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The Philippines: Critical Public Finance Issues due to an Extended Draconian Lockdown

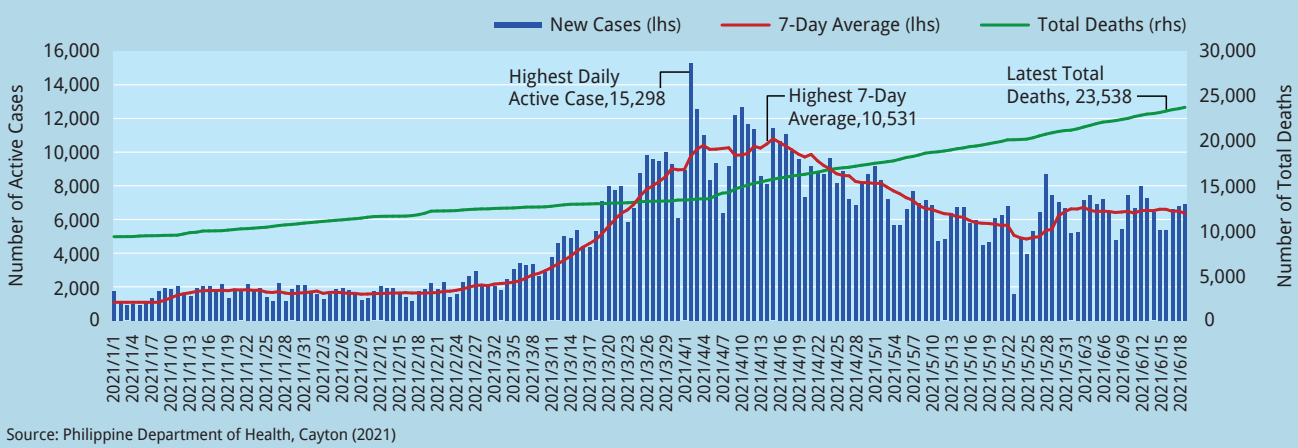
Contemporary Background

While many economies are slowly transitioning back to normal from the COVID-19 pandemic with economic recovery in sight, the Philippines now has one of the world's longest and strictest lockdowns (See, 2021) with no change in sight.

From the very beginning, the Philippines has been slow and vague in imposing necessary measures to mitigate the alarming COVID-19 outbreak. It was in December 2019 when the World Health Organization (WHO, 2020) announced the developing case of severe and "viral pneumonia" in Wuhan, China. It was only on March 15, 2020 when the Philippines was first placed under a month-long lockdown following the declaration of COVID-19 as a pandemic by WHO, but this was already too late.

The situation in the Philippines was already getting out of control—hospitals were overwhelmed, intensive care unit (ICU) beds were running out, supply of critical medical equipment was depleting, and testing kits were limited. Yet, the only intervention was to put the National Capital Region (NCR) through a series of extended lockdowns with varying degrees of community quarantine according to the magnitude of the outbreak per region: Enhanced (ECQ), Modified Enhanced (MECQ), General (GCQ), and Modified General (MGCQ) Quarantine. As of writing, it has been 460 days since the first lockdown, but the health crisis remains critical. Since January 2021, the Philippines recorded a 15,298 high of newly recorded cases with a 7-day average high of 10,531 active cases, and a total of 23,538 deaths (Figure 1).

Figure 1: COVID-19 Cases and Total Deaths, from January 2021



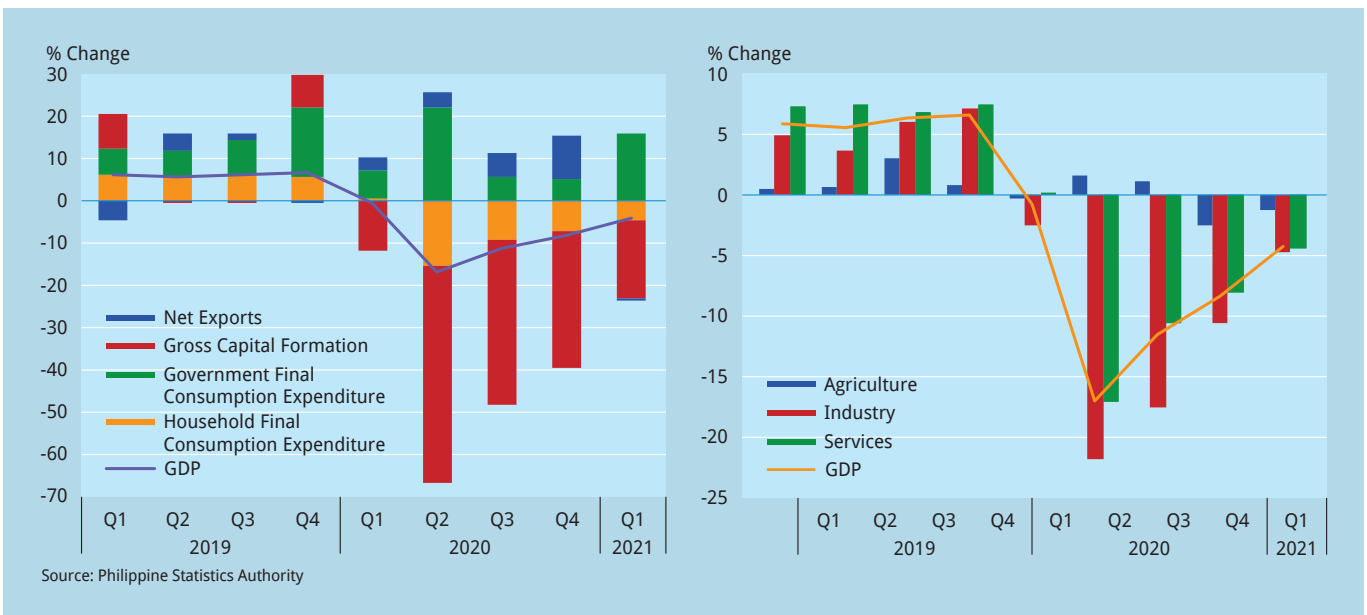
Source: Philippine Department of Health, Cayton (2021)

A year of community quarantine has not only failed to save peoples' lives, for the rise in active cases is complemented by a sinking economy. The economic trajectory of the Philippines broke its growth streak in Q2 2020 at the peak of the toughest lockdowns, plunging 16.9% due to shocks in both demand and supply (Figure 2). On one hand, the reduction in household consumption and investment negatively affected the productivity of businesses, leaving industries with two options: massively laying off employees or permanently leaving the market. On the other hand, intermittent localized lockdowns restricted economic mobility, which heavily disrupted supply chains in the long-run, and diminished the aggregate capacity of the economy to cost-effectively produce goods and services. Posting a full-year drop of 9.6% in 2020, the Philippine economy is at its lowest post-war level and is Southeast Asia's worst-performing economy according to Asian Development Bank (ADB) (BusinessWorld, 2020).

The Philippine government resorted to external resources to support the economy and meet the demand of the health crisis. Financing economic stimulus packages under the Bayanihan to Heal as One Act (Bayanihan 1) and Bayanihan to Recover as One Act (Bayanihan 2) [1], the country's outstanding debt ballooned by 29% at PHP10.13 trillion (USD210 billion) by Q3 2020, yielding a 54.5% high debt-to-gross domestic product (GDP) ratio, which was the highest marginal increase among ASEAN countries at 37.6% YoY (Figure 3).

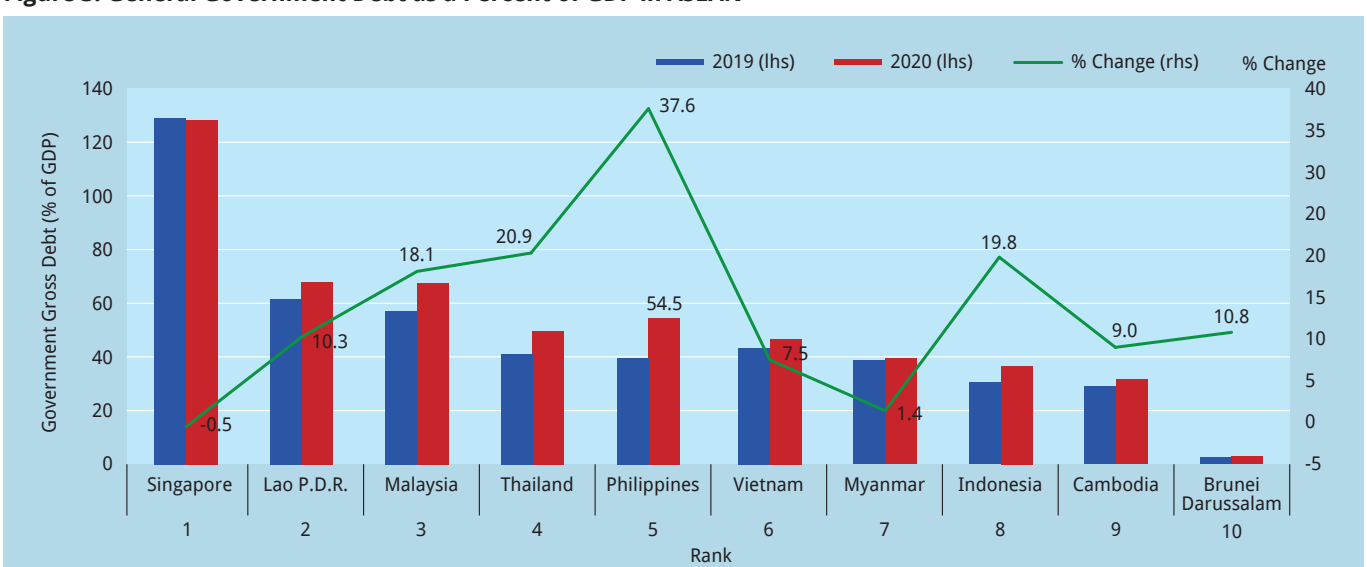
In a Presidential Palace briefing on

Figure 2: Quarterly Change in GDP by Expenditure and Industry (2019-2021)



Source: Philippine Statistics Authority

Figure 3: General Government Debt as a Percent of GDP in ASEAN



Source: Philippine Department of Finance, International Monetary Fund

March 23, 2021, then acting National Economic and Development Authority (NEDA) Chief Karl Chua presented a cost-benefit analysis of imposing another two-week MECQ on the economy (Figure 4). According to Chua, a lockdown preventing 266,194 new COVID-19 cases and 4,738 deaths would come at a hefty cost of an additional 58,000 Filipinos in hunger, 128,500 more unemployed Filipinos, and a daily income loss of PHP2.1 billion in NCR alone and in nearby regions (Galvez, 2021). With the third stimulus Bayanihan 3 intended to fill the wide gap with cash aid and wage subsidies awaiting passage, Chua deemed it unnecessary and rather called for letting the theoretical "reopening" of the economy "cost-effectively" drive up consumer spending (Laforga, 2021).

The current Duterte administration's continuous reliance on prolonged community quarantines without immediate health interventions will just become another example of its declining effectiveness in managing both the economy and the ongoing crisis. This rigid fixation on the merits of a draconian lockdown strategy hinges on the 1) implicit tradeoff between health and the economy and 2) the explicit conviction that the country can spend its way out of the depression by way of infrastructure binges. Both tendencies are implied through the misaligned budget of the whopping PHP4.506 trillion in the 2021 General Appropriation Act (GAA).

According to the Department of Budget and Management (DBM, 2021) the 2021 GAA is the "heftiest stimulus package," amounting to 21.8% of GDP. It is designed to avert economic misery by addressing the pandemic, reviving infrastructure, and adapting to the new normal through three banner programs. By sector, the budget allocates the largest share, 37%, to social services; 29.4% to the economic sector primarily to fund the Build, Build, Build program; 16.6% to general public services; 12.4% to the debt burden; and 4.6% to defense.

While the 2021 GAA is 10% greater than the 2020 GAA, and social services receives the greatest share of government spending, surprisingly, spending on safety nets for the healthcare system, social security, and employment and enterprises decreased. Figure 5, taken from analyses by JC Punongbayan, et al. (2021a, 2021b), shows the difference between the budget allocations for 2021 and 2020 (which includes Bayanihan 1 and 2). The upper portion of the figure documents the administration's strategy of stimulating the economy through infrastructure activities, with a 58% increase in public works spending from the previous year. On the other hand, the lower portion of the figure reveals massive cuts to sectors essential to the ongoing health crisis and that have distributional effects on the productive capacity of a pandemic economy such as direct cash transfers, health, agriculture, transportation, labor, trade, and industry. With respect to addressing the health crisis, the budget for the Department of Health (DOH) is substantially cut by 23% from the previous year.[2] Furthermore, despite the high—but risky—expectations for vaccines to bring economic recovery, of the PHP82.5 billion allocated for procurement, only PHP2.5 billion is sourced from 2021 GAA, with PHP10 billion to come from Bayanihan 2 and the remainder yet to be sourced from loans and unprogrammed appropriations (Department of Finance, 2021).

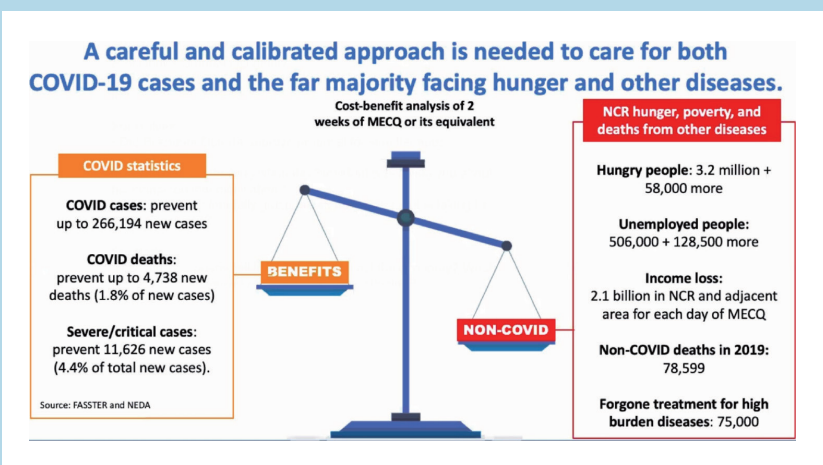
In terms of financial aid during the pandemic, the Department of Social Welfare and Development (DSWD) recorded the largest reduction by 54%. Moreover, no budget is allocated for another wave of the Social Amelioration Program (SAP) and cash transfers are limited. Wage subsidies for displaced workers in the Philippines and abroad were also cut, as reflected in the meager budget of the Department of Labor and Employment (DOLE). Support for micro-small-medium enterprises and exporters under the Department of Trade and Industry (DTI) was marginally decreased, and the budget for the Small Business Corporation (SB Corp.) was cut 86%.

Clearly, the 2021 budget shows the government's attempts to save the faltering pandemic economy first through infrastructure activities, and only then by mitigating the health crisis. As Finance Secretary Carlos Dominguez III described it, with infrastructure activities generating the "best multiplier effects in terms of employment and shared prosperity," the government expects 1.1 million direct and indirect jobs to stimulate economic activities in the country (Suzara, 2020). However, bleak and slow historical progress creates reasonable doubts that the multiplier effects of infrastructure investments will come to fruition, especially at a time of a raging health crisis.

Indeed, while the pandemic caused an unexpected disruption to all economies, it is evident that the Duterte administration's lack of urgency on public health interventions and social safety net supports will cause greater socio-economic ills. Without directing its investments to address the pandemic, the Philippines will continue in a succession of province-wide and city-wide lockdowns. Along with many other groups around the world we agree with the statement of the U.S Heritage Foundation (Dayaratna et al., 2020): "[s]weeping lockdown orders did not result in better outcomes," and we strongly advocate a focused protection approach of mass (and scientifically correct) testing[3], contact tracing, treating, and isolating (emphasis in parenthesis is ours).

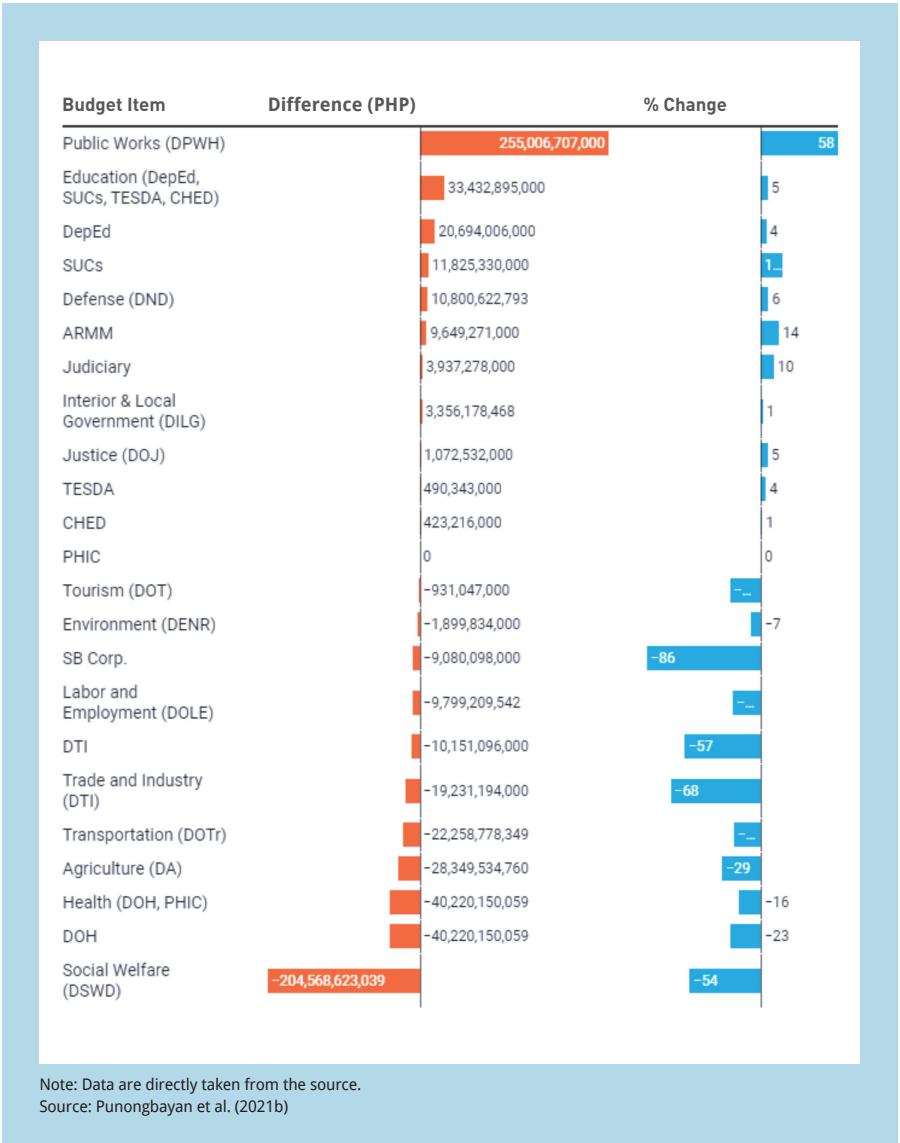
In the following sections the authors test the economic viability and robustness of the government's infrastructure-spending-as-a-way-out strategy by means of an econometric analysis.

Figure 4: Cost-benefit Analysis of MECQ



Note: Slideshow presentation by NEDA Chief Karl Chua.
Source: National Economic and Development Authority (NEDA)

Figure 5: Summary of Changes in the 2021 Budget from the 2020 Budget



Note: Data are directly taken from the source.
Source: Punongbayan et al. (2021b)

Econometric Methodology

Econometric model estimation

To determine the impact on the Philippine economy from the stringent lockdown measures taken in response to the COVID-19 pandemic, this research adapts the econometric models on fiscal balance presented by Bangko Sentral ng Pilipinas (BSP) Governor Benjamin Diokno (2007). To further investigate the causes of the Philippines' swelling debt, this research follows the regression model of Knapkova et al. (2019) in determining the macroeconomic indicators of public debt.

These methodologies were adapted to the obtained data, specifically to avoid yielding spurious regression of non-stationary variables, by applying the Augmented Dickey-Fuller (ADF) and the Phillips Perron (PP) time-series stationary tests to observe the unit roots (i.e., non stationary variables) of the variables of interest.

After testing for unit roots, the Johansen's cointegration test was performed to observe possible co-integrating vectors between two or several variables in the model that seeks to identify their long-run effects to the Philippine economy. If a cointegration relationship of at least one among the variables is observed, the model incorporates a certain number of lags for the next estimation procedure which is the Vector Error Correction Model (VECM) to better describe the dynamic relationship between the variables.

Lastly, the Granger causality test was conducted and was simultaneously applied to the VECM estimates to validate certain causality between the target variables and the relevant macroeconomic indicators.

Data description and sources

The empirical investigation uses secondary time-series on annual macroeconomic data for the Philippines over the period 1986-2020. The basic linear regression model is:

$$Y_t = \alpha_0 + \hat{\beta}_n X_n + \varepsilon_t \quad \text{(eq. 1)}$$

where Y_t refers to the dependent variables regressed on the vector of regressors $\hat{\beta}_n$ X_n, and α_0, ε_t are the constant and error terms respectively.

Incorporating the variables used by Diokno and Knapkova yields three models. First, following Diokno's analysis of the fiscal balance, the dependent variable is measured by the national government account balance (NGAB) in Model 1 and by the consolidated public sector fiscal position (CPSFP) in Model 2. Both models regress the measure of fiscal balance on the real GDP growth rate (GDP), inflation (INF), domestic liquidity (M3GDP), the real effective exchange rate (REER), debt interest payments (INTGDP), gross capital formation (GCF), and tax effort (TAXEF). The corrected models on VECM are:

Model 1:

$$NGAB_t = \alpha_0 + \alpha_1 tce_{t-1} + \sum_{i=1}^{k} \beta_1 GDP_{t-1} + \sum_{i=1}^{k} \beta_2 INF_{t-1} + \sum_{i=1}^{k} \beta_3 M3GDP_{t-1} + \sum_{i=1}^{k} \beta_4 REER_{t-1} + \sum_{i=1}^{k} \beta_5 INTGDP_{t-1} + \sum_{i=1}^{k} \beta_6 GCF_{t-1} + \sum_{i=1}^{k} \beta_7 TAXEF_{t-1} + \varepsilon$$

Model 2:

$$CPSFP_t = \alpha_0 + \alpha_1 tce_{t-1} + \sum_{i=1}^{k} \beta_1 GDP_{t-1} + \sum_{i=1}^{k} \beta_2 INF_{t-1} + \sum_{i=1}^{k} \beta_3 M3GDP_{t-1} + \sum_{i=1}^{k} \beta_4 REER_{t-1} + \sum_{i=1}^{k} \beta_5 INTGDP_{t-1} + \sum_{i=1}^{k} \beta_6 GCF_{t-1} + \sum_{i=1}^{k} \beta_7 TAXEF_{t-1} + \varepsilon$$

Model 3:

$$\Delta DEBT_t = \alpha_0 + \alpha_1 tce_{t-1} + \sum_{i=1}^{k} \beta_1 GDP_{t-1} + \sum_{i=1}^{k} \beta_2 INF_{t-1} + \sum_{i=1}^{k} \beta_3 UNEM_{t-1} + \sum_{i=1}^{k} \beta_4 TRADE_{t-1} + \sum_{i=1}^{k} \beta_5 GCF_{t-1} + \sum_{i=1}^{k} \beta_6 RLABOR_{t-1}$$

For Model 3, which follows Knapkova et al. in examining government debt, the dependent variable is public debt (DEBT) regressed on the real GDP growth rate (GDP), inflation (INF), the unemployment rate (UNEM), trade openness (TRADE), gross capital formation (GCF), and labor productivity (RLABOR), and the corrected VECM model is:

Theoretical perspectives

• Inflation

Diokno theorized a positive relationship between inflation and debt in the sense that, when inflation is high, real tax revenues decrease and the government incurs budget deficits. At the same time, inflation reduces the real value of debt repayments and amortizations, favoring borrowers. So, when the government is the single biggest borrower in the economy, inflation has a beneficial effect on the fiscal balance due to the implicit inflation tax on creditors. Marin and Romero (2017) proposes a perspective consistent with the latter and proves that countries with continuously high levels of indebtedness are bound to experience increases in inflation. Thus, inflation has an ambiguous effect (either positive or negative) on government fiscal balances and/or debt.

• Real Effective Exchange Rate

Kouladoum (2018) points out that there is a positive relationship between external debt and the real exchange rate, but the ensuing debt servicing process negatively and significantly affects the real exchange rate. More relevantly, Carrera and Vergara (2012) states that a devaluation of the local currency, because of shocks and changes in the real exchange rate, can significantly alter the country's fiscal position negatively, affecting not only external or foreign-currency-denominated public debt but also the country's overall economic performance. Thus, the research here hypothesizes that in the Philippine setting, the real effective exchange rate has a negative relationship with the dependent variables under study, NGAB and CPSFP.

• Tax Effort

Generally speaking, the government's revenue sources depend on the economy's growth and specifically on how economic growth generates tax revenue. With economic growth, a "natural increase" in tax revenues happens because of certain taxation policies set in place by the government. Ishi (1990) reinforced the above ideas on economic growth and tax effort, mentioning that "rapid growth of nominal income tended to generate large-scale natural tax increases for new revenue sources in constructing annual budgets." This, in turn, provided the country with a budget that did not rely on "massive floatings of public debt" (Ishi, 1990). Thus, the present research holds the hypothesis that tax efforts have a positive relationship with the dependent variables NGAB and CPSFP.

• Unemployment Rate

As the national population and the size of the labor force increase, more people need public goods and services, such as pensions under the Social Security System. This increases a country's need to spend but does not guarantee an increase in income tax revenues (Subires et al., 2019). Fedeli and Forte (2012) concluded with a positive relationship between unemployment and fiscal deficits, such that as the unemployment rate increases, the fiscal deficit also rises and vice versa as amplified by high levels of government spending and taxation. Based on these results, this research hypothesizes a positive relationship between the unemployment rate and public debt, with an increasing number of unemployed contributing to further declines in economic and labor output and in income revenue streams, ultimately leading to increased public debt.

• Real GDP Growth

Casares (2015) empirically studies the relationship between public debt and economic growth and concludes that there exists an inverted U-shaped relationship between the two, showing that "at low levels of indebtedness, an increase in the external debt-to-GDP ratio could promote growth; however, with high levels of indebtedness, an increase in the external debt-to-GDP ratio could hurt economic growth." Thao (2018) posits a similar conclusion and adds that the positive relationship between economic growth and public debt is only achieved within a certain threshold. Based on these results, we hypothesize a positive relationship between economic growth and public debt for countries with low levels of indebtedness, and a negative relationship between economic growth and public debt for countries with high levels of indebtedness.

• General Government Spending and Gross Capital Formation

A significant part of the government's responsibility is to continuously provide for needed commodities, services, and infrastructure, such as health insurance programs, new highways, and public schools. Mourougane, Botev, et al., (2016) states that government spending and public investment boost growth through investment-led strategies–significant growth that would allow governments to improve their fiscal position in the long-run. Thus, this research hypothesizes that general government spending for capital formation (such as infrastructure) has a positive relationship with public fiscal position, wherein these expenses point to investment-led economic growth and also has a positive relationship with public debt as the investment is funded by borrowing.

• Liquid Liabilities of the Financial System (M3) to GDP

Guinigundo (2012) states that changes in a country's domestic liquidity enable fiscal authorities to spend more, and vice versa. Furthermore, he states that high liquidity allows for national governments to access domestic financial markets through foreign currency-denominated debt to res-

idents and to exchange the proceeds of this debt with the BSP to meet the government's foreign currency needs. With this, the current research hypothesizes a positive relationship of M3 with NGAB and CPSFP.

• Trade Openness

Auboin (2004) mentions trade liberalization or openness as a means to generate economic growth by promoting efficient resource allocation at the domestic and global levels (which we can identify as the tendency of countries to specialize on specific products for trade) and by increasing access to foreign exchange and inflows of foreign direct investment (FDI). The relationship between trade openness and economic growth implies a negative relationship of openness with public debt, as the outcome of economic growth should finance debt in the long-run, and a positive relationship with the fiscal balance whether measured by NGAB or CPSFP.

• National Government Debt Service Payments

Diokno lists high debt service as one of the three major factors that negatively impact the public finances of the Philippines, along with lower revenues because of lower net taxable income and slowdown in economic activity. In the same publication, however, he cites Woo's study using panel data that finds variations in results especially depending on the particular time-series data involved. Thus, Diokno specifically mentions that time-series data for the Philippines may yield varying results. Nonetheless, this research hypothesizes a negative relationship of debt service interest payments with NGAB and CPSFP, wherein higher debt service would result in weaker public finance.

Econometric Results and Discussion

The ADF and the PP results confirm that all variables in the three models, except for RLABOR and TAXEF, are stationary in the first difference and hence, these two variables are excluded from succeeding estimation procedures. The Vector Autoregression Lag Order Selection Criteria test result indicates that the appropriate lag length is 2 for Model 1, 1 for Model 2, and 1 for Model 3. The Johansen Cointegration test specifies that there are 4 cointegrating equations in Model 1, 3 for Model 2, and 4 for Model 3. The result of the Error Correction Model below proves the existence of a long-run relationship between the dependent variable and independent variables in all three models. The results for all three models summarized in Table 1 are discussed below.

For Model 1, with NGAB as the dependent variable, three independent variables found to have a significant long-run relationship are REER, INTGDP, and GCF. As shown in Table 1, a one-unit increase in the real effective exchange rate causes the Philippine NGAB as a percentage of GDP to decrease by 0.105 units. Consistent with the theoretical discussion, the results show that government expenditures funded by foreign debt will change due to shocks to REER from Philippine or foreign currency. A weaker peso would lead to a higher value on previously incurred external debt, worsening the NGAB. The estimated coefficient on INTGDP suggests that a one-unit increase in debt interest payments results in a 0.43-unit reduction in the Philippine national government account as a percent of GDP. This result is consistent with Diokno's stating that the expected sign is negative, meaning an increase in debt servicing would point to a worsening fiscal balance (expenditures are much higher than revenues). Finally, the estimated coefficient on GCF indicates that a one-unit increase in gross capital formation as a percent of GDP causes the Philippine NGAB as a percent of GDP to decrease by 0.294 units. This is contrary to the theoretical discussion that gross capital formation has a positive relationship with the country's fiscal position. Thus, this result may imply that the investment-led economic strategy that the Philippines has been adopting generally throughout the period of this study will result in a negative fiscal balance in the future, opening-up to potentially more debt.

In Model 2 the dependent variable, CPSFP, is a broader measure of the fiscal balance which includes the balances of other government corporations as well as of the NGAB as explained in the appendix. Under this model, three independent variables that show a long-run and statistically significant relationship are M3GDP, REER, and INTGDP. Consistent with the hypothesis of this research, the results suggest that a one-unit increase in domestic liquid liabilities as a percent of GDP signals an improvement in the country's fiscal position by 1.099 units. The results for Model 2 also show that a one-unit increase in the real effective exchange rate causes the country's fiscal position to increase by 1.489 units. This result contrasts with the negative relationship with REER observed in Model 1. This difference may be explained by the broader measure of fiscal balance in Model 2 from Model 1. Lastly, from Model 2 a one-unit increase in the debt interest payments as a percent of GDP caus-

Table 1: Long-Run Results

Variable	Coefficient	Standard Error	*t* - Statistic
MODEL 1: NGAB			
REER(-1)	-0.10485	0.03200	-3.27612
INTGDP(-1)	-0.43021	0.19045	-2.25894
GCF(-1)	-0.29365	0.08390	-3.49988
MODEL 2: CPSFP			
M3GDP(-1)	1.099054	0.17652	6.22624
REER(-1)	1.488749	0.21482	6.93018
INTGDP(-1)	17.53309	2.52479	6.94438
MODEL 3: DEBT			
GCF(-1)	7.464656	1.14868	6.49845

Note: The (-1) indicates lagged periods. It shows that the value of each variable is expressed as a linear function of past, or lagged, values of that variable and all other variables included in the model. Since the Johansen Cointegration test identified the existence of cointegrating relationships among the variables, the model includes residuals from the cointegrating vectors (lagged one period for all regressors) in the VECM system.

es the CPSFP of the country to increase by 17.533 units. While the theoretical discussion hypothesized a negative relationship between this variable and CPSFP, the VECM results revealed a positive relationship. Diokno states that the estimated relationship between the two variables may differ specifically for time-series data for the Philippines depending on the number of observations in the period under study. Furthermore, a positive relationship could be due to the inclusion in CPSFP of various government institutions that are net creditors, that is, institutions whose fiscal surpluses improve the national account balance.

The results for Model 3, which places public debt as the dependent variable, show only one independent variable with a long-run statistical significance: GCF. It is commonly believed that in the long-run, gross capital formation is positively related to the Philippines' public debt. The econometric result indicates that a one-unit increase in gross capital formation as a percent of GDP increases public debt as a percentage of GDP by 7.465 units. This supports the theoretical hypothesis discussed previously, as the investments and capital outlays of the Philippines may probably be funded by borrowing.

In sum, the estimation of the three models identified four macroeconomic variables that have a significant long-run effect on the Philippines' fiscal balance or public debt: REER, INTGDP, GCF, and M3GDP. Since the analysis covered the period of the onset of the COVID-19 pandemic in the Philippines, we can conclude that—to the extent that the pandemic-related lockdowns affected these economic variables—the impact will carry over long after the pandemic subsides. Moreover, the results suggest that the administration's strategy embodied in the 2021 GAA to prioritize infrastructure spending over spending on health care, social services and other sectors will be accompanied by higher public debt and or a smaller fiscal balance and deficits in the long-run.

Final Recommendations & Conclusions

Based on our analysis, we believe it is time for the Philippine government to abandon the imposition of draconian and extended lockdowns as soon as possible and to initiate a strategy of focused protection of the population through localized testing, tracing, treatment, and quarantine. The strategy of focused protection in contrast to sweeping lockdowns first appeared in October 2020 in The Great Barrington Declaration (gbdeclaration.org), a public document signed by over 850,403 physician-specialists, scientists, public health experts and citizens. Since then, it has been restated and widely supported by other scientists, groups, studies, and confederations in many countries across the globe (see bibliography for a partial list).

Adopting a strategy of focused protection that would require a realignment of the 2021 GAA national budget is strongly recommended for the Philippines, in the first place, in order to bolster the health care sector. Specifically, the budget should be readjusted to provide sufficient funds to expand the capacity of hospitals and testing hubs, ensure sufficient medical equipment and pharmaceutical supplies, and provide adequate compensation to the frontline workers.

Furthermore, the authors contend that eradicating virus in the Philippines depends not only on acquiring imported vaccines (by way of more debt), but also on ensuring the full access, legalization, domestic manufacture or cost-effective importation of affordable, alternative antiviral repurposed drugs that have been proven efficacious in multiple meta-analyzed medical trials in many countries. In fact, the Philippine health authorities (DOH-Food and Drug Administration (FDA)) have been slow to act on these repurposed antiviral drugs and have bureaucratically dragged their feet facing the strong censure of civil society, business groups, legislators, and netizens calling for more randomized trials (which seems to be just a rationalization). The authors strongly advocate a thorough reorganization of the Philippines' health institutions, namely, DOH, FDA, and the Health Insurance Corporation, before any additional funds are reallocated to the health sector. This is to prosecute corrupt officials and remove incompetent ones.

Lastly, the 2021 GAA must also provide greater financial assistance to individual Filipinos. As the risk of contracting the virus keeps people at home and causes loss of livelihoods, the pandemic has tightened or reduced people's disposable income. Indeed, the majority of Filipinos could not afford to "work-from-home" let alone to remain sheltered and fed. Putting money back into the pockets of the consumer economy would bring back purchasing power and consumer spending, even of those in the informal sector. It is generally known that time for budgetary reform is running out because national elections are scheduled for May 2022. Either the present administration realigns the budget this year or a new administration does it for them next year.

Acknowledgements

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Appendix

Econometric Variable Definitions

Variable	Description
NGAB National Government Account Balance (% of GDP)	Total government revenues less total expenses for the Philippine national government Source: Department of Finance (DoF), Bureau of the Treasury (BTr) This variable represents the narrowest coverage of the government's fiscal position.
CPSFP Consolidated Public Sector Fiscal Position (% of GDP)	NGAB plus other public sectors i.e., combined surplus (deficit) of the national government, major non-financial government corporations (GOCC), government financial institutions (GFI), local government units (LGU), social security institutions, the Oil Price Stabilization fund & BSP Source: BSP, BTr; This variable represents the broadest coverage of the government's fiscal position.
DEBT Public Debt (% of GDP)	Debt incurred to finance the activities of the public sector either through the revenue streams generated from taxation, or through borrowing in the financial market Source: BTr
GDP Real GDP Growth (Annual %)	Annual percentage growth rate of GDP at constant 2018 prices Source: Philippine Statistics Authority (PSA)
GCF Gross Capital Formation (% of GDP)	Investments put in place and measured by the total value of fixed assets/capital formation. Source: PSA
M3GDP Domestic Liquid Liabilities (% of GDP)	The ratio of liquid liabilities of the financial system to GDP. Source: BSP
INTGDP Debt Interest Payments (% of GDP)	National government debt service interest payments as a percent of GDP. Source: BTr
TAXEF Tax Effort (% of GDP)	Annual tax revenues as a percent of GDP Source: BTr
INF Inflation (Annual %)	Inflation as measured by the annual growth rate of the GDP implicit deflator shows the rate of price change in the economy as a whole Source: World Development Indicators (WDI), PSA
REER Real Effective Exchange Rate of the Peso (Adjusted for Inflation)	Weighted average of bilateral exchange rate indices adjusted for relative price differentials between the home country and foreign countries Source: BSP
RLABOR Labor Productivity at Constant 2000 Prices (Annual % Growth)	Total volume of output (measured in terms of GDP) produced per unit of labour (measured in terms of the number of employed persons) during a given time reference period Source: WDI, International Labour Organization (ILO)
UNEM Unemployment Rate (%)	Unemployed persons include all persons who are 15 years old and over and are reported as: (1) without work, (2) currently available for work, and (3) seeking work, or (4) not seeking work Source: PSA
TRADE Trade Openness (% of GDP)	Sum of exports and imports for goods and services measured as a share of GDP Source: PSA

Notes

1 Collectively known as the Bayanihan Act, these are immediate enactment of stimulus packages and measures intended to protect the socio-economic welfare of the Filipino people against COVID-19.

2 While operational expenses of hospitals did increase marginally, investments in medical labs and funds for the frontlines were reduced.

3 The Cycle threshold (Ct) value in an RT-PCR test is the number of amplifications it takes the test machine/procedure to detect the virus genetic material in a test subject. The lower the number of cycles, the more accurate the test becomes. The higher the number of cycles, the less accurate. Credible scientific papers hold that Ct cycles in the range of 25 and below should be the basis of mass public testing rather than the reported 38 and above which leads to many "false positives."

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