SPECIAL REPORT

Post-COVID-19 Recovery Scenarios for Pakistan's Economy:

Projections for Fiscal Years 2020 and 2021

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Executive Summary

The COVID-19 outbreak is sure to impact Pakistan's economy in the fiscal years 2020 and 2021. In addition to growth, the present study quantifies the impact of the pandemic on selected fiscal, monetary, external sector, and socioeconomic variables.

The projections are made for a baseline scenario (the optimistic scenario) as well as for three alternate scenarios: the summer surge, the second outbreak, and the prolonged second outbreak.

For the outgoing fiscal year, the study projects the following:

- The annualized GDP growth rate for the FY20 would be in the range of -1.36 - 0.62%. The range of growth for the industry would remain in the red, whereas that of the agriculture is expected to remain positive. The services sector has also been severely hit.
- The decline in growth would translate into an expected fall by 10% in revenues and an expected increase of 25% in expenditures in FY20 as compared to FY19.
- Fiscal deficit and fiscal support for COVID-19 are estimated to be 14% and 3% of the GDP, respectively.
- On the monetary front, inflation and interest rate would remain around 8% in the last quarter.
- Despite the global lockdown, the current account as a percent of GDP is expected to be 0.3% primarily due to remittance inflow of USD 22.1 billion.
- The nosedive in GDP growth could result in unemployment of 4.23 million accompanied by 12.3 million layoffs, thereby putting 67 million people in poverty.

Building on the four scenarios for fiscal year 2021, the study reached the following conclusions:

- In the baseline scenario, which assumes that the lockdown would completely come to an end in FY20, the annual growth rate for FY21 is expected to bounce back to 2.16% - a projection consistent with IMF's projection for Pakistan.
- In the worst-case scenario, where the pandemic and consequent economic disruptions are expected to continue until the third quarter of the next fiscal year, the growth rate would be negligible (0.4%).
- The fiscal deficit is expected to range between 8% to 17% of the GDP for the two extreme scenarios.
- Inflation, however, may not be a big concern as it is expected to remain in the range of 5%-7% in the FY2021.
- A single-digit and stable interest rate is also expected.
- Although the current account deficit is expected to hover around 1%-2% of the GDP, there would be significant fluctuations in the volume of exports and imports across scenarios.
- Remittances are expected to drop substantially by the end of the next fiscal year.
- In the worst-case scenario, layoffs could increase to 18 million thereby pushing 87 million people into poverty.

Post-COVID-19 Recovery Scenarios for Pakistan's Economy

Projections for Fiscal Years 2020 and 2021*

1. GLOBAL SCENARIO

Before we discuss the potential impact of COVID-19 on Pakistan's economy and make projections, it is important to explore what has happened so far and what is expected regarding the pandemic and the global economy. This is worth discussing because changes on these fronts will have consequences for Pakistan's economy as well.

1.1. Evolution of the Coronavirus Outbreak and the "Great Lockdown"

- December 19, 2019: The COVID-19 outbreak was first identified in the Wuhan city of Hubei province in China.
- March 11, 2020: It was declared a pandemic by WHO.
- It has since spread to 186 countries affecting approximately 3.2 million people and claiming more than 0.23 million lives and still counting.[1]
- USA and Europe: The most affected regions.
- Countries like the USA, Italy, Spain, Germany, UK, China, and India have imposed strict lockdowns.
- Other countries also imposed social distancing measures of varying intensities.
- The borders were sealed and flights were completely banned. These measures resulted in a fall in global trade. Consequently, the countries that are part of global value chains (GVCs) or have some integration in the global market are severely impacted.
- Some of the countries, such as Germany and Spain, are gradually relaxing internal lockdowns. Currently, different countries have imposed lockdowns of varying intensities owning to their domestic health and economic situation.

1.2. Global Growth: Nosedive and Recovery

The COVID-19 has forced the world into a lockdown that has unprecedented economic consequences. The efforts to "flatten the curve" have severely contracted economic activities around the world. This output contraction will continue in the second quarter of the calendar year 2020 as most countries expect to experience peaks in pandemic and consequent social containment measures in the next couple of months. Assuming that the pandemic will recede in the second half of the year (baseline scenario), the global economy is projected to contract by -3% for 2020 (IMF WEO 2020)[2]. Advanced economies and emerging markets are expected to

Authors' Note: The report benefited from comments and suggestions by Nadeem Ul Haque and Durre Nayab. Any error or omission, however, may be attributed to the authors and not to their institution or any group of individuals.

[1] https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6

[2] https://blogs.imf.org/2020/04/14/the-great-lockdown-worst-economic-downturn-since-the-great-depression/

experience growth rates of -6.1% and -1.0% against the pre-COVID-19 targets of 1.7% and 3.7%, respectively. The severity of this crises can be judged from the fact that the Global Financial Crises in 2009 reduced the annual global growth to -0.1 % – a staggering difference of 2.9 percentage points with the projected impact of COVID-19.
Since the situation is expected to improve in the second half of the year, the baseline scenario projects the global economic growth to be 5.8% in 2021. The current shock is more like a self-induced supply shock amplified by a demand shock due to layoffs and low consumer confidence. Once the pandemic recedes and lockdowns are lifted, most economic sectors are expected to bounce back relatively quickly pushing the overall economy upward. In the alternative adverse scenario, where the pandemic continues in 2021, the IMF expects the global GDP to fall by an additional 8% compared to the baseline scenario. If that happens, we might be looking at a U-shaped recovery in the next few years.

1.3. Oil and Commodities Sector

Indeed, the outlook for both energy and non-energy commodity markets is highly uncertain due to various reasons. The most important of them are the duration, the severity, and the measures to mitigate the impact of the coronavirus pandemic. However, energy prices are expected to be affected more than non-energy prices.

The World Bank Report of April 2020 on commodity market outlook comprehensively revised its forecast of energy prices. The report projects that the energy prices are expected to average 40% lower in 2020 than in 2019 but see a sizeable rebound in 2021. More precisely, the oil prices are projected to average $35/barrel in 2020 before recovering to $42/barrel in 2021. It is significantly lower than the last forecast of $58/barrel and $59/barrel, respectively. Furthermore, oil prices are expected to recover only very gradually from their current low levels, before picking up more strongly in the next year.

On the other hand, non-energy prices are projected to decline by 5% in 2020 and stabilize in 2021. It is expected that agricultural prices will remain broadly stable in 2020. However, some unexpected shock cannot be ignored in the backdrop of trade restrictions and the stockpiling of food commodities.

This sistution suggests the terms of trade (TOT) to turn in favour of energy importing countries and against the energy-exporting countries. The Middle Eastern countries are a classic example of the unfavourable movement of TOT. The unprecedented drop in oil prices deteriorated their TOT. On the other hand, the oil-importing countries like Pakistan may experience some improvements in TOT and hence in the current account.

2. NATIONAL SCENARIO

To make projections for Pakistan's economy, it is worth exploring how the situation regarding the pandemic and the lockdown has evolved in Pakistan; how the country could get affected by the global situation; and what the International Financial Institutions (IFIs), such as the IMF, expect about Pakistan's growth trajectory.

2.1. COVID-19 and the Lockdown

- February 26, 2020: The first case of the novel coronavirus in Pakistan was confirmed.
- March 13, 2020: the decision to close educational institutions and suspend international flights, except at Islamabad, Lahore, and Karachi airports, was taken.
- In the next couple of weeks, in the aftermath of rising cases, provinces went into lockdown. M
- May 11, 2020: the lockdown was relaxed and since then more relaxations have been granted.

2.2. Trade and International Lockdown

Although Pakistan may not rank higher on the GVC, the country has enough integration with the global market to feel the impact of international lockdown. The five major trade partners (with more than 50% share in trade) of Pakistan are China, USA, UK, Japan, and Germany. Four of these partners are also the worst-hit countries by COVID-19. Trade disruptions of our major trade partner is a worrying situation for us because Pakistan's import and export shares are highly concentrated with these countries. The USA and China are the major import partners and we rely heavily on them for the import of capital and intermediate goods. These goods are then utilized in the production of final goods for exports and domestic consumption. Similarly, being our major export partners, any economic downturn in these economies would directly affect our exports and therefore our GDP.

2.3. The IMF Projections for Pakistan

With current disruptions in the national and international supply chain, the IMF has projected the annualized growth rate for FY20 to be -1.5% owing to severe output contraction in the fourth quarter of the current fiscal year. This projected growth is in conformity with the State Bank of Pakistan's (SBP) projections but significantly lower than the projections of the Planning Commission, which range between 2%-2.5% for the current fiscal year. With growth remaining tepid in the first half of the FY21, the IMF predicts a V-shaped recovery for Pakistan with annual growth reaching 2% in the next fiscal year. This will be a partial recovery as the pre-COVID-19 projected economic growth for FY21 was 3%. With this baseline scenario, the IMF entertained Pakistan's request for financial assistance of $1.4 billion under the Rapid Financing Instrument (RFI).

3. PROJECTED SECTORAL IMPACTS

This section quantifies the projected impact for five broad aspects of Pakistan's national economy. These include the overall economy (real GDP growth), the fiscal scenario, monetary variables, the external sector, and socioeconomic variables (poverty and unemployment). The projections are made for the Q4FY20 as well as for all quarters of the next fiscal year. These projections are given for several scenarios as defined below.

Baseline Scenario- *The Optimistic Scenario*

The country went into stricter lockdown in the last week of March and remained so till May 10. Although some essential industries were allowed to reopen on April 15 with strict SOPs, these could not function properly due to the ban on public transport and other industries in the supply chain. Since May 11, the lockdown has been eased out and several sectors have been allowed to reopen on the condition to follow social distancing SOPs. It is expected that the easing of lockdown will continue and the remaining sectors (e.g. intercity public transport) will be also be allowed to operate in the coming days.

In the baseline, it is assumed that:

- the lockdown will completely be over by June 2020;
- the economic disruptions experienced by the country during this period will be concentrated mainly in the Q4FY20;
- thereafter, a gradual recovery (both domestic and global) is assumed as the pandemic is expected to fade away in the first half of FY21;
- the recovery, however, will remain below the pre-COVID-19 expected growth.

Scenario 1- *The Summer Surge*

Because of the fluid nature of the pandemic, there are risks and uncertainties surrounding the recovery. Hence, we also assume alternate scenarios.

In this scenario, we assume that:

- there is a surge in COVID cases in the summer because of relaxation in the lockdown in Q4FY20. This is quite possible as the markets already are crowded post-May 11;
- consequently, a stricter lockdown could be imposed in Q1FY21 but removed thereafter;
- the faster global recovery is assumed in this case.

Scenario 2- *The Second Outbreak*

The second alternate scenario assumes that:

- there would be a second wave of COVID-19 across the globe from mid-summer to early winter. This wave could be more devastating as it could coincide with the flu season in several countries;

- hence, the first two-quarter of FY21 could experience contraction not only due to social distancing measures but also because of the global slowdown;
- however, this scenario assumes that this situation will be contained by the end of 2021.

Scenario 3- *The Prolonged Second Outbreak*

This scenario assumes that:

- it would take longer to contain the second outbreak and the effects would be extended to 2021.
- The economic activities would also be disrupted in Q3FY21 due to social distancing measures at the national level as well as disruptions in the global recovery.

3.1. Growth Projections

Using the scenarios defined above, the GDP and sectoral growth rates are projected for the current as well as the next fiscal year. The growth rates are projected using shares of the sub-sectors in GDP, their growth targets, and the quarterly shares of sub-sectors and GDP (Hanif et al 2013; Annual Plan 2019-20).[3,4]

- First, the annualized expected impact of COVID-19 on GDP in FY20 is calculated by anticipating the expected drop in the value-added of the sub-sectors in Q4FY20. This is done by first projecting the quarterly values for all the sub-sectors using the pre-COVID-19 growth rates. The impact of the expected decrease in activities of the sub-sectors due to lockdown is estimated for the fourth quarter.[5] The post-COVID-19 GDP for the fourth quarter is then combined with the GDP of the first three quarters to get the annualized growth rates for sectors as well as overall GDP as shown in Table 1.

- Since the drop in some sub-sectors is assumed to be in certain ranges, the sectoral and GDP growth rates are also given in ranges. As explained in footnote 7, the worst-hit sub-sectors due to the lockdown would be manufacturing, transport, and the wholesale and retail trade.

[3] http://www.sbp.org.pk/publications/wpapers/2013/wp54.pdf

[4] https://www.pc.gov.pk/uploads/annualplan/AnnualPlan2019-20.pdf

[5] The expected drop in subsectors, based on market feel, reports and experts' views, are assumed as follows: Important Crops (0-5%); Other Crops (0-10%); Livestock (10%); Fishing (5%); Forestry (0%); Mining and Quarrying (15-20%); LSM (15-30%); SSM (15-30%); Slaughtering (10-20%); Construction (10-20%); Electricity, Gas & Water Supply (5%); Wholesale and Retail Trade (20-35%); Transport, Storage and Communication (20-35%); Finance and Insurance (5%); Housing Services (10%); General Government Services (10%); Other Private Services (10%).

- The expected annualized growth for FY20 could range between 0.62% and -1.36%. The respective loss in the GDP in the fourth quarter ranges between 12% and 19 % of the expected pre-COVID-19 fourth-quarter GDP. These GDP estimates lie between the projected growth rates by the Planning Commission (2.0 – 2.5%) and the IMF and SBP (-1.5%) for FY20.

- The range of growth for the industry would remain in the red, whereas that of the agriculture is expected to remain positive. The services sector, on the other hand, could experience positive or negative growth depending on the range of a decline in transport and wholesale and retail trade. For instance, lifting the ban on public transport, or providing the option of secured and trusted online shopping by retail outlets could turn things around for these sectors.

Table 1: Post COVID-19 Projected Annual Growth Rate for FY20

Variable	Growth Rate Range (%)
GDP	0.62 – -1.36
Agriculture	2.17 – 1.50
Industry	-1.12 – -3.95
Services	0.73 – -1.36

Source: Authors' Calculations

- Next, we make projections (both quarterly and annual) for FY21 considering different scenarios discussed above. The expected growth rates for sub-sectors are multiplied with quarterly shares and sub-sectoral shares in the GDP to arrive at the sectoral and GDP growth rates. These are provided in Table 2.

- In the lockdown, negative growth rates (in respective quarters) are assumed for sub-sectors LSM (-3%), SSM (-3%), slaughtering (-1%), construction (-2%), wholesale and retail trade (-3%), and transport (-3%).

- In all the scenarios, the growth rate of the agriculture sector remains positive and in the 1.86% – 2.90% range. Agriculture would be the least affected sector. On the other hand, the services sector makes significant jumps depending on the duration of the lockdown (0.57% – 2.33%). This shows the sensitivity as well as the potential of the services sector to surge back quickly once the lockdown is lifted. Due to its higher share (61%) in GDP, changes in growth rates of the services sector significantly influence the overall GDP growth rates.[6]

[6] Mechanically it is possible to give ranges for growth rates in the FY21. However, this will require extending the number of assumptions we make due to fluid nature of the situation. Hence, in line with IMF and other Institutions, we prefer giving point estimates instead of ranges for these growth projections.

- The relative share of the fourth quarter in GDP is slightly higher than the other quarters. This, in turn, implies that the impact in the fourth quarter would have a significant effect on annual growth rate as we have seen Table 1.

- Our baseline scenario is consistent with that of the IMF, which also assumes that the pandemic and lockdowns would pass their peaks in the second quarter (April – June) of 2020, and the pandemic will then recede in the next two quarters. Using this assumption, our baseline scenario projects the GDP growth for the next fiscal year to be 2.16% in the next fiscal year. With the extension in the lockdown in an alternate scenario, we can see a gradual decline in the growth rates.

Table 2: Projected Sectoral and GDP Growth Rates for FY21

Scenario	Variable	Q1_FY21	Q2_FY21	Q3_FY21	Q4_FY21	FY21
Baseline	GDP	0.47	0.59	0.52	0.57	2.16
Scenario-	Agriculture	0.59	0.90	0.70	0.73	2.92
Optimistic	Industry	0.23	0.23	0.26	0.24	0.96
	Services	0.52	0.62	0.55	0.64	2.33
Scenario 1-	GDP	-0.06	0.59	0.52	0.57	1.63
Summer	Agriculture	0.30	0.90	0.70	0.73	2.63
Surge	Industry	-0.52	0.23	0.26	0.24	0.21
	Services	-0.02	0.62	0.55	0.64	1.79
Scenario 2-	GDP	-0.06	-0.01	0.52	0.57	1.03
Second	Agriculture	0.30	0.46	0.70	0.73	2.19
Outbreak	Industry	-0.52	-0.52	0.26	0.24	-0.54
	Services	-0.02	0.03	0.55	0.64	1.20
Scenario 3-	GDP	-0.07	-0.02	-0.08	0.57	0.41
Prolonged	Agriculture	0.30	0.46	0.37	0.73	1.86
Second	Industry	-0.52	-0.52	-0.59	0.24	-1.40
Outbreak	Services	-0.03	0.01	-0.04	0.64	0.57

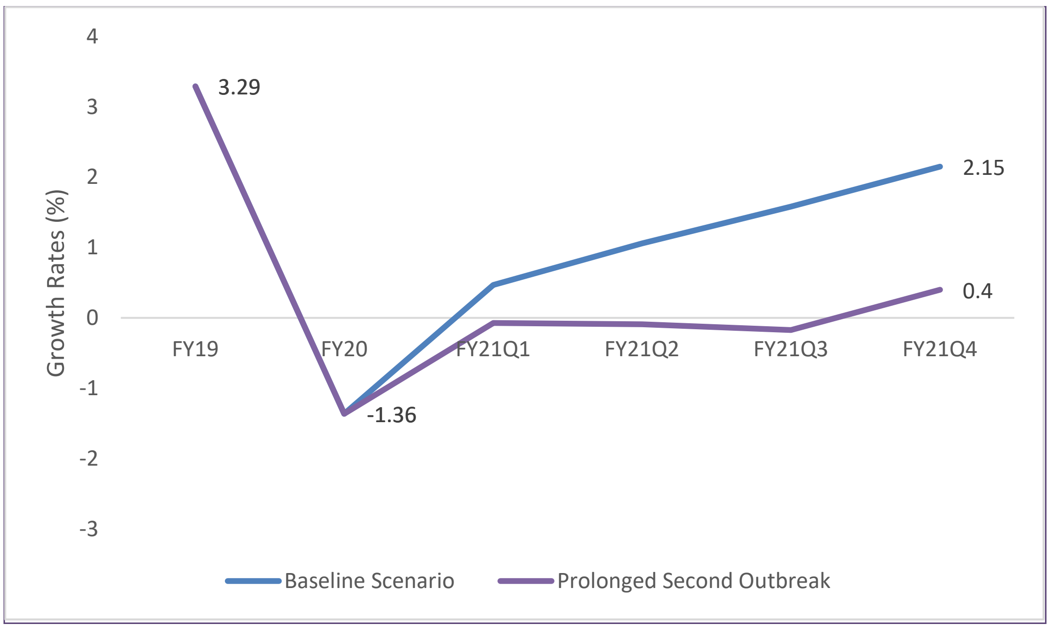
Source: Authors' Calculations

- Using the realized growth rates of the FY19 and projected growth rates for FY20 (the pessimistic value) and FY21 for the baseline (optimistic) and worst-case (prolonged second outbreak) scenarios, we can see a kinked V-shaped and a tilted, L-shaped recovery path for the two scenarios, respectively (see Figure 1). This baseline recovery path is in line with the growth trajectory of the IMF for Pakistan. In the prolonged second wave, the economy will be stagnant with negative growth for several quarters.

Post-COVID-19 Recovery

- The V-shaped recovery exhibits a quick recovery and should not be surprising at all. As discussed earlier, once the lockdown is lifted, certain sectors such as transport will surge back quickly within the next few months. This quick recovery will not be limited to the services sector only. According to a SMEDA survey, 85% of the SMEs plan to rehire laid-off workers within three months of the end of the lockdown.[7] Since the demand side may take some time to fully recover (due to consumers restrain from the purchase of durables and investors to invest), the recovery will be partial. The pre-COVID-19 projected growth for FY21 was 3%. It will take a couple of more years to be back on the pre-COVID-19 growth trajectory.

Figure 1: Growth Recovery for Alternate Scenarios



Source: Authors' Calculations

3.2 Fiscal Scenario

- The crisis is far from over and requires the Government to extend its support on many fronts. The emphasis so far has mainly been on increased health sector spending, social protection, and other development expenditures (e.g. Ehsaas Program and PM relief expenditures).

[7] https://smeda.org/phocadownload/Research_Publications/SMEDA%20Survey%20Report%20-%20COVID-19%20Impact%20on%20SMEs%20reduce.pdf

- Based on the performance in the first two quarters of the current fiscal year, projections for fiscal variables are made using the pre-COVID-19 trend. Utilizing different scenarios for growth and external sector projections as well considering the required measures for social protection, new projections were made to capture the impact of COVID-19. These are provided in Table 3.

Table 3: Projections for Fiscal Variable for FY20 and FY21 (% of Yearly GDP)

Scenario	Variables	Q4_FY20	Q1_FY21	Q2_FY21	Q3_FY21	Q4_FY21
Baseline Scenario	Total Revenues	13.25	3.13	7.71	11.56	17.37
	Tax Revenues	10.45	1.74	4.48	7.71	11.88
	Expenditure	27.15	4.51	11.13	17.35	25.61
	Current	20.81	4.07	9.53	14.68	21.21
	Development	6.23	0.42	1.58	2.60	4.30
	Overall Deficit	13.90	1.38	3.42	5.79	8.24
	Primary Deficit	7.50	0.07	0.48	1.30	2.08
	Fiscal Space for COVID	3.16	0.06	0.34	0.36	0.38
	External Debt savings	0.10	0.08	0.17	0.25	0.36
Scenario 1	Total Revenues	13.25	3.15	6.75	10.15	15.67
	Tax Revenues	10.45	1.75	3.75	6.55	10.48
	Expenditure	27.15	6.51	13.46	20.07	28.38
	Current	20.81	4.08	9.61	14.79	21.36
	Development	6.23	2.42	3.83	5.20	6.92
	Overall Deficit	13.90	3.37	6.70	9.92	12.71
	Primary Deficit	7.50	2.05	3.75	5.41	6.53
	Fiscal Space for COVID	3.16	2.06	2.62	3.01	3.04
	External Debt savings	0.10	0.08	0.17	0.25	0.36
Scenario 2	Total Revenues	13.25	3.17	6.79	9.36	14.20
	Tax Revenues	10.45	1.76	3.77	5.87	9.24
	Expenditure	27.15	6.55	14.00	20.32	28.73
	Current	20.81	4.11	9.61	14.86	21.51
	Development	6.23	2.43	4.36	5.39	7.12
	Overall Deficit	13.90	3.39	7.20	10.96	14.53
	Primary Deficit	7.50	2.06	4.23	6.43	8.31
	Fiscal Space for COVID	3.16	2.07	3.15	3.20	3.29
	External Debt savings	0.10	0.08	0.17	0.25	0.36
Scenario 3	Total Revenues	13.25	3.19	6.84	9.41	13.16
	Tax Revenues	10.45	1.77	3.80	5.91	8.40
	Expenditure	27.15	6.59	14.08	21.82	30.34
	Current	20.81	4.13	9.67	14.92	21.67
	Development	6.23	2.45	4.39	6.83	8.57
	Overall Deficit	13.90	3.41	7.25	12.41	17.18
	Primary Deficit	7.50	2.07	4.25	7.84	10.92
	Fiscal Space for COVID	3.16	2.08	3.16	4.63	4.77
	External Debt savings	0.10	0.08	0.17	0.25	0.37

Source: Authors' calculations

Note: Columns for quarter 4 show accumulated values for the respective fiscal years.

- Tax revenues are expected to fall by 10% in FY20 as compared to FY19. However, total expenditures are expected to increase by 25%. Depending on likely scenarios for the next quarters, these will change. In the baseline scenario where it is expected that the pandemic would subdue in this quarter resulting in easing of the lockdown and V-shape recovery of the economy, the tax revenues are expected to improve by 16% and budget deficit to fall by 39% in FY21 as compared to FY20 in monetary terms (as a percentage of GDP these will be 11.88% and 8.24% respectively in FY21).

- The fiscal cost (projected revenue loss and increased expenditure) is expected to be USD 14 billion. The fiscal support for COVID-19 is estimated to be more than 3% of GDP in FY20. In the baseline scenario, it will effectively be close to zero in the next fiscal year. However, under scenarios 2 and 3, additional fiscal support would be required for FY21 (see, for instance, scenario 3 with 4.8% of the GDP).

- Fiscal deficit was expected to be around 8% of the GDP in the pre-COVID-19 scenario. Now it is projected to be around 14% of the GDP for FY20. This will primarily be the result of an increase in fiscal deficit (increase in expenditures and reduced revenues) and a decrease in GDP as a denominator. For the best (baseline) and the worst-case scenarios, these are expected to be around 8% and 17% of GDP, respectively, for FY21.

- Considerable commitments from donors (around 1.7 Billion $) would ease the burden on the domestic credit market, especially the banking sector. Although the lockdown was imposed only in the last quarter of the current fiscal year, owing to a higher deficit, we still expect the net borrowing from the domestic credit sector to increase by about 28% in FY20 as compared to FY19. However, in the baseline scenario for FY21, we expect a decline of 39% in financing from the domestic credit market as compared to FY20. The reduced inflow from the non-banking sector (mainly National Saving Scheme) due to reduction in the policy rate from SBP and reduced requirement for financing would release significant resources for the private sector credit operations in FY20.

- Savings are expected from a decrease in debt servicing due to the reduction in the policy rate. Similarly, on the external front, G20 debt service relief of USD 1.2 billion is also expected. This, along with donor assistance, may help prevent a deterioration in the foreign exchange reserves and thereby maintaining the exchange rate.

3.3. Monetary Variables

Inflation

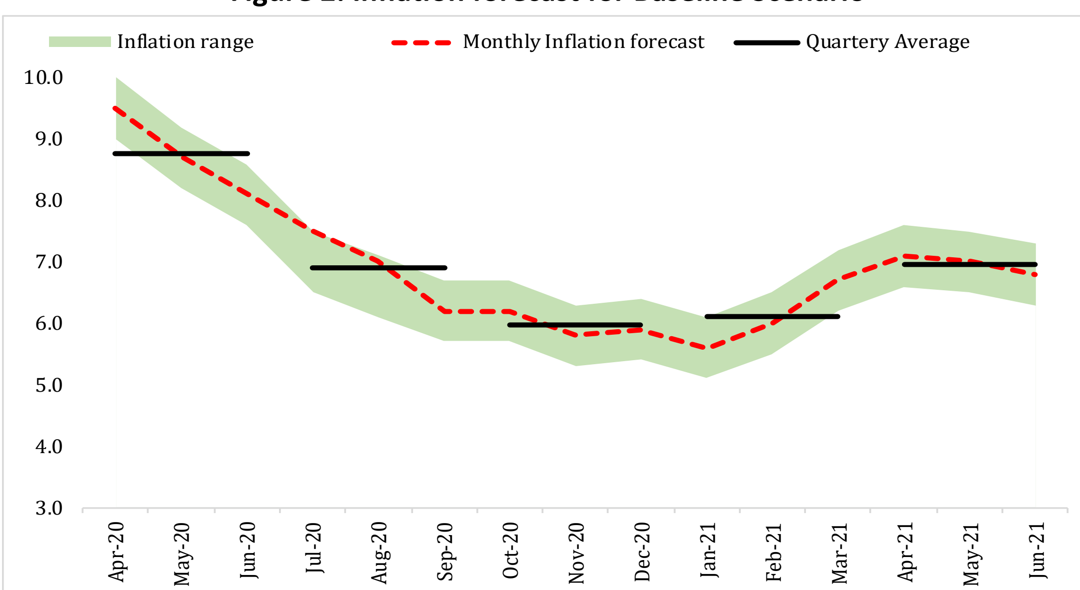
- We use multivariate models for inflation forecasting. Key variables used in these models include CPI, oil price, exchange rate, trade, M2, Public Sector Borrowing, Private Sector Credit, and Large Scale Manufacturing Index. The data frequency is 1990 to date.

- In the fourth quarter of FY20, inflation is expected to remain between 9% -10%. It then gradually falls but remains between 7%-8% in the baseline scenario for the next fiscal year (see Figure 2).

- The quarterly inflation forecast may vary both upward and downward in FY21, depending upon different scenarios. It is expected to remain in the range of 5% to 8%. However, the trend would be predominately downwards (see Table 4). It may come from unprecedented low energy prices and some other administrative measures. For instance, subsidy for wheat and sugar sectors in the next year may put downward pressure on food inflation, thereby pushing overall inflation downwards. Another reason could be a reduced consumer demand (especially for durables) due to COVID-19. The upside risk may come from temporary supply disruptions and food price shock.

- It is expected that the movement across quarters may remain in the range of 1% to 2% in different scenarios. That is, inflation may drop to as low as 5% and may jump up to 10%. These numbers, however, may be revised as the latest data of Sensitive Prices Index (SPI) is released, or any revisions in the energy prices are made.

Figure 2: Inflation forecast for Baseline Scenario



Source: Authors' calculations

Interest Rate

- This document uses the Monetary Policy Statement (MPS) of State Bank of Pakistan (SBP) as a guideline for interest rate predictions. The SBP indicates ZERO REAL INTEREST RATE. We also assumed zero interest rate in the crisis period and then follow the historical path of real interest rate (around 1 percent to 1.5 percent) in the recovery period, which is the end of FY2021.

- It is expected that the interest rate will move around the inflation rate considering the assumption of zero interest rate, as indicated in the latest Monetary Policy Statement and as practised by other emerging economies. Therefore, our projections hover around projected inflation rates, as shown in Table 4.

Oil Prices

- Oil prices are taken according to the IMF assumption, and monthly paths are extracted from futures**.** Electricity, gas, tax structure, domestic petroleum products are assumed to remain at the same level.

Exchange Rate

- The main drivers of the exchange rate will be the import pressures and debt repayment. However, there is no sign of pressure in the last quarter of the FY20 due to improvement in the current account. The impact of flight of the hot money has been already transmitted in the previous two months. There is, however, considerable uncertainty about FY2021. According to the baseline scenario, the economic activities will be on a path of recovery in the next fiscal year. The revival of economic activities will hit the current account. As per the market feel, the exchange rate parity will hover around 160 to 175 Rs/USD. However, this evidence is anecdotal.

Table 4: Scenario wise Analysis of Monetary Variables (Quarterly Averages)

Scenario	Variables	FY20_Q4	FY21_Q1	FY21_Q2	FY21_Q3	FY21_Q4
Baseline Scenario- Optimistic	Inflation	8.0	6.9	6.0	6.1	7.0
	Interest	8.0	7.0	6.5	7.0	7.0
	Oil Price Effect	25	30	40	40	40
Scenario 1-	Inflation	8.0	6.6	5.5	5.6	6.0
Summer Surge	Interest	8.0	7.0	6.0	6.5	6.0
	Oil Price Effect	25	20	30	30	30
Scenario 2-	Inflation	8.0	7.4	6.2	6.4	6.7
Second Outbreak	Interest	8.0	7.0	6.0	6.5	7.0
	Oil Price Effect	25	25	35	35	35
Scenario 3-	Inflation	8.0	6.4	5.0	5.2	5.5
Prolonged Second Outbreak	Interest	8.0	7.0	6.0	6.0	7.0
	Oil Price Effect	15	15	25	25	25

Source: Authors' calculations

Note: Inflation and interest rate are in percent whereas oil prices are in USD per barrel.

3.4. External Sector Growth Projections

As discussed in section 3.1 on growth projections, the social distancing measures have affected every sector of the economy. On the domestic front, the lockdowns have restricted mobility and disrupted production activities, and consequently affected the demand and supply of goods and services. This effect is exacerbated by a fall in exports and imports from major partner countries resulting from trade restrictions, postponement/cancellation of export and import orders, limited air cargo, and border controls.

It is, however, not clear how long countries will be able to continue with such strict social distancing measures, and what would be the economic damages to the external sector of Pakistan. This section builds three scenarios to make projections about Pakistan's external sector performance:

In the baseline, it is assumed that:

- Social distancing measures are assumed to stay in place until June 2020.
- During this quarter, merchandise exports and imports are expected to fall by 20 percent, services decline by 60 percent.
- These measures also affect capital and financial accounts. An effective medical treatment may not be discovered in three months. But if health effects improve and social distancing measures completely disappear until June 2020, we assume V-shaped recovery will take place in FY21.

Scenario 1: The first alternate scenario assumes that:

- Social distancing and partial lockdown may take place for six months, it would be extended until September 2020.
- In this scenario, we assume trade further deteriorated, it would fall by 50 percent and service trade would fall by 80 percent
- The six-month suppression would lead to U-shape recovery as majority of the businesses will take longer to revive again.

Scenario 2: The second alternate scenario assumes that:

- There would be a second wave of COVID-19 across the globe from mid-summer to early winter. This wave could be more devastating as it could coincide with the flu season in several countries.
- So, suppression measures will have to stay until December 2020 (first two quarters of FY21)
- We assume that trade might decline by 80 by the end of December 2020.

Trade disruption effect of COVID-19 is transmitted through the following channels:

- Reduction of labour supply (as well as demand), both skilled and unskilled.
- Reductions in both demand and supply in various sectors of the economy such as restaurants, retail business, and personal services. Demand for tourism is drastically

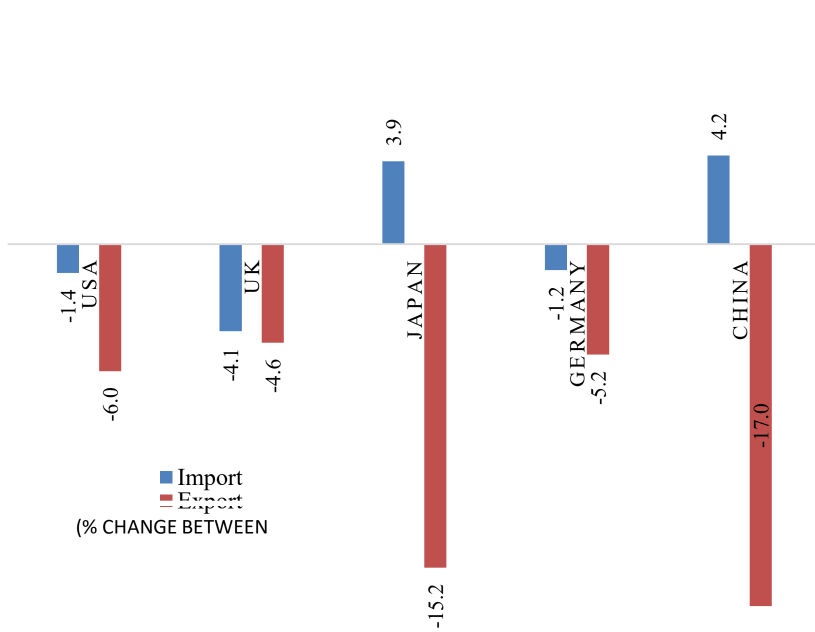
reduced and people have started postponing consumption of durable goods because of difficulty in shopping and uncertainty about the future.

- International trade costs have increased because of increased border controls, a lack of supply of air cargo, and restrictions on personal travel thereby raising trade costs of services.

- Looking at the trade profile, Pakistan may not rank higher on the GVC, but the country has enough integration with the global market to feel the impact of international lockdown. The five major trade partners (with more than 50% share in trade) of Pakistan are China, USA, UK, Japan, and Germany.

- All these partners are also the worst-hit countries by the COVID-19. The situational analysis of imports and exports from December 2019 to February 2020 for these major trade partners is shown in Box 1. There have been significant disruptions in the international trade flows of these countries. China and Japan experienced more than 15% reduction in their exports. Rest of three partners have this reduction around 5%. Some of them have also experienced reductions in their imports.

Box 1: Trade Disruption in Major Trade Partner



- Externally, the global downturn, including in Pakistan's major export markets (China, the EU, and the U.S.), would reduce demand for Pakistan's exports, especially for textiles, and lead to more limited financial flows.

Impact on External Sector in FY2020

Box 2 presents immediate external economic effects that would come into play.

Box 2: *Preliminary Economic Effects*

- Historically Pakistan Exports grow at 3.5% annually while imports at 8%.
- Reduction in export growth is expected due to the fall in external demand and supply in major partners.
- More than 50% of export orders have declined (World Bank, 2020).
- The imports of inputs for production have also declined. For instance, in March 2020, textile sector observed a 21% decline in imported raw material, whereas capital demand declined from 14% to 45% in several sectors. Similarly, other sectors such as transport, iron and steel, chemicals, food etc. are showing large reduction in input imports.
- Trade costs of global imports and exports increase by 25% (WTO, 2020).
- Remittances are expected to drop by 25% during FY20 and FY21 as activity in GCC countries declines.

- First, In table 5, the annualized expected impact of COVID-19 on exports and imports, trade balance, and current account in FY20 is calculated by anticipating the expected drop in the exports and imports in goods and services sectors and remittances for the fourth quarter of the current fiscal year. This is done by first projecting the quarterly values for exports and imports by assuming a 20% drop in merchandise exports and imports, and a 60% drop in the services sectors. The expected impact shows that, compared to Q3FY20, the exports and imports may decline by 25% in Q4FY20. A relatively larger decline in imports is expected.

- Trade balance on goods and services improves by 27%. The post-COVID-19 trade for the fourth quarter is then combined with the trade of the first three quarters to get the annualized growth rates for exports and imports and overall current account situation as shown in Table 5.

- Based on this expected drop in export and import of goods and services in the last quarter, the annualized growth of exports and imports for FY20 is expected to be -7.7% and -21%, respectively. The trade balance would improve by 34% compared to FY19. We must note that the health of the external sector was not encouraging even in the pre-COVID period. In baseline pre-COVID, the annualized growth in exports was almost zero and import growth was also negative.

- These external sectors estimates are consistent with IMF projections for exports (-2.1%), for imports (-18%) for FY20.

Table 5: Projected External Sector Growth Rates for FY20

	Historical	Actual			Pre-COVID Projections		Post-COVID Projections	
Scenario I		**Q1**	**Q2**	**Q3**	**Q4**	**FY20**	**Q4**	**FY20**
Export (G&S)	3.5	-4.3	9.2	-8.5	4.5	-0.4	-25.8	-7.7
Imports (G&S)	5.5	-13.0	-1.4	-2.2	8.3	-14.6	-26.7	-21.8
Trade Balance (G&S)	10.2	-21.5	-13.9	7.3	13.3	-27.7	-27.7	-34.9
Remittances	5.1	-7.0	6.0	-6.0	5.0	1.0	-9.0	-2.4
Current Account (% GDP)		-0.2	0.2	0.02	-0.18	-0.23	0.4	0.3
Capital Account (% GDP)		0.04	0.03	0.01	0.03	0.11	0.032	0.11
Financial Account (% GDP)		-0.7	-1.2	-0.2	-	-	-0.1	-2.1
Reserves ($ Billion)				12.6			12.1	12.1
Scenario I: ($ Billion)								
Export (G&S)		7.3	7.9	7.3	7.629	30.1	5.4	27.9
Imports (G&S)		13.4	13.2	13.0	14.08	53.1	9.5	49.1
Trade Balance (G&S)		-6.1	-5.3	-5.7	-6.5	-23.6	-4.1	-21.2
Remittances		5.4	5.9	5.6	5.9	22.8	5.1	22.1
Current Account (% GDP)		-0.2	0.2	0.0	-0.18	-0.23	0.4	0.3
Capital Account ($ million)		110	88	32	89	319	94	319
Financial Account ($ million)		-1995	-3611	-392	-	-	-274	-6271
Reserves ($ Billion)				12.6			12.1	12.1

Source: Authors' calculations

- In the Q3FY20, the early stage of the COVID-19 breakout, remittances declined by 5%. A further decline in remittances is expected in the last quarter as the economic activities have come to a halt in the GCC countries. In Q4FY20, it could decline by 9% (see Table 5). However, the annualized remittances growth would be -2.4% in FY20.

- Finally, due to the significant fall in import bill in Q4FY20, current account balance could improve. Current account annualized effect would also be less than 0.1% of the annual GDP in FY20. However, as can be seen from Table 6, economic activities will revive, and the current account is projected to be -1.63% of GDP in FY21 (IMF projects it to be -1.7% of GDP).

Impact on External Sector in FY2021

- Next, we make projections (both quarterly and annual) for FY21 considering alternative scenarios. Under scenarios I and II, the expected growth rates for exports and imports in goods and services, and trade balances are projected in Table 7. Under scenario II, we can expect the exports to decline further, and the growth of imports would also be negative. The trade balance would deteriorate by 10% in Q1FY21 and 10% in the second quarter. Current account (without transfers) would remain between 0.3-1.0% of the GDP in FY21.

Table 6: Projected External Sector Growth Rates for FY21 (Baseline Scenario)

	Q1_FY21	Q2_FY21	Q3_FY21	Q4_FY21	FY21
Baseline Scenario (growth rate)					
Export (G&S) gr	18.7	4.7	10.0	8.3	2.1
Imports (G&S) gr	15.9	9.0	11.8	10.9	4.5
Trade Balance (G&S) gr	12.2	15.1	14.0	14.1	7.6
Remittances gr	-4.3	-4.3	-4.3	-4.3	-17.0
Current Account (% GDP)	-0.1	-0.2	-0.5	-0.88	-1.7
Capital Account (% GDP)	0.04	0.03	0.01	0.032	0.11
Financial Account (% GDP)	-0.09	-0.09	-0.09	-0.09	-0.05
Reserves ($ Billion)	-	-	-	-	17.1
Baseline Scenario ($ Billion)					
Export (G&S)	6.4	6.7	7.4	8.0	28.5
Imports (G&S)	11.0	12.0	13.4	14.9	51.3
Trade Balance (G&S)	-4.6	-5.3	-6.0	-6.9	-22.8
Remittances	4.5	4.2	4.0	3.8	16.5
Current Account (% GDP)	-0.1	-0.2	-0.5	-0.88	-1.7
Capital Account ($ million)	110	88	32	89	319
Financial Account ($ million)	-274	-	-	-	-1465
Reserves ($ Billion)	-	-	-	-	17.1

Source: Authors' calculations

- Pakistan has formally sought debt relief from 11 bilateral creditors among the G20 countries. The IMF has also provided financial assistance of $1.4 billion under RFI. Oil prices have dipped. There may not be excess pressure on the exchange rate as well as on the SBP reserves. Our projections suggest that reserves will reduce from $12.6 billion to $12.1 billion in the last quarter of FY20 (Table 5). Underbaseline scenario, the reserves would improve to $17 billion in FY21 (Table 6 and 7).

Table 7: Projected External Sector Growth Rates for FY21 (Scenario II & III)

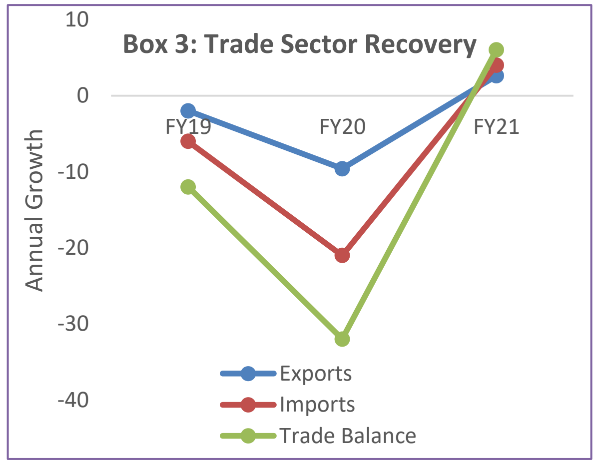
	Q4	Q1	Q2	Q3	Q4	FY21
Scenario 1						
Exports	-25.8	-33.5	21.9	10.0	8.4	-35.8
Imports	-26.7	-24.4	20.4	11.7	10.9	-24.8
Trade Balance	-27.7	-13.8	18.4	14.0	14.1	-10.7
Remittances	-9.0	-4.3	-4.3	-4.3	-4.3	-17
Current Account (% GDP)	0.2	0.2	-0.1	-0.4	-0.7	-1.0
Capital Account (% GDP)	0.03	0.11	0.04	0.03	0.01	0.032
Financial Account	-0.09	-0.09	-0.09	-0.09	-0.05	-0.09
Reserves ($ Billion)	12.1	9.3				17.0
Scenario 2						
Export	-25.8	-33.5	-33.5	24.06	13.17	-55.9
Imports	-26.7	-24.4	-21.6	23.93	12.79	-37.5
Trade Balance	-27.7	-13.8	-12.3	23.76	12.28	-14.5
Remittances	-9.0	-33.5	-4.3	-4.3	-4.3	-17
Current Account (% GDP)	0.2	0.2	0.1	-0.29	-0.54	-0.74
Reserves ($ Billion)	12.1	9.3	8.37			14.6

Source: Authors' calculations.

- For the capital account, we can expect stability in FY21. It would range between 0.01% of the GDP to 0.031% of the GDP in FY21. Direct investment in Pakistan is likely to drop by 35% in Q4FY20. The financial account could reduce from -0.2% of the GDP to -0.1%. Since the direct investment was falling in the pre-COVID period as well, the effect is aggravated after the pandemic. Direct investment is likely to reduce from -0.03% of the GDP in FY19 to -0.01% of the GDP in FY20.

External Sector Recovery

- Based on the projection presented in Tables 5 and 6, Box 3 exhibits a V-shaped recovery in the trade sector for the baseline scenario. This is in line with the growth projections shown in Table 2 and Figure 1. As discussed earlier, once the lockdown is lifted, certain sectors will surge back quickly within the next few months. This quick recovery will not be limited to the services sector only. LSM will be on the path to its pre-COVID capacity. SMEs will rehire laid-off workers within three months from the end of lockdown (SMEDA Report 2020). Since the demand side and reduction in trade restrictions may take some time, the recovery, of course, would be partial. The historic growth of exports and imports is 5% and 8%, respectively. It will take a couple of more quarters to be back to the pre-COVID-19 growth trajectory. V-shaped recovery may not be possible in alternate scenarios as can be observed from Tables 5-7.



3.5. Projections for Socioeconomic Variables

Poverty

- Poverty projection is based on poverty estimates for 2018-19 (21.5 percent poverty) recently published by PIDE.[8] We assumed a 10% decline in household consumption due to COVID19 in each quarter. This provides a base poverty estimate for Q4.
- Then, we assumed a 2.5% adjustment (reduction) every quarter in poverty estimates during the recovery period from the first quarter of FY21. Furthermore, we assumed a 10% increase in poverty under scenario 1 for the first quarter of FY21 and 10% additional decline in subsequent quarters under scenario 2 & 3.
- Based on the growth projection provided in section 3.1, a 10% decline in income will put 67 million people in poverty at the end of the fiscal year 2020 from baseline 48 million poor by assuming poverty rate of 21.5% based on HIES 2018-19 (see Table 8).

[8] https://www.pide.org.pk/pdf/PIDE-Knowledge-Brief3.pdf

Table 8: Impact on Poverty, Unemployment and Layoffs

Scenario	Q4_FY20	Q1_FY21	Q2_FY21	Q3_FY21	Q4_FY21
Poverty (million)					
Baseline Scenario	67	65	64	62	61
Scenario 1	67	74	72	70	68
Scenario 2	67	74	81	79	77
Scenario 3	67	74	81	89	87
Unemployment (million)					
Baseline Scenario	4.23	4.02	3.82	3.63	3.45
Scenario 1	4.23	4.44	4.22	4.01	3.81
Scenario 2	4.23	4.44	4.66	4.43	4.21
Scenario 3	4.23	4.44	4.66	4.90	4.65
Layoffs (million)					
Baseline Scenario	12.3	9.2	6.9	5.2	3.9
Scenario 1	12.3	15.4	11.5	8.6	6.5
Scenario 2	12.3	15.4	19.2	14.4	10.8
Scenario 3	12.3	15.4	19.2	24.0	18.0

Source: Authors' calculations.

- For the baseline scenario (also considered the best scenario in growth projections) poverty will decline to 61 million at the end of FY21. In the worst-case scenario, however, it will increase to 89 million.

Unemployment and layoffs

- Baseline unemployment figure is calculated using methodology provided by ILO to calculate the impact of COVID-19 on unemployment across different sets of countries. Same assumptions are used for projections of unemployment and layoff as discussed for poverty. In the case of layoff, we assumed 25% adjustment every quarter during the recovery period.
- The projections show that, for the baseline scenario, unemployment will decline from 4.23 million to 3.45 million by the end of the next fiscal year. Similarly, the temporary layoffs will decline from 12.3 million to 3.9 million due to the partial economic recovery in FY21.
- However, in the worst-case scenario, unemployment and layoffs would increase to 4.65 million and 24 million respectively. The longer the pandemic lasts, the greater will be the cost in the form of deteriorating socioeconomic conditions due to delayed economic recovery.

4. A WORD OF CAUTION

The situation is fluid and constantly evolving. Consequently, the government reacts accordingly in terms of duration and intensity of lockdown. Certain informed assumptions are made to arrive at these projections. As more information becomes available, these projections can be refined and updated. Nonetheless, since the government is facing the lockdown paradox, these projections may be combined with those coming from epidemiologists and public health experts to arrive at any policy response. Since policy response will affect these projections, the system will be endogenous which can help improve the decision-making process.

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