



AFGHANISTAN

COVID-19 Socio-Economic Impact Assessment

Fiscal Options in Response to Coronavirus Crisis

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UNDP AFGHANISTAN

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Abbreviations

| | |
|----------|--|
| Afs | Afghanis (the currency of Afghanistan) |
| COVID-19 | Coronavirus Disease 2019 |
| CGE | Computable General Equilibrium |
| GDP | Gross Domestic Product |
| IFIs | International Finance Institutions |
| ICU | Intensive Care Units |
| IMF | International Monetary Fund |
| MDR-TB | Multi-drug-resistant tuberculosis |
| MoPH | Ministry of Public Health |
| SDGs | Sustainable Development Goals |
| TB | Tuberculosis |
| UNDP | United Nations Development Programme |

Foreword

The Coronavirus or COVID-19 pandemic has brought about the most significant global economic crisis since 1929 and Afghanistan is no exception. Afghanistan's economy has suffered from numerous internal and external shocks. From this perspective, UNDP Afghanistan has analyzed the transmission channels of this crisis and complemented the analysis with policy recommendations that have the potential to mitigate against the adverse impacts of the pandemic.

UNDP Afghanistan has produced three Country Notes assessing the impact of COVID-19 on the economy and the Sustainable Development Goals (SDG). This fourth note focuses on possible fiscal policy measures that could serve to mobilize additional resources and support economic recovery.

Government fiscal revenue has decreased substantially and has in turn reduced the scope for effective counter-cyclical fiscal policy to maintain economic activity over the first half of the year. Government spending has also declined over recent months as a result of declining revenues and administrative disruptions to development projects spending associated with social distancing measures.

The UNDP model simulations aim to quantify the fiscal space needed to cover economic losses caused by the pandemic with roughly unchanged policies, except for responses specific to the health crisis. The result is that Afghanistan would need approximately 30% more in grants from the international community over the next five years to maintain the level of government expenditure initially planned in the IMF projections.

In the absence of such an increase, the pandemic requires significant fiscal adjustments. Both recurrent and development expenditures should be reallocated towards COVID-19 response activities, including social protection and healthcare. Meanwhile, the model simulations show that all adjustments, whether on the revenue or expenditure side of the budget, carry a 'growth penalty.' The simulation results rank these by the size of penalty, puts forward potential solutions for reference, and recommend policies from the perspectives of donor and government that have the potential to minimize the output losses in 2020, and over the 2020-2024 period.

Results also show that improvements to governance and enforcing effective anti-corruption measures could have significant implications in terms of growth, leading to an increase in total factor productivity and tax collection.

Afghanistan's highest priority request to its development partners is to ensure continued and predictable grant support. Precipitous declines in grant flows over the coming years would trigger significant contractions in Government services, undermining development outcomes and future growth prospects. A clear commitment to continued grant support is vital to improve confidence and encourage investment.

I hope that this note will prove useful to policymakers in Afghanistan and complement similar work being carried out by our other partners.



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Executive Summary

Due to the lack of fiscal space, until now support from international donors has been necessary for emergency interventions to fight COVID-19, because both domestic capacity and sufficient funds were lacking. Although the future course of COVID-19 is uncertain, in the short-term, capacity and funding will remain insufficient to support recovery and sustainable economic growth over the long-term. Moreover, the level of donor support has been declining in recent years. If this trend continues, and if there are no significant policy changes, the economic situation in Afghanistan will deteriorate further.

The pandemic has required significant fiscal adjustments to be made. Some recurrent and development expenditures were reallocated towards COVID-19 response activities, including social protection and healthcare interventions to fight the pandemic. This has proved insufficient and had an adverse impact both on the quality of the health services that can be provided and the achievement of the planned development agenda of the Government. For example, routine health services and non-communicable disease case management have been particularly hard hit. As a result, progress towards the achievement of some SDG-3 targets has been set back.

The United Nations Development Programme (UNDP) Afghanistan Country Office has produced three Country Notes assessing the impact of COVID-19 on the economy and on the SDGs. This fourth note focuses on possible fiscal policy measures to mobilize additional resources to support recovery in the health sector while mitigating the adverse impact of the pandemic on Afghanistan's economy. Alternative fiscal policy measures in alleviating the negative impact of the pandemic were simulated using a UNDP Single Country CGE (Computable General Equilibrium) model that represents the Afghan economy in 2018.

These model simulations also estimate a total fiscal loss relative to a pre-COVID baseline projection by the IMF, ranging from 12 percent in 2020 alone, to around 18 percent by 2024, with the average over all scenarios amounting to 16 percent over the whole period. Based on UNDP model simulations, to cover the economic losses caused by the pandemic with roughly unchanged policies except for the immediate response to the pandemic, Afghanistan would need approximately 30 percent more revenue in grants from the international community over the coming five years (around 460 billion Afg or 5.98 billion USD) to maintain the level of expenditures initially planned in the IMF projections.

According to the World Bank, the fiscal deficit is expected to increase even with new COVID-19 related grant support (of around USD 500 million) in 2020. The World Bank expects the budget deficit to be financed through increased withdrawals from the Government's existing cash reserves (around 26.5 billion Afg, 344 million USD), a recent disbursement of 16.8 billion Afg (218 million USD) from the IMF's Rapid Credit Facility, and additional concessional borrowing of 11.6 billion Afg (150 million USD). This would increase the external debt stock that had already reached around 12 percent of GDP.

External borrowing even at a concessional rate is not the optimal financing option in the medium-term. Afghanistan is assessed to have a weak carrying capacity by the IMF Debt Sustainability Assessment developed in 2018.

UNDP is supporting Afghan government in the prudent use of debt and in selecting bankable projects that would help economic performance while maintaining debt sustainability.

Furthermore, the stability of the exchange rate, which is of essential importance, could be undermined by higher debt service obligations that would erode the central bank's reserves, since most of Afghanistan's debt is denominated in foreign currency.

UNDP model simulations highlight the need for the continued support from international donors in the form of grants to keep the country moving towards greater self-reliance—reinforcing the views expressed by the World Bank and other International Financial Institutions (IFIs).

Country Context

The first COVID-19 case in Afghanistan was identified on 24 February 2020 in Herat City, in an Afghan who had just returned from Iran. While donor countries largely covered funding needs for emergency health interventions, the pandemic hit the Afghanistan economy hard. It triggered social and humanitarian emergencies amplified by the combined effects of conflict and fragility, climate change, rising levels of extreme poverty, unemployment, demographic pressures, a surge in the number of returnees, and internal displacements.

The following sections offer an update on the epidemiological and socio-economic facts, as well as fiscal policy options to mitigate economic loss and prepare for a potential second wave of the pandemic, or other similar public health crisis.

Epidemiological Facts

Based on official statistics, the total number of infection cases since February 2020 has now reached around 41,425 cases with 1,536 deaths. Over 100,000 tests led to the identification of COVID-positive cases. Over 34,000 patients had recovered from the disease, with over 5,000 active cases, and 93 patients in critical condition (Table 1).

Table 1. Latest statistics on the Coronavirus pandemic in Afghanistan (July 2020)

| Total Tested | Total Cases | Total Recovered | Total Deaths |
|--------------|-------------|-----------------|--------------|
| 122,392 | 41,425 | 34,321 | 1,536 |

Source: MoPH, 2020

The pandemic reached its peak in July 2020 according to MoPH experts. However, its negative impact was felt across the country's health services. The COVID-19 pandemic has revealed major capacity issues in the health sector of Afghanistan. There were serious challenges in the capacity to diagnose COVID-19, procure medical supplies and services, manage cases, and make available sufficient human resources. The country's capacity for carrying out surveillance and communicating risk also fell short of what would have been needed.

The availability of Intensive Care Facilities (ICU) in Afghanistan has also been a key challenge. There are only 1,000 ICU facilities in Afghanistan, approximately 520 of which are equipped with ventilators.

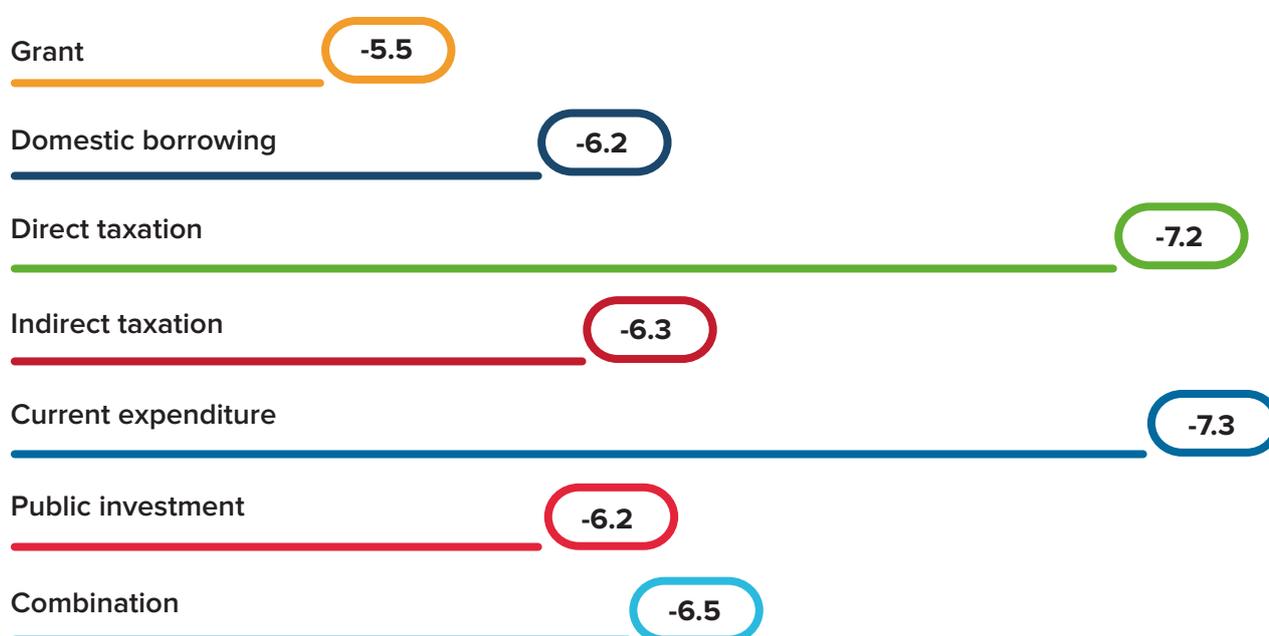
Prior to the emergence of COVID-19, insufficient progress had been made against eight of the SDG-3 targets, and progress against the remaining two targets was not measurable. However, the additional negative impact of COVID-19 on the progress towards the achievement of SDG-3 is likely to have been significant. Mainly due to the lockdown, fewer people have sought healthcare services outside emergency care. Routine services were severely affected with significant impacts on the capacity to treat communicable and non-communicable diseases. For example, data from Afghanistan indicates that around 2,500 fewer Tuberculosis (TB) cases were detected during the first quarter of 2020 compared to the final quarter of 2019. In a few cases, because central and regional labs were exclusively dedicated to COVID-19, some diagnostic services for TB, HIV and malaria were delayed. In addition, the infrastructure for MDR-TB (Multi-Drug Resistant Tuberculosis) treatment in Kabul and provinces were allocated for COVID-19, which had negative consequences on MDR-TB management in the country.

Main Findings

Modelling Simulations

The simulations, summarized in Figure 1 below, show a large negative impact on growth for each of four possible fiscal scenarios (i.e., those that do not rely on additional pandemic-related grants). In the cut in public expenditures scenario, if the Government cuts its current expenditures (consumption of goods and services) to maintain its current level of deficit in 2020, GDP could fall by 7.3 percent in 2020. In the increase in direct taxation scenario, if the adjustment is made by an increase in direct taxes on household income to cover the Government deficit, GDP would fall by 7.2 percentage points in 2020. In a third scenario, a combination of fiscal policies has also been simulated consisting of a reduction of public expenditures (goods and services) by 10 percent for the period 2021-2024, an increase of direct taxes by 10 percent. If indirect taxation was used to close the remaining gap relative to the pre-pandemic baseline, they would have to increase by 92 percent. This combination of fiscal instruments generates a decrease of GDP by around 6.5 percentage points in 2020.

Figure 1. Growth results with alternative fiscal closure rules in 2020 (%)



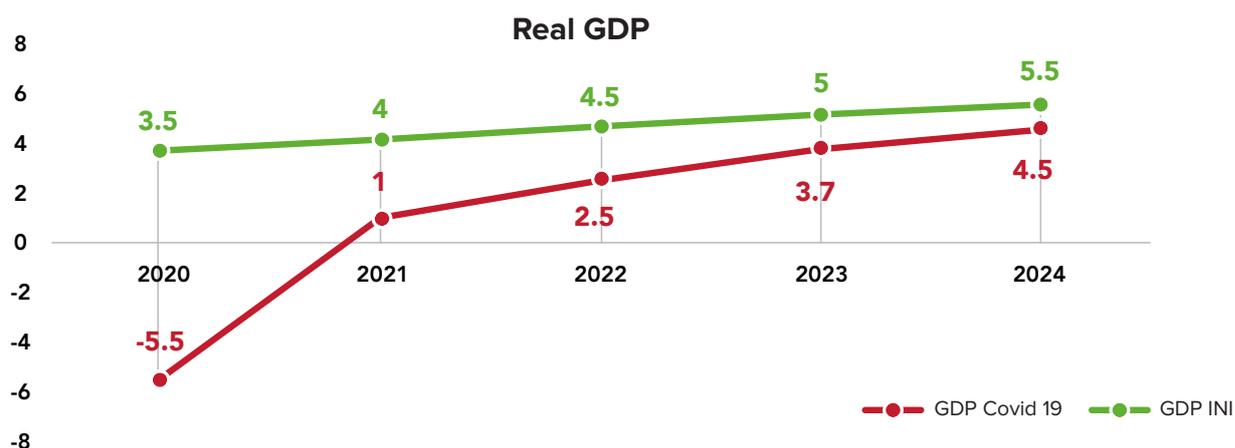
Source: UNDP, Single Country CGE model simulations

Overall macro-economic impact of COVID-19 pandemic on the Afghan economy

Turning to a longer time horizon (upcoming five years period), the Single Country model simulations show that a combination of the internal and external shocks would lead to a decline in GDP growth by around 6 percent in 2020 (Figure 2).

While growth between 2021 and 2024 is expected to be positive along a V-shaped recovery path, it is projected to be moderate, reflecting the rise in violence across the country coupled with the political uncertainty and challenges in the global economy. Without an effective recovery plan, the economy may not return to the growth path that was predicted before the pandemic in the coming years and losing an equivalent of approximately 12.5 percent GDP by 2024 in cumulative terms. This contraction in the economy will significantly reduce real GDP per capita.

Figure 2: Simulated real GDP evolution relative to the pre-COVID19 projections



Source: UNDP Single Country CGE model results

The fiscal impact

According to the World Bank, revenue performance was strong through 2019. Domestic revenues had increased to a record high in 2019 to 208.8 billion Afs (2.7 billion USD), equivalent to 14.1 percent of GDP, a nominal increase of 12 percent over 2018.

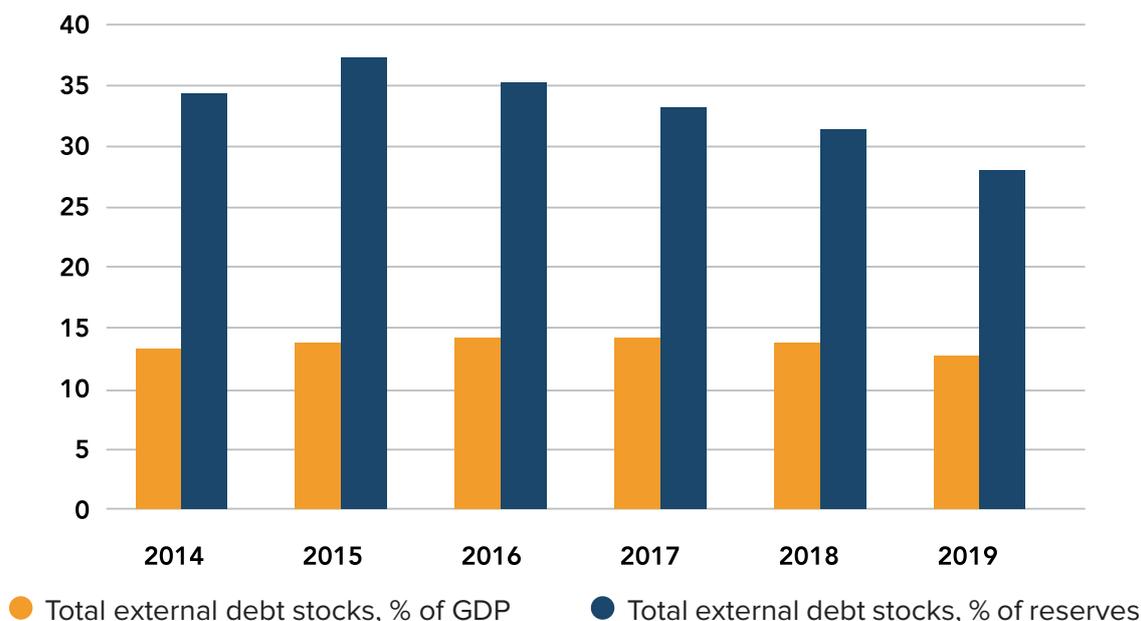
Following the onset of the pandemic, consumption and investment have been constrained by social distancing measures, resulting in lower domestic revenues. This has, in turn, constrained the scope for effective counter-cyclical fiscal policy to maintain economic activity over the first half of the year. Government spending has also declined over recent months as a result of both declining revenues and administrative disruptions to development projects spending associated with social distancing measures (World Bank, 2020).

The weaker revenue performance in 2020 reflected lower economic activity, trade disruptions, and weaker compliance since the onset of the COVID-19 crisis. Government revenue estimates for 2020 were therefore revised downward from 209 billion Afs (2.71 billion USD) to 144 billion Afs (1.87 billion USD) in the mid-year review of the budget. Grants support increased by 38.4 billion Afs (500 million USD), partially offsetting the decline in domestic revenues (World Bank, 2020).

The pandemic has necessitated a reallocation of both recurrent and development expenditures towards COVID-19 response activities, including social protection and healthcare (World Bank, 2020). Subsequent sections estimate the growth impact of such budgetary adjustments and propose alternative policy options using the UNDP CGE model for Afghanistan.

The fiscal deficit in 2020 is expected to rise to approximately 4 percent of GDP including new COVID-related grant support, relative to the previously projected pre-COVID-19 deficit of 1.5 percent of GDP. The deficit is expected to be financed through increased withdrawals from the Government's existing cash reserves (around 26.5 billion Afs; 245 million USD), a recent disbursement of 16.8 billion Afs (around 220 million USD) from the IMF's expected Rapid Credit Facility, and additional concessional borrowing of 11.6 billion Afs (150 million USD) from the World Bank in 2020. This would increase the external debt stock (all concessional) that had hovered at around 12 percent of GDP since 2014 (Figure 3).

Figure 3. Afghanistan's Total External Debt Stocks (2014-2019)



Source: World Bank (2017); 2018 and 2019 are estimates

The IMF Debt Sustainability Assessment developed in 2018 is clear. However, that external borrowing does not represent a viable option for financing the budget deficits in the medium-term, given Afghanistan's weak debt carrying capacity. The IMF report suggests that higher debt service obligations would erode central bank reserves and hence the stability of exchange rate.

From this perspective, UNDP Afghanistan carried out a detailed analysis of the channels of impact of COVID-19 on the Afghan economy – a small open economy – by analysing external and domestic shocks. This analysis is complemented by policy recommendations on alternative policies to mitigate the adverse economic impact of the pandemic.

UNDP Afghanistan CGE model simulations on the impact of the pandemic estimate that corporate tax revenue would decline by an average of 17 percent between 2020 and 2024. Personal income tax revenue could potentially fall by around 18 percent. Revenue from tax on international trade would be heavily affected (down 19 percent) owing to the reduction of the volume of imports. Taxes on goods and services could decline by around 10 percent (Table 2).

Table 2. The effects of the crisis on fiscal revenue (% change)

| | 2020 | 2021 | 2022 | 2023 | 2024 | Average |
|---------------------------|-------|-------|-------|-------|-------|---------|
| Corporate income tax | -12.1 | -15.2 | -17.8 | -18.0 | -19.6 | -17.0 |
| Personal income tax | -13.2 | -15.2 | -17.2 | -17.4 | -18.9 | -16.7 |
| International trade tax | -13.0 | -17.4 | -21.2 | -19.5 | -21.3 | -19.0 |
| Tax on goods and services | -9.0 | -10.2 | -10.7 | -10.0 | -9.5 | -9.9 |
| Total fiscal loss | -12.0 | -14.8 | -17.2 | -16.9 | -18.1 | -16.1 |

Source: UNDP Single Country CGE model results

POLICY RECOMMENDATIONS

Health Sector

Emergency interventions caused by COVID-19 have had a negative impact on the provision of routine healthcare services as well as on other SDG-3 targets. A welcome move would be for MoPH to assess the situation and identify the major factors affecting the supply of and demand for health services during COVID-19. Special measures should be applied to mitigate the impact of COVID-19 on routine and essential healthcare services.

Good governance (SDG-16) is crucial for the effectiveness of the health system in Afghanistan. Lessons learned from COVID-19 would help in shaping future policies for health system strengthening and service delivery in the country. These include (among others) the governance of healthcare – especially at the community level, health service delivery, the availability of pharmaceuticals and essential supplies, human resources for health, health financing, and improvements to the health information system.

UNDP, in collaboration with national and international partners, will support MoPH in strengthening the health system and in ensuring the availability of essential services all over the country, with a focus on women and children.

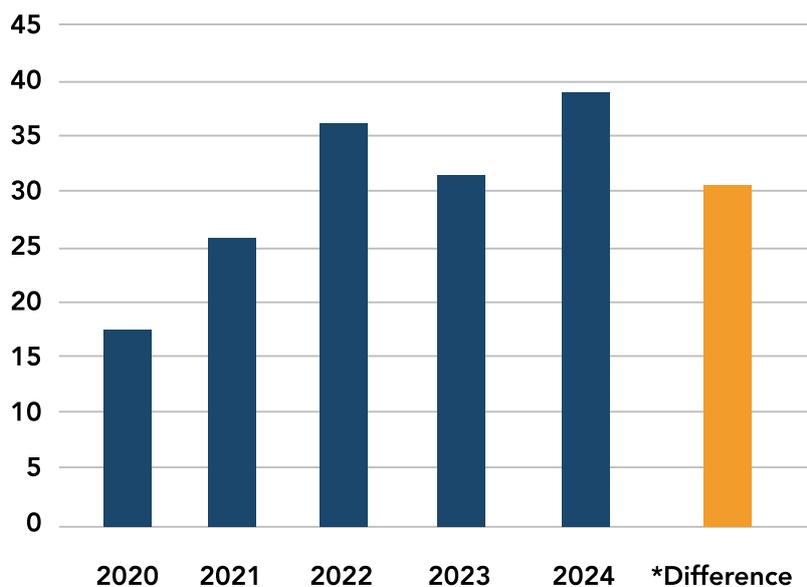
Macro-economic policies

This section discusses the policy options available for Afghanistan for mitigating the negative economic impact of the pandemic. These range from grants and foreign borrowing to policy reforms to increase the fiscal space.

Grants

Based on UNDP model simulations, Afghanistan would need approximately 30 percent (460 billion Afs; around 6 billion USD) increase in grants from the international community over the coming five years to cover government budget losses caused by the pandemic and maintain the level of expenditures initially planned in the IMF projections (Figure 4).

Figure 4: Required additional volume of grants to maintain the level of government expenditure (difference compared to a BaU scenario)



* Difference: Total volume of grants simulated relative to the reference scenario (2020-2024)

Source: UNDP Single Country CGE model results

Policy options to create fiscal space

The Government's ability to implement a significant fiscal stimulus will determine the extent of support for economic activity. This ability is ultimately predicated on the availability of sufficient fiscal space. If deployed in a manner consistent with the sustainability of the budget, the fiscal stimulus could be effective in promoting growth (World Bank, 2017; WPS 8157).

Fiscal space is defined as the budgetary room to spend in this paper. Budgetary room can be created by raising revenue, curbing unproductive expenditure, or undertaking growth-enhancing investment projects, without threatening the liquidity and sustainability of the budget's financial position (Heller 2005; Ley 2009 as in World Bank, 2017).

UNDP's single-country CGE model simulations show that all adjustments - whether on the revenue or expenditure side of the budget - carry a 'growth penalty.' The simulation results rank these by the size of this penalty and put forward potential solutions for reference, and a range of policies from the donor and government that have the potential to minimize the output losses in 2020, and over the 2020-2024 period (Figure 4).

Economic literature shows that institutional weaknesses in the tax collection systems of conflict-affected economies such as Afghanistan, constrain the country's ability to service debt – even when debt-to-GDP ratios are moderate by the standards of advanced economies (Aizenman and Jinjarak 2012 as in World Bank, 2017). Relating the debt stock to realized tax collection or to the size of the tax base is therefore recommended as a better gauge of a government's ability to service its debt.

The Government of Afghanistan can improve its ability to fight the pandemic and to service debt by improving governance (reducing corruption) and raising tax collection. For instance, Kéïta (2017) shows that an improvement of one standard deviation of anti-corruption would improve Total Factor Productivity (TFP) by 0.016 percent (Table 3, Column #1) and limit the cumulative loss over the forthcoming years.

Model simulations (Table 3, Column #2) assuming implementation of good governance measures showed an improved outlook for economic growth by 0.7 percentage point by 2024.

Furthermore, by improving the business environment, the gain in terms of real GDP growth could reach about two percentage points for the whole period (2020-2024).

More specifically, the cumulative GDP loss could reach 10.5 percent if the Government relies entirely on grants in the absence of new grants; while the loss would have reached 11.9 percent (compared to 14.3 percent) if the Government relies on domestic revenue mobilizations through higher taxes and by making a significant effort to fight against corruption (Table 3). Other major economic outcomes, such as employment and income distribution will also improve through the implementation of governance reforms. They would be part of future analysis.

Table 3: Cumulative Impacts (2020-2024) of better governance through anticorruption measures

| Policy definition | Reliance on Grants & Better Governance | | | | Self-Reliance & Better Governance | | | |
|---------------------------------|--|--|--------|-------|---------------------------------------|--|--------|-------|
| | Additional Grants | Better Governance - improvement levels | | | Hybrid* (tax & expenditure reduction) | Better Governance – improvement levels | | |
| | | Moderate | Medium | High | | Moderate | Medium | High |
| Real GDP (%) | -12.5 | -11.8 | -11.1 | -10.5 | -14.3 | -13.5 | -12.7 | -11.9 |
| Corporate income tax(%) | -17.0 | -16.3 | -15.6 | -14.9 | -18.4 | -17.6 | -16.8 | -16 |
| Personal income tax(%) | -16.8 | -16.3 | -15.7 | -15.2 | -11.9 | -11.2 | -10.4 | -9.6 |
| International trade tariffs (%) | -19.0 | -18.2 | -17.8 | -16.5 | -20.7 | -19.8 | -18.9 | -17.9 |
| Tax on goods and services (%) | -10.3 | -10.0 | -10.0 | -9.3 | 92.9 | 86.3 | 79.7 | 73.2 |
| Grants (%) | 30.6 | 28.8 | 27.1 | 25.4 | 0 | 0 | 0 | 0 |
| Financing need (%) | -3.1 | -2.9 | -2.7 | -2.5 | -1.8 | -1.7 | -1.6 | -1.5 |
| Foreign debt (%) | -37.8 | -36.0 | -34.3 | -32.5 | -24.2 | -22.9 | -21.5 | -20.2 |

*Hybrid: Combination of fiscal instruments; taxation and expenditures reduction

Source: UNDP based on the Single Country CGE model

Summary of macro-economic policy recommendations

- To mitigate adverse effects from the pandemic, the financing need of the Government has increased. The Government requires additional assistance to maintain its current level of expenditure on basic services. This is the main reason for the request for increased support from the international community.
- If the Government decides to cover financing needs by increasing its fiscal revenue or by reducing expenditure, this will have additional negative effects on growth and unemployment in the medium-term. International support from the donor community will therefore be essential if the country is to return to a path close to the pre-pandemic one and put the economy on a sustainable path to growth.
- Improvement of governance and anti-corruption measures will lead to improved growth and an increase in total factor productivity.
- Available fiscal resources should be used to protect vulnerable households and maintain the delivery of basic services such as healthcare. Recovery could be supported by rapid action to improve the business regulatory environment and measures to expand access to credit.
- Afghanistan's highest priority request is for its development partners to ensure continued and predictable grant support. Precipitous declines in grant flows over the coming years would force a major contraction in government services, undermining previous gains made and future development outcomes as well as future growth prospects. A clear commitment to continued grant support is vital for improving confidence and investment.

Conclusion

Afghanistan faces multiple challenges, but there is a basis for optimism because of reduced political uncertainties and the emerging prospects for peace.

Although the pandemic is straining economic and social fault lines in high-income countries, sustained grant assistance would be a powerful remedy. Continuing and predictable donor involvement — both through technical assistance and grants — will provide critical support to the Government's efforts. This is given the additional spending on COVID-19, combined with lower revenues further reducing the already highly constrained pre-pandemic fiscal space. International assistance should be predictable, sufficient and timely.

From an Afghanistan perspective, the use of donor funds should be consistent with the needs of the citizens and delivered with greater efficiency and transparency.

UNDP will continue to work with the Government of Afghanistan, together with other development partners, to support Government to navigate its way through the pandemic – towards a sustainable development path, anchored in the Sustainable Development Goals.

References

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Annex: Mathematical Models Used in This Analysis

Single Country CGE Methodology

To assess the socio-economic impact of the COVID-19 on the Afghan economy, we opted for a top-down approach that consists of combining the world prices generated by the GTAP global model with a single country dynamic CGE model. We have also used the preliminary results published by the World Bank and conducted a close dialogue with the Afghan authorities.

The Afghanistan Social Accounting Matrix (SAM) was developed by the Biruni Institute for 2018. The SAM contains 27 sectors that produce 27 commodities. Households are divided into 5 quintiles and labor is divided between male and female workforce.

Model assumptions: Pre-virus scenario

Prior to the COVID-19 pandemic, the IMF conducted the fifth review under the extended credit facility arrangement and request for modification of performance criteria in December 2019. The IMF predicted a 3.5 percent growth rate in 2020 and 0.5 per cent additional growth during the following four years. This macroeconomic framework is considered in our modelling exercise as the Business as Usua (BaU). scenario to which we compare the impact of different shocks and scenarios.

Table 4. The Pre-COVID macroeconomic framework 2020-24

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|--|------|------|------|------|------|
| Real GDP (% growth) | 3.5 | 4.0 | 4.5 | 5.0 | 5.5 |
| Unemployment (%) | 15.0 | 15.0 | 15.0 | 15.0 | 15.0 |
| As (%) of GDP | | | | | |
| Revenues and grants | 29.2 | 30.3 | 31.7 | 33.1 | 33.4 |
| Tax revenues | 8.2 | 9.1 | 10.5 | 10.8 | 11.3 |
| Income, profits, and capital gains | 3.0 | 3.3 | 3.8 | 3.9 | 4.1 |
| Goods and services | 2.6 | 2.9 | 3.3 | 3.4 | 3.6 |
| International trade and transactions | 2.6 | 2.9 | 3.3 | 3.4 | 3.6 |
| Nontax revenues | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Grants to operating and development budget | 16.4 | 16.5 | 16.4 | 16.4 | 16.3 |
| Operating expenditures | 19.7 | 20.5 | 21.6 | 22.9 | 22.8 |
| Wages and salaries | 17.9 | 18.7 | 19.7 | 20.8 | 20.7 |
| Purchases of goods and services | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Transfers, subsidies, and other | -4.0 | -4.1 | -4.4 | -4.6 | -4.6 |
| Interest(foreign) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Interest(domestic) | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 |
| Development expenditures | 9.5 | 9.9 | 10.0 | 10.2 | 10.6 |
| Budget Balance | 0.0 | -0.1 | 0.1 | 0.0 | 0.0 |
| Foreign financing | 0.5 | 0.5 | 0.6 | 0.6 | 0.7 |
| Domestic financing | -0.5 | -0.6 | -0.5 | -0.6 | -0.7 |
| Foreign debt | 6.60 | 7.10 | 7.70 | 8.30 | 9.00 |
| domestic debt | 4.10 | 3.60 | 3.00 | 2.40 | 1.70 |

Source: IMF (2019), Fifth Review under the extended credit facility arrangement and request for modification of performance criteria (June 2019)

Scenario development

The external shock

Disruptions in supply chains, price volatility in global markets and its ripple effects on the Afghan economy are part of external shocks from COVID-19 to the Afghan economy.

The global economic recession triggered by the COVID-19 pandemic was analysed using UNDP's multi-country model (A-GTAP). The mathematical structure of the model calibrated on the past trends in trade flows in and out Afghanistan was used to estimate the pass-through effect of international price changes to Afghanistan's export and import prices.

Using the hypothesis of a small and open economy, we consider that these are exogenous shocks that the Afghan economy will experience as a price taker in 2020. We suppose that international prices will remain stable for the following four years.

The internal shock

The internal shocks are modelled as total factor productivity shocks for the period 2020-2024 that affect all economic sectors, but in a non-uniform way. The dialogue with the Afghan authorities revealed that the accommodation and transport sectors have been the most affected sectors with a 30 percent decrease in their activity levels. The lockdown policy applied in the country and the closure of international borders have deeply affected these two sectors.

On the other hand, and as reported by the World Bank, the agricultural sectors have been relatively resilient. The rest of the industrial sectors have undergone a 6 percent decrease in their activities.

Regarding the years after 2020, we assume a moderate economic recovery. The productivity shock has been dynamically calibrated to reproduce the World Bank projections.



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