When Pandemic Strikes: Balancing Health and Economy toward Sustainable and Inclusive Recovery in the Philippines

Arsenio M. Balisacan and Russel Matthew M. dela Cruz

Philippine Competition Commission

ABSTRACT

COVID-19 has made it undeniably clear that governance and policy choices in the health sector have come at very high costs to lives and the economy. The pandemic plunged the Philippine economy in 2020 into its most severe contraction in the postwar era, pushing about five million workers out of jobs, eroding three to five years of gains in poverty reduction, and inflicting scars that threaten the economy's longterm potential for inclusive growth. The pandemic has exacerbated existing inequalities and created new ones. The burden of employment contraction has fallen disproportionately on lower-skilled and lesseducated workers. The gaps in access to health care, education, and mobility services—already present during normal times—have further widened between the haves and the have-nots. The health crisis has also hastened workplace digitization and artificial intelligence, but the benefits have been limited for workers with little or no education and those without access to reliable and affordable internet services, particularly the poor. The resulting loss of organizational and information capital, lost years of schooling and hunger impairing human capital, investment foregone due to heightened uncertainty, and rising inequality have scarred the economy. Such scarring weakens the prospects for longterm productivity growth and inclusive economic development. The road to sustained and inclusive recovery demands a strategic and timely deployment of policy tools that will strengthen the public health system and protect livelihoods and the most vulnerable population groups. The goal is to quickly recover to the pre-pandemic levels of employment and income to avoid deeper economic scarring and steer back the economy to its previous high-growth trajectory. Beyond recovery, the policy imperative must be to strengthen the resilience of the healtheconomy system, enabling it to withstand future health shocks and other challenges, such as those related to climate change.

Keywords:

COVID-19,
Health,
Inequality,
Poverty,
Government Policy,
Economic Development,
Philippines

JEL Classification: 114, 115, 138, 015, 053

Citation:

CBalisacan AM, Dela Cruz RMM. 2021. When a pandemic strikes: Balancing health and economy toward sustainable and inclusive recovery in the Philippines. Transactions NAST PHL 43(2): doi.org/10.57043/ transnastphl.2021.1128

Revised and updated version of the plenary paper prepared for the 43rd Annual Scientific Meeting of the National Academy of Science and Technology (NAST Philippines) on 12-15 July 2021, Manila Philippines

^{*}Corresponding Author: ambalisacan@phcc.gov.ph; rmdelacruz@phcc.gov.ph

Chairperson and Policy Research Officer, respectively, of the Philippine Competition Commission. They thank the participants at the NAST Regional and Annual Scientific Meetings for useful discussions and observations on the paper's topic. The usual disclaimer applies. In particular, the views and opinions herein do not necessarily reflect those of the Philippine Competition Commission.

1. INTRODUCTION

No serious observer of the Philippine economy would have expected the country's fortune to swing so swiftly from being one of the world's fastestgrowing emerging economies in the past decade (2010s) to being one of the worst performers, especially in Asia, at the turn of the current decade (2020s) amid the Covid-19 pandemic (Figure 1). The economy contracted by 9.6 percent in 2020, the sharpest fall it has since the Second World War, notwithstanding the country's "strong economic fundamentals" at the close of the past decade (Table 1). While the economy is showing signs of turning around this year as vaccination gets underway, recovery to pre-pandemic growth trajectory appears slower than in most of the country's Asian neighbors. Thus, while Asia's economies are likely to recover their pre-pandemic per-capita income levels this year or next, the Philippine economy may take longer to achieve the same.

Table 1. Philippine Macroeconomic Indicators, 2019-2021

Indicators (%)	2019	2020	2021*
GDP Growth Rate (Annual)	6.0	-9.6	4.7
Unemployment Rate (Q2)	5.1	17.2	8.7
Inflation Rate (Average)	2.5	2.6	4.5
Domestic Interest Rate (OLF)	4.5	2.75	2.5
Debt-to-GDP Ratio	39.6	53.5	60.4
Fiscal Deficit	3.4	7.5	9.4

Notes: For 2021, the GDP Growth Rate used is the World Bank's forecast from April 2021 while the Inflation Rate used is the average of inflation rates from January 2021 to September 2021. All other indicators for 2021 uses latest available figures as of 28 November 2021. OLF refer to the Bangko Sentral ng Pilipinas's overnight lending facility rate. Sources: World Bank; Government offices.

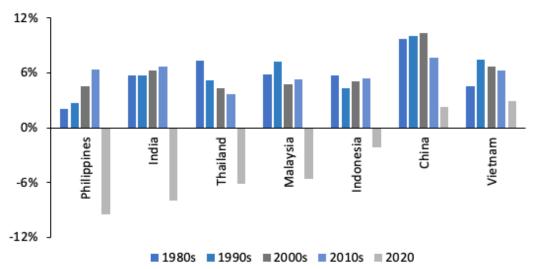


Figure 1. Average GDP Growth Rates in Selected Asian Economies 1980-2020. Source: World Development Indicators

In a statement published by the Department of Finance (DOF) in March 2020, Bangko Sentral ng Pilipinas Governor Benjamin Diokno was quoted thus: "There is no reason to believe that the COVID-19 crisis could severely cut the Philippine growth momentum. The truth is that the economic fundamentals are on our side. Even under the worst possible scenario, the Philippines can still grow this year and in the medium term by about 6 percent" (DOF 2020).

As in many other countries, the Philippine Government has imposed mobility restrictions lockdowns—to contain the spread of the disease and not overwhelm the public health system. Based on its lockdown stringency index (as measured by the University of Oxford), the Philippines' series of lockdowns, especially the initial one, were comparatively more stringent than in most countries, particularly in Asia. On average, the country had a stringency index significantly above 70 points, while those of its neighbors tended to oscillate below 70 (Table 2). And yet, the incidence of infection (number of cases per million population) and mortality (number of deaths per million population) have remained comparatively high in the Philippines.

As of December 2021, the daily number of new active cases in the Philippines has gone down after peaking three months earlier. Many other Asian countries have also experienced a resurgence of infections and deaths in 2021, with Malaysia overtaking the Philippines in May. By August, almost all countries—including previously more successful Vietnam and Thailand—were experiencing surges due to the more infectious Delta variant (Figure 2).

However, with a relatively lower vaccine coverage, containment of outbreaks in the Philippines—more so, the total elimination of infections—remain largely uncertain, especially in the face of future threats due to more infectious variants.

Several factors influence the pandemic's effects on the Philippines, at both the national and community levels. These include public health infrastructure, governance and institutions, access to welfare programs, demographic characteristics, population density and geographic attributes, wealth inequality, and fiscal constraints. For example, several studies indicate the country's comparatively low quality of public health services and the highly inequitable access to health systems. The pandemic has crystallized the consequence of the decades-long neglect of the health sector: the loss of too many lives and a ravaged economy. Some of the sector's problem areas may be fixed quickly, but many others, especially those requiring massive public investments, would take a longer time.

A recent sharp resurgence of COVID-19 cases has hampered efforts to increasingly open the economy. The resurgence highlights not only the health systems' inadequate capacity to contain the

Country	Total Cases per Million	Total Deaths per Million	Vaccination Rate (%)	Average Stringency Index
Philippines	25,488.2	432.4	36.5	71.4
Indonesia	15,397.5	520.3	49.8	64.2
Malaysia	79,767.7	922.6	78.3	64.7
Thailand	30,034.8	295.6	67.7	56.0
Vietnam	12,033.7	250.0	69.1	65.0

Table 2. Comparative ASEAN COVID-19 Indicators, November 2021.

Notes: Vaccination Rate denotes share of population who have received at least one dose of a COVID-19 vaccine. Average Stringency Index refer to the average level of stringency, as measured by the University of Oxford, from the period of the date when the first mobility restriction was imposed up to 26 November 2021. The rest of the indicators are based on latest available data as of 26 November 2021.

Source: Our World in Data (accessed 28 November 2021)

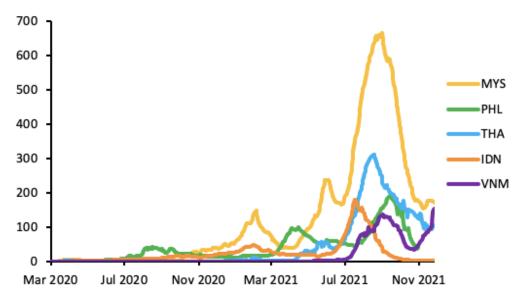


Figure 2. Daily Cases per Million Population in ASEAN, February 2020 - November 2021. Note: Figures above indicate the seven-day rolling average of new confirmed cases per day. Source: Our World in Data (accessed 28 November 2021).

disease, but also the dependence of a sustainable economic recovery on a robust healthcare system, one particularly capable of testing, tracing, and treating infections, and quickly carrying out an effective vaccination program to achieve herd immunity.

Recurrent lockdowns cause longer-lasting scars on the economy. Long spells of unemployment may cause workers to lose their skills (Bird, Lozano, and Mendoza 2021). Similarly, prolonged lockdowns may result in enterprises, especially small and medium ones, losing their institutional and market networks. The scars lessen the longer-term potential of the economy to deliver poverty reduction, inclusive recovery, and sustained growth. For poor families, the scars may also take an intergenerational dimension: lost years of schooling, hunger, and malnutrition will dim even more their prospects for upward social mobility (Das and Wingender 2021).

Rising inequality can exacerbate economic scarring. As in other developing economies, the burden of employment contraction has fallen disproportionately on lower-skilled and less-educated workers, especially in high-contact service sectors (e.g., tourism, travel, hospitality, and retail trade). Access to health care, education,

and mobility services has been inequitable even during normal times, but the pandemic has further widened this gap between the haves and the have-nots (Ferreira 2021). Opportunities for work-from-home arrangements are more limited for workers with little or no education and those with little or no access to reliable and affordable internet services, particularly in rural areas. These inequalities, as recent economic history suggests, tend to dampen future economic growth, even more so for economies with already high levels of inequality, such as the Philippines (Balisacan 2019).

The road to sustained and inclusive recovery requires a balanced deployment of policy tools that would strengthen the healthcare system and protect the most vulnerable population groups and economic sectors. The goal is to quickly recover to the pre-pandemic levels of employment and income to avoid deeper scarring that may weaken the prospects for long-term productivity growth and inclusive economic development. Beyond recovery, the objective of public policy is to strengthen the resilience of the health-economy system, enabling it to withstand health shock challenges (e.g., another pandemic in the future) and other shocks (e.g., those related to climate change).

Put differently, an effective health policy response to the pandemic is part and parcel of the government policy arsenal mobilized to put the economy back on track at the shortest possible time. From this perspective, the policy imperative to effectively deploy health policy tools in tandem with economic policy measures in order to save lives, quickly recover livelihoods, and nurture a more inclusive and sustainable economic development.

paper characterizes the challenges confronting the Philippines as regards saving lives and livelihoods amid and post pandemic. Drawing on emerging evidence, experiences, and contemporary policy discussions, including those at the NAST Regional and Annual Scientific Meetings, it identifies the main pillars for sustainable recovery of the Philippine economy. The next section delves into the socioeconomic impacts of the pandemic and the threats to economic scarring and their implications for the country's longer-term economic growth, poverty, and inequality of opportunities, particularly in health, education, and employment. The third section provides a stylized framework for characterizing the policy challenges toward sustainable recovery, and describes the country's policy responses to the crisis. The paper concludes by identifying main pillars for regaining lost ground and getting on to a rapid and more inclusive post-recovery development of the Philippine economy.

2. ECONOMIC SCARRING

More worrisome than the visible and direct impacts of the health and economic crises are the longer-lasting scars they can inflict on the economy, eroding its potential for long-term growth and inclusive development.

The pandemic has exacerbated existing inequalities—and created new ones. The burden of employment contraction has fallen disproportionately on unskilled and low-skilled workers and on the highly vulnerable groups, especially in high-contact service sectors like tourism and hospitality, entertainment, and transport (Figures 3 and 4). Unemployment among low-skilled workers is 2.6 percentage points higher

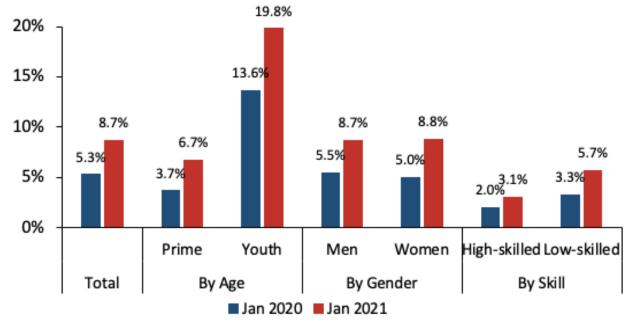


Figure 3. Unemployment Rates in Various Sectors, January 2020 and January 2021.

Notes: For comparison purposes, 'High-skilled' denotes to workers with at least a college

education level or higher while 'Low-skilled' refer to those with education levels lower than college graduate.

Source: Labor Force Surveys, Philippine Statistics Authority.

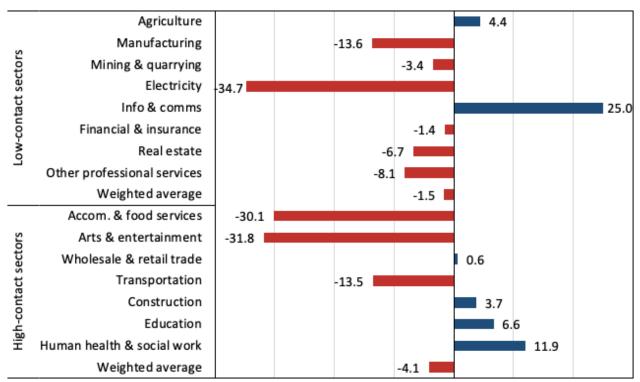


Figure 4. Change in Employment in High-contact Sectors vs. Low-contact Sectors, January 2020 and January 2021.

Source: Figure taken from Hill, Balisacan & dela Cruz (2021)

than among the high-skilled ones. This is most likely due to low-skilled workers engaging in more manual labor, limiting their participation in the shift to remote work or work-from-home arrangements. Meanwhile, unemployment is also higher among younger workers with 19.8 percent of them jobless in January 2021. A possible reason that some companies may be inclined to terminate younger employees first during recessions is because they have relatively less experience than their older counterparts.

Further, while the pandemic wiped out 1.7 million wage and salary jobs within the 12 months prior to January 2021, employment in the Philippine informal sector rose by about half a million. This may indicate that workers who used to be formally employed have resorted to lower-quality and lower-paying jobs to make ends meet (Bird, Lozano, and Mendoza 2021). More recent data indicate an underemployment rate of 20.1 percent in July 2021, which is significantly higher than its pre-pandemic level of 14.8 percent in January 2020. Previous crises have shown that economic scarring can manifest

in the form of hysteresis, the phenomenon where long periods of unemployment can lead to the loss of workers' skills (Cerra, Fatás, and Saxena 2020). If unaddressed, this may further result in a slow and unstable recovery of income and productivity.

Meanwhile, access to healthcare has also worsened. Low-skilled and unskilled workers, fortunate enough to remain employed have been mostly unable to work remotely due to the labor-intensive nature of the jobs available to them. Hence, poorer workers now face the double burden of decreased incomes and increased health risks. Lower income levels also mean more hunger and less access to balanced and nutritious meals, which can lead to malnutrition. Based on the World Bank's high frequency surveys, the Philippines was among those with highest incidence of COVID-related food insecurity across sectors in the region in 2020 (Figure 5).

Interestingly, despite the current crisis being mainly a health-related one, claims with the national health insurer PhilHealth had dropped by more

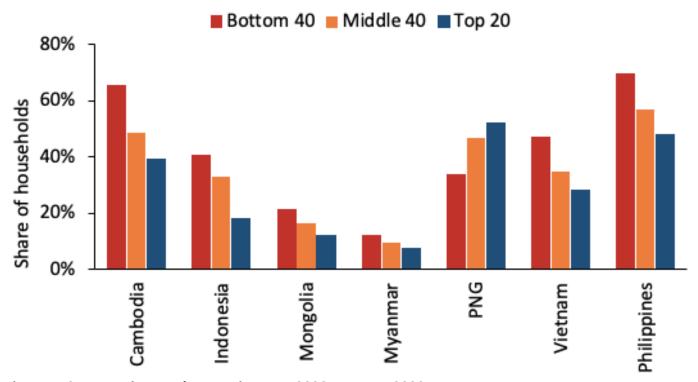


Figure 5. Comparative Food Insecurity, May 2020 – August 2020

Source: Figure taken from World Bank East Asia and Pacific Update, April 2021

than 75 percent in 2020 (Figure 6). Meaning, the majority of patients had deferred health treatment for other diseases, likely in fear of contracting COVID-19. A closer look at the statistics shows that PhilHealth claims fell for 12 high burden diseases, including cancer, diabetes, dengue, hypertension, heart disease, tuberculosis, and kidney disease (Ulep et al. 2021, as cited by NEDA 2021b). Moreover, the share of pregnant women receiving pre-natal care dropped from 99 percent to 61 percent (NEDA 2021b). Citing international estimates, NEDA (2021b) also noted how the current crisis can lead to shorter life expectancies (by 1-4 years) due to both COVID-19's direct and indirect health impacts. The compounded consequences of underdevelopment among infants, worsening of pre-existing health conditions, permanent disability, and early death could mean economic losses in terms of foregone lifetime wages and lesser productivity.

In education, the Philippines is the only country in East Asia that has closed schools for face-toface classes for more than an entire year. The shift to e-learning due to the pandemic has created another dimension of inequality as access to reliable and affordable internet services is limited for poor families, particularly in rural communities. Expectedly, those with lower internet access have been less able to keep up with the shift to online education. At the country level, the Philippines lags in the region in terms of coverage and quality of internet access owing to the relatively high costs of fixed and mobile broadband in the country (Table 3).

The disparity in access is stark when based on household income levels. According to the World Bank's latest high frequency surveys, students from more well-off households were significantly more likely to remain engaged in online, mobile, or face-to-face schooling (Figure 7). NEDA (2021b) estimates that enrollment has declined by 1.1 million or around 5 percent due to loss of income and the inability of students to engage in alternative learning arrangements. This is particularly concerning since students who were forced to drop out of school during the pandemic may find it harder to return,

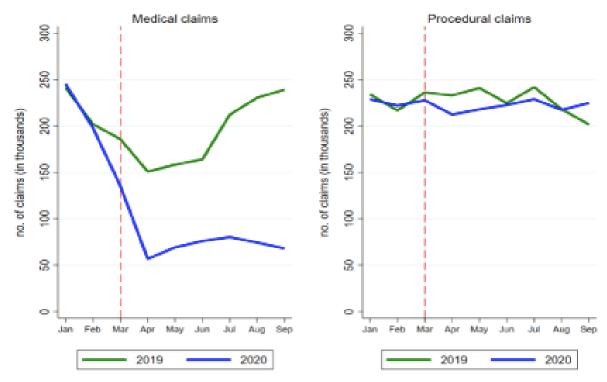


Figure 6. Total Medical and Procedural Claims, 2019-2020.

Source: Figures taken from Ulep, et al. (2021) as cited in NEDA (2021b)

Table 3. Comparative Internet Coverage, Costs, and Quality

	Total	Fixed broadband			Mobile broad- band			
Country	Popula- tion with Internet Access (%)	Subscrib- ers per 100 peo- ple	Cost per GB (PPP\$)	Global Speed Rank	Subscrib- ers per 100 people	Cost per GB (PPP\$)	Global Speed Rank	
Philippines*	43.0	5.5	13.0	62 nd	68.4	7.5	75 th	
Indonesia	47.7	3.8	20.0	116 th	81.2	8.1	104^{th}	
Malaysia	84.2	9.3	10.0	47 th	126.6	13.9	89 th	
Thailand	66.7	14.5	9.9	7 th	86.9	11.8	48 th	
Viet Nam	68.7	15.4	4.7	59 th	72.5	4.2	58 th	

Notes: Global Speed Rank denotes global ranking in terms of internet download speed as of June 2021 as determined by the Speedtest Global Index. The rest of data used are from the International Telecommunication Union 2019 database update except for Mobile broadband subscribers per 100 people for the Philippines, which is from 2017. Data on fixed broadband cost at 5GB and mobile broadband cost at 1.5GB were rebased at 1GB ('Cost per GB') for comparison purposes.

Source: Table taken from Hill, Balisacan, and dela Cruz (2021)

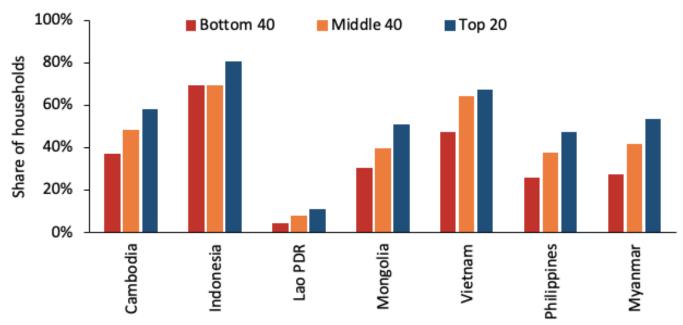


Figure 7. Share of Households with Enrolled Students.

Source: World Bank East Asia and Pacific Update: April 2021

especially if they have already entered the labor force.

NEDA (2021b) notes that, based on the Asian Development Bank's estimates of learning and earning losses from the pandemic (ADB 2021c), each year of lost schooling for current Filipino students translates to around 10 percent permanent lower wages in the future. Hence, it is crucially important that the Philippines reopen face-to-face schooling at the soonest time possible. Although the Department of Education has announced plans to gradually reopen schools in areas where cases are low in November 2021, the full reopening of schools highly depends on the still precarious COVID-19 situation in the country.

Meanwhile, certain businesses have gained from the pandemic such as those that were already or have quickly migrated their operations online. However, micro-, small, and medium enterprises (MSMEs) have been disproportionately affected by the lockdowns (Figure 8). Rapid surveys done in March and August 2020 show that MSMEs employing more unskilled/low-skilled workers have had lesser opportunities for work-from-home

(WFH) arrangements (Shinozaki and Rao 2021). This is because more likely these smaller firms engage in labor-intensive and high-contact businesses.

Although there have been signs of recovery, the demand for labor (as evidenced by reduced working hours) has remained low for MSMEs relative to pre-pandemic levels. Further, while the situation may have improved for some firms a year after the surveys were conducted, the recurring surges and reimposition of lockdowns have made it difficult for many MSMEs to reopen and recover. As smaller players, they are more vulnerable to greater indebtedness and the risk of firm closures. The heightened uncertainty stemming from uncontrolled outbreaks discourages investments in new businesses or the reopening of ones that closed. The loss of organizational and informational capital, such as firm-worker relationships, connections, and networks—including lifelines of MSMEs—will take time to regain, slowing down job creation and wage growth (Das and Wingender 2021).

As losses and uncertainty lead to market exit of firms, especially smaller ones, there may be an increased appetite for mergers as firms attempt

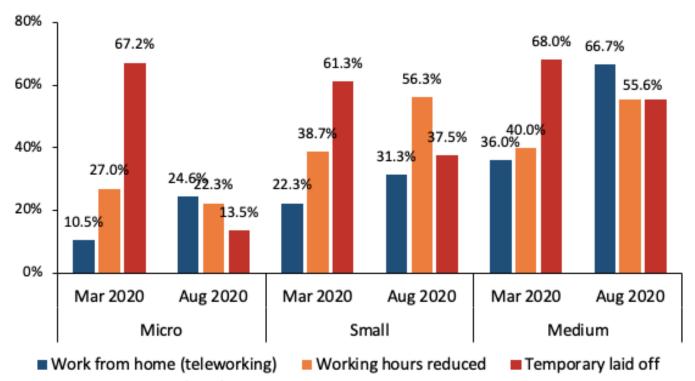


Figure 8. Changes in MSME Employment, March 2020 and August 2020.

Source: Shinozaki and Rao (2021)

to recover and strengthen their market positions. The exits or mergers may result in increased market concentration, which could lead to a monopoly or substantially raise a firm's market power. The rise in market power risks consumer harm if it comes with the ability and incentive to exercise that market power in the form of higher prices, lower quality of goods and services, or less innovation.

Similarly, the supply and demand shocks due to the pandemic may present firms with an incentive to change their usual behavior and exploit the situation. Business strategies that previously worked may no longer enable them to maintain their desired profit margins. To avoid losses, some firms might resort to employing extraordinary means, including anticompetitive behavior such as cartelizing and abusing market dominance. Such anticompetitive behavior exacerbates the significant welfare losses arising directly from the shocks. Thus, rising market concentration and the accompanying increased risk of anticompetitive conduct may also threaten recovery itself (Georgieva et al. 2021).

Collectively, the disproportionate impacts on

employment, lost years of schooling, reduced access to healthcare services, heightened uncertainty and indebtedness, loss of organizational and informational capital, and increased anticompetitive risks dampen the economy's long-term productivity and output potential. Current uncertainty about the dynamics of the disease and the economic crisis constrains a full assessment of these impacts. Using information available to date, NEDA (2021b) attempts to provide an order of magnitude of the future costs of the current crisis to society (Table 4). Its estimates show that the long-run total cost of COVID-19 and the lockdowns is about PhP41.4 trillion in net present value (NPV) terms. For comparison, the estimated NPV of the country's nominal gross domestic product (GDP) in the next 10 years is PhP205 trillion.

The actual costs of the crisis could still vary, depending on how the country's COVID-19 situation unfolds as well as on how effective the government's policy responses are. However, it must be underscored that the longer the direct and indirect impacts of the crisis are unabated,

10516 11 20118 1011 00515	0. 00 1.5	511515
ems (in billions PhP)	2020	Next 10 to 40 years
	4,321	37,044

Table 4. Long-run Costs of COVID-19 Crisis

Total Foregone ite 41,365 Total Consumption 2,412 4,502 2,090 Private investment and returns 1,835 19,501 21,336 2020 investment and returns 1,835 1,437 3,271 Future year investment and returns 18,064 18,064 n.a. Of which: Taxes (value-added, personal/ 782 424 1,206 corporate income) Human capital investment and returns 397 15,131 15,528 Education (School Year 2020-2021) 230 10,795 11,025 Health (both COVID-19 and non 167 4,336 4,503 COVID-19)

Note: The NPV of the Philippines' nominal GDP in the next 10 years is PhP205 trillion. Physical capital horizon is 10 years given convergence period while human capital horizon is 40 years (i.e., productive years of a person, aged 22 - 65 years).

Source: Table taken from NEDA (2021)

the deeper the economic scars and costs will be to Philippine society.

3. Recovery

Despite differences in the incidence and patterns of the coronavirus infection and in the prospects for economic recovery across countries, the overarching objective of public policy is strikingly uniform: overcome the immediate health crisis and get the economy back to normal (IMF 2021). Beyond this objective, policy may also strengthen the economy's capacity to withstand shocks in the future and to become more inclusive.

Building on IMF (2021) and Mendoza (2021), Figure 9 illustrates a stylized health situation and economy amid and post pandemic. The top panel depicts the number of cases (people infected

with the virus) and the capacity constraint of the healthcare infrastructure. The middle panel traces the evolution of the economy under different states. Following convention, the figure uses the traditional GDP per capita as a broad measure of economic activity. However, we added employment (bottom panel) to relate the economic shocks more aptly to a key dimension of household welfareaccess to productive employment. ²

A health crisis arises when the demand for healthcare services by a rapidly rising number of infected people overwhelms the capacity of the country's healthcare system. An extremely overwhelmed healthcare infrastructure—not a rarity in poor countries—can result in more fatalities, including those of medical front liners, than otherwise would be the case. Across countries, the common immediate policy response is restriction

It may be argued that in developing countries such as the Philippines, open employment rates weakly correlate with welfare (see de Dios and Dinglasan 2015). Indeed, it has been observed that open unemployment rates tend to be higher among middle-class workers than among bottom-class workers. The employed poor tend to be predominant in the informal sector and agriculture where self employment is common. However, among wage and salary workers, particularly in high productivity sectors such as manufacturing and finance, changes in employment status contain welfare-relevant information (Balisacan 2003).

of people's mobility. In principle, lockdowns are put in place not only to contain the contagion but also to buy time to improve the healthcare system, including the country's capacity for tracing, testing, and treating infections (and more recently, vaccination.) If the efforts succeed, the number of cases is reduced to manageable levels, such as that represented by the shift from 1a to 1b in the top panel of Figure 9. Further, with a reinforced healthcare system, the future threats of more infectious virus strains and succeeding infection waves (point 1c) become more manageable and less damaging to the economy. We have seen this happen in countries where vaccines have protected healthcare workers and significantly prevented deaths. Coupled with effective testing, tracing and isolation systems for COVID-19-positive individuals, vaccines have enabled some countries to live with the virus, albeit in the New Normal (Bloomberg 2021; US CDC 2021).

The pandemic has damaged employment through various channels. First, the immediate lockdowns restricted people's access to their employment and livelihoods, especially the poor who have less opportunity for work-from-home arrangements. Second, income losses mean lower consumption and investment spending, especially in the absence of well-functioning credit and insurance markets. This has reduced the total demand for labor. Third, people's fear of getting infected also means that, even for consumers who have resources to spend, the demand for contact-intensive economic services (e.g., tourism, hospitality, retail trade, schooling) has contracted, forcing establishments in these industries to cut down on workers or even close shops permanently. In the bottom panel of Figure 9, the immediate impact on workers is represented by a decline in employment to 3b.

Policy can mitigate—though not fully—the sharp impact of the pandemic on employment, even in the short run. First, the health policy response, if effective in containing the contagion and getting people feel secure about their safety from the disease, helps rebuild consumer confidence, thereby permitting a quicker recovery of consumption and investment spending (Ferrer

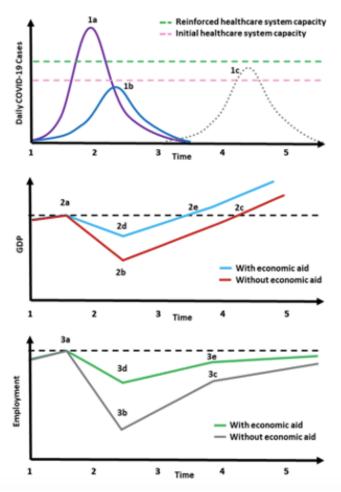


Figure 9. Stylized Pattern of Health and Economy amid the COVID-19 Crisis.

2021; Mendoza 2021). Second, fiscal and monetary policy can provide relief and mitigation assistance to vulnerable households and firms, particularly small and medium establishments. Safety nets for the poor and vulnerable population groups can help smooth their consumption during the crisis. Fiscal support to MSMEs, which employ the bulk of unskilled and semi-skilled workers and account for 62.4 percent of value added and 95.5 percent of total number of firms (DTI 2019), may protect workers from job losses during the crisis and allow the firms to recover quicker than otherwise would be the case (Bird, Lozano, and Mendoza 2021). This is illustrated by the pattern of employment outcome (green line), given the shock-mitigating policy response, in the bottom panel of Figure 9.

Although the responses of countries to lockdowns, vaccine rollout, and stimulus programs differ at

varying degrees, the characterization shows how an effective health policy response is part and parcel of the strategy to achieve economic (employment) recovery at the shortest time possible. Sustained economic and employment growth is not possible without a robust healthcare system.

Figure 10, which compares the stylized pattern with the Philippine situation, evidently shows that the country was less successful in utilizing the lockdowns to contain the virus and prevent greater economic losses. The first imposition of enhanced community quarantine (ECQ), the country's most stringent form of lockdown lasted from 15 March to 30 June 2020. Contrary to the stylized pattern, however, the number of daily new infections kept rising after the lockdown was lifted with succeeding surges forcing the government to reimpose stricter restrictions again come August 2020, March 2021, and recently, August 2021. Such reimpositions though eventually modified according to economic sector and geographic location—once again limited economic activity, affecting consumer and investor confidence.

To be sure, the presence of more infectious strains like the recent Delta variant has changed the rules of the war on COVID-19, challenging even 2020 exemplars like Vietnam and New Zealand. Nonetheless, what remains profound in our analysis of the Philippine COVID-19 story is that containment is necessary for economic recovery to be sustainable. Thus, unless the country's test-trace-treat-vaccinate systems keep up with the constantly evolving threat

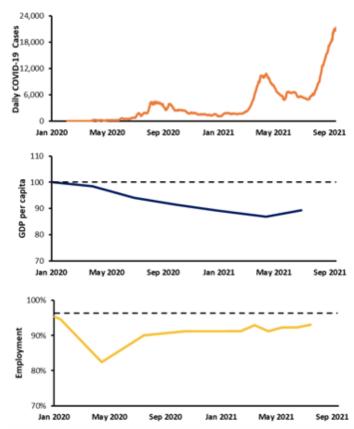


Figure 10. The Philippines' Health and the Economy Situation amid the COVID-19 Crisis.

of COVID-19 as in Figure 9, recovery is expected to be slow and unstable. Using NEDA's August 2021 GDP forecasts, we estimate the Philippines to recover its pre-pandemic GDP per capita level only by late 2022, equating to almost three years of lost growth (Figure 11). NEDA (2021b) estimates the country to

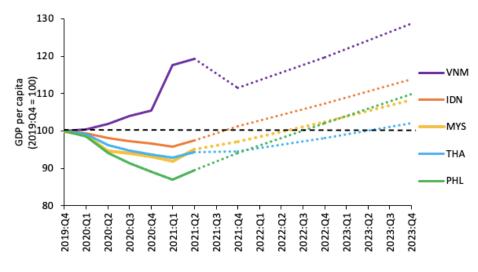


Figure 11. Comparative ASEAN GDP per capita, 2019-2023.

Note: Latest lower-bound GDP growth forecasts from the respective government offices are used to estimate GDP per capita from 2021:Q3 onwards (dotted line).

Source: Government offices.

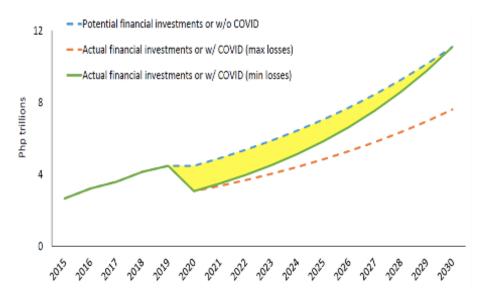


Figure 12. Philippine Investment Trajectory.Source: Figure directly taken from NEDA (2021b)

regain its pre-pandemic investment trajectory only after a decade (Figure 12).

Lastly, using PovCalNet and GDP data from NEDA and the World Bank, we estimate the impact of the health and economic crises on the country's poverty headcount ratio (Figure 13). Our analysis shows that about 8.3 million Filipinos have been pushed back below the national poverty line due to the output and job losses experienced in 2020. This number will increase to 9.6 million if the recession leads to a corresponding rise in inequality—that is, if the Gini coefficient increases by one point. This erases three to four years of poverty reduction gains, due to high growth and low inflation in previous years. Assuming GDP grows according to NEDA's (2021a) revised lower-bound forecast of 4.0 percent and inequality is unchanged, we estimate that an additional 9.1 million Filipinos have been living in poverty in 2021. Similarly, should the Gini coefficient increase by one point, this number would rise to 10.5 million.

However, assuming output grows faster at 4.7 percent as forecast by the World Bank and inequality does not worsen, the number of COVID-19 induced poor in 2021 goes down to 8.8

million. This demonstrates that the government can prevent more people from sliding back into poverty if (a) the economy can rebound and achieve a high output growth by the end of 2021, and (b) the new and exacerbated inequalities brought about by the pandemic can be addressed quickly (Christiansen et al. 2021; Georgieva et al. 2021; World Bank 2021).

Nevertheless, while the country's current economic prospects may appear grim, we remain cautiously optimistic that the situation can be turned around with a proper recalibration of our health and economic policy responses.

4. Ways Forward and Opportunities

As discussed in the previous sections, an effective pandemic response has two dimensions. One is the deployment of health policy tools that strengthen the healthcare system, effectively addressing institutional weaknesses and severe underinvestment in public health. Solving the health crisis preconditions sustainable economic recovery. Two is an economic policy response that mitigates adverse impacts on output and employment to prevent longer-term economic scarring.

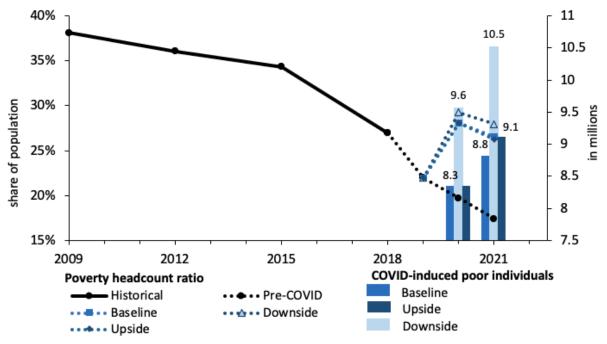


Figure 13. Change in Poverty Incidence, 2009-2021⁵.

Note: See footnote for assumptions.

Source: Authors' own estimates using PovCalNet and GDP forecasts from NEDA and the World Bank.

Health Dimension

The recurring surges experienced in 2021 underscore the urgent and persistent to need to improve the Philippines' pandemic response beyond lockdowns. That is, we must bolster our test-trace-treat-vaccinate systems to successfully contain the outbreaks in different parts of the country.

Testing. More than a year into the pandemic, testing remains inaccessible to many, especially the working poor. Moreover, some laboratories still take up to three days to deliver PCR testing results;

in other countries the same can be provided within hours. We need to make testing more accessible and efficient, especially for the working poor who are vulnerable to infections due to exposure while on the job.

Tracing. The country's contact tracing ratio remains far below the WHO recommendation. This is especially true for local government units (LGUs) that lack of capacity and resources (Monsod and Gochoco-Bautista 2021). Moreover, coordination inefficiencies between LGUs and relevant national

Poverty line (based on consumption) was computed at 3.12PPP\$/day to match the national poverty line used by the Philippine Statistics Authority. Pre-COVID scenario uses World Bank GDP forecasts published in 2019. Baseline scenario assumes the following: Gini index remains at 2018 level (37.77) for 2020 and 2021; GDP drops by 9.6% in 2020 and grows by 4.0% in 2021 in line with NEDA forecasts as of August 2021. Downside scenario uses the same GDP data for 2020 and 2021 as but assumes Gini index rises by approximately one point (38.71) given the Bottom 50% population becomes poorer and the Top 50% richer amid the pandemic. Upside scenario follows the same Gini index assumption as the Baseline Scenario except GDP grows faster in 2021 at 4.7% in line with World Bank forecast as of April 2021. The number of COVID-induced poor individuals is computed by subtracting the number of poor individuals according the simulated COVID scenarios by the pre-COVID estimates.

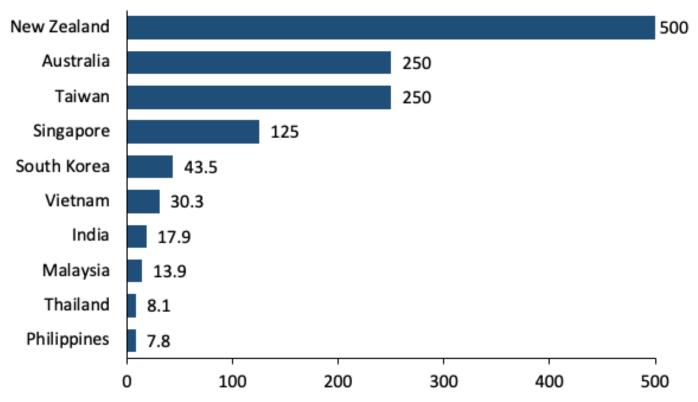


Figure 14. Comparative Tests per Confirmed COVID-19 Case.

Note: The figures denote the average number of tests per confirmed case across the relevant outbreak period in October 2021.

Source: Our World in Data (accessed 28 November 2021)

government agencies remain, contributing to lags in contact tracing and data reporting. More than year after the pandemic started, LGUs still use different contact-tracing applications and systems, even those within the same region. Because of the lack of tracing and incompatible monitoring systems, many individuals who have been exposed to the coronavirus are not tested. As Figure 14 shows, the country has the lowest average number of tests performed per confirmed case—a stark contrast to the aggressive testing and tracing strategy employed by the more successful countries.

Owing to the weak testing and tracing systems, many infected but asymptomatic people are undetected and unknowingly infect others, resulting in a vicious cycle that can lead to huge outbreaks if unbroken. In addition, using different systems for contact tracing lead to duplication, thus waste resources, which could have otherwise been

used instead as economic aid for highly impacted sectors. We need to have a unified tracing so that the LGUs can right away identify and reach exposed individuals within their respective areas and have them tested or isolated to prevent further infections.

Treatment. The long queues in emergency rooms and patients dying before getting treatment during the height of previous surges only expose how the capacity of the healthcare capacity has not sufficiently improved more than a year into the crisis. Critically infected individuals should have unimpeded access to hospital care to prevent more deaths. This can be done by supporting hospitals' capacities (i.e., manpower, infrastructure, supplies) or by providing financial assistance to the patients themselves.

Vaccination. In many places, vaccinations have allowed more economic sectors to reopen and

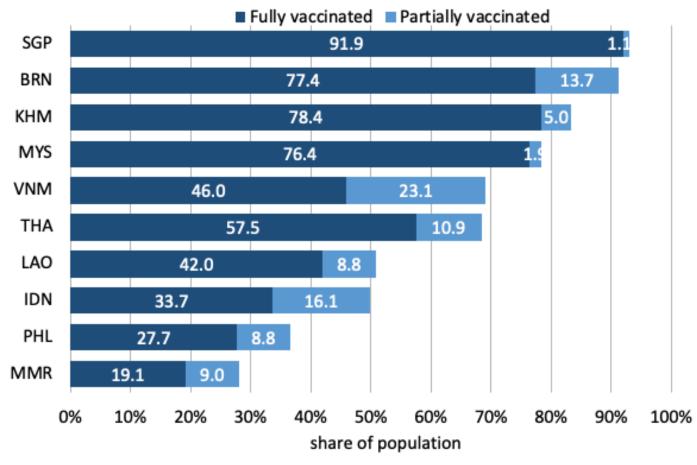


Figure 15. Comparative Vaccination Rates in ASEAN, November 2021.

Source: Our World in Data (accessed last 28 November 2021)

recover (ADB 2021b) as vaccines have been proven to decrease transmission and more effectively, reduce risk of hospitalization and death. While the government has rolled out vaccination programs, the Philippines remains far from achieving the recommended target inoculation of 70 percent of the population for herd immunity (Figure 15). Thus, the government must ramp up the country's vaccination program by boosting the capacities of inoculation sites, addressing shortages in vaccine supply, and improving the government's communication strategies to effectively address

vaccine hesitancy. However, vaccines alone will not end the pandemic. For even though current vaccines have higher-than-expected efficacies, the length of their protection is still uncertain. Mutations of the virus are also expected and may necessitate increasing of the theoretical target for herd immunity (Aschwanden 2021). Hence, the goal of enhancing the test-trace-treat systems should not be laid aside.

In the longer term, the country must address the needs of the long-neglected public healthcare

By August 2020, less than 1 percent of 600 local government units (LGUs) was able to follow the recommended 30–37 contacts for urban areas and 25–30 for rural areas reliable contact tracing. Most LGUs were contacting only up to 4-5 exposed individuals. The country also had just 85,000 contact tracers instead of the prescribed 135,000 (Monsod and Gochoco-Bautista 2021). While more recent data is not yet available, the authors are also yet to observe any significant improvements with the country's contact-tracing system.

system. Public hospitals and local health centers must have the equipment and facilities to provide accessible health services in all regions of the country, not just in urban centers. Along with infrastructure is the need for adequate human resources in the healthcare sector. Our medical professionals should be motivated and incentivized to stay and work in the country, particularly by guaranteeing better compensation.

Equally crucial is the need to address the high cost of health services in the country. The Philippines has one of the highest out-of-pocket costs to patients in Southeast Asian—about 54 percent in 2018 compared with only to the 11–44 percent in its ASEAN-5 neighbors (World Bank, n.d.). The current health insurance regime should be holistically improved to substantially reduce out-of-pocket costs to patients and make healthcare truly universal.

Economic Dimension

Economic assistance. Faced with many fiscal constraints, the Philippines has no recourse but to do more with less through proper governance. This means, economic assistance or stimulus programs must be well-targeted, transparent and fair, efficiently administered, and time bound. Whether through direct cash transfers, loans, or other forms of support to firms and households, the priority of economic aid must be the most vulnerable members of the population, among them the poor and those employed in high-contact sectors with no option to work remotely. Such assistance could include the provision of an internet allowance to targeted families to expand access to online schooling and bridge the digital divide.

Moreover, government processes should be streamlined so that urgent needs of the affected

sectors can be immediately addressed. Situations where allocated funding for policy responses expire and remain unused should be avoided as they are wasted opportunities to support recovery. On the other hand, the ongoing rollout of the National ID system presents an opportunity for the successful implementation of future long-term social programs (NEDA 2021c). Similarly, the ongoing efforts by national government agencies and LGUs to reduce red tape through digitalization are also welcome developments and should be supported.

Employment. Employment is expected to take longer to recover due to permanent job losses from businesses' digital shift or firm closures, as well as loss of skills from idleness (Bird, Lozano, and Mendoza 2021; Curran and Kennedy 2021). In this regard, the government may adopt fiscal measures such as, but not limited to, the following: (a) give loans or grants to firms with lesser capacity to digitally transform, especially MSMEs; (b) provide wage subsidies to prevent more job losses while stricter movement restrictions remain in place in high-contact sectors; and (c) have retraining and reallocation programs to address pandemic-induced jobs-skills mismatch and enhance labor productivity in the longer term (Bird et al. 2021; Christiansen et al. 2021; Mendoza 2021).

An important caveat, however. In providing economic aid and in carrying out other interventions to speed up recovery, policymakers must be mindful of competition risks. Thus, the government should adopt a more targeted approach to avoid, for instance, turning companies who were already financially bleeding pre-pandemic into "zombie firms." Similarly, care must be taken so that assistance provided to facilitate acquisition of financially distressed firms by dominant market players do not lead to market monopolization which may harm consumer welfare and inhibit longer-term productivity growth (Georgieva et al. 2021).

⁴ It was reported that about PhP169 billion of COVID-19 response funds have either remained unused or expired due to bureaucratic red tape as the Bayanihan 2 law lapsed last 30 June 2021 (de Vera 2021).

On education, lost years in schooling has been found to negatively impact a person's future wage level. Thus, it is urgent that the government take all necessary steps to safely reopen schools. Moreover, online schooling is less effective for younger students who are unable to receive assistance from working parents or guardians (Hill, Balisacan and dela Cruz 2021) and those who need access to laboratories and other facilities. ⁵

The overarching goal of an inclusive health-economic response to the pandemic is that it will speed up recovery and steer the country back to its previous high-growth trajectory sooner. The road to a sustained and inclusive recovery requires a strategic and timely deployment of policy tools that would strengthen the public health system and protect livelihoods and the most vulnerable population groups. With a carefully considered mix of policy tools, the government can quickly and effectively mitigate the socioeconomic impacts of the pandemic, averting further economic scarring that erodes longer-term potential for growth and sustainable development.

Other policy reforms. The nation must not only recover but build back better, fortifying the health-economy system so that the economy can withstand future health shocks and those related to climate change. If anything, the pandemic has taught policymakers and academics alike about the dependence of economic growth on the fundamentals of health.

Now more than ever, the government must pursue the long-overdue reforms necessary not just for affordable and quality healthcare but also for pro-consumer public services in general. One such pending policy reform is the amendment of the Public Service Act to allow for greater foreign trade and investment in key sectors of the economy. Opening up to foreign competition is expected to improve efficiency in essential markets such as energy, telecommunications, construction, and

logistics. Likewise, putting in place comprehensive open-access reforms in the telecommunications industry will accelerate and support the transition to the digital economy. Further, we must continue to strengthen the culture of competition so that anticompetitive market concentration and abuses of dominance are prevented, not just in the private sector but among state-owned enterprises as well. Fair market competition allows for lower prices and better quality of goods and services, and more innovations, which lead to a more robust economic growth.

Domestic tax efforts must also be strengthened to allow for more infrastructure developments and expansion of access to equity-promoting social services like education, health, and housing. This current crisis has taught us the vital importance of having more effective social protection in the country—one that protects the middle class from sliding back to poverty in times of economic hardship and helps poor families overcome the chain of poverty. Governance reforms that ensure the rule of law, transparency, and accountability must also not be forgotten.

Finally, science must inform the government's policy choices. This means long-term investments in public research and institutions, boosting technical capacities, and intentionally normalizing the culture of evidence-based policy- and decision-making.

REFERENCES

Aschwanden, Christie. "Five reasons why COVID herd immunity is probably impossible." Nature. March 18, 2021.

Asian Development Bank. ADB COVID-19 Policy Database.

Asian Development Bank. Asian Development Outlook (ADO) 2021 Update: Transforming Agriculture in Asia. September 2021a.

⁵ As of December 2021, the Philippines has not yet fully allowed face-to-face schooling.

Asian Development Bank. Asian Development Outlook (ADO) 2021: Financing a Green and Inclusive Recovery. Asian Development Bank, 2021b.

Asian Development Bank. Learning and earning losses from COVID-19 school closures in developing Asia. April 2021c.

Balisacan, Arsenio M. " Toward a fairer society: inequality and competition policy in developing Asia." Philippine Review of Economics 59, no. 1 and 2: 127-146. 2019

Balisacan, Arsenio M. "Poverty and Inequality," in The Philippine Economy: Development, Policies, and Challenges, ed. A.M. Balisacan and H. Hill. New York: Oxford University Press. 2003

Bird, Kelly, Cristina Lozano, and Teresa Mendoza. Philippines' COVID-19 employment challenge: Labor market programs to the rescue. ADB Blogs, June 4, 2021.

Bloomberg. The Covid Resilience Ranking: The Best and Worst Places to Be as We Learn to Live With Delta. September 28, 2021.

Cerra, Valerie, Antonio Fatás, and Sweta C. Saxena. The persistence of a COVID-induced global recession. Prod. Vox EU. May 14, 2020.

Christiansen, Lone Engbo, Ashique Habib, Margaux MacDonald, and Davide Malacrino. "Getting Back to Growth." IMFBlog. June 10, 2021.

Curran, Enda, and Simon Kennedy. "Covid Will Leave Deep Scars in World Economy Even After Recovery." Bloomberg. April 2021, 2021.

Das, Sonali, and Philippe Wingender. "Slow-Healing Scars: The Pandemic's Legacy." IMFBlog. March 31, 2021.

de Dios, Emmanuel S., and Katrina Dinglasan. "Just how good is unemployment as a measure of welfare? A note." Philippine Review of Economics 52, no. 2(2015).

de Vera, Ben O. P 169-B COVID funds unspent due to red tape. Philippine Daily Inquirer, July 2, 2021.

Department of Finance. Gov't economic team rolls out P27.1 B package vs COVID-19 pandemic. March 16, 2020.

Department of Trade and Industry. MSME Statistics. 2019.

Ferreira, Francisco H.G. "Inequality in the time of COVID-19." Finance & Development, 2021: 20-23.

Ferreira, Francisco, Olivier Sterck, Daniel Mahler, and Benoît Decerf. "Death and Destitution: the global distribution of welfare losses from the COVID-19 pandemic." London School of Economics Inequalities Institute, no. 65 (May 2021).

Ferrer, Alice Joan G. "Health vs Economy: How to Strike Balance?" National Academy of Science and Technology, Philippines: Visayas Regional Scientific Meeting. April 14, 2021.

Georgieva, Kristalina, Federico Díez, Romain Duval, and Daniel Schwarz. "Rising Market Power—A Threat to the Recovery?" IMFBlog. March 15, 2021.

Hill, Hal, Arsenio M. Balisacan, and Russel Matthew M. dela Cruz. "Philippine economic development, looking backwards and forward: An interpretative essay." Australian National University: Working Papers in Trade and Development. October 2021.

International Monetary Fund. World Economic Outlook Database. April 2021.

International Telecommunication Union. ICT Statistics. 2019.

Mendoza, Ronald U. "Health vs. Economy: How to Strike the Balance?" National Academy of Science and Technology, Philippines: Luzon Regional Scientific Meeting. April 28, 2021.

Mendoza, Ronald U. The Philippine economy under the pandemic: From Asian tiger to sick man again? Brookings, August 2, 2021. Monsod, Toby Melissa C., and Maria Socorro Gochoco-Bautista. "Rethinking "Economic Fundamentals" in an Era of Global Physical Shocks: Insights from the Philippines Experience with COVID-19." Asian Economic Papers 20, no. 1 (2021): 109-140.

National Economic and Development Authority. DBCC reviews growth assumptions for FY 2021 . August 18, 2021a.

National Economic and Development Authority. "The total cost of COVID19 and quarantines on the present and future generations." Presentation, 2021b.

National Economic and Developmeny Authority. President Duterte lauds implementation of National ID Program. May 5, 2021c.

Our World in Data. COVID-19 Data Explorer.

Philippine Statistics Authority. Labor Force Surveys. 2019-2021.

Shinozaki, Shigehiro, and Lakshman Nagraj Rao. "COVID-19 Impact on Micro, Small, and Medium-Sized Enterprises under the Lockdown: Evidence from a Rapid Survey in the Philippines." February 2021, ADBI Working Paper Series ed.

Social Weather Stations. "Second Quarter 2021 Social Weather Report." 2021.

Speedtest by Ookla. Speedtest Global Index. June 2021.

Ulep, Valerie Gilbert, Anton Paterno, Jhanna Uy, Vanessa Siy Van, Lyle Casas, and Justin Tan. "The Impact of the COVID-19 Pandemic on Social Health Insurance Claims for High-Burden Diseases in the Philippines." Center for Global Development, no. 580. May 2021

US Centers for Disease Control and Prevention. Delta Variant: What We Know About the Science. August 26, 2021.

World Bank. From Containment to Recovery: Economic Update for East Asia and the Pacific, October 2020. World Bank, 2020.

World Bank. Uneven Recovery: East Asia and Pacific Economic Update, April 2021. World Bank, 2021.

World Bank. World Development Indicators.

World Health Organization. Vaccine efficacy, effectiveness and protection. July 14, 2021.