 4,000 daily new positive cases. Since then, a progressive decrease with little fluctuations indicated that Bangladesh was in control and recovering from the pandemic. But since mid-March, the daily new cases had risen sharply over the following few days which broke the previous records and approximately 7,500 daily new cases were reported during mid-April. An admirable fall of daily new cases were witnessed until late-May, when another steep increase broke all the previous records and reached up to worrying 12,000 new cases daily on June 25, 2021. The graph illustrated in Figure 1; the Total Covid-19 Positive Cases graph is the cumulative frequency graph of Figure 1 which is observed to be ever increasing during early March 2020 to late June 2021. Daily Active Cases, the cases where patients have not recovered are depicted in Figure 4 Active Covid-19 Positive cases. The uneven graph reveals that early-May is observed to be the time since when active cases kept escalating. Despite slight drops during mid-June 2020 and early-July 2020, active cases were always on a rise till early-August, when the active cases reached at a record approximation of 115,000. After the time, active cases had gradual decrease as far as late-March 2021 with slim increases in mid-November 2020 and early-February 2021. With increase in daily new cases since mid-March, active cases also kept surging and was recorded on just over 100,000 in early-April. After that, a decrease and eventually sharp increase was experienced and almost 120,000 active cases were found on 25 June 2021. Figure 5 Daily Covid-19 Deaths Cases is somewhat alike-shaped with figure 2, where daily positive cases were illustrated. During the time of mid-July to mid-September, daily deaths were recorded at approximately 50 cases. However, since mid-September daily deaths were decreasing compared to time duration till late-March. Daily deaths roughly increased later early-April, eventually reaching

the 100 deaths per day mark. Another relatively steep acceleration in daily deaths was witnessed since mid-June. Resembling figure 1, Figure 4 Total Covid-19 Deaths Cases is also a cumulative frequency-based graph whose frequency is the daily deaths. The ever increasing, Figure 4 declares that total deaths due to Covid-19 in Bangladesh is approximately 16,500 until June 22, 2021. When the daily deaths started increasing abruptly since mid-June, total deaths also logically started to increase and continued increasing steeply since then. As soon as Bangladesh became a victim of Covid-19 pandemic, the macro-economic factors started deteriorating in Bangladesh. The chart proves that the stable unemployment rate which had an average of 4.24% during the time of 2011-2019, ascended to 5.30% in 2020 as pandemic forced the businesses to reduce employees and reduce investment which also increased unemployment. Inflation rate was reduced to as low as 4.46% in 2019 indicating a significant improvement compared to the previous years when it was observed to be heavily fluctuating. However, the pandemic affected Bangladesh experienced another increased inflation rate in 2020, 5.51%. GDP growth rate which indicates the economic growth of a country, possesses the most dreadful effect. Since 2013, GDP growth rate of Bangladesh had been ever increasing which reached to an astounding 8.15% in 2019. But the GDP growth recessed to as much as 2.38% in 2020 due to the pandemic indicating how terrible the Covid-19 pandemic has been.

Types	2020 (Q3)	2020 (Q4)	2021 (Q1)	2021(Q2)
SOCBs	22.46	20.90	20.91	20.62
SDBs	15.92	13.32	13.36	11.44
PCBs	5.56	4.66	5.13	5.44
FCBs	5.86	3.46	4.13	3.91
Total	8.88	7.66	8.07	8.18

Source: Department of Off-site Supervision (DOS), Bangladesh Bank (Quarterly Report June 2021).

Based on the data presented in Table 4, we can see that total NPLs in the banking sector declined in December 2020 but precipitously increased in March 2021(Q1) and it was in the same display in June 2021 (Q2). Now question is why this pattern? The probable reason must be the dramatical negative impact of macro-economic factors that we discussed in our earlier discussions. Now the question is why macro-economic factors affected? Last

eighteen months our entire economy heavily affected by Covid-19 and still counting. Due to the worst shape of macro-economic factors schedule banks in Bangladesh suffering with NPLs.

## **5. Conclusion**

This study aimed to find evidence that the Covid-19 case contributes to the rise in bad credit cases found in schedule banks in Bangladesh. The results of the analysis show that it is true that the Covid-19 case is impacting the increase in bad credit in maximum schedule banks in Bangladesh. Therefore, the Covid-19 case can be used as one of the external factors for banks and debtors that can affect the increase in bad credit, in addition to inflation, exchange rates, credit interest rates, LDR, CAR, NIM and Company Size. The results of this study are in line with the statements of experts that the occurrence of bad credit is caused by natural disasters or emergencies beyond human capacity; the debtor's business is deteriorating and difficult to develop. Thus, it can be concluded that the occurrence of Covid-19 is one of the bank's external factors caused by emergencies such as Covid-19, which leads to a deterioration of a debtor's business situation, so that it has an impact on the increase in the NPLs of schedule banks in Bangladesh. Consequently, banks in Bangladesh must be able to formulate the appropriate strategies for dealing with bad credit problems as institutional strengthening and improving banking service procedures. A slowdown in the economy due to the Covid-19 case will cause complications in credit growth, leading to financial stability risks and triggering an asymmetric effect on the macroeconomic system.

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