

Fiscal effects of the COVID-19 pandemic: Philippine debt sustainability

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The coronavirus disease 2019 (COVID-19) pandemic presented a huge shock to economies worldwide. The immediate effects of the pandemic on the Philippines' fiscal performance had been (1) a collapse of revenues due to the shrinking economy, (2) a widening of the fiscal deficit as the revenue drop coincided with accelerated spending, and (3) a sharp accumulation of public debt.

The government must continue managing the economic impact of the pandemic, which may require further spending in the years ahead. But is fiscal space available for the expenditure needed for economic recovery? Further, is the national government's level of debt on a sustainable path, given its fiscal policy and plans?

This *Policy Note* discusses the immediate impact of the COVID-19 pandemic on the Philippines' public finances and the sustainability of the country's debt by providing a historical frame to assess the recent run-up in debt. It also presents the estimation results of sustainable public debt projections.

Salient Points:

- *The coronavirus disease 2019 (COVID-19) pandemic presented a huge shock to economies worldwide. The Philippine government's debt-to-gross domestic product (GDP) ratio grew from 39.6 percent in 2019 to 54.5 percent in 2020 and 60.5 percent in 2021.*
- *The Philippines has gone through periods of large fiscal deficits. However, the current debt episode is different, given that the high debt is due to a large exogenous shock (i.e., the COVID-19 pandemic) as opposed to deep-rooted or self-inflicted reasons as in past debt episodes.*
- *Projections show that the debt ratio will decline after 2024 if there are no policy reversals or structural breaks and no new substantial debt. Still, the government should continue to spend to jumpstart the economy. Fiscal stimulus is needed on items with multiplier effects to address the risks of scarring.*

What is the immediate impact of the COVID-19 pandemic on the Philippines' public finances?

Due to the COVID-19 pandemic, the national government debt-to-gross domestic product (GDP) ratio grew from 39.6 percent in 2019 to 54.5 percent in 2020 and 60.5 percent in 2021 (Figure 1). Figure 1 also shows that the 2020 and 2021 ratios are only surpassed in 1993 and 2002–2004 (with a peak of 71.6% in 2004). Furthermore, fiscal deficit as a share of GDP more than doubled (3.4% to 7.6%) in 2020, while primary and consolidated public sector deficits widened to about 5.5 percent (Figure 2).

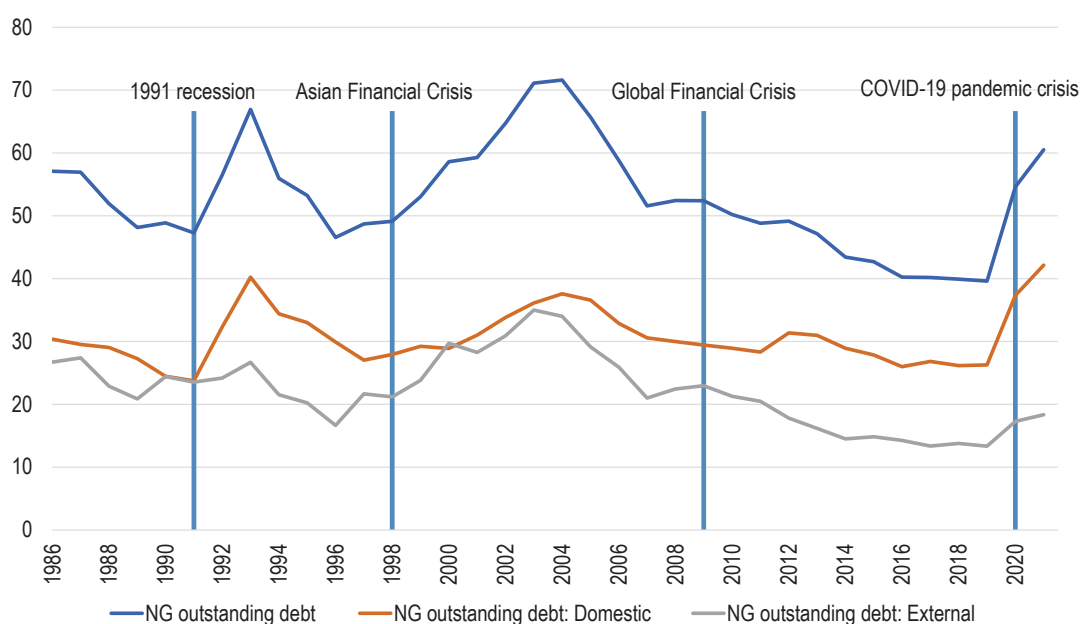
The pandemic also had a substantial effect on national government spending and revenues. In 2020, national government spending accelerated by 11.3 percent (Figure 3). This was due partly to fiscal packages included in the country's initial response to the pandemic (e.g., *Bayanihan* I and II). However, public spending growth was not unusually high compared to previous years. Instead, government revenues, which had been rising steadily in preceding decades, had drastic changes given its exceptional decline (Figure 3).

Is the current debt episode similar to previous challenges?

The Philippines has faced several global challenges that led to the decomposition of the national government debt (i.e., the 1991 recession, the Asian Financial Crisis, and the Global Financial Crisis). In addition, the Philippines has also dealt with local issues that negatively affected the national government's debt within the past few decades. However, the current debt episode differs from the previous experiences of the Philippine government in several important ways.

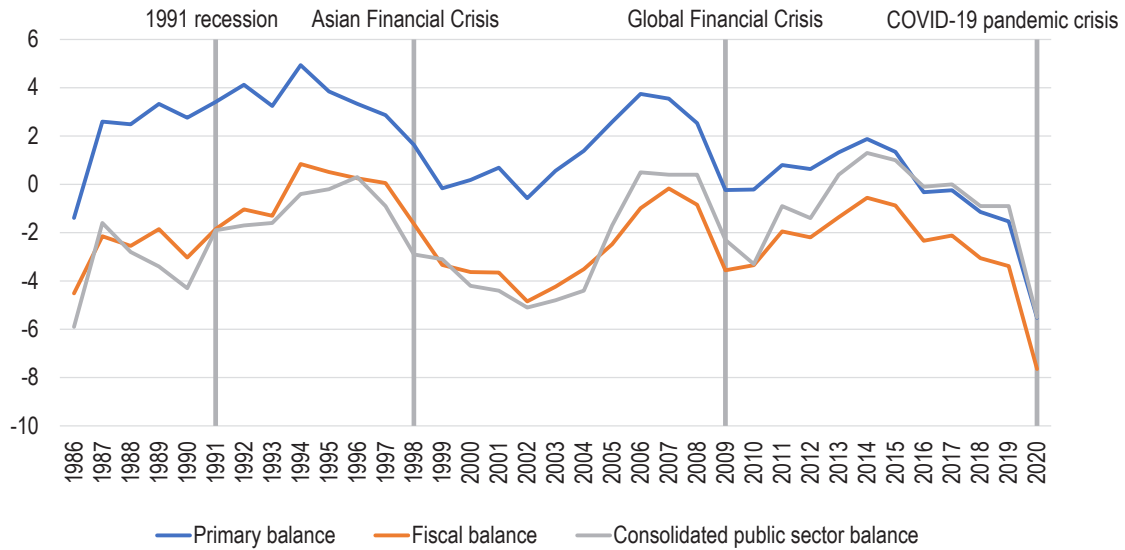
Unlike the country's experience during the 1980s, the current debt crisis is not due to excessive external debt coupled with a severe interest rate shock where higher interest payments led to a ballooning of liabilities. It is also unlike the experiences during the late 1980s and early 1990s when public debt was precipitated by "hidden deficits" stemming from losses of off-budget public enterprises and institutions that failed to become self-sustaining (Sicat and Abdula 2003). The effects of this experience lasted until the earlier half of the 2000s because the national government had to absorb these hidden liabilities (Sicat and Abdula 2003).

Figure 1. National government debt as percent of GDP



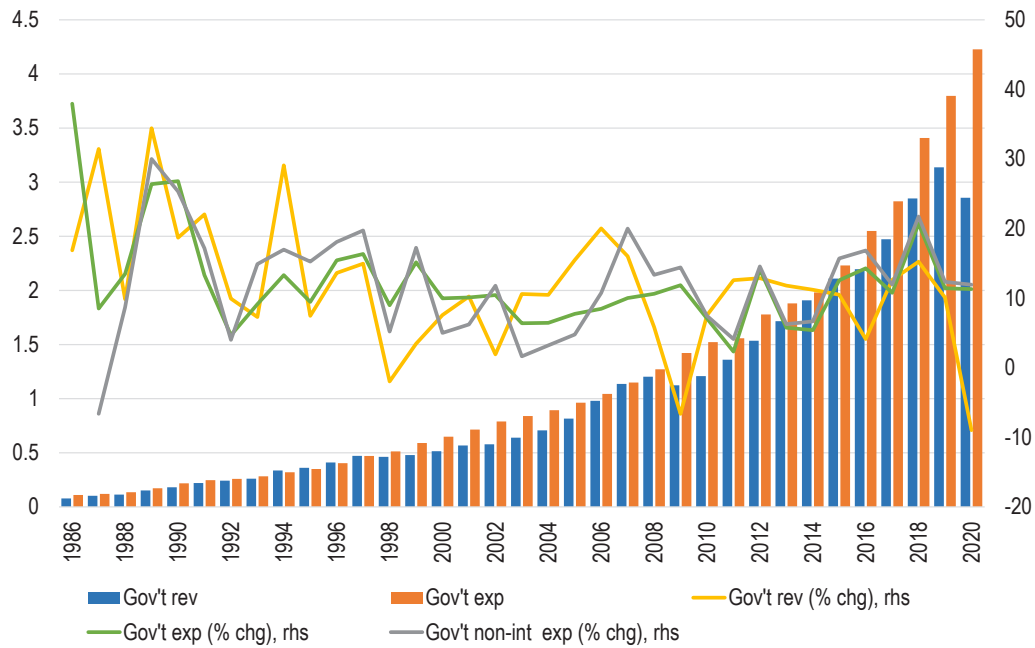
GDP = gross domestic product; COVID-19 = coronavirus disease 2019; NG = national government
Source: BTr (2021a)

Figure 2. Primary, fiscal, and consolidated public sector balance (in % GDP)



GDP = gross domestic product; COVID-19 = coronavirus disease 2019
 Source: BTr (2021b); DOF (2021)

Figure 3. Government revenues and expenditures, level and percent change (in PHP trillion)



PHP = Philippine peso; gov't = government; rev = revenue; chg = change; non-int = non-interest; exp = expenditure; rhs = right-hand side
 Source: BTr (2021b)

These liabilities are mostly inherited debt, such as those from (1) the Central Bank (later replaced by the *Bangko Sentral ng Pilipinas* [BSP] in 1993), (2) the National Power Corporation, and (3) the restructuring of government financial institutions such as the Development Bank of the Philippines and the Philippine National Bank (Sicat and Abdula 2003; de Dios et al. 2004).

In the mid-2000s, debt escalated due mainly to declining tax and revenue efforts (de Dios et al. 2004). In contrast, the current debt crisis is distinct, given that the tax effort steadily increased before the pandemic (Figure 4). The rise of tax effort can be attributed to the introduction of tax reform laws, especially the Reformed Value-Added Tax (VAT) Law (Republic Act 9337) that expanded the coverage of VAT and raised the VAT rate from 10 to 12 percent.

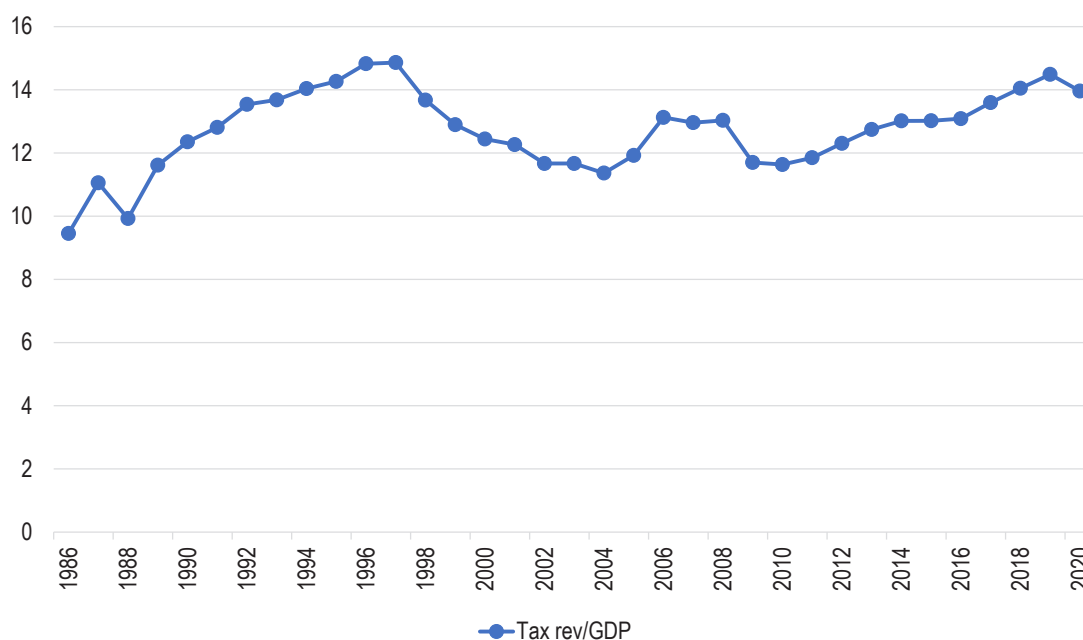
Is the national government's level of debt on a sustainable path?

There are significant differences between past public debt crises and the current debt episode. Still, the question of public debt sustainability remains. Public debt is considered sustainable if the Philippine government is projected to satisfy its current and future payment obligations without needing exceptional financial assistance or default. How can we then measure public debt sustainability?

Debt Sustainability Analysis (DSA) method and data

Empirical estimates were done to determine how the public debt-to-GDP ratio will evolve in the next half-decade. The estimates depend on reliable data and variable projections and assumptions, such as GDP growth, inflation, domestic and foreign interest rates, exchange rates, primary fiscal balances, and other flows

Figure 4. Philippine tax effort, 1986–2020



rev = revenue; GDP = gross domestic product
Source: BTr (2021b)

that may influence debt. This paper adopts the publicly available DSA template from the International Monetary Fund (IMF 2013) to compute public debt and public debt dynamics using data from national government sources (BSP 2021; BTr 2021a; DBM 2021, various years; FocusEconomics 2021; IMF 2021; World Bank 2021). Likewise, fan charts and alternative scenarios were generated using these data to stress test the baseline scenario.

The DSA uses the ratio of total gross public debt to nominal GDP as the measure of the debt burden trajectory (Figure 5).

Results

The following are the expectations for the estimations:

- (1) the adverse effects of COVID-19 would decline,
- (2) the country would move to economic recovery trajectory, and
- (3) efforts toward fiscal consolidation will be made (maintaining the 1.7% of GDP primary deficit from 2024 to 2027).

With these expectations having been met, the results of the estimations are as follows:

a. Evolution of debt-to-GDP ratio

Figure 6 presents the projected debt burden, which would be highest in 2023 at 66.8 percent. So long as the national government does not acquire substantial new debt, it will gradually decline over the succeeding years as the GDP growth rate increases. If these hold true, the baseline scenario shows that the level of debt is still manageable and sustainable.

b. Debt-to-GDP ratio with the exclusion of budgetary change in cash or excess liquidity

Budgetary change in cash may represent funds that could be drawn against if needed. By excluding this change in cash or excess liquidity, the debt ratio still peaks in 2023, but it is lower by 2.6-percentage points at 64.2 percent (Figure 7). The succeeding years also follow the same expectations of lower ratios (Figure 7).

Figure 5. Public debt-to-GDP ratio formula

$$d_{t+1} - d_t = \left(\frac{1}{1 + g_{t+1}} \right) * \left(d_t * \left[r_{t+1}^d \frac{d_t^d}{d_t} + r_{t+1}^f * \frac{d_t^f}{d_t} \right] - d_t * g_{t+1} + d_t^f * \xi_{t+1} * (1 + r_{t+1}^f) \right) - pb_{t+1}$$

$+ o_{t+1} + res_{t+1}$

where,

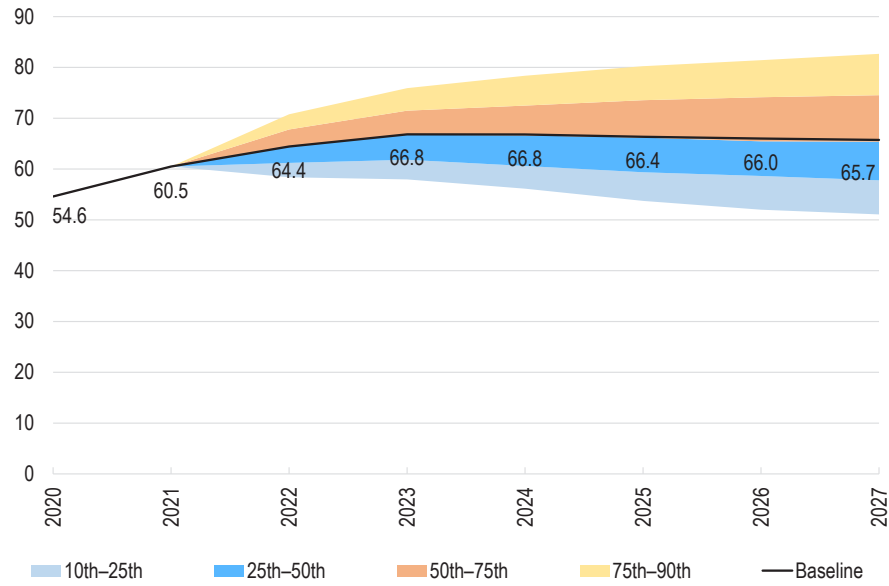
$$(1 + i_{t+1}^d) = (1 + r_{t+1}^d) * (1 + \pi_{t+1}^d)$$

$$(1 + i_{t+1}^f) = (1 + r_{t+1}^f) * (1 + \pi_{t+1}^f)$$

$$1 + \xi_{t+1} = \frac{e_{t+1}}{e_t} \left(\frac{1 + \pi_{t+1}^f}{1 + \pi_{t+1}^d} \right)$$

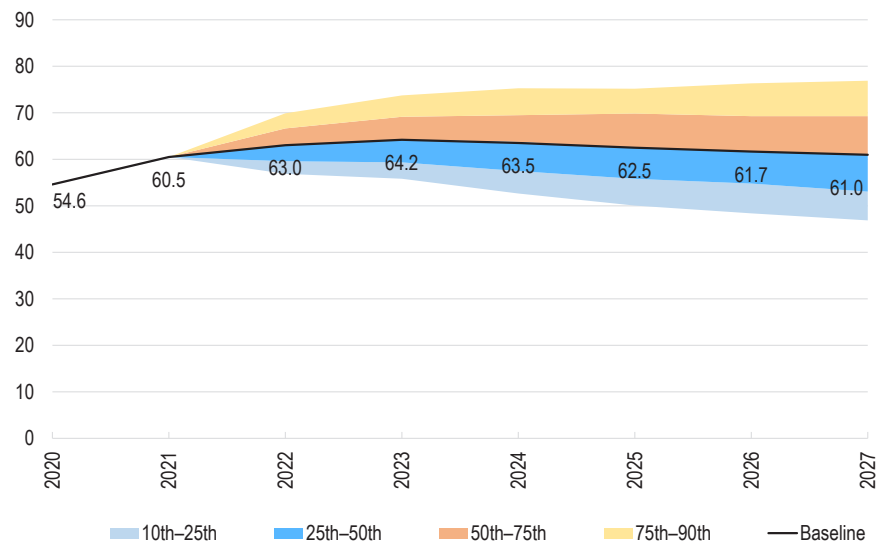
Source: IMF (2013)

Figure 6. DSA fan chart, evolution of debt-to-GDP ratio, 2020–2027



DSA = Debt Sustainability Analysis; GDP = gross domestic product
 Source: Authors' computations

Figure 7. DSA fan chart with the exclusion of budgetary change in cash, 2020–2027



DSA = Debt Sustainability Analysis
 Source: Authors' computations

c. Contribution to changes in public debt

Figure 8 shows that real GDP growth and primary balance substantially contribute to public debt. The debt-stabilizing primary balance, which is the sum of automatic debt dynamics and other identified debt-creating flows in the last projection year (2027), is estimated at -2 percent.

d. Risk scenarios

Also generated are stress tests that investigate other probable trajectories with macro-fiscal shocks (Figure 9). The key points from each test are as follows:

- *Real GDP growth shock*

The results show that the government is most vulnerable to a real GDP growth shock (Table 1). If COVID-19 cases surge, there might be cause for the government to continue implementing social assistance/interventions for those affected while still spending to stimulate

the economy. Lower GDP growth paired with higher debt would increase the debt-to-GDP ratio.

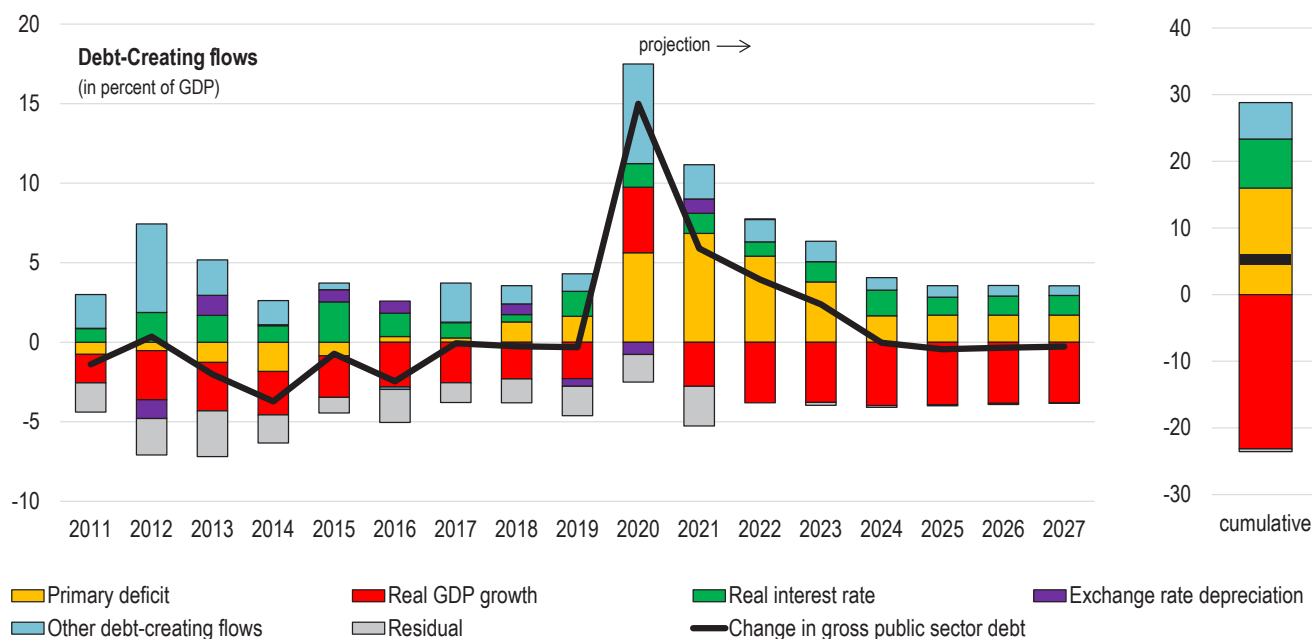
- *Primary balance shock*

A sudden need for more spending because of the impact of natural disasters and realized contingent liabilities from social security institutions, public-private partnerships, or underfunded pension plans of uniformed personnel would result in the national government shouldering the burden. These would increase borrowing and possibly higher interest rates.

- *Real exchange rate shock*

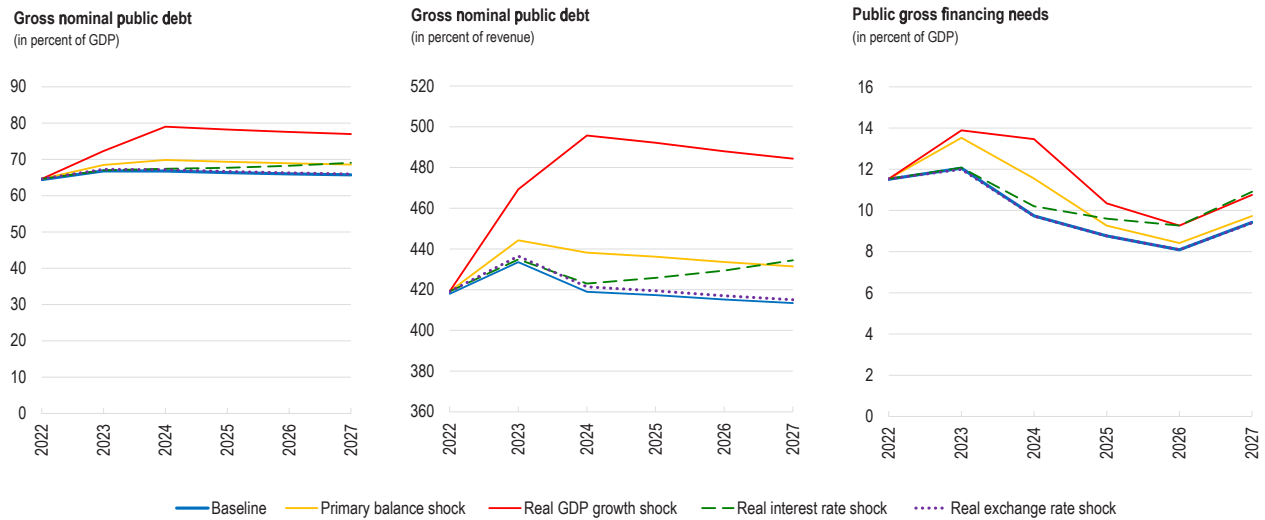
Higher interest rates in the US because of tapering of quantitative easing might cause capital outflows from the Philippines, resulting in a weaker Philippine peso. This poses a revaluation risk and affects foreign debt servicing.

Figure 8. Contribution to changes in the public debt baseline scenario



GDP = gross domestic product
Source: Authors' computations

Figure 9. Macro-fiscal stress tests, 2022–2027



Source: Authors' computations

Table 1. Underlying assumptions of the DSA stress tests, 2022–2027

	2022	2023	2024	2025	2026	2027
Baseline scenario						
Real GDP growth	6.9	6.4	6.5	6.4	6.3	6.3
Inflation	2.6	2.5	2.5	2.5	2.5	2.5
Noninterest revenue-to-GDP ratio	15.4	15.4	15.9	15.9	15.9	15.9
Noninterest expenditure-to-GDP ratio	20.8	19.2	17.6	17.6	17.6	17.6
Primary balance	-5.4	-3.8	-1.7	-1.7	-1.7	-1.7
Nominal exchange rate - average	51.00	51.10	50.70	50.50	50.30	50.30
Nominal exchange rate - end of period	51.40	50.90	50.60	50.40	50.20	50.20
Effective interest rate	4.4	4.8	5.3	4.5	4.6	4.7
Primary balance shock						
Real GDP growth	6.9	6.4	6.5	6.4	6.3	6.3
Inflation	2.6	2.5	2.5	2.5	2.5	2.5
Noninterest revenue-to-GDP ratio	15.4	15.4	15.9	15.9	15.9	15.9
Noninterest expenditure-to-GDP ratio	20.8	20.7	19.0	17.6	17.6	17.6
Primary balance	-5.4	-5.2	-3.1	-1.7	-1.7	-1.7
Nominal exchange rate - average	51.00	51.10	50.70	50.50	50.30	50.30
Nominal exchange rate - end of period	51.40	50.90	50.60	50.40	50.20	50.20
Effective interest rate	4.4	4.8	5.3	4.6	4.7	4.8
Real GDP growth shock						
Real GDP growth	6.9	1.3	1.4	6.4	6.3	6.3
Inflation	2.6	1.2	1.2	2.5	2.5	2.5
Noninterest revenue-to-GDP ratio	15.4	15.4	15.9	15.9	15.9	15.9

Table 1 (continued)

	2022	2023	2024	2025	2026	2027
Noninterest expenditure-to-GDP ratio	20.8	20.5	20.0	17.6	17.6	17.6
Primary balance	-5.4	-5.1	-4.0	-1.7	-1.7	-1.7
Nominal exchange rate - average	51.00	51.10	50.70	50.50	50.30	50.30
Nominal exchange rate - end of period	51.40	50.90	50.60	50.40	50.20	50.20
Effective interest rate	4.4	4.8	5.3	4.6	4.7	4.8
Real interest rate shock						
Real GDP growth	6.9	6.4	6.5	6.4	6.3	6.3
Inflation	2.6	2.5	2.5	2.5	2.5	2.5
Noninterest revenue-to-GDP ratio	15.4	15.4	15.9	15.9	15.9	15.9
Noninterest expenditure-to-GDP ratio	20.8	19.2	17.6	17.6	17.6	17.6
Primary balance	-6.2	-4.5	-2.4	-2.2	-2.2	-2.2
Nominal exchange rate - average	51.00	51.10	50.70	50.50	50.30	50.30
Nominal exchange rate - end of period	51.40	50.90	50.60	50.40	50.20	50.20
Effective interest rate	4.4	4.8	6.0	5.7	6.2	6.6
Real exchange rate shock						
Real GDP growth	6.9	6.4	6.5	6.4	6.3	6.3
Inflation	2.6	5.1	2.5	2.5	2.5	2.5
Noninterest revenue-to-GDP ratio	15.4	15.4	15.9	15.9	15.9	15.9
Noninterest expenditure-to-GDP ratio	20.8	19.2	17.6	17.6	17.6	17.6
Primary balance	-5.4	-3.8	-1.7	-1.7	-1.7	-1.7
Nominal exchange rate - average	51.00	56.43	55.99	55.77	55.55	55.55
Nominal exchange rate - end of period	51.40	56.21	55.88	55.66	55.44	55.44
Effective interest rate	4.4	4.9	5.2	4.5	4.6	4.7
Combine macro-fiscal shock						
Real GDP growth	6.9	1.3	1.4	6.4	6.3	6.3
Inflation	2.6	1.2	1.2	2.5	2.5	2.5
Noninterest revenue-to-GDP ratio	15.4	15.4	15.9	15.9	15.9	15.9
Noninterest expenditure-to-GDP ratio	20.8	20.7	20.0	17.6	17.6	17.6
Primary balance	-5.4	-5.2	-4.0	-1.7	-1.7	-1.7
Nominal exchange rate - average	51.00	56.43	55.99	55.77	55.55	55.55
Nominal exchange rate - end of period	51.40	56.21	55.88	55.66	55.44	55.44
Effective interest rate	4.4	4.9	6.0	5.7	6.2	6.6

GDP = gross domestic product

Source: Authors' computations

- *Real interest rate shock*
Higher market yields would put pressure on debt servicing. Since the debt service forecast was assumed to go up gradually, an interest rate shock would increase the debt servicing burden.

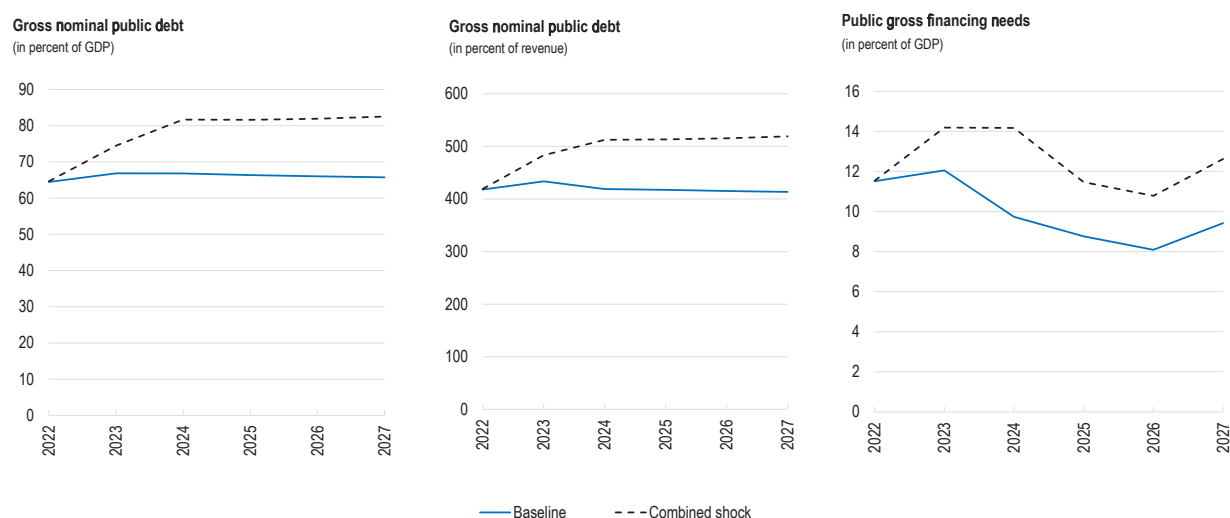
- *Combined macro-fiscal shock*
Figure 10 shows the results of stress tests for a combined macro-fiscal shock. This may occur when the country has a lower output and

high domestic and external borrowing costs compared to other countries that are steadily recovering. This is possible if the country sees another severe surge in COVID-19 cases.

What are the other factors that need to be considered?

Aside from the COVID-19 pandemic, other factors may affect the sustainability of debt in the country. Table 2 indicates probable debt sustainability risks based on the Philippines' experience.

Figure 10. Macro-fiscal stress tests, 2022–2027



Source: Authors' computations

Table 2. Other debt sustainability risks

Risk	Possible Effect
Supreme Court ruling on the Mandanas-Garcia petitions	Reduced fiscal space
Natural disasters and calamities	Damages, losses, and needs of affected areas require spending
Inability to reform the scheme for military and uniformed personnel pensions	May pose a primary balance risk
Net losses of PhilHealth (about PHP 88 billion and PHP 116 billion in 2021 and 2022)	May increase debt burden, especially if losses are still incurred for succeeding years
Aggregate demand risks such as decreased global credit, geopolitical tensions like the Russia-Ukraine conflict, repatriation with the glut in oil, global contraction, increased number of displaced OFWs, and higher risk aversion to emerging markets	Lower economic growth and more costly future borrowings
Cybersecurity (glitches preventing transactions and malicious ransomware attacks)	May add to the contingent liabilities

PhilHealth = Philippine Health Insurance Corporation; PHP = Philippine peso; OFWs = overseas Filipino workers
Source: DBCC (2021); FSCC (2021)

Conclusions

The reasons for the high debt precipitated by the COVID-19 pandemic are not as deep-rooted (or self-inflicted) as in past debt episodes. It is instead the result of a large exogenous shock to growth and revenues and of the government's accumulation of cash reserves as a precautionary move in the event of a long-haul public health crisis.

The consensus view is that (1) GDP growth will normalize to pre-pandemic levels by 2022, (2) fiscal deficits will trend downwards, and (3) interest-growth differentials will remain negative (which will generate favorable conditions for debt reduction in the near to medium term).

Using the IMF's DSA framework to calculate the country's medium-term debt trajectory, this study finds that the national government debt-to-GDP ratio may remain elevated in the medium term, peaking at 66.8 percent in 2024 and dipping to 65.7 percent by 2026. However, since half of the accumulated debt during the height of the pandemic crisis (6.3 out of the 15-percent-of-GDP increase in 2020) is comprised of cash buffers built up in the event of a prolonged pandemic (and with such behavior continuing to the present), the scope for a future debt decline is wide. Netting the government's cash reserves, the debt-to-GDP ratio would follow a similar but much lower trajectory.

Ways forward

In moving forward, there should be no policy reversals that compromise the revenue-raising capacity, unnecessarily increase the spending burden on the national government (i.e., through large entitlement programs), or negatively impact existing measures that led to the improvement of debt before the pandemic. There needs to be a consideration that debt recently increased because of the pandemic crisis and not because of any fundamental issues or problems with

policies and institutions. Debt will continue to decrease provided that the national government does not acquire substantial new debt, as would be the case if possible risks are not managed.

The national and local governments should continue spending to jumpstart the economy. Fiscal stimulus is especially needed on items with large multiplier effects (i.e., infrastructure) and to address the risks of scarring (i.e., human capital investments).

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