



Munich Personal RePEc Archive

# **The impact of COVID-19 pandemic on the inflow of remittances: perspective of Bangladesh**

Das, Bijoy Chandra and Sutradhar, Soma Rani

Jatiya Kabi Kazi Nazrul Islam University, Jatiya Kabi Kazi Nazrul  
Islam University

19 June 2020

Online at <https://mpra.ub.uni-muenchen.de/101083/>  
MPRA Paper No. 101083, posted 18 Jun 2020 08:41 UTC

# **The Impact of COVID-19 Pandemic on the Inflow of Remittances: Perspective of Bangladesh**

Das, Bijoy Chandra

Department of Finance & Banking, Jatiya Kabi Kazi Nazrul Islam University

Sutradhar, Soma Rani

Department of Economics, Jatiya Kabi Kazi Nazrul Islam University

17 June 2020

# **The Impact of COVID-19 Pandemic on the Inflow of Remittances: Perspective of Bangladesh**

**Bijoy Chandra Das\*, Soma Rani Sutradhar\*\***

**Abstract:** This paper evaluates the impact of COVID-19 pandemic on the inflow of remittances in Bangladesh. A Tableau dashboard is designed on total remittance received and COVID-19 confirmed cases along with death of remitter countries for January and February of 2020. This pandemic has already been declined remittance inflow. Scenario analysis is calculated on remittances of 2018-19 to represent the inflow of remittance for evaluating the impact of COVID-19 on the economy of Bangladesh for short, medium, and long term. Currently, the remitter countries are locked down, closed the businesses, made the people jobless. This study indicates the negative effect of COVID-19 on remittance inflow, ultimately on GDP growth.

**Keywords:** COVID-19, Remittances, Pandemic, Lockdown, GDP

**JEL Code:** F2, F24, J6, J62, O15

*\*Bijoy Chandra Das, Assistant Professor, Department of Finance & Banking, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: bijoycd2013@gmail.com*

*\*\*Soma Rani Sutradhar, Assistant Professor, Department of Economics, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: somasutradhar86@gmail.com*

## 1.0 Introduction

So far, as of the date of writing (22 April 2020), there are 3772 confirmed COVID-19 cases, total 92 recovered cases and total 120 death in Bangladesh and the first confirmed case was found on 8 March 2020 (IEDCR<sup>1</sup>, 2020). It is being alarming over the days in whole country although it has already created a great death hill all over the world. COVID-19 is declared a world pandemic on 11 march, 2020 by WHO<sup>2</sup>( Ducharme, 2020). Dr. Tedros Adhanom Ghebreyesus, WHO director-general said, “This is not just a public health crisis, it is a crisis that will touch every sector. So, every sector and every individual must be involved in the fights. It is able to infect people easily and spread from person to person in an efficient and sustained way”. COVID-19 spreads 210 Countries and Territories around the world, and it has been reported on 22 April 2020 a total of 2,576,099 confirmed cases and 178,677 of deaths from the coronavirus (COVID-19<sup>3</sup>) that was originated from Wuhan, China (Worldometer, 2020).

The spread of COVID-19 disrupts the supply chain and official commitment measures. The world’s largest energy producers decide to continue their energy production at current level, nonetheless the reducing the energy prices, it impacts on their economy. The virus increases the uncertainty in the economy which is seen during the last financial crisis in 2008. As a result of COVID-19’s impact on the Chinese economy, record 80% automobile sales and 17.2% exports are reduced in January and February. As global infection of COVID-19, it is predicted to the slowdown of global economy by 1.5% point in 2020 (GDP may be 2.4 to 2.9 percent). Tourism and travel-related industries will face a hard time at social distancing moto. Manufacturing industry will be hampered (Segal and Gerstel, 2020).

At the time of world pandemic, it will cut the international trade because of reducing the global demand, both for consumption as well as investment. The travel, tourism and construction sectors would be hampered. The governments of the USA and European countries may implement the expansionary fiscal and monetary policies to counter the probable recession. These expansionary policies may help the domestic production and employment. The world may suffer at the global supply chain and low stocks of goods. In the developing countries, both government and private

*\*Bijoy Chandra Das, Assistant Professor, Department of Finance & Banking, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: bijoycd2013@gmail.com*

*\*\*Soma Rani Sutradhar, Assistant Professor, Department of Economics, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: somasutradhar86@gmail.com*

sectors may increase the debt at availability of credits at lower interest rate. For COVID-19 crisis, the global economy will suffer (Khan and Khan, 2020).

The WTO<sup>4</sup> warns that the global trade will be one third after this global pandemic. All the nations are clueless about the balancing both, health safety of the people and ensuring the economic development at lockdown. Coronavirus hits every country and millions of businesses, shops are shutdown. Millions of people are jobless. In USA, more than 17 million people have got the unemployment benefits from their own state in last three weeks. But it is too hard to estimate the total number of unemployed people in Bangladesh since COVID-19 attack. Almost all the businesses are closed, and people are also jobless. Bangladesh will suffer from the exports and wage earners remittances. The country may need the supports from the bilateral and multilateral donors to overcome this crisis moment. Although the government of Bangladesh announces several economic stimulus packages for many businesses. The government should stop the loss of jobs and create new one although it's not easy task (Financial Express, 2020).

Remittance contributes an important role for alleviating the poverty from the developing and least developed countries. Inflow of remittances support the economic growth of a country at demand and supply sides. The developing countries received \$251 billion remittances out of total world remittances of \$337 billion in 2007 which was 74% of total remittances. The growth rate of remittances of Bangladesh was 18.1% within South Asia region which was the second highest rate in this area. Bangladesh has a long history of supplying human resources to the whole world although the skill level is low because of poor training facilities, unplanned focusing for the development of human resources for export purposes, adverse social climate. Bangladesh searches new nations and sectors of exporting human resources by creating a good relationship with remitter countries and expected remitter countries (Rashid, 2008).

This study analyzes the impact of COVID-19 pandemic in the remitter countries on remittance inflow in Bangladesh. The remainder parts of the study are as follows; section 2 discusses the review of related literatures on COVID-19 and remittances of several countries, section 3 discusses

*\*Bijoy Chandra Das, Assistant Professor, Department of Finance & Banking, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: bijoycd2013@gmail.com*

*\*\*Soma Rani Sutradhar, Assistant Professor, Department of Economics, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: somasutradhar86@gmail.com*

the theoretical concepts on the topic, section 4 focuses on the data and scenario analysis, and finally section 5 presents the concluding remarks along with recommendations.

## **2.0 Literature review**

According to World Bank data, the emerging countries receive the maximum remittances in the world, such as India received \$79 billion, China received \$67 billion, Mexico received \$36 billion, the Philippines received \$34 billion, and Egypt received \$29 billion in 2018. These countries hold the top positions of remittance receivers. In many countries, the remittance is positively related to GDP growth. 1% growth of remittance leads to the 0.017% growth of GDP in India (Sutradhar, 2020). This section reviews the related and appropriate researches to get a better idea of the selected topic.

For the poor countries, remittance is the most important fact for the unanticipated family expenses, savings and investments for the better future. The total global remittance was \$706 billion in 2019. The small changes in remittance inflow may impact largely in the developing countries. At the large scale, remittance helps to survive the family, improves the lives of the family members of migrants. Faster adoption of the digitalization in the financial system may create the remittances cheaper and more convenient. According to World Bank data, the developing and emerging countries received over half a trillion-dollar remittances in 2019. In 66 countries of the world, remittance is 5% of total GDP of that countries which is larger than Foreign Direct Investment and Official Development Assistance flows. Some countries such as Haiti, Honduras and Nepal receive the huge amount of remittances which is 20% of total GDP. The USA, Switzerland, Germany, France and Italy are the largest remittance sending countries which are locked down at the time of COVID-19 pandemic. Maximum migrants work in hostels, restaurants, salons who lost their jobs and they do not get the financial supports from government. They cannot go back their home countries for the travel restrictions. This time is not possible to send and receive remittances. Lack of digital alternative, it's not possible to send the cash remittances. Now, it's not possible to make digitalization of payment system. This study does not present how to make a smooth payment system (Mara and Rutkowski, 2020).

*\*Bijoy Chandra Das, Assistant Professor, Department of Finance & Banking, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: bijoycd2013@gmail.com*

*\*\*Soma Rani Sutradhar, Assistant Professor, Department of Economics, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: somasutradhar86@gmail.com*

Remittances will be lower as a result of coronavirus pandemic. The receiver countries are preparing to get the lower remittances. COVID-19 is not affected largely to these countries such as Haiti (only 25 confirmed cases, 1 death) and Tonga (no case), but they will experience the economic shock from the lower inflow of remittances. For the poor countries, the remittance is the main source of capital income. As the record of World Bank, the remittances and Foreign Direct Investment are the same amount for the middle- and lower-income countries. According to International Monetary Fund, the total remittance of Bangladesh is 6% of GDP. Many immigrants lost their jobs and they do not continue to support their family. This study does not analyze the reasons of reducing the remittances of low effected countries in the world (Zhou, 2020).

Coronavirus pandemic reduces the inflow of remittances because thousands of the Bangladeshi immigrants return to Bangladesh and others are struggling to adopt with lockdowns in maximum parts of the world. The remittance inflow has already reduced, and it has impacted the economy. Bangladesh receives \$1.29 billion remittances in March 2020 which is 12.84% lower than total received in February 2020. The number of Bangladeshi immigrant workers are more than 10 million. After the coronavirus spread all over the world, over 666,000 Bangladeshi workers back from overseas between January-March 2020. This study does not explain the effects of returning large number of immigrants back to Bangladesh (Harmachi, 2020).

The Latin America and the Caribbean are expected to get the lower remittances as a result of COVID-19 breakout, but digital money transfer and banking services may change the scenario. If these regions receive lower remittances, it will impact largely because these regions are remittance dependent. 40 million households were the remittance receivers in 2019 and remittance contributed largely on the GDP. As a result of financial crisis, the remittances reduced by 12% in 2008 and 20% in 2009. This study does not present the ways to recover the critical financial crisis (Welsh, 2020).

According to International Labor Organization, the coronavirus crisis reduces the working hours for the workers by 6.7% globally in the second quarter of 2020. Foreign workers lose their jobs. The borders are closed, so the world remittance receipt and payment are being too hard. The

emerging countries need hard cash rather than other modes. Latin America may lose 18% of the remittances compare to last year received. The contribution of remittances in GDP will be reduced. It does not present clearly why payment ways are hard (Bloomberg, 2020).

Bangladesh gets the benefits at apparel industry after the globalization. As a result of COVID-19, Bangladesh faces negative consequences at the cross-country supply chains. The pandemic impacts negatively on the economy of Bangladesh although it depends on the duration of the coronavirus crisis. It's happened because of lockdowns. International Monetary Fund explains that it may create the recession, but it will not be longer-lived than financial recession of 2008. Bangladesh's economy depends on the fate on two R's, as ready-made garments and remittances. Several recognized European and American companies such as H&M, GAP, Zara, Marks & Spencer, Primark are the prime buyers. The raw materials of ready-made garments are imported from China. As a result of COVID-19, Bangladesh may lose \$1.5 billion because of postponed or cancellation of buying orders. This virus impacts on the global supply chain. The growth of GDP of Bangladesh depends on the financial crisis or financial condition of buyer countries, for example, USA and EU. On the other hand, Bangladesh will hit from the receipts of remittances and the economy of Bangladesh will go-slow after receiving the lower remittances. Because remittance is another important pillar of the economy of Bangladesh. Around 10 million workers work in several countries including middle east, US, UK and Malaysia. The travel restrictions and locked down in these countries, Bangladesh will receive lower remittances. Historically lower oil prices impact negatively on remittance earnings of Bangladesh. Now, the oil price is falling. Other businesses such as airlines, hotels will hurt their businesses which impact negatively on the development of economy of Bangladesh. The researcher mentions that there is a positive relationship between the oil price and receiving remittances, but it's not explained how it's related (Amit, 2020).

According to the data of Bangladesh's Wage Earners' Welfare Board, around 1.2 crore Bangladeshi workers work in the several countries of world. Remittance is the lifeline of the economy of Bangladesh. As a result of coronavirus which is originated in China, the remittance inflow may be

7

*\*Bijoy Chandra Das, Assistant Professor, Department of Finance & Banking, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: bijoycd2013@gmail.com*

*\*\*Soma Rani Sutradhar, Assistant Professor, Department of Economics, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: somasutradhar86@gmail.com*



lower. The total remittance in January is \$1.63 billion which is 3.14% lower than total received in December 2019. In February, remittance is \$1.45 billion which is 11.36% lower than previous month's total received. COVID-19 impacts on the global economy. The inflow of remittances from the middle east will decrease because of reducing the petroleum prices and closing the businesses. It will impact on the rural economy of Bangladesh. The top remittance senders, as Saudi Arabia and UAE, are also affected by COVID-19, so Bangladesh receives lower remittances in February 2020. Many countries restrict for the international travelers which will impact on the global economy negatively. Remittance is the only positive indicator of Bangladesh. This study does not present the ways to accelerate the remittance growth (Uddin, 2020).

This study is presented on the statement of Asian Development Bank (ADB) on high outbreak of coronavirus worldwide which impacts on the economic growth. As a result of COVID-19, many economic activities are stopped, and it creates the risks on the thousands of jobs. At the worst-case scenario, the economy of Bangladesh hurts by \$3.02 billion and at least 894, 930 jobs will be lost. According to ADB, the GDP of Bangladesh will be reduced by 0.2% to 0.4% for COVID-19 pandemic. The importers cancel the international orders because of declining the businesses in the countries. Bangladesh receives \$1.28 billion remittances which is 12% lower than the same period of last year. The economy of Bangladesh has already slowed down. The forecasted GDP of Bangladesh is 7.8% for the fiscal year 2019-20. It can be made possible by the political stability, consumers and investment confidence, expansionary monetary policy and favorable weather condition. As a result of slow economy, the low revenue collection in the fiscal year 2019-20 may hurt the economy of Bangladesh. The ADB outlook does not present the effects of COVID-19 on the economy of Bangladesh (Star, 2020).

There are several researches on COVID-19 to measure the impact on economy but these studies did not make any link between COVID-19 pandemic and the inflow of remittances. Next section discusses the theoretical concepts on the topic.

### **3.0 Theoretical concepts**

Remittance means the money is sent back to their home country by the immigrants (Zhou, 2020).

8

*\*Bijoy Chandra Das, Assistant Professor, Department of Finance & Banking, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: bijoycd2013@gmail.com*

*\*\*Soma Rani Sutradhar, Assistant Professor, Department of Economics, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: somasutradhar86@gmail.com*

In Bangladesh, people always mean that the inflow of currencies from the migrants and short-term employment income.

According to the information of Bangladesh's Wage Earners' Welfare Board, around 1.2 crore Bangladeshi workers work in the several countries of world (Uddin,2020).

Remittance plays a significant role at the growth of economy. It's contributed 5.4% of total GDP of Bangladesh. Bangladesh is one of the top remittance recipients in the world along with India, China, Mexico, the Philippines, Egypt, France, Nigeria, Pakistan, Germany, and Vietnam. Bangladesh received \$1452.20 million in February of 2020. The highest amount of remittances was received from the Kingdom of Saudi Arabia in 2019 (The Daily Star & Bangladesh Bank<sup>5</sup>, 2019).

According to Trading Economics global macro models and analysts, the remittances of Bangladesh are predicted \$1595 million by the end of running quarter, around \$1912 million in 2021, and 2094.00 USD Million in 2022.

The average monthly remittances in Bangladesh are \$1246.76 million from 2012 to 2020. The highest remittance, \$1748.16 million, was received in May of 2019 and the lowest remittance, \$856.87 million, was received in September of 2017 (Bangladesh Bank, 2020).

Next section presents the data and scenario analysis of the topic.

#### **4.0 Data and scenario analysis**

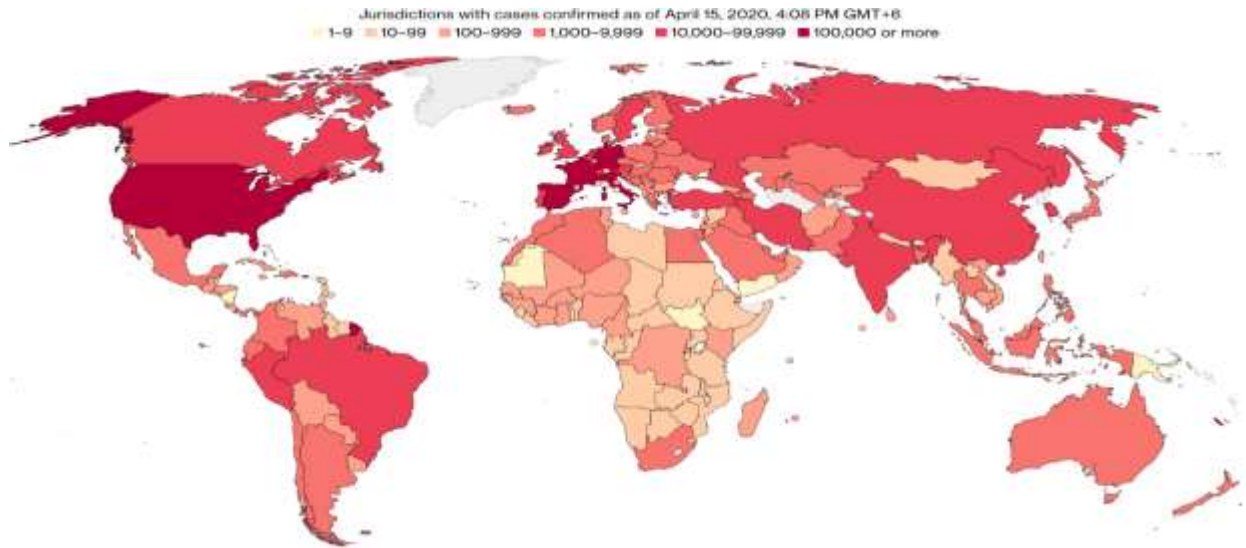
Coronavirus (COVID-19<sup>3</sup>) is originated from Wuhan, China. It spreads 210 countries and territories around the world, and it has been recorded of total of 2,576,099 confirmed cases and 178,677 of deaths as on 22 April 2020 (Worldometer, 2020).

It's presented (Group-01) the COVID-19 infected countries and territories in the whole world. African and Australian countries are less infected than other countries. Besides, COVID-19 has already reached almost all the countries and territories at primary or deadly stages.

*\*Bijoy Chandra Das, Assistant Professor, Department of Finance & Banking, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: bijoycd2013@gmail.com*

*\*\*Soma Rani Sutradhar, Assistant Professor, Department of Economics, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: somasutradhar86@gmail.com*

**Image 01: COVID-19 infected countries**



Source: Bloomberg

**Image 02: Country-wise remittances for January & February of 2020 along with COVID-19 cases**

**1. COVID-19 Death>100**

Country	Jan,20(Re.)	Feb,20(Re.)	COVID-19 Cases	Death(COVID-19)
U.S.A	223	208	598,737	24,770
U.K.	140	111	93,873	12,107
Italy	73	57	162,488	21,067
France	16	13	136,779	14,967
South Korea	17	11	10,564	222
Canada	6	6	26,206	823
Germany	6	4	131,100	3,261
Greece	5	3	2,170	101
Spain	4	3	172,541	18,056
Japan	4	3	7,645	143
Sweden	2	1	11,445	1,032
Belgium	1	1	31,119	4,157

**2. COVID-19 Death<100**

Country	Jan,20(Re.)	Feb,20(Re.)	COVID-19 Cases	Death(COVID-19)
Saudi Arabia	321	309	5,369	73
United Arab Emirates	213	192	4,521	25
Kuwait	138	113	1,355	3
Malaysia	121	105	4,987	82
Oman	91	96	813	4
Qatar	94	84	3,428	7
Singapore	45	35	3,252	10
Bahrain	37	34	1,522	7
South Africa	18	13	2,415	27
Jordan	12	11	397	7
Lebanon	7	6	641	21
Maldives	5	6	20	0
Mauritius	6	4	324	9
Australia	6	4	6,400	61
Brunei	4	3	136	0
Iraq	3	3	1,400	78
Hong Kong	2	2	1,013	4
Cyprus	0	0	695	12

**3. Confirmed Cases(COVID-19)<1000**

Country	Jan,20(Re.)	Feb,20(Re.)	COVID-19 Cases	Death(COVID-19)
Oman	91.1	95.6	813.0	4.0
Jordan	12.0	10.6	397.0	7.0
Lebanon	6.5	6.0	641.0	21.0
Maldives	4.6	6.6	20.0	0.0
Mauritius	6.5	4.1	324.0	9.0
Brunei	4.0	3.0	136.0	0.0
Cyprus	0.1	0.1	695.0	12.0

**4. Confirmed Cases(COVID-19)>1000**

Country	Jan,20(Re.)	Feb,20(Re.)	COVID-19 Cases	Death(COVID-19)
Saudi Arabia	321	309	5,369	73
U.S.A	223	208	598,737	24,770
United Arab Emirates	213	192	4,521	25
Kuwait	138	113	1,355	3
U.K.	140	111	93,873	12,107
Malaysia	121	105	4,987	82
Qatar	94	84	3,428	7
Italy	73	57	162,488	21,067
Singapore	45	35	3,252	10
Bahrain	37	34	1,522	7
South Africa	18	13	2,415	27
France	16	13	136,779	14,967
South Korea	17	11	10,564	222
Canada	6	6	26,206	823
Australia	6	4	6,400	61
Germany	6	4	131,100	3,261
Greece	5	3	2,170	101
Spain	4	3	172,541	18,056
Japan	4	3	7,645	143
Iraq	3	3	1,400	78
Hong Kong	2	2	1,013	4
Sweden	2	1	11,445	1,032
Belgium	1	1	31,119	4,157

Source: Bangladesh Bank & Worldometer (dated 14 April 2020)

The Tableau dashboard is designed on top 30 remitter countries of Bangladesh. Jan,20(Re.) indicates the remittance collection in January 2020; Feb,20(Re.) indicates the remittance collection in February 2020; COVID-19 cases mean COVID-19 (coronavirus) confirmed cases and death (COVID-19) means total death from COVID-19 confirmed cases. The remittance data are collected from Bangladesh Bank and COVID-19 (coronavirus) data are collected from

*\*Bijoy Chandra Das, Assistant Professor, Department of Finance & Banking, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: bijoycd2013@gmail.com*

*\*\*Soma Rani Sutradhar, Assistant Professor, Department of Economics, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: somasutradhar86@gmail.com*

worldometer. The data are presented according to the number of COVID-19 confirmed cases and death along with remittances by using Tableau software.

Bangladesh receives the remittances from several countries of the world. Remittance plays a significant role at the economic growth of Bangladesh and it contributes 5.4% of total GDP (The Daily Star & Bangladesh Bank, 2019). From the dashboard output, it's shown that top 30 countries are considered to demonstrate the total remittances in January and February of 2020 along with COVID-19 cases. Bangladesh received total \$1,638.43 million remittances in January 2020 besides \$1,619.71 million remittance was received from top 30 countries. Nonetheless, Bangladesh received total \$1,452.20 million remittances in February 2020 besides \$1,438.16 million remittances from top 30 countries. Bangladesh received the highest remittances from the Kingdom of Saudi Arabia in January and February of 2020.

In the Tableau dashboard, there are four sheets, first two sheets are prepared based on the number of death (COVID-19 death<100 and COVID-19>100) from COVID-19 pandemic and last two sheets are prepared based on the number of confirmed cases (Confirmed cases<1000 and Confirmed cases>1000) in COVID-19.

From the sheet 1; 12 countries from the top 30 countries, with total \$420.65 million remittances only, had more than 100 death from COVID-19 and they had total 1,384,667 confirmed cases (the highest 598,737 confirmed cases were for USA and the lowest 2,170 confirmed cases were for Greece) in February 2020. The total death of 12 countries was 100,707 and the average death rate was 7.27%.

From the sheet 2; 18 countries from the top 30 countries, with total \$1,017.51 million remittances, had less than 100 death from COVID-19 and they had total 38,688 confirmed cases (the highest 6,400 confirmed cases were for Australia) in February 2020. In February, the total death of 18 countries was 430 only and the average death rate was only 1.11%.

On the other hand, the sheet 3 and 4 are prepared on COVID-19 confirmed cases (<1000>). In sheet 3, only 7 countries had less than 1,000 confirmed cases and \$123 million (App.) remittances

were received in February 2020. In sheet 4, 23 countries out of 30 countries had more than 1,000 confirmed cases and total \$1,315 million remittances were received in February 2020. So, the more countries are infected in COVID-19.

The remittance inflow of January and February 2020 are considered in this research. The data are considered for January and February of 2020 because the COVID-19 originated in China last December 2019. It's shown the immediate effect of COVID-19 on remittance inflow in Bangladesh. So, the many countries were infected after December and the infected countries went to the lockdown strategy. The business houses were closed, and people were being jobless. The remittance inflow of Bangladesh was downward. From the dataset, the negative remittance growth is observed with all the countries rather than Oman (+4.69%) and Maldives (+18.10%) in February compared to January of 2020. It's easily understood that there was a negative effect of COVID-19 on remittance inflow in Bangladesh. In February, the remittance of Bangladesh was only \$1,017.51 million which was 10.35% (\$105.30 million) less than the remittances of January. COVID-19 impacts highly on the remittance collection from few countries such as Belgium (-105.45%), Greece (-69.47%), and Mauritius (-59.26%) etc. The remittance growth was negative from Jordan, Mauritius, and Brunei although COVID-19 infected cases of these countries were less than 500 and average death rate is only 1.51%. Oman and Maldives are two exceptional countries which have positive remittance growth in February. These countries have very low COVID-19 infections and death (0 death in Maldives and 4 for Oman). It can be predicted that the remittance inflow may not be affected if these countries do not be infected in COVID-19 more.

Bangladesh receives the huge amount of remittances from the middle east countries every year. Considering the number of confirmed cases and death, middle east countries are still less infected area. Although maximum countries of this area are in locked down and all the businesses are closed but there is higher possibility to recover soon from COVID-19 than other countries. Hopefully, they can start their businesses soon, people can back their work and the remittance inflow may be continued but everything is uncertain. For example, China and south Korea discontinue their locked down and go their normal life.

Few large remitter countries, like USA, UK, and Italy, are largely infected in COVID-19. There is low possibility for going to the normal operation of businesses soon in these countries because these countries extend the lockdown. So, Bangladesh may not receive same or higher remittances than previous months from these countries. On the other hand, few countries, like Kingdom of Saudi Arabia, UAE, Kuwait, Malaysia, and Oman, are low infected in COVID-19 still, but the future is uncertain. It can be expected that these countries may become normal soon if the infection of COVID-19 is not increased further and Bangladesh may receive higher remittances as before.

**Table:1 Country-wise remittances for fiscal year 2018-19 along with three different scenarios**

Countries	Inflow of Remittances (Amount in Million)			
	2018-19 (Base Year)	Scenario I (10% Decline)	Scenario II (30% Decline)	Scenario III (50% Decline)
K.S.A	\$3,110.40	\$2,799.36	\$2,177.28	\$1,555.20
U.A.E	\$2,540.41	\$2,286.37	\$1,778.29	\$1,270.21
U.S.A	\$1,842.86	\$1,658.57	\$1,290.00	\$921.43
Kuwait	\$1,463.35	\$1,317.02	\$1,024.35	\$731.68
Malaysia	\$1,197.63	\$1,077.87	\$838.34	\$598.82
U.K.	\$1,175.63	\$1,058.07	\$822.94	\$587.82
Oman	\$1,066.06	\$959.45	\$746.24	\$533.03
Qatar	\$1,023.91	\$921.52	\$716.74	\$511.96
Italy	\$757.88	\$682.09	\$530.52	\$378.94
Bahrain	\$470.08	\$423.07	\$329.06	\$235.04
Singapore	\$368.33	\$331.50	\$257.83	\$184.17
South Africa	\$168.14	\$151.33	\$117.70	\$84.07
France	\$159.42	\$143.48	\$111.59	\$79.71
Lebanon	\$126.85	\$114.17	\$88.80	\$63.43
Jordan	\$126.28	\$113.65	\$88.40	\$63.14
S.Korea	\$112.51	\$101.26	\$78.76	\$56.26
Canada	\$62.90	\$56.61	\$44.03	\$31.45
Australia	\$57.15	\$51.44	\$40.01	\$28.58
Iraq	\$38.62	\$34.76	\$27.03	\$19.31
Mauritius	\$54.42	\$48.98	\$38.09	\$27.21
Germany	\$60.62	\$54.56	\$42.43	\$30.31
Spain	\$49.22	\$44.30	\$34.45	\$24.61

14

*\*Bijoy Chandra Das, Assistant Professor, Department of Finance & Banking, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: bijoycd2013@gmail.com*

*\*\*Soma Rani Sutradhar, Assistant Professor, Department of Economics, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: somasutradhar86@gmail.com*

Greece	\$42.94	\$38.65	\$30.06	\$21.47
Japan	\$49.54	\$44.59	\$34.68	\$24.77
Maldives	\$22.01	\$19.81	\$15.41	\$11.01
Brunei	\$30.86	\$27.77	\$21.60	\$15.43
Sweden	\$19.68	\$17.71	\$13.78	\$9.84
Cyprus	\$12.73	\$11.46	\$8.91	\$6.37
China	\$20.09	\$18.08	\$14.06	\$10.05
Belgium	\$17.43	\$15.69	\$12.20	\$8.72
Other Countries	\$171.68	\$154.51	\$120.18	\$85.84
<b>Total</b>	<b>\$16,419.63</b>	<b>\$14,777.67</b>	<b>\$11,493.74</b>	<b>\$8,209.82</b>

Source: Bangladesh Bank

Table 1 describes the total remittances of Bangladesh along with top 30 remitter countries. This table also describes the three scenarios of remittance inflow which can be declined as a result of COVID-19 pandemic. To make the better understand of fluctuating remittance inflow, three scenarios of declining remittance amounts are calculated. Remittance of three scenarios is calculated based on the base year (2018-19). We assume three types of remittance reduction, such as 10% decline is for 3 months (short-term) sustainability of COVID-19 in infected countries, 30% decline is for 6 months (medium-term) sustainability of COVID-19 in infected countries, 50% decline is for 12 months (long-term) sustainability of COVID-19 in infected countries,

**Scenario I:** The World Bank predicted the 10% reduction of the global remittances in 2009-10 as a result of global recession in 2008 (Plaza et al., 2019). So, it can be predicted the remittance may be reduced by 10% if the COVID-19 crisis sustains for short time. 10% decline of remittance leads to receive total \$14,777.67 million remittances from the remitter countries. If COVID-19 pandemic sustains for 3 months in the remitter countries, the yearly remittance of Bangladesh may be declined by 10% only.

**Scenario II:** At moderate level, 30% decline of remittance leads to receive of total \$11,493.74 million remittances from the remitter countries. At medium-term consideration, the declining of global economic growth may decrease the remittances by 30% because of possible returns of large number of workers from the overseas, for example Gulf Cooperation Council (GCC) countries



(Bauer and Thant, 2015). If COVID-19 pandemic sustains for 6 months in the remitter countries, the yearly remittance of Bangladesh may be declined by 30%.

**Scenario III:** As a result of financial crisis, the remittance was reduced by 12% in 2008 and 20% in 2009 in Latin America and the Caribbean regions and it impacted on the economic growth (Welsh, 2020). There is a positive relationship between the remittance and GDP growth. In India, the remittances and GDP growth are positively related (Sutradhar, 2020). If lockdown system is continued up to 12 months for COVID-19 pandemic in the remitter countries, the yearly remittance of Bangladesh may be declined by 50%. At long-term, 50% decline of remittance leads to receive total \$8,209.82 million remittance only from the remitter countries. A sharp decline in the growth of global economic due to long term socio-economic locked down, especially USA, UK and GCC countries; the remittance can be reduced by 50% in Pakistan (Salik, 2020).

According to the record of Bangladesh Bank, the remittance was increased with the decreasing rate after starting the last financial crisis (data are shown below). Nonetheless, the last financial crisis did not affect directly the economy of several countries including Bangladesh. Because few countries including Bangladesh were not directly engaged in the global investment like US, UK or China. Although several remitter countries were directly affected by the last financial crisis and it impacted on the remittance inflow of Bangladesh over the years. On the other hand, COVID-19 spreads 210 Countries and Territories around the world (Worldometer, 2020). Almost whole world is infected directly, and all areas are going through the lockdown system. Almost all businesses are closed, and many workers become unemployed. So, it may predict that the remittance inflow may be reduced higher than the period of last worldwide financial crisis, 2008. The economic slowdown of GCC affects inversely the remittance growth (IMF, 2018).

Fiscal Year (FY)	Inflow of Remittances (Amount in Million)	Changes to previous FY
2011-2012	\$12843.4	9.29%
2010-2011	\$11650.3	5.69%
2009-2010	\$10987.4	11.81%
2008-2009	\$9689.26	18.31%
2007-2008	\$7914.78	24.21%

16

*\*Bijoy Chandra Das, Assistant Professor, Department of Finance & Banking, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: bijoycd2013@gmail.com*

*\*\*Soma Rani Sutradhar, Assistant Professor, Department of Economics, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: somasutradhar86@gmail.com*

Source: Bangladesh Bank

At present, COVID-19 pandemic spreads the whole world and it impacts on the world economy and migration of the people, but the inflow of remittances is unclear (Salik, 2020). There are some potential factors which can impact on the inflow of remittances in Bangladesh.

**Jobless:** Almost whole world is in thread of COVID-19 and the businesses are closed. It may create the recession in the economy. So, there is a possibility of the workers to lose their jobs and being unemployed. The people are being poor after losing their jobs, the country is struggling to survive with this situation and the remittances are considering as bane for the economy (Kaur, 2020).

**Low wage rate:** Migrant workers may be paid at low wage rate by the recession hit sectors such as manufacturing, construction, and service (Salik, 2020). So, there is a possibility to reduce the wage rate of workers after the COVID-19 pandemic.

**Influx of Bangladeshi workers:** As a result of COVID-19, the highly affected countries may reduce their hiring people from Bangladesh because bad economic and business conditions of remitter countries. For the same reason, new countries may not hire the workers (semi-skilled and unskilled) from Bangladesh because they can hire skilled workers from other countries at lower wage rate.

**Political vulnerability:** The global political environment may be vulnerable after few months because few leaders of the developed countries believe that China may spread the coronavirus. This thought may create the political pressure on China which may create a vulnerable political world. This vulnerable political environment may create the several uncertainties such as creating bad relationship with remitter countries, impacting on global supply chain, discontinuing the businesses etc.

Next section focuses on the concluding remarks and recommendations of the study.

## **5.0 Conclusion and recommendation**

17

*\*Bijoy Chandra Das, Assistant Professor, Department of Finance & Banking, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: bijoycd2013@gmail.com*

*\*\*Soma Rani Sutradhar, Assistant Professor, Department of Economics, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: somasutradhar86@gmail.com*

As a result of COVID-19 pandemic, the businesses are closed, and people are being jobless. It decreases the inflow of remittances in Bangladesh which impacts negatively on the economy. Developing countries receive 74% of world total remittances, so the remittance impacts on the economic growth largely in these countries (Meyer and Shera, 2017). There is a large effect on the economy of developing countries as a result of small changes in remittance inflow (Mara and Rutkowski, 2020). The inflow of remittances in February 2020 was lower than the inflow of remittances in January 2020. COVID-19 has already impacted the inflow of remittances in Bangladesh, but future is uncertain. Among the top 30 remitter countries, few countries are less affected, and few countries are more affected in COVID-19 but all countries are in locked down system along with closed businesses. So, people are being jobless. There are three possible scenarios (10%, 30% & 50% decline of remittances) may be happened in different periods of remittance inflow but all possibilities are alarming for the economy of Bangladesh.

At the crisis moment of COVID-19, the government of Bangladesh should work with the government of remitter countries and the government should create the partnership to escalate the mobility of workers which increases the remittance inflow. At this time, digital sending and receiving remittance system may help to keep inflow of remittances at same level. Faster adoption of the digitalization in the financial system may create the remittances cheaper and more convenient (Mara and Rutkowski, 2020). But political stability, consumers and investment confidence, expansionary monetary policy and favorable weather condition can make it possible (Star, 2020). Therewithal, the government should develop some steps for future thinking, such as searching new remitter countries to send the workers, training facilities for the semi-skilled & unskilled workers to make them skilled, efficient investment in production sectors of wage earners, increasing the number of female workers in the migrating group, taken the necessary actions to ensure the safety of the workers and creating a pipeline of manpower industry. According to World Bank, digitalization payment system, universal financial access with sending and receiver countries, development of comprehensive integrated cross-border payment solutions can accelerate the remittance inflow. Finally, Bangladesh government should keep in mind of making Brand Bangladesh to rest of the world.

18

*\*Bijoy Chandra Das, Assistant Professor, Department of Finance & Banking, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: bijoycd2013@gmail.com*

*\*\*Soma Rani Sutradhar, Assistant Professor, Department of Economics, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh-2224, Bangladesh. Email: somasutradhar86@gmail.com*

## Endnotes

<sup>1</sup>IEDCR means “Institute of Epidemiology, Disease Control and Research” (<https://www.iedcr.gov.bd/>)

<sup>2</sup>WHO means World Health Organization” (<https://www.who.int/>)

<sup>3</sup>COVID-19 means illness caused by a novel coronavirus now called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; formerly called 2019-nCoV), which was first identified amid an outbreak of respiratory illness cases in Wuhan City, Hubei Province, China (Cennimo,2020).

<sup>4</sup>WTO means World Trade Organization

<sup>5</sup>Bangladesh Bank is the central bank of Bangladesh which regulates and controls the other banks and works on behalf of the government of Bangladesh.

## References

Amit, S., 2020. Coronavirus and the Bangladesh economy: Navigating the global Covid-19 shutdown. *The London School of Economics and Political Science*.

Bangladesh Bank, 2020. <https://www.bb.org.bd/econdata/wageremittance.php#>

Bauer, A. and Thant, M. eds., 2015. *Poverty and sustainable development in Asia: Impacts and responses to the global economic crisis*. Asian Development Bank.

Bloomberg, 2020. COVID-19 poses huge risks to global remittances.

Cennimo, D.J., 2020. Coronavirus Disease 2019 (COVID-19). Medscape.

Ducharme, J., 2020. World Health Organization Declares COVID-19 a 'Pandemic.' Here's What That Means. Time.

- Harmachi, A.R., 2020. Coronavirus pandemic hits Bangladesh remittance stream hard. *bdnews24.com*.
- IEDCR, 2020. Covid-19 Status Bangladesh, Institute of Epidemiology, Disease Control and Research.
- Kaur, H., 2020. Immigration; Bane or Boon in Corona Virus Time. *Studies in Indian Place Names*, 40(70), pp.2900-2906.
- Khan, D. and Khan, L.Y., 2020. The Economic Impact of COVID-19 on Developing Countries. *Inter Press Service*.
- Mara, A.G. and Rutkowski, M., 2020. Remittances in times of the coronavirus – keep them *flowing*. *World Bank*.
- Meyer, D. and Shera, A., 2017. The impact of remittances on economic growth: An econometric model. *Economia*, 18(2), pp.147-155.
- Plaza, S., Ratha, D., De, S., Kim, E.J., Seshan, G. and Yameogo, N.D., 2019. Migration and Remittances: Recent Developments and Outlook. *Migration and Development Brief*, 31.
- Rashid, M., 2008. Money on the table. *Forum*. 3(11).
- Salik, K.M., Policy Review Remittances and COVID-19: Is Pakistan ready for a likely decline in flows?.
- Segal, S. and Gerstel, D., 2020. The Global Economic Impacts of COVID-19. *Center for Strategic & International Studies*.
- Star, T.D., 2020. ADB on Bangladesh: High outbreak of Covid-19 may hurt economy. *The Daily Star*.
- Sutradhar, S.R., 2020. The impact of remittances on economic growth in Bangladesh, India, Pakistan and Sri Lanka. *International Journal of Economic Policy Studies*, 14(1), pp.275-295.

The Daily Star, 2019. Bangladesh 3rd in South Asia, 11th globally: WB.

The Financial Express, 2020. Bracing for WTO prediction.

Uddin, A.Z., 2020. Remittance was cruising; COVID-19 popped up and made it swerve. *The Daily Star*.

Welsh, T., 2020. COVID-19 could tank remittances, accelerate digitization. *Devex*.

Worldometer, 2020. <https://www.worldometers.info/coronavirus/countries-where-coronavirus-has-spread/>.

Zhou, Y., 2020. These are the countries most affected by the falling remittances sparked by the Covid-19 pandemic. *QUARTZ*.