উন্নয়ন অন্বেষণ
UNNAYAN ONNESHAN

PRE-BUDGET POLICY PAPER

FROM SQUEEZE TO EXPANSION

POLICY AND INSTITUTIONAL REFORMS FOR AVERTING K-SHAPED RECOVERY

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উন্নয়ন অন্বেষণ
UNNAYAN ONNESHAN

Unnayan Onneshan
16/2 Indira Road. Farmgate, Dhaka-1215
G.P.O Box #2251
Tel: (+88 02) 58150684, 9110636
Fax: (+88 02) 58155804
Mail: info@unnayan.org

SECTION 1

INTRODUCTION

Hard on the heels of the COVID-19 pandemic, the economy of Bangladesh exhibits a visible contraction, construed as the resultant of a fiscal and monetary contraction. The relative inefficacy of fiscal and monetary measures in overturning the economic slowdown, despite ardent efforts, heralds the necessity for structural and institutional reforms, and policy transformations for equalising, or at least minimising, the divergent trends of well-being in the population.

The first wave of the virus struck in March, 2020, after which the country entered a two-month 'general holiday' or a pseudo-lockdown, halting economic activities at almost all levels. Education, work and businesses were transferred online wherever possible—schools operated through distance learning, offices were shifted to a work-from-home basis, and businesses ventured into the physically disjointed sectors through e-commerce. These shifts, however, impacted different groups of people disproportionately, and worsened conditions for marginalised sections of the population – low-income households, informal sector, women, children, elderly and people with disabilities. Households encountered income erosion, loss of employment, while cottage, micro, small and medium enterprises closed down, farmers failed to market their produce and opted for distress sale, incurring losses.

One of the key shortcomings of the pandemic response policies was that the possibility of a second, or potentially third, wave was not accounted for. Optimists predicted a V-shaped growth path for the country, as the economy was expected to quickly bounce back in the next fiscal year. However, as data suggests, instead of bouncing back, the second wave of the pandemic may have triggered a contraction in the economy. The paper builds on the projection that the post-COVID recovery in Bangladesh will take a K-shaped path. The K-shaped recovery path consists of the two diverging arms of the letter K. The upper arm indicates how wealth is becoming more concentrated for the wealthier classes. The lower arm indicates how wealth concentration is declining for the many small businesses and informal sector losing out due to the prolonged economic shutdown. A shortfall in understanding the nature of the asymmetric shock that is the COVID-19 crisis, and the apparent lapse in prudential planning for relief, rehabilitation and reconstruction, forms the premise of this paper in using institutional reforms for averting a K-shaped recovery path.

This paper seeks to understand the extent of the contraction of the economy in the fiscal year of 2020-21, a period of time that has encountered both the first and second waves of the virus, and to recommend policy transformation strategies for countering the structural bottlenecks in the economy for 2021-22. Fundamental issues, such as the provision of basic income, universal social security and direct cash payments to the citizen in the last mile, were not addressed. Policy adjustments in terms of stimulus packages and cash-relief programmes were designed to serve large industries, such as the readymade garments sector, while small businesses in the CMSMEs industry did not qualify for the credit benefit schemes provided through banks. Nevertheless, the life versus livelihood balance eventually boils down to a loss in the wellbeing and quality of lives led by the people, i.e., adversely affecting lives, either through health crises or loss of livelihood. As a result, it emerges as of utmost importance to gear targeted interventions towards saving lives first, livelihoods second. The fallouts from the pandemic are complex and cannot be defined as a simple income shock, and therefore, short-term risk adjustment policies will prove ineffectual. The paper argues that in order to help the economy recover from the contraction, a medium-term framework is required, focusing on institutional and structural reforms.

The government has previously followed strategies focusing on four particular sections – overcoming the negative impacts of the Covid-19 pandemic, creation of loan facilities for the affected industries and businesses, expanding coverage of the Social Safety Net Programmes to protect the extreme poor and low paid workers of informal sectors and increasing money supply to the economy. A medium-term framework, focusing on structural and institutional reforms should address the fundamental issues of healthcare, education and universal social security. COVID-19 points out the failure public goods provision of healthcare, education and social security because of underfunding in use value generating public provisioning. A fully-fledged life-cycle-based social security system is needed, and earlier allocations in the budget have not been ample enough to secure a decent living for the population that has drowned into poverty and unemployment due to the pandemic. In addition, pushing economy to the next rungs as the country aspires to be a middle-income and eventually a developed country, requires a transformative production pathway, ensuring a cleaner, greener and stable production system. In order for the transformation to happen, a higher allocation in the manufacturing sector and education sector is required. Finally, the transformation of an economy also entails an active citizenship as a sufficient condition, which can only claim accountability of the state and ensure a command over authorities and public resources. It has been observed from the previous economic recessions that increased money supply or an arbitrary fiscal expansion cannot always pull the economy up from the depths. In the face of the worst global economic downturn in centuries, structural and institutional reforms must take the lead in fostering a recovery. Monetary stimulus is less effective when consumer and investor confidence have collapsed. Direct cash payments must reach the last mile to pull people out of the pandemic-induced income erosion and poverty.

SECTION 2

ECONOMIC POLICIES AND SQUEEZE IN GDP

Over the years, since The Great Depression to the COVID-19 outbreak, global economic crises have prompted governments across countries to opt for the Keynesian approach of the use of government fiscal stimulus, in the form of deficit spending and cutting taxes, and monetary stimulus of lowering interest rates, to boost and stabilise the economy. It is expected that this stimulus will have a broad snowballing effect on all the other sectors of economic activity, which is commonly known as the multiplier effect. It is imperative to specify, nonetheless, whether governments should be focusing on increasing aggregate demand alone, or increasing aggregate demand through the creating employment. Injection of resources into the economy in the form of creation of employment, universal basic income and unemployment allowances will help curb the erosion of income and loss of well-being.

The COVID-19 outbreak has led to a contraction of the global economy, health and human life. Most of the countries plunged into recession in 2020 due to the widespread lockdown. However, policies of correction in Bangladesh proved relatively ineffectual in leading to fiscal expansion, and expansion of credit and money supply.

2. 1 FISCAL DOWNSIZING

The budget presented in 2020-21 had emphasised the devastating effects of the pandemic and was considered as a roadmap towards recovery. As the fiscal year is near to an end, there is little evidence of any significant fiscal measures taken to offset the impact of the pandemic. Moreover, the allocation seems to have diverged little from the previous fiscal years. Hence, the much needed fiscal expansion during the time of an economic contraction was not evident, on a closer look at the indicators.

- **Both the macroeconomic and household indicators have seen a slump.** The country saw an economic squeeze, a decline in GDP growth by 3.9% according to government statistics and 61.57% of the employed population lost their jobs during the lockdown while the median wages for salaried and daily workers declined by about 37% compared to usual earnings (The Daily Star, 2021b). Consequently, 69% of households reduced their food consumption; the same number of people borrowed from their friends (IANS, 2020). 38% of the households surveyed received government aid, while 42% used their savings (World Bank, 2020a). Export earning is yet to reach the pre-pandemic level and has fallen short of government target. The first ten months of the current fiscal year saw a decline of 0.12% than the ten months of the previous fiscal year. With new restrictions in place, the earning for export may not even cross the number of last fiscal year, denting the possibility of a government expected recovery.

- **Expected fiscal expansion has been devoid of reality.** With an already downsized GDP, the allocation to GDP ratio declined. Hence, budget allocation only increased in size, not in relative terms with previous fiscal years. Budget allocation as a percentage of GDP declined in ADP as well. While the GDP in the fiscal year 2019-20 fell by 3% in the country, the allocation to ADP as a percentage of GDP fell by more than 5 percent.

- **Low budget implementation rate diminished the efficacy of fiscal policy as a tool for recovery.** Till April 2021, government utilised only 44% of the government expenditure (Figure 1). At this rate, government actual budget spending may fall short. Development expenditure has seen even a lower implementation rate of 29%. Government has to spend nearly 40% of the budget in the last two months to reach the average implementation rate of 85%. This often leads to corruption and leakage in spending resulting in poor quality of infrastructure.

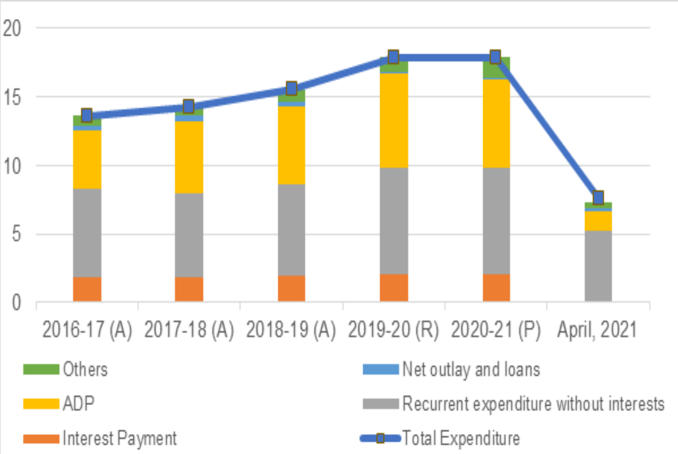

Figure 1
Government Expemditure (% of GDP)
Source: Ministry of Finance, 2021

- **Government revenue is set to extend the negative trend.** In nine months of the fiscal year, revenue collection by NBR adds up to only 54% of the target. The revenue collection had fallen short by 27% in the previous fiscal year (Figure 2). The economy shut down again for two months from April, closing down business which may diminish the revenue even lower. The decline in revenue collection is owed to the drop in value-added tax because of lower consumption spending due to income erosion (Titumir, 2020a).

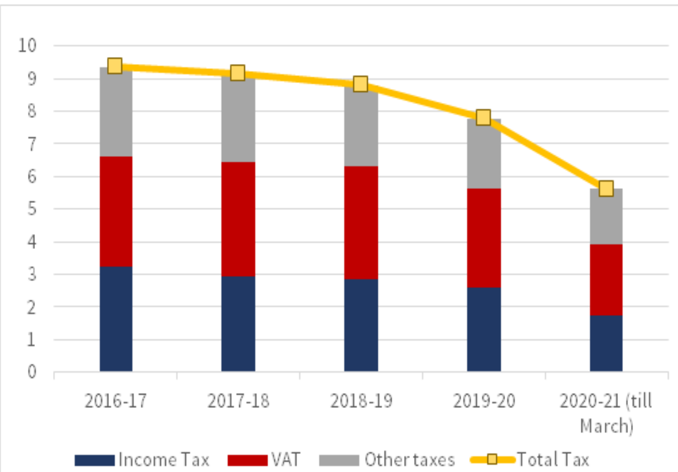

Figure 2 Government Revenue (%of GDP)

Source: Ministry of Finance, 2021

- **Total external debt has reached an all-time high.** The total debt stood at USD 70.67 billion at the end of 2020. Total external debt at this moment is 22% of the GDP whereas the outstanding external debt amounts to 13% of the GDP (Figure 3). Domestic debt on the other hand has been showing a positive trend with government now relying more on the private banks for deficit financing. While it is normal for an economy to incurr debt at the time of economic contraction to boost aggregate demand, this however will be an added burden in future and would require a sustainable debt management.

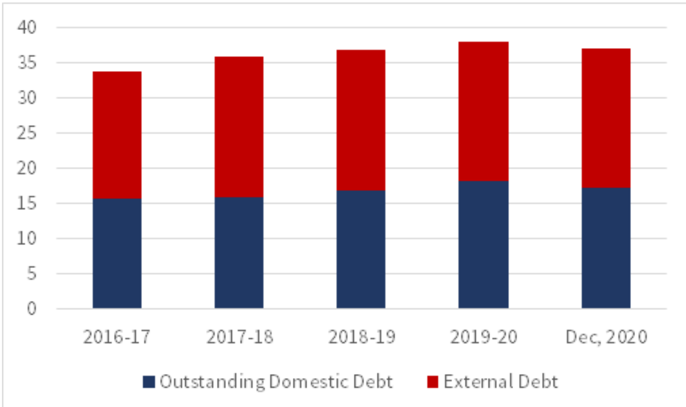

Figure 3 Government Debt (% of GDP)

Source: Bangladesh Bank, 2021a, 2021c

The overall fiscal trend of the country shows a business-as-usual strategy in the face of an economic contraction in a massive scale. The fiscal expansion required to outpace the contraction has been absent in the government policies. Fiscal measures such as direct cash transfers and benefits have been largely absent in government recovery policies. Countries like the United States and United Kingdom carried out cash benefit programmes which delivered money to the population, who have seen a fall in income. Such measures raised the aggregate demand through consumption smoothing. Bangladesh initiated a cash transfer project but has been plagued by institutional inefficiencies. Government plan to transfer of BDT 2,500 cash reached 3.6 million families and had initially planned to reach 5 million households (Dhaka Tribune, 2021). The programme fell short of reaching the households who have been pushed to poverty during the pandemic due to inappropriate listing and a lack of database. Government has failed to implement a national poverty registry in seven years, which could have allowed a smoother and swift transfer of the cash. A universal social security programme could have also expedited the delivery of benefits. United States have been able to provide such benefits in a short time because of their unique social security card.

The tax base in the country has remained stagnant with NBR failing to expand the tax base as evident from very low tax-GDP ratio. As a result, government has relied more on VAT which is regressive in nature. During a time when a large portion of the population employed in informal sector saw a reduction in income, such regressive taxation adds unequal burden on the population. With the countries still struggling to cope with the pandemic, there is little hope that the revenue earnings will rise miraculously in the upcoming fiscal year. The budget hence should focus on a medium-term framework, providing policy guidelines for the next 3-5 years. The guidelines need to include an institutional reform that would not only raise the tax base but also equalises tax burden.

There exists a wariness against running government debt. Bangladesh has maintained comparatively a stable debt-GDP ratio over the years. At the same time, international credit rating agencies put Bangladesh in a relatively safer zone with BB- sovereign credit rating with a stable outlook (Fitch, 2021). This means that the country falls within the investment threshold with flexible debt servicing history. The argument against a deficit financed budget holds little merit at the time of a pandemic when economies have been struggling and human lives are at expense. External debt due to pandemic has already reached the highest point in the history of the country. This is much required to boost the economy as financing budget from domestic sources would have risked crowding out of private investment.

Nevertheless, the external debt has to be managed in a sustainable manner or else the debt will no doubt create a burden. This is precisely why government has to increase spending in development expenditures as well as social expenditures where return from investment is much higher than the operating expenditures. At the same time, failure to implement budget will raise the expenditures in the long run and so will the debt. The situation however gives little hope with government statistics stating it may require four to twelve years to complete pending projects, crossing the deadline of many (The Daily Star, 2021a).

2.2 MONETARY MECHANISM BOTTLENECKS

Another mechanism for providing cash support to firms and households facing losses and income erosion in the face of the pandemic was to channel eased credit through the banking sector. The discrepancies in rates of allocation and disbursement of stimulus to the various groups had been discussed earlier. Now, an analysis of the monetary sector helps gain insight into the extent of the credit support availed by firms and households. Despite the provision of the stimulus package, monetary expansion in the economy was stifled. Cash entered the banking system to provide eased credit to firms in distress, whereas a significant share of the available credit support was not availed. As a result, money did not reach firms and households, but rather was left in the banks, leading to an excess liquidity situation in the domestic credit sector.

- **Monetary expansion has been subdued.** The growth of domestic credit has been sluggish, particularly as both public and private investment opportunities looked bleak in the rising uncertainty of the pandemic. The growth rate stood at 8%, significantly below the targeted 14.8% declared by Bangladesh Bank. Investors and borrowers remain relatively disenchanted in increasing private sector investment, despite lending rates being at a record low of 5 to 7%. Simultaneously, public sector borrowing was stalled due to slower project implementation. In addition, complexities in investment conditions for small depositors and investors, low and middle-income groups have largely hindered the flow of credit. As a result of the three conditions, the channelling of domestic credit into the eventual monetary expansion in the economy was deterred.
- **Broad money supply increased not from domestic credit availability, but foreign assets.** Broad money or M2 in Bangladesh consists of both highly liquid narrow money and lesser liquid forms. Compared to previous years, the growth in broad money supply in Bangladesh in 2020-21 was restrained, and was largely owed to external sources, despite the influx of domestic credit offered by the stimulus packages. This implies that the flow of credit from the banking system to the economy was hindered. Broad money (M2) increased at a constant rate over

the years from 2010 to 2021, proportionally with the increasing trend of net domestic assets, consisting of government bonds held by the central bank & government authorities (See Appendix, Figure 1A). Net foreign assets have comprised a relatively lower share of the broad money supply consistently, with its irregular dips offset by changes in net domestic assets. Between 2019-20 and 2020-21, however, net domestic assets increased only marginally, compared to the previous years, while increase in net foreign assets were relatively higher. As a result, the broad money supply in the pandemic period has not much expanded because of the domestic monetary policy, but is rather a reflection of the foreign assets owned overseas by the country.

- **Banking sector drowns in excess liquidity.** Several business-as-usual measures were adopted in using the monetary policy to correct the fallouts from the pandemic targeted industries and real sectors. This included lending policy relaxation and injecting fresh money into the banking system to increase the flow of domestic credit. However, the policies may have misjudged the inflow of remittances into the country. High rates of remittance deposits, coupled with the insertion of extra money, amidst curtailed options for spending and investment during the pandemic period left banks with excess liquidity. At the same time, remittances have increased foreign exchange reserves, flaring up the excess liquidity as Bangladesh Bank purchases dollars from the banking sector.

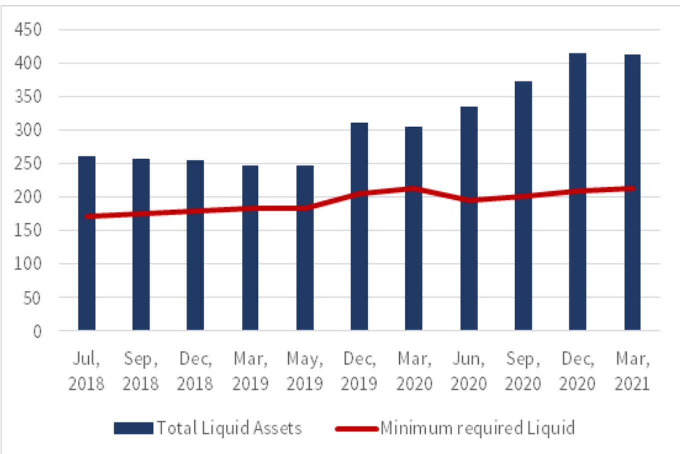

Figure 4 Excess liquidity Assets in Banks

Source: Bangladesh Bank, 2021b

Apart from the year-end spike in December, 2019, the excess liquidity in the banking sector maintained a steady, manageable level from the month of July, 2018. Liquidity levels began to see a persistent increase, venturing much higher than the minimum liquidity required, from the month of June, 2020 as the stimulus packages and national budget were announced, further fuelled by high inflow of remittances (Figure 4). The excess liquidity lying idle in the banks with no mechanism of flowing out as credit and later retracted as savings deposits, pressurises interest rates to remain persistently low and impedes profitability of banks.

- **The targeting of liquidity support in the stimulus packages led to a skewed impact.** The government promised BDT 1,21,353 crores worth of stimulus package which is equal to 4.3% of GDP in Bangladesh (Ministry of Finance, 2020). The stimulus package was announced to be distributed by the banking sector under the supervision of Bangladesh Bank. It should be noted that the stimulus packages are more of a liquidity support and less of a fiscal stimulus. Of the total stimulus packages disclosed, almost 80.7% was liquidity support and 19.3% was fiscal stimulus, among which, 23 stimulus packages were announced for three major sectors of the country: large industries, small industries and agriculture. However, a report of the Ministry of Finance (MoF) and Bangladesh Bank also shows a noticeable discrepancy between allocation and actual disbursement in some sectors. The largest share of the allocated liquidity support went to large and export-oriented industries including RMG and other large industries. Most of the disbursement of allocated stimulus went to large and export industries.
- **Differential access to credit by small business and informal sector restrained equalising recovery.** The government allocated total BDT 220 billion for small and medium industries and BDT 32 billion for employment generation but the disbursement of this allocation was not fulfilled. In 6 months, the progress of disbursement was 31.5% while it was around 58% in January, 2021. Adequate data is not available on credit guarantee scheme but it is plausible that the overall disbursement may not be higher than this. Similar to CMSMEs, the agriculture sector also

experienced a sluggish growth. Low allocation and disbursement of the stimulus is evident. In six months, only 34% was disbursed despite a high demand for credit among farmers. While large industries attained 85% of the allocation, farmers were able to attain only 58% of their allocated stimulus package. Negligence of the farmers, small enterprises and low-income labour force is apparent, not only from the disbursement rate but also from the stimulus categories. Population from this stratum consumed most of their savings during lockdown, yet the relief programmes consisted largely of food stamps and sparse cash transfers.

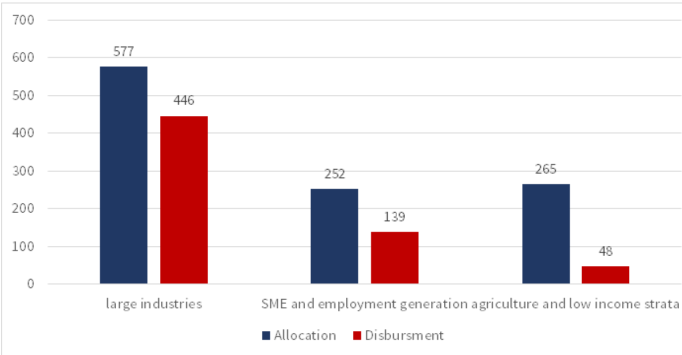

Figure 5 Allocation and disbursement in three sectors (in billion BDT)

Source: Bangladesh Bank, 2021c

Large industries received the greatest share of allocation and experienced the highest rate of disbursement. Of the total BDT 1240 billion allocation, 577 was allocated for the large industries which is almost 50% of the total allocation (Figure 5). On the other hand, despite being a significantly large employer in the economy, CMSMEs only received BDT 252 billion in total and the SME also saw a lower disbursement rate. Farmers in agriculture sector got BDT 265 billion including the fiscal support together with liquidity support which is 24% of total allocation. Disbursement in agriculture has been the lowest compared to large industries. Of total allocation, only BDT 48 billion was disbursed among farmers and low-income population which is 4% of total allocation, and are yet to receive 83% of disbursement after 10 months of the announcement of the stimulus package. Impact of these discrepancies in stimulus disbursement in people's livelihood is not negligible. Low rate of disbursement and food stamps instead of direct cash payments left these people vulnerable to the shock of a second wave of lockdown without any assets to fall back on. They survived by decreasing food consumption and drawing on minimal savings in the first wave, leaving them more vulnerable to the second wave and lockdown.

A closer look at bank savings by the low-income labour force (i.e., farmers, garment workers, manual workers in factories and physically challenged) draws a grim picture of their current economic status. As a result of being overlooked as recipients of the stimulus package, their bank account is almost empty with BDT 818 on average (Bangladesh Bank, 2021c). This category of people has total BDT 1,815 crore in their bank account which is 0.16% of total bank savings compared to total savings of bank savings BDT 11,27,597 crores. There is limited data comparing this amount to the pre-COVID situation but it may be construed that savings of the low-income strata are small because they were compelled to consume it during lockdown because of income erosion. Around 55% of the rural poor used savings to cope with income erosion (Hossain, 2021). A significant portion of the population lost their jobs, agreed to lower wages, and sold productive assets during the pandemic which further pushed them towards poverty.

2.3 SQUEEZING THE GDP

GDP growth rate this year is therefore set to take a dip amidst the pandemic. While remittance has seen an increasing inflow than previous year and domestic credit to private sector also gathering pace to boost investment, export earning has failed to meet government expectations this fiscal year. The pace of government expenditure has been slow as well and will again fall short of the target. Taking these four indicators in account, the GDP growth rate in this fiscal year is projected to be at 4.45%.

While accounting GDP, the estimation held other indicators constant and followed the monthly trend. This estimation however is short of the IMF projection of 5% in April. However, IMF also projected the growth rate at 4.4% in October 2020. The projected growth rate may decrease even more if the government fails to implement the budget of the current fiscal year. At the current pace, government is required to utilise 40% of the total budget in the last 2 months of the fiscal year to reach average implementation rate of the last 5 years, which may not be feasible. The export earning is also set to decrease as the month of May because of the restrictions on movement as well as Eid holidays. Hence, there are chances that the growth rate may fall below the estimated 4.45%.

- **The economic contraction worldwide had a ripple effect.** As the contagion affected countries across the world, the governments imposed restrictions on trade and travel in order to curb the loss in health and human lives. This brought economic activities to a standstill. Firms incurred losses, were unable to bear the costs and were compelled to lay off workers. The unemployment and income erosion led to lower consumption levels, lower investment and an erosion of human capital and productive capacity. Following this, fragmentation of international trade and supply linkages transferred the economic fallouts through a ripple effect to trading partners. Bangladesh, being dependent on export earnings and migrant workers, was faced with subdued capital flows and tight financial conditions, resulting in a slower growth of GDP.

- **Industries were affected disproportionately by the fiscal and monetary policy support.** Export oriented industries (mainly RMG sector) saw a 100% disbursement of the stimulus package within four months of allocation announcement while large industries saw a 91.53% and 75% disbursed money within 10 and 6 months of allocation. Different types of large industries saw a 91.53% working capital loan disbursement. Export Development Fund (EDF) though not clearly mentioned also goes to large export related industries which saw a 71.61% disbursement by January 2021. On average, the export and large industries saw around 85% disbursement. On the other hand, the disbursement was significantly lower for cottage, micro, small and medium enterprises, and business and services in the informal sector. These industries altogether employ a significant share of the labour force.

- **The rural economy preserved pre-COVID consumption levels.** The growth did not decline much further than 4.45% because the rural economy with 62% of the population was not as badly affected compared to urban areas. The rural economy employs a relatively large share of total employment, primarily in the agriculture sector. A relatively less drastic impact on the agriculture sector protected livelihoods of those employed. In addition, majority of the families of migrant workers are rural dwellers. A negligible dip in remittances ensured that the level of consumption stayed constant. Bangladesh has a largely domestic consumption-led growth, and consumption levels of households in rural areas being mostly consistent with their pre-pandemic levels implies that the worst-hit populations were the urban poor and vulnerable non-poor households that contributed to the decline in GDP growth.

- **The absence of social security leaves the vulnerable population with scarce coping mechanisms.** Current social safety net programme in the country faces inclusion and exclusion error due to the targeting approach. The targeting approach of the safety net programme has an exclusion rate of 71% and it also fails to account newly poor population from the pandemic. The drawbacks of the current social safety net system in Bangladesh demand a more inclusive method.

- **The composition of GDP of Bangladesh provides little resistance to shocks.** Structural transformation has seen labour shift to service sector rather than manufacturing sector. As the pandemic ravaged on, service sector was hit disproportionately as offices closed down. Agriculture regained pace slowly as rural economy was less affected than the urban sector.

To tackle the crisis caused by the pandemic, policymakers of Bangladesh declared a crisis-phase provision as soon as the pandemic hit the economy. Several stimulus packages were declared by the government since April, 2020 to help the affected sectors stay afloat and boost economic activities. The stimulus packages were mainly of two types- liquidity and fiscal support. One year after the pandemic and with the upcoming budget 2021-22, a lookback with a proper assessment of promises made and their implementation is necessary. Therefore, the following sections will explore the allocation and actual disbursement of stimulus package, their implications in economy and expectations from upcoming budget.

SECTION 3

TOWARDS A K-SHAPED RECOVERY?

A K-shaped recovery occurs in a post-recession period when different parts of an economy recover at different rates, times, or magnitudes (Chen, 2021). There is a widespread concern that developing countries in the Asia-Pacific region may follow a K-shaped recovery in the post-COVID-19 period because of the marginalisation of poorer countries and vulnerable groups in the post-pandemic recovery and transition period (UNESCAP, 2021). Because of discrepancies in government response to COVID-19, development practitioners of Bangladesh also warn the emergence of a K-shaped recovery in Bangladesh, where intermediate classes will be fragmented, leading to greater inequality and a divergent, discriminatory recovery path (Titumir, 2021; Titumir et al., 2021).

Those employed in the CMSMEs, agriculture and informal sector suffered most, unlike large industries, because of job insecurity and uncertainty. The RMG industry attained a large share of stimulus package, yet 350,000 jobs were lost in these sectors (Digital Natives, 2020). Export and large industries saw a swift implementation of stimulus policies, while others were lagging behind due to slower implementation of stimulus disbursement, income erosion and

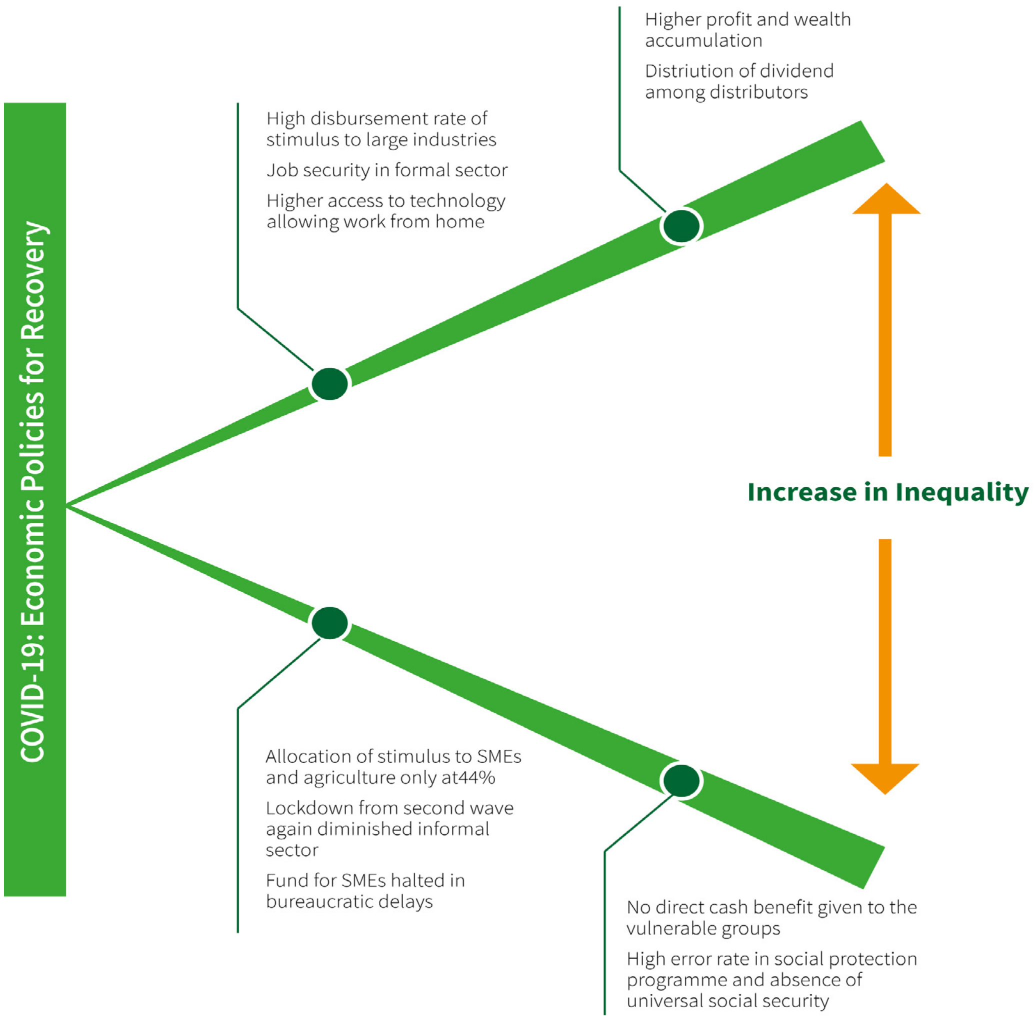

Figure 6 Depiction of a K-shaped curve

Source: Authors

loss of employment. Because of discrepancies in disbursement, CMSMEs are recovering at a slower rate than larger industries. Micro and small industries recovered by 46.9%, the large industries recovered by 77.3% by March, 2021 (SANEM, 2021). Although there is limited data available on the recovery of agriculture, recovery of agriculture will be far lower than manufacturing sector (World Bank, 2021). By 2023, agriculture will see an average growth of 2.9 while the industrial sector will have an average growth of 4.8; so the growth rate will be different for the two sectors. Consequently, since large industries are receiving stimulus benefits, their recovery rate is relatively faster, which leads to a K-shaped recovery as poorer and vulnerable groups are further marginalised in the post-COVID world (Figure 6). As a result, recent analysis found that the Gini-coefficient will cross the fault line 0.5 (Unnayan Onneshan, 2020). The share of the bottom 10% of the population in household income was 3.35% in February 2020 which dropped to 3.04% in February 2021 (CPD, 2021). In addition, 68% of job-holders suffered from loss of employment (IANS, 2020).

SECTION 4

AVERTING K-SHAPED RECOVERY FOR HOUSEHOLDS AND FIRMS

The pandemic is set to worsen the poverty in the country due to widespread job and income loss. With economy still in a lockdown, causing disruption in the informal economy where 86% of the population is employed, there will be a massive loss of income. This is of particular importance given the fact that Bangladesh is expected to graduate out of LDC status. Poverty reduction in Bangladesh had already seen a slower rate. Prolonged economic lockdown and job loss in informal sector is set to reverse the poverty rate in the country. With increased poverty, consumption smoothing mechanism through the public provisioning of goods such as social security, healthcare and education may reduce the burden on the new poor. The section first adopts a new index to estimate new poor created due to the pandemic.

4.1 THE NEW POOR - A POVERTY ANALYSIS

The COVID-19 pandemic has severely impacted the life and livelihoods of the marginalized section of the society— particularly the low-income people, women, children, the elderly, the unemployed, the informal sector workers, lower-middle class and middle class. Income erosion resulting from the losses in various sectors from the shutdown will create a new poor in the country. Poverty and inequality no longer remain under the auspices of a straightforward headcount ratio during such unprecedented times of peril, signifying the importance of inclusion of groups without entitlements – of the new poor, of small businesses, of female-headed enterprises – in formulating social security, and a possible basic income grant. Recovery from the fallouts of the pandemic may be deterred due to the emergence of the new poor population, as a large cohort of urban informal sector workers, comprising 21.4% of the population have suffered income erosion and loss of employment (Titumir, 2020b).

The Poverty Index proposed in this paper adapts from Sen (1976) that makes use of the first two elements that should be included in a poverty index. The first is the headcount ratio which represents the relative number of the poor, that is, the number of poor populations expressed as a ratio of the total population. A relative headcount ratio predicted by the Unnayan Onneshan (2020) in the wake of the pandemic was 43.5%, which could increase to 47% in the case of a prolonged lockdown, as exhibited by the two periods of lockdown in 2020-21. In order to minimise any sort of overestimation of the poverty index, this paper assumes a poverty rate of 43.5%. The second element adapted from Sen (1976) is the average income gap of the poor, calculated here by finding the difference between the poverty line for lower middle-income countries which is USD 3.20 per day to find the monthly poverty line income, and the average income of the poor according to the upper poverty line in rural and urban areas of Bangladesh, and dividing this difference by the poverty line income. Along with income variables, the index also includes key social indicators in Bangladesh to provide a more comprehensive picture of the poverty scenario.

Table 1 Estimation of poverty using index

Poverty Index Indicators	Percentage of population	Weighted values
Income gap ratio urban*	37	3.7
Income gap ratio rural*	74	13.74
Poverty rate**	43.5	12.42
Poverty from OOP (health)	73.87	10.55
Deprivation from digital learning	59.66	8.52
Population covered by social protection	4.785	0.68

Poverty Index		49.62
*HIES 2016, calculation adapted from Sen (1976) **Estimation of Unnayan Onneshan (2020)		

Out-of-pocket payments for healthcare have become more significant in the pandemic era. At the same time, digital learning in education has deprived populations, as only 12.9% of the population has steady access to internet. In addition, social protection coverage becomes more significant with increasing income erosion and loss of employment for many occupations. The calculation of a weighted sum of these proportions, the Poverty Index finds a possible upper poverty rate of 49.63% for the aspiring lower middle-income country (Table 1).

4.2 UNIVERSAL SOCIAL SECURITY IN THE TIME OF COVID-19

The pandemic has exhibited the extent to which low-income populations across the globe are vulnerable to income shocks. During this time the world has witnessed a growing number of new poor throughout different regions of the world. At the same time, the new poor along with pre-existing vulnerable groups, have largely been unprotected by any social protection schemes. Even in the pre-COVID-19 era, only around 45% people of the world population was covered by at least one social protection benefit. The remaining 55% or around 4 billion people were not included in any social protection services in 2017. The situation was far worse in developing regions. In Asia and the Pacific, around 61%, and in Africa, around 82% of people were not part of any social protection programme. (Ortiz et al., 2017a)

Current social security programme in Bangladesh is the Social Safety Net Programs (SSNPs). The list of beneficiaries targeted for the SSNPs is associated with certain degrees of exclusion and inclusion error. Exclusion error in the social protection is as high as 71% and inclusion error is more than 45% (Razzaque, 2020). Moreover, lack of transparency, legitimacy, and supervision further dampens the effectiveness of the SSNPs in Bangladesh.

The need for a more inclusive, universal social security has skyrocketed during the time of this pandemic when poverty is going to increase for the first time in the country. In urban slums, 70% of the main income earners became inactive and in rural areas, it was estimated to be around 54% (BIGD and PPRC, 2020). In urban slums per capita, daily income declined by 75%, in February it was around 108 BDT which fell to 27 BDT. A 62% drop led the per capita daily income from 95 to 37 BDT in rural areas. However, the worst sufferers are the people working in informal sectors. These economic downturns have created a new poor group, who were previously vulnerable but non-poor. The report finds 25.1% and 21.6% of the total population in urban and rural areas have emerged as the new Poor. Since people are losing jobs and their income has contracted, many of them are reducing their food consumption as a coping mechanism. According to the same study, average food expenditure in rural areas has declined by 22% whereas in urban slums it was estimated to be around 28%.

Cost Estimation for a Universal Social Security in Bangladesh

Calculating a precise cost for a universal social protection program can depend on various parameters such as the coverage areas, whether the amount of benefit will be in terms of the national poverty line, minimum salary, or USD purchasing power parity (PPP) per day and many other factors. Fortunately, ILO has already developed a social protection floor calculator that can provide universal social protection cost estimates for a country in terms of the aforementioned parameters. This can be calculated in terms of national poverty line or Purchasing Power Parity (PPP) of USD 3.2 for lower middle income countries lower poverty line, as mentioned by the World Bank. Using this calculator in terms of our own requirement we find -

Universal Child Benefit: Using this calculator we find around, providing a universal child benefit of only 25% of the national poverty line would cost 12.9% of the GDP. This will account for around 11.40 billion USD for children below 15 years old. On the other hand, providing USD 3.20 PPP per day would cost around 12.27% of the GDP.

Universal Old Age Allowance: Cost as percentage of GDP of a benefit of 100 % of the poverty line to all person aged 65 and over accounts for 2.18% of the GDP of 353 billion USD. That is around USD 7.7 billion.

In terms of World Bank's recommendation for the lower middle income countries poverty line of USD 3.2 per day would cost around USD 7.3 billion (2.07% of the GDP).

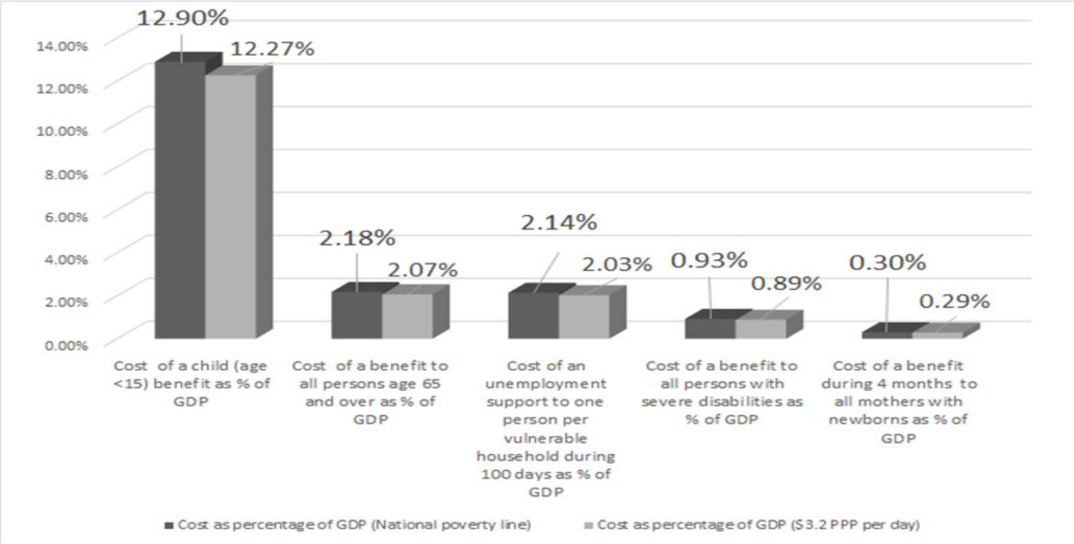

Figure 7 Estimation of universal social security

Source: Authors

Universal Unemployment Benefit: To provide an employment guarantee for one person per vulnerable household, including administrative costs, would account for 2.14% of the GDP (USD 7.7 billion). This unemployment support would be 100% of the poverty line and would be for 100 days. This benefit in terms of PPP per day would cost 2.03% of the GDP (USD 7.17 billion).

Universal Disability Benefit: People with disability (PWD) refers to people who require additional assistance for their mobility. (American Disability Act) To provide a benefits scheme for this group equivalent to USD 3.2 PPP per day would cost around 0.89% of the GDP, equivalent to USD 3.14 billion or in terms of our national poverty line, this would cost around 0.93% of the GDP. That is around USD 3.28 billion USD.

Universal Maternity Benefit: The main purpose of this program is to provide a cash transfer equivalent to 100% of the national poverty line to mothers with new-borns and all pregnant women for a period of at least four months. Considering 2.4% of the fertility rate and 2.1% of fertile women, it would cost around USD 1.06 billion (0.30% of GDP) and USD 3.2 per day this would be around 0.29% of the GDP equivalent to USD 1.02 billion.

A universal social security programme may cost 20% of the GDP in Bangladesh (Figure 7). Bangladesh currently spends less than 2% of GDP in social protection programmes where countries like Sri Lanka and Viet Nam spend upwards of 6%. The spending of OECD countries in social security crosses 20% and in Scandinavian countries, the number goes as high as 30%. A universal social security programme may not only boost the economy through consumption smoothing but reduce spending leakage in social sector.

4.3 EDUCATION AND THE LOSS IN SKILL FORMATION

The closure of educational institutes for over a year has caused losses both in economic and human capital terms. Loss in schooling years due to the pandemic will have negative economic effects as skill formation has been stalled for more than a year. The loss will be suffered for a prolonged period as the reopening of schools is still an uncertainty amidst the second wave.

As a coping mechanism, education institutions have opted for the remote learning method. However, the difficulty with the method is that it has created, and to some extent, strained the inequality in the country. Only 12.9% of the population were reported to be using the internet (World Bank, 2021). Limited access to the internet along with other poorly established infrastructure has led to exclusion of a large number of students from classroom activities. It was estimated that around 36.8 million students have missed almost all classroom instructions (UNICEF, 2020). This translates to a loss in almost 5.5 months or 0.5 years of schooling nationally, which may have significant ramifications for the labour force. It is expected that the loss in schooling year will reduce output-per-worker by 13% as labour productivity will take a significant dent. At the same time, the economic loss may amount to 33% of the GDP in the long run. World Bank estimates that in a worst case scenario, the country may face a loss of USD 114 billion. Even in the most optimistic scenario, the loss will still add up to USD 67 billion in the long run (Rahman & Sharma, 2021).

Regardless of the accuracy of the above-mentioned estimation, it is clear that Bangladesh has faced, and is still facing, a tremendous loss in its education sector due to Covid-19. Education, being a prime determinant for human capital formation, has the capacity to influence labour productivity. With fewer students being blessed with the privilege to access the remote learning system, a large portion of our young population may remain unskilled. This loss in education vis-a-vis lower labour productivity will translate into a reduction in the country's GDP.

To overcome the damage, the Bangladesh government needs to address some issues regarding the infrastructure of education. Firstly, the government should work to provide access to uninterrupted network facility to all as a short-term policy to mitigate the loss. Bangladesh has one of the highest charges on mobile data compared to other South Asian countries. It costs around (USD 0.99) for 1-gigabyte mobile data compared to USD 0.87 in Sri Lanka and almost USD 0.26 in India.

Secondly, a structural reform is required in the education system. The education system should focus on a more skill-based syllabus that includes critical thinking, problem-solving, leadership, collaboration, creativity, entrepreneurship, digital and technical skills, along with citizenship education. According to the Worldwide Educating for the Future Index 2019, Bangladesh ranked 47th out of 50 emerging nations. Surprisingly, Bangladesh previously ranked 45th and has recently slipped to 47th. While, in comparison, India ranks 35th in this index. Skill formation has to be prioritised in the education system at all levels.

Providing a suitable and adaptive educational environment along with proper infrastructure and a revised syllabus, Bangladesh can expect to catch up with the foregone potentials. Policymakers need to address this issue in the upcoming FY 2020-2021 budget and allocate sufficient funds to the relevant sectors.

4.4 UNIVERSAL HEALTHCARE

Healthcare sector still remains the worst-hit sector of the pandemic as the country battles the second wave of the COVID-19. This will remain the case until citizens reach herd immunity, that can only be achieved through mass vaccination. For this, at least 70% of the population will need to be vaccinated—a goal that is difficult to achieve within a short period, particularly for developing countries like Bangladesh (Table 2).

Table 2 Vaccination statistics

Country	Total vaccinations per 100	Persons vaccinated 1+ dose per 100 population
Bangladesh	5.7	3.5
India	12.7	9.8
Pakistan	1.7	0.89
Nepal	8.7	7.4
Viet Nam	1.0	0.98
Italy	40.3	27.9
United Kingdom	78.6	52.3
United States	79.9	46.9
Source: WHO, 2021		

Health expenditure in the last fiscal year saw an increase due to the pandemic. However, it still fell short of WHO recommended level. Lower public expenditure in health results in higher out-of-pocket expenditure, as evident from the case of Bangladesh. With government expenditure in health sector less than a percentage of GDP, out-of-pocket expenditure has shot to 73.8%. The burden on out-of-pocket health expenditure has given rise to poverty in Bangladesh. According to the last Household Income and Expenditure Survey of 2016, out-of-pocket expenditure pushed 2.69% of the population below poverty line at 1.90 USD PPP and 4.51% of the population below poverty line at 3.20 USD PPP. With the country already struggling with new poor created from the pandemic, increasing health expenditure may exacerbate the condition. Hence, the need for a universal healthcare has gained renewed interest.

During the COVID-19 pandemic, the discrepancy between public and private hospital has become visible. Cost of in-patient care and intensive care unit in private hospitals exceed the public hospitals by 89% and 25% respectively. Public hospitals on an average spent BDT 1, 28,119 per COVID-19 patient whereas private hospitals spent BDT 2, 42,074 per patient, which is almost double of the public hospitals. Limited capacity of public hospitals has pushed many patients to private hospitals where patients have been bearing this extra cost.

Universal healthcare, implemented through a national health system, decreases the burden on the population as well as increase health seeking behaviour. United Kingdom adopted such a policy through the Act of 2006 where the state took the responsibility to provide health care services to all people free of cost. Rights of having free access to health care are summarised in National Health Service (NHS) includes right to have health care without any discrimination. In 2018, UK spent 9.9% of their GDP on health. In 2012, 10.9% of UK population took private health care voluntarily. The government versus private expenditure in United Kingdom shows that government spends almost 83% of the total cost for health care which is one of the highest among countries.

4.5 STRUCTURAL TRANSFORMATION, FIRMS AND EMPLOYMENT

Slow rate of structural transformation in the economy increase vulnerability to the risk of external shocks. While the economy grew over 7% in the last decade, contribution of manufacturing to GDP has not improved fast enough. Transformation has assumed a trend of migration from agriculture to service sector. At the same time, agriculture still employs over 40% of the population with contribution to GDP just over 10%. Much of the slower transformation is attributed to low employment generation capacity of the manufacturing sector. The manufacturing sector is largely concentrated in RMG and there exists little diversity in the composition.

In the wake of Covid-19, Bangladesh should revisit its state of ST for several reasons. Firstly, the country saw a rising poverty, inequality and a decreasing GDP growth rate which can have serious impact on its LDC graduation. Secondly, the agriculture and service sector of the country employs a large portion of its labour force but the stimulus package was mostly distributed among the large industries. Both sectors have little capital generation capacity. The recovery and reconstruction policy of the government has to take into account the existing leakages that cost the downfall in the first place.

Low TFP growth is also a concern for the country. Total Factor Productivity (TFP) is more reliable indicator of structural transformation compared to labour productivity (UNCTAD, 2016). Average TFP growth of Bangladesh is 0.2 which is significantly lower than United States, ASEAN members and East Asian countries (0.8, 0.3 and 1.3 respectively). Skill enhancement programmes as well as technological advancement can significantly raise the productivity of the country as seen in the case of China and Viet Nam.

Relatively higher rates of economic growth in the past decade is contributed by RMG exports, which is 80% of total export earnings and the largest manufacturing sector of the country. As a result of over reliance on a single sector, export contraction caused by global lockdown had a major impact on export earnings and economy as a whole. Consequently, the largest share of decline in export was in RMG sector. Germany, United Kingdom and the United States are three major export destinations of Bangladesh and lockdown in these countries caused a sharp drop in export of Bangladesh. 98% of the total decrease of export to Germany was in RMG goods, while other goods (e.g., leather, jute and handicraft) faced a 2% reduction. For United Kingdom and the United States, the share of RMG export decline was 96% and 95% respectively (Figure 8). This draws a fair picture of dependence of Bangladesh on other countries and on its RMG sector, which indicates the lack of structural transformation of economy and the risk it poses to employment and growth.

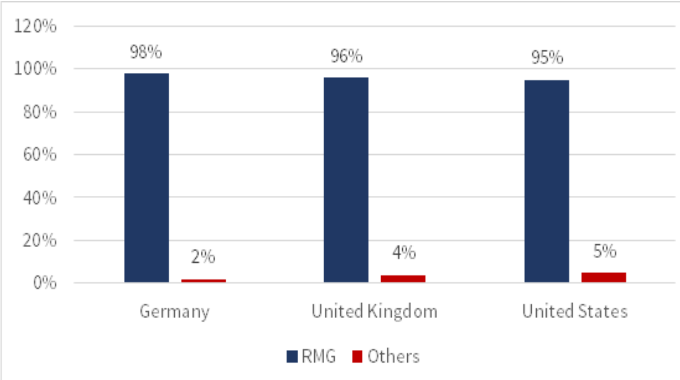

Figure 8 Percentage share of RMG in total decrease of export

Source: Bangladesh Bank, 2021c

Note: Others include: Fish, Shrimps and Prawns, Home Textile & Terry Towel, Jute Manufactures, Raw Jute, Leather and Leather Manufactures, Handicrafts and others.

Diversification requires a strong policy from the government like the case of Thailand and Viet Nam, where aggressive technology acquisition by the government resulted in technology-heavy industries shifting there from developed countries. Institutional barriers in the country pose the biggest threat against private and foreign investment as indicated by the Ease of Doing Business. Bangladesh ranks 168th in the Doing Business indicator with poor condition in enforcing contracts and corruption (World Bank, 2020b).

SECTION 5

THE WAY FORWARD

With economy contracting and poverty rate declining in a manner never seen before, the budget required equal strength to tackle the pandemic. Government has struggled to avail the opportunity for rehabilitation and reconstruction, due to unintended impacts of monetary and fiscal policies taken during the pandemic. Relying heavily on the monetary system for recovery resulted in higher disbursement of stimulus to the large industries. The CMSMEs are almost left out of stimulus packages. At the same time, stimulus through monetary policies have created a staggering excess of liquidity in central bank with private and public banks failing to utilise the money. When the majority of the population experienced income erosion, it required a strong action in the form of direct cash transfers, the likes of which was implemented in the United States. Hence, a fiscal expansion may have proved to be effective in compensating for the economic squeeze.

The economic impact of the pandemic has been experienced heavily by the households with relatively lower incomes. With little social protection mechanisms and higher cost of living in the urban areas, there has been a migration to the rural areas. Educational institutes have been closed since the first lockdown was imposed on March, 2019. This has caused prolonged closure of schools and universities. With a large fraction of the population still outside of internet connectivity, virtual classrooms and education did not materialise in Bangladesh as it did in developed countries. Closure of schools have resulted in a loss of schooling years. This has ramifications for future productive capacity and skills of workers. Opening of schools still hinges on the reopening of the economy and vaccination drives. Healthcare sector was allocated an increment in the budget, which is still below the WHO threshold leaving the sector in a vulnerable position. With no sign of an end to the pandemic, the condition of healthcare sector can be expected to worsen in the coming days due to new variants of the virus. With high costs of medical treatment burdening the population, COVID-19 has added more to it. Lack of beds in public hospitals forced many to opt for private healthcare where the costs are almost, and sometimes more than, double. Presence of a universal healthcare and an integrated national health system in the country could assist the sector cope better with these challenges. Countries with universal healthcare have led by example in this regard.

The path to recovery is still a distant matter as the lockdown and restriction on movement continues. One needs to take into account the nature of the pandemic. Relating the pandemic to an external shock will not work as it is uncertain in nature. Full recovery may only start when the restrictions are lifted not only in national level but at the global level as well—the possibility of which remains bleak as the rate of vaccination roll-out in the country is still very low. Second wave of the pandemic has pushed countries back and there is even a possibility of a third or fourth wave of a different, more severe variant. Keeping such uncertainties in mind, the time calls for a structural and institutional reform in the economy.

The devastating impact of COVID-19 have reminded us of the importance of a well-balanced structural transformation of an economy. The process of structural transformation has been slow in Bangladesh with agriculture still employing more than 40% of the total employment. With little employment generation in the economy the structural reform has stalled. The pandemic has added on to the problem with closing down of industries. At this period, a reform through a medium term budget framework with a focus on employment creation is required. Productivity and employment generation should receive more allocation of budget and proper implantation of this allocation. Manufacturing and community, social, and personal services are some of sectors that have high productivity growth so resources should be reallocated in these sectors instead of allocating resources in one priority sector only. To diversify the economy, more allocation and implementation of budget in quality education and IT sector is necessary.

Therefore, it is high time that a balanced recovery was the focus of the upcoming budget. Business as usual measures only work in the short term and hence, the government has to move forward with measures that can lift the economy. A medium-term plan is required for the unprecedented economic fallout. The recovery both at firm and household level will not be possible with a single-year plan. The current structure of the fiscal budget only outlines government policies and objectives for the upcoming fiscal year. The approach restricts a medium-term or long-term policy alignments. Instead, a medium-term plan that outlines the revenue and expenditure for 3-5 years will be better fitted for a recovery measure. Such a budget will also raise the business confidence in the economy.

Institutional complications and formalities have stalled the implementation of a project aimed towards disbursement of fund to small and micro enterprises at the time of pandemic. At the same time, delays in implementation have led to an increase in budget allocation for mega projects. Slow implementation coupled with low allocation may delay some programmes by 4 to 12 years. This not only increases the cost but also decreases the lifespan of such projects. Corruption has plagued the health sector even during the crisis when the health ministry opted for direct procurement flouting the Public Procurement act. Transparency International Bangladesh estimated that BDT 1,660 million were spent over the cost due to over-estimation in a project. While emergency purchase during the pandemic is normal, however the rampant corruption opens up the unpreparedness of the sector to tackle such a crisis. Institutional anomaly is seen even in the financial sector when private banks defied central bank ordinance and distributed dividends to the executives. Hence, an institutional reform has become a necessary condition now to realise the government plan of recovering from the health and economic crisis.

In fifteen months of the pandemic in Bangladesh, government lacked a clear vision to tackle such crisis. The economic fallout from the pandemic required both short term plans for relief and rehabilitation as well as medium term plan for recovery and reconstruction. In the wake of a prolonged global pandemic that has overturned the historical legacy of trends in economic indicators, the budget of 2021-22 is endowed with much expectation from the people of all walks of life in terms of inclusive targeting, especially in increasing social security status, employment opportunities and access to healthcare and education. The second wave of the pandemic, at one hand has created a fiasco in terms of collapse in healthcare sector and the ongoing economic contraction, on the other side, has created bunch of opportunities for policy transformations to envisage the basic needs of people.

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Figure 1A

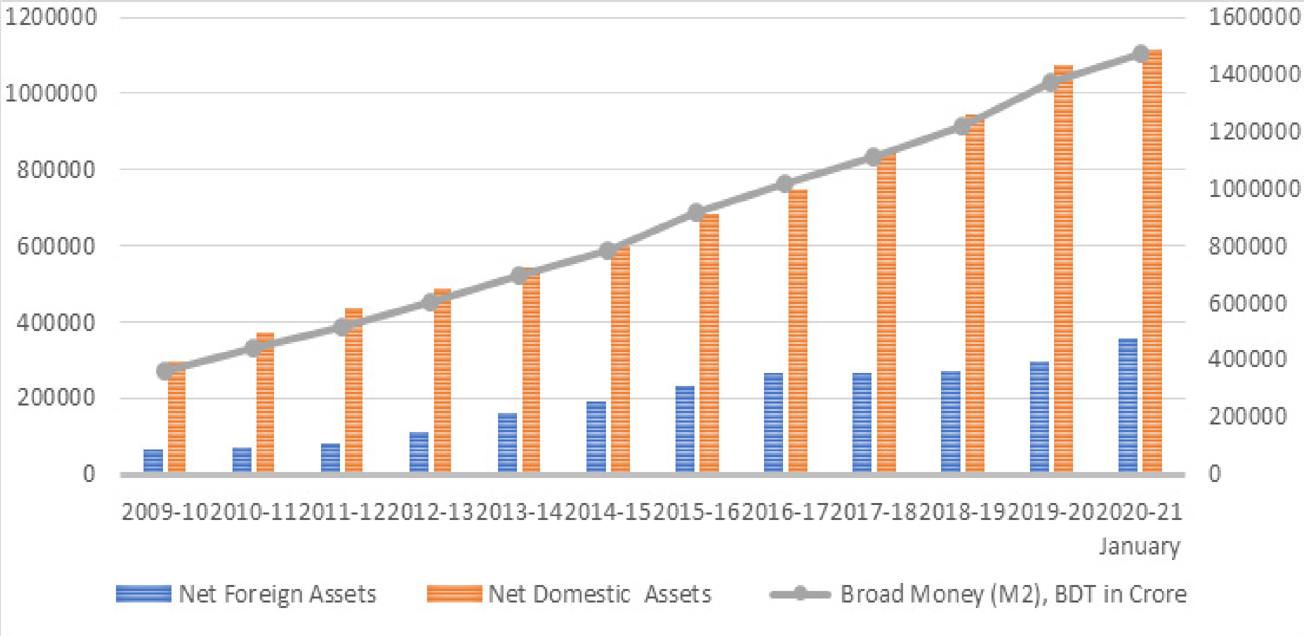


Table 1A Allocation and disbursement of stimulus package among large industries

Package name	Amount (In billion BDT)	Disbursed (in %, till October)	Disbursed (in %, till January 2021)
Payment of salary to the workers-staffs of the active export-oriented industries	50	100	100
Working capital loans for adversely affected large industry and service sector	400	71	75.77
Export Development Fund	127	-	71.62

Source: MoF (2020) and Bangladesh Bank (2021).

Note: The A, B and C types of industries are those of foreign ownership, joint ownership and Local ownership respectively.

Table 2: Allocation and disbursement among SMEs and employment generation

Working capital loans for CMSMEs	200	32	57.96
Credit Guarantee Scheme (CGS) for CMSMEs	20	-	-
Low-interest loans to rural poor farmers, expatriate migrant workers and trained youth and unemployed youth	32		
	31	-	

Source: MoF (2020) and Bangladesh Bank (2021)

Table 3A Stimulus for farmers and low-income strata

Agricultural refinance scheme	50	-	69.32
Refinance scheme for low-income earning professionals/farmers/small businessmen	30	14	47.63
Support for farm mechanisation	32.20	5	-

Agricultural subsidies	95	75	-
Food and cash distribution among low-income population	90	-	-

Source: MoF (2020) and Bangladesh Bank (2021). Italics: fiscal support

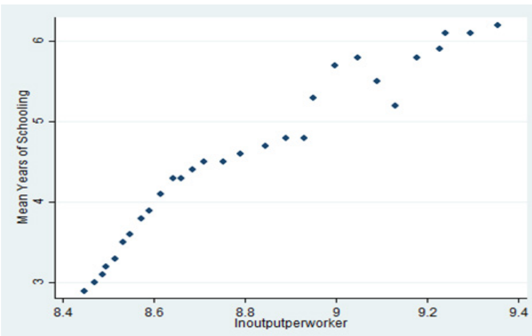
The estimated cost of universal social protection

Type of Universal Benefit	Cost as percentage of GDP (National poverty line)	Cost as percentage of GDP (USD 3.2 PPP per day)	Cost in billion USD (national poverty line)	Cost in billion USD (PPP per day)
Cost of a child (age <15) benefit as % of GDP	12.90%	12.27%	45.54	43.31
Cost of a benefit to all person's age 65 and over as % of GDP	2.18%	2.07%	7.70	7.31
Cost of an unemployment support to one person per vulnerable household during 100 days as % of GDP	2.14%	2.03%	7.55	7.17
Cost of a benefit to all persons with severe disabilities as % of GDP	0.93%	0.89%	3.28	3.14
Cost of a benefit during 4 months to all mothers with newborns as % of GDP	0.30%	0.29%	1.06	1.02
Total Cost	18.45%	17.55%	65.13	61.95

Estimation of economic loss in education sector from COVID-19

Various studies have found a significant relationship between mean years of schooling and labour productivity. As mean years of schooling increase, we can expect an increase in output produced per worker, or an increase in labour productivity (Nedomlelova, N., 2016). Some have estimated human capital from mean years of schooling (Psacharopoulos, G., 1986)

Figure 2A Correlation between mean years of schooling and output per worker



On such a theoretical backdrop, we have collected data on mean years of schooling for Bangladesh from the year 1991-2019 from UNDP's Human Development Report Data Bank. We have also collected data for output per worker during the same period for Bangladesh from ILOSTAT.

The correlation value of 0.945 between mean years of schooling and output per worker (in USD) indicates a high positive correlation between the two. Thus, this allows us for further required estimations to extrapolate the impact of loss in education in GDP.

Model Specification

In this, 2 models were built to see the impact of education loss. The models are given below:

$$\ln outputperworker=\alpha+\delta \text{Mean Years of Schooling } i + \varepsilon i$$

$$\ln GDP=\alpha+\delta \text{Mean Years of Schooling } i + \varepsilon i$$

In the first model, we focus on the relative impact of schooling on the output produced per worker. In the first model lnoutputperworker is the natural log value of produced output by each worker in the economy, $\alpha$is the constant and δ is the coefficient parameter that estimates the percentage change in output per worker due to absolute change in the mean years of schooling. In model 2, we estimate the impact of mean years of schooling on GDP by simply regressing Mean Years of Schooling on lnGDP. εi is the error term for both models.

Our estimated models are:

$$(\ln outputperworker)\hat{} = 7.60+0.267 \text{ Mean Years of Schooling}$$

$$(\ln GDP)\hat{} = 1.40+0.65 \text{ Mean Years of Schooling}$$

As we can see from model 1, a 1-year increase in mean years of schooling can lead to an almost 27% increase in output per worker. Considering a 5.5 months or ½ years loss in mean years of schooling due to the pandemic in Bangladesh, as mentioned earlier, we can predict a 0.267×(-0.5)= -0.1335or almost 13% reductions in output per worker. Model 2 shows the relative impact of Mean years of Schooling on GDP. Our estimated model suggests that a 1-year increase in mean years of schooling in Bangladesh can lead to an almost 65% increase in GDP. So, a 0.5-year loss in mean years of education will eventually lead to 0.65×(-0.5)= -0.325 or almost 33% reductions in our GDP.