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Macroeconomic Policy in the Time of COVID-19: A Primer for Developing Countries

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COVID-19 not only represents a worldwide public health emergency but has become an international economic crisis that could surpass the global financial crisis of 2008–09. Right now, containment and mitigation measures are necessary to limit the spread of the virus and save lives. However, they come at a cost, as shutdowns imply reducing economic activity. These human and economic costs are likely to be larger for developing countries, which generally have lower health care capacity, larger informal sectors, shallower financial markets, less fiscal space, and poorer governance. Policy makers will need to weigh carefully the effectiveness and socioeconomic consequences of containment and mitigation policies, responding to epidemiological evidence on how the virus spreads and trying to avoid unintended consequences. Economic policy in the short term should be focused on providing emergency relief to vulnerable populations and affected businesses. The short-term goal is not to stimulate the economy—which is impossible, given the supply-restricting containment measures, but rather to avoid mass layoffs and bankruptcies. In the medium term, macroeconomic policy should turn to recovery measures, which typically involve monetary and fiscal stimulus. However, in many developing countries, stimulus may be less effective because monetary transmission is weak and fiscal space and fiscal multipliers are often small. A more viable goal for macroeconomic policy in developing countries is avoiding procyclicality, ensuring the continuity of public services for the economy, and supporting the vulnerable. Because COVID-19 is truly a global shock, international coordination is essential, in economic policy, health care and science, and containment and mitigation efforts. Critical times call for well-designed government action and effective public service delivery—preserving, rather than ignoring, the practices for macroeconomic stability and proper governance that serve in good and bad times.

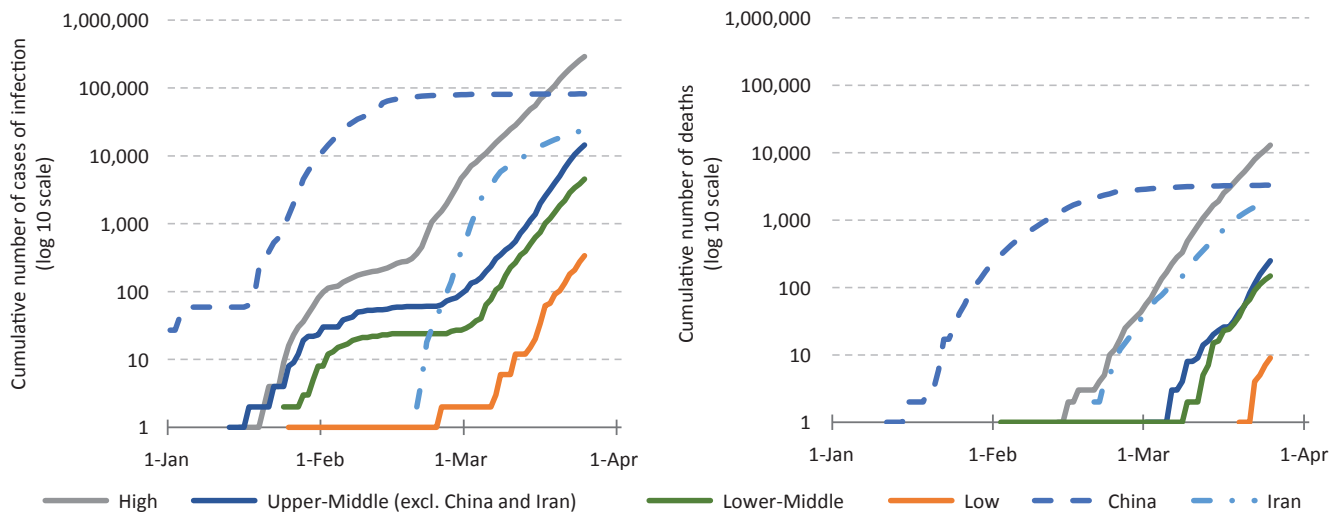
A Public Health, Economic, and Humanitarian Crisis

The public health threat from COVID-19 is the most serious from a respiratory infection since the 1918 Spanish flu pandemic (Ferguson et al. 2020). COVID-19 is the fifth pandemic in the last 20 years and the ninth pandemic in the last century (World Economic Forum 2020). Although epidemics have been present throughout human history, the frequency of pandemics is rising (Fischer 2020). Better technology and greater resources mean that the world is in principle better able to fight disease. They also entail stronger interconnections among people, businesses, and markets. With a new disease, for which humanity does not have immunity, interconnection implies the possibility of rapid and accelerating contagion.

COVID-19 combines two fatal characteristics: it is three to thirty times deadlier than seasonal influenza, based on a crude case fatality rate, and at least ten times more contagious than SARS (WHO 2020a; Wilson et al. 2020; Wilder-Smith, Chiew, and Lee 2020). Its potential to wreak havoc for public health around the world is enormous, in both developed and developing countries. At the time of writing, the COVID-19 crisis is only just starting to come to low-income and lower-middle-income countries, with around 340 and 4,550 reported cases, respectively (as of March 25, 2020). Cases are growing rapidly, increasing over tenfold in a week or two (see figure 1). Fatalities are starting to rise, too.

COVID-19 not only represents a worldwide public health emergency but has also become an international economic emergency that, in its negative effects,

Figure 1. Cumulative number of cases of infection and deaths from COVID-19 by country income group



Source: Authors' calculation using European Centre for Disease Prevention and Control (2020a) and World Health Organization (2020b) (via Our World in Data by University of Oxford, https://ourworldindata.org/coronavirus-source-data, accessed on 25 March 2020).
Note: The cumulative number of cases of infection and deaths are in log 10 scale. The country income groups follow the World Bank classification based on annual gross national income (GNI) per capita: low-income, less than $1,025; lower-middle-income, between $1,025 and $3,995; upper-middle-income, between $3,995 and $12,375; and high-income, more than $12,375.

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could surpass the global financial crisis of 2008–09. A global recession in 2020 is not only possible but also very likely (IMF 2020a). Why?

First, the engines of growth in the world economy—China, the United States, Europe—are and will be deeply affected. Goldman Sachs is forecasting a -9 percent contraction in China's GDP growth in 2020:Q1 and a -6 percent drop in US GDP growth in 2020:Q2, much worse than the -2.2 percent growth recorded in 2008:Q4 (Bloomberg 2020; Goldman Sachs 2020).

Second, through contagion effects, these large economies will affect the rest of the world. Evidence of this can be seen in the sharp drop of commodity prices since mid-February 2020, with oil prices falling to the lowest level for 18 years, before recovering somewhat (The Economist 2020a; CNN 2020).

Third, most, if not all countries, around the world will be hit by the pandemic. This implies direct costs related to morbidity, health care, and uncertainty. It also implies indirect costs related to containment and mitigation measures, such as reduced labor, production capacity, and productivity.

Moreover, the pandemic, if not managed well, can produce a series of other crises, including financial crises (if bankruptcies go rampant and banks become illiquid or insolvent), sectoral collapses (for instance, in airlines, tourism, and hospitality services), and macroeconomic crises (if the costs of mitigation turn out to be excessive given a country's fiscal space and income level)—with dire consequences for welfare and poverty alleviation (World Bank 2013; Furman 2020; Odendahl and Springford 2020; Galí 2020). Indeed, measures of market and policy uncertainty are higher now than at the peak of the global financial crisis (Ahir, Bloom, and Furceri 2020; Baker, Boom, and Davis 2020).

What makes COVID-19 a different shock? First, it is a massive and highly contagious global shock. Second, it is simultaneously a negative supply shock and a negative demand shock: it reduces the ability of people to work and firms to produce, and it lowers the incentives and possibility for people to consume and for firms to invest (Bénassy-Quéré et al. 2020; Gopinath 2020; Furman 2020). Third, it may hurt low- and middle-income countries disproportionately because they tend to lack the resources and capacity to deal with shocks of this nature (World Bank 2013). The contribution of this Research & Policy Brief is to examine macroeconomic policy responses in the face of COVID-19 from the perspective, needs, and capacities of developing countries.

The Costs and Benefits of (In)Action

If no adequate public health actions are taken to contain the spread of the disease and alleviate its effects, the suffering and loss of human lives could be catastrophic. The associated income losses could be correspondingly large (Furman 2020). In addition, by slowing down economic activity, containment and mitigation measures could exacerbate the income losses associated with the pandemic.

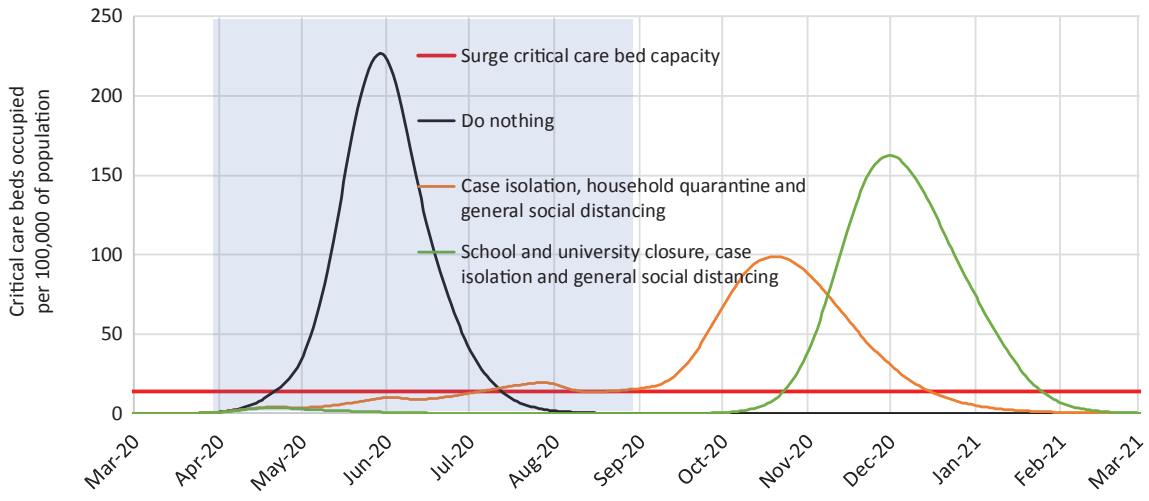
To assess the potential human loss from epidemics, public health experts compare the number of people in critical need of medical assistance with the health care system capacity to treat them at any point after the onset of the epidemic (CDC 2012). While this capacity—in terms of medical personnel, intensive care units (ICUs), hospital beds, ventilators, and so on—is relatively fixed (flat) in the near term, the number of people in critical need rises and falls according to an "epidemic curve." The steepness, amplitude, and timing of this curve depend on the effectiveness of containment and mitigation measures implemented to control the spread of the disease.

Figure 2 illustrates the epidemic curve under various containment and mitigation scenarios for the United States (Ferguson et al. 2020). Given that COVID-19 is highly infectious and virulent, the potential for human loss is enormous (shown by the area below the black, orange, or green epidemic curves and above the red health care–capacity line in figure 2). In principle, containment and mitigation measures can "flatten" the epidemic curve: if they are timely and adequate and if they can count on people's sustained support, these measures can spread over time the number of people in critical need and lessen the intensity of the epidemic (Gopinath 2020). Flattening the epidemic curve buys time to increase the capacity of the health care system (that is, to lift the red line in figure 2) and to develop an effective treatment and, eventually, a vaccine.

In practice, however, mitigation and containment measures are hard to implement. In particular, strict containment or suppression measures (such as lockdowns and movement restrictions) are not feasible for extended or repeated periods of time in overcrowded urban spaces, in communities where trust in government is lacking, in places where incomes are severely reduced, and for people who depend on outside work for subsistence. These conditions are especially prevalent in low- and middle-income countries.

Not only are strict containment measures difficult to implement, but they may not render lasting positive results. First, suppression measures

Figure 2. The epidemic curve: Containment and mitigation strategy scenarios for the United States in the face of COVID-19



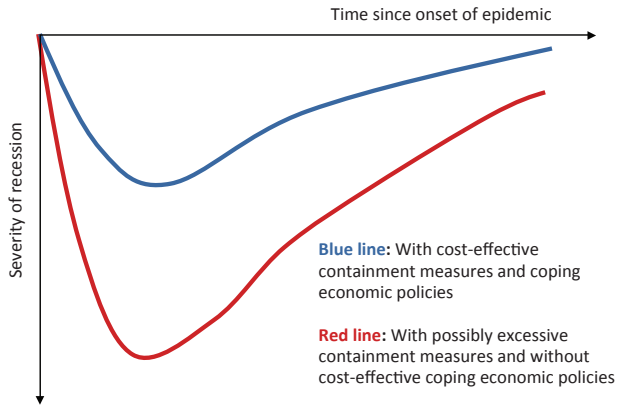
Source: Figure reproduced from Ferguson et al. (2020)
Note: The figure depicts three suppression strategy scenarios for the United States showing requirements for intensive care unit (ICU) beds. The black line shows the unmitigated epidemic. The green line shows a suppression strategy incorporating closure of schools and universities, case isolation, and population-wide social distancing, beginning in late March 2020. The orange line shows a containment strategy incorporating case isolation, household quarantine, and population-wide social distancing without widespread closures. The red line is the estimated surge ICU bed capacity in the United States. The blue shading shows the five-month period in which these interventions are assumed to remain in place.

may result in a wave of infection after they are lifted, which may be worse if they are not accompanied by more sustainable mitigation measures such as extensive testing, contact tracing, targeted quarantines, and public and personal hygiene. Indeed, the Spanish flu of Spring 1918 had several later outbreaks in Fall 1918 and Winter 1918–19 (CDC 2018). Second, without a vaccine—potentially 12 to 18 months or more away (Ferguson et al. 2020), immunity to COVID-19 is acquired only naturally by the population catching the virus and then recovering. The more draconian the suppression policies are in the near term, the fewer the people who develop immunity are and the more vulnerable the population remains to a new outbreak. (That's why in figure 2, stronger suppression, represented by the green line, leads to a larger outbreak than milder measures, represented by the orange line.) While China and the Republic of Korea have had some success using extensive testing and contact tracing, there is a concern that a suppression-based strategy will require on-again, off-again lockdowns for the rest of 2020 (Ferguson et al. 2020). Not only might this not be feasible, it would also cause considerable social and economic disruption.

While low- and middle-income countries have lower capacity to implement strict containment measures, they do have one advantage: that is, their rate of infection appears to be currently low (figure 1), possibly stemming from low international connectedness. This creates a short window for decisive action early on to slow down the virus before it spreads uncontrollably. This can be done by creating awareness of contagion, by disseminating information on good practices regarding personal and public hygiene, by testing and quarantining susceptible populations, and by screening of international travelers (WHO 2020c). For example, despite being heavily connected with China, Hong Kong SAR, China; the Republic of Korea; Singapore; and Taiwan, China acted early and contained cases, resulting in less dislocation, by implementing travel restrictions on visitors from China by early February 2020, carrying out comprehensive tracking and testing, and instituting social distancing (New York Times 2020; The Wall Street Journal 2020a).

The experience of African countries fighting the Ebola virus epidemic is especially informative (Makoni 2020; Ebenso and Otu 2020). Successful responses against the Ebola outbreak in Mali, Nigeria, and Senegal suggest the following priorities for public health care responses to COVID-19: procuring sufficient diagnostic testing kits; retaining and hiring medical personnel and health workers to conduct testing and rigorous and daily contact-tracing (for example, employing trained medical students); obtaining protective equipment for medical personnel; designating isolation and treatment centers for COVID-19 using existing buildings; preparing them with necessary medical equipment (particularly ventilators); training community health workers; and conducting public campaigns on hygiene and social distancing through social media and, in certain cases, house-to-house visits to relieve public panic and encourage cooperation (WHO 2015; Holmes, Boyce, and Katz 2020). While some enforceable travel bans are warranted, imposing indiscriminate travel restrictions across closely connected communities may be counterproductive because people will circumvent them informally, making screening and detection harder (WHO 2015).

Figure 3. The "recession" curve given an epidemic shock, containment measures, and coping economic policies



Source: Authors' illustration partially based on Gourinchas (2020).

For the economy, a shock as severe as COVID-19 implies a recession (figure 3). High mortality and morbidity rates cause a decrease in labor, production capacity, and productivity (a supply shock). The associated increase in uncertainty and decline in wealth leads to a fall in consumption and investment (a demand shock). The situation worsens under a global crisis because the negative supply and demand shocks are transmitted across countries through trade, financial, and migration linkages (Bofinger et al. 2020).

Moreover, attempts to flatten the epidemic curve come at a cost, as the containment and mitigation measures specifically require a reduction in economic activity (see figure 3, red line) (Gourinchas 2020; Eichenbaum, Rebelo, and Trabandt 2020). Social distancing slows down the spread of the disease but also forces most people to work less or less productively; businesses depending on social gathering and physical presence (such as theaters, sports events, restaurants, commerce, tourism, and hospitality services) to come to a halt; and labor-intensive manufacturing plants to sharply curtail their production. Both supply and demand contractions combine as people work and consume less, while firms shrink their output and investment. In developing countries (and in vulnerable parts of developed countries), these economic losses have tangible effects not only on average incomes but also on public services (including health, education, and police protection), household consumption, and eventually poverty and vulnerability (World Bank 2013).

Sooner rather than later, policy makers will have to choose the right level and type of containment and mitigation measures, seeking to balance the need to minimize the intensity of the health emergency with the objective of maintaining and reviving economic activity. They will have to consider the epidemiological evidence on how the virus spreads and the evidence on the economic and social costs of containment and mitigation measures. Draconian measures may have to give way to more targeted practices once the worst of the contagion phase is over. Containment and mitigation measures vary substantially in their cost. Personal and public hygiene, extensive testing, and self-quarantine of susceptible groups (like the elderly) are less costly, while complete lockdowns, travel restrictions, and border closings are more costly (The Economist 2020b; Panizza 2020). Strict containment or suppression measures might initially be more effective in containing the spread of COVID-19 (see figure 2), but they cannot be maintained for long without causing catastrophic economic damage. When the lockdown ends and new cases spike, an early, less intense, and more targeted mitigation policy may be sustainable for a longer period.

Developing Countries May Suffer More from COVID-19

In developing countries, the vulnerability to the pandemic is higher and the ability to deal with it through policy is lower than in developed countries. In addition to the direct effects, for developing countries exposed to global conditions, COVID-19 brings a sharp external demand shock. This is the case in, for example, countries in East Asia where trade and tourism are a large part of the economy (World Bank 2020a), developing countries that heavily rely on commodity exports for government revenues (World Bank 2018; The Economist 2020a), and those that depend on remittances from developed countries (Hausmann 2020). Some countries, such as Mexico, have balked at the economic costs of containment, while neighboring Guatemala has closed borders and transportation (The Wall Street Journal 2020b).

More generally, developing countries may be harder hit due to the following structural conditions:

Public health. Health care systems in developing countries have low capacity; many people do not have access to essential health care services and are not covered by health insurance, thereby living with the risk of catastrophic health expenditures; and the gap between the current

Table 1. Indicators of public health, labor markets, fiscal space, and governance by country income group

Categories	Indicators	Income levels			
		Low	Lower-middle	Upper-middle	High
Public health	Hospital beds per 1,000 people, 2014–18	0.69	1.32	2.18	4.20
	Physicians, nurses, and midwives per 1,000 people, 2014–18	1.69	2.57	5.63	11.78
	Acute respiratory infections treated as a share of children under 5 with cough and rapid breathing (%), 2009–18	44.50	54.00	69.40	86.33
	Risk of catastrophic expenditure for surgical care (%), 2013–17	64.03	35.02	15.82	9.81
	Life expectancy at birth (years), 2017	62.00	69.00	74.00	81.00
Labor markets	Informal labor estimates as share of employment (%), 2016	92.70	83.00	55.35	14.43
	Self-employed as share of employment (%), 2019	82.49	64.03	40.60	12.28
Fiscal space	General government gross debt (% of GDP), 2018	46.82	53.21	50.55	56.92
	General government debt held by nonresidents as share of debt (%), 2018	57.14	55.88	38.57	46.41
	Domestic credit to private sector (% of GDP), 2018	14.09	27.69	48.42	110.80
	Foreign currency long-term sovereign debt ratings (Index: low of 1 to high of 21), 2018	7.17	7.20	9.36	16.67
	Tax revenue (% of GDP), 2016	15.40	15.08	15.12	19.03
Governance	Government effectiveness, 2018	-1.12	-0.57	-0.09	1.10
	Regulatory quality, 2018	-0.94	-0.54	-0.14	1.06
	Rule of law, 2018	-1.01	-0.64	-0.26	1.05
	Control of corruption, 2018	-1.02	-0.62	-0.32	0.94

Source: ILO (2018, 2020); Kose, Ohnsorge, and Sugawara (2018); Loayza and Meza-Cuadra (2018); Health Nutrition and Population Statistics, World Bank (2020b); World Development Indicators, World Bank (2020c); Worldwide Governance Indicators, World Bank (2019).
Note: Public health indicators are averages over the years mentioned. All other indicators are the median per income group. Risk of catastrophic expenditure for surgical care refers to the proportion of population at risk of catastrophic expenditure when surgical care is required. Catastrophic expenditure is defined as direct out-of- pocket payments for surgical and anesthesia care exceeding 10 percent of total income.

and ideal health status of the average population is large (see table 1 and Wagstaff and Neelsen 2019). In particular, the capacity to treat COVID-19 patients (that is, specialized hospital services with ventilators to cope with critical cases) is grossly inadequate in many low- and even middle-income countries. For example, Malawi has 25 public intensive care beds for a population of 17 million, and Zimbabwe has none (The Guardian 2020). Although developing countries have younger populations and warmer climates (conditions that may be associated with reduced risk to COVID-19), they also have higher rates of malnourishment, HIV/AIDS, and other illnesses that make them more vulnerable (The Economist 2020c; The Washington Post 2020).

Labor markets. Informality is rampant in developing countries (Loayza 2018). In low- and middle-income countries, 50 percent to 90 percent of total employment consists of informal labor (see table 1). Informal workers lack benefits such as unemployment insurance, health insurance, and paid leave. They are highly exposed not only to the health impacts of COVID-19 but also to the containment and mitigation measures to reduce the spread of the disease. Most informal workers, especially the self-employed, depend on daily work to pay for their basic household necessities: if they cannot work for extended periods of time, their family's subsistence is at risk. This means that radical suppression policies (such as lengthy lockdowns) are unlikely to be enforceable in many developing countries, as people would rather work illegally than starve. Moreover, extensive labor informality implies that relief and recovery policies aimed at formal labor (such as increasing unemployment insurance, reducing payroll and income taxes, and extending paid sick leave) have very limited effects.

Fiscal space. Almost by definition, low- and middle-income countries do not have sufficient "fiscal space": that is, the ability to deploy public funds and resources to counter a large negative shock (see table 1 and Kose, Ohnsorge, and Sugawara 2018). Although developing countries do not have larger public-debt-to-GDP ratios than developed ones, their debt is more subject to exchange rate and maturity risks, their credit rating is lower, and their financial markets are shallower. In addition, a small tax base and less efficient tax administration mean that income support for the affected and countercyclical fiscal policy are harder to implement in developing than developed countries. In the uncertain times of COVID-19, the "flight to quality" in financial markets may well mean that for some countries, it will be more difficult to borrow to cover their fiscal deficit (Hausmann 2020).

Governance. The quality of governance determines the effectiveness of a country's capacity to manage shocks and provide assistance (Kaufmann, Kraay, and Mastruzzi 2011; Chuah, Loayza, and Myers 2020). Most developing countries suffer from corruption, lack of transparency and accountability, low bureaucratic competence, and burdensome regulatory systems (see governance indicators in table 1). Faced with the challenge of COVID-19, developing country governments may find it hard to conduct complicated measures to cope with the crisis. They may have to rely on straightforward emergency relief and recovery policies.

The structural conditions already discussed suggest that developing country governments face different trade-offs than those in more advanced countries. Strict and indiscriminate containment measures are more costly, less effective, and less realistic in developing countries, while their resources and ability for complex relief and recovery measures are limited. Therefore, developing country governments should avoid implementing policies in a haphazard way (for instance, imposing restrictions that cannot be enforced): they will cause economic damage without inducing significant health benefits. Rather, governments should

prefer simple, feasible, and selective public health measures that focus on slowing down the spread of COVID-19 and reducing human loss (as outlined in the previous section). Likewise, developing country governments should consider and implement economic policies for relief and recovery that are commensurate with their institutional capacity and level of economic development. These policies are discussed next.

In Theory: The Role of Economic Policy

In a world free of externalities, borrowing constraints, and insurance shortcomings, a large adverse shock like COVID-19 would produce only a short-lived V-shaped recession: GDP would drop as people and firms reduce their economic activity to comply with measures to limit the spread of the disease, but then everything would return to normal as soon as the containment policies were over, with no excess unemployment or business closures. The economy could even shoot above trend for a while as pent-up demand for durable goods and services was met.

In the real world, however, COVID-19 is likely to produce a prolonged and deep recession and sharp economic volatility (Furman 2020). The goal of macroeconomic policy is to try to replicate this short-lived V-shaped recession by mitigating the demand externalities and financing constraints, utilizing monetary and fiscal instruments helping to dampen the impact of adverse shocks (Bernanke 2020; Blinder and Zandi 2015; Galí and Gambetti 2009) (see figure 3, blue line). Monetary instruments include setting a policy interest rate to influence short-term market rates, pursuing asset purchases to guide long-term market rates, providing liquidity, and functioning as a lender of last resort. Interest rate reductions primarily help increase aggregate demand by stimulating consumption and investment, and all monetary instruments help reduce the adverse effect of financial frictions. Fiscal instruments include government consumption and capital expenditures; taxes on labor income, profits, goods, and services; and sectoral allocations of subsidies, transfers, and tax exemptions. They can reduce the need for firms and consumers to borrow by providing income support. They can also counter demand shocks: directly, by raising government consumption and investment; and indirectly, by inducing people and firms to consume and invest (via taxes and transfers).

In Practice: Macroeconomic Policy in Times of COVID-19

COVID-19 is a different type of shock: It is massive, highly contagious, affecting both demand and supply, and leading to human and economic crises. In this context, macroeconomic policy cannot be restricted to conventional measures. It should work in unison with complementary policies in social protection, urban management, public communication, and financial and goods markets: a whole-of-government approach to face the health emergency posed by COVID-19 (World Bank 2013).

The limited fiscal capacity of developing countries requires pragmatism and prioritization. Depending on countries' income level and fiscal space, governments may resort to an increase in fiscal deficits (preferably using sovereign wealth funds, if available, or borrowing in domestic or external markets); budget-neutral reallocation of expenditures (in case deficit financing is too expensive in current conditions); or reliance on external grants and concessional lending (especially for low-income countries). Even in the middle of a health crisis, essential practices for macroeconomic stability and cost-efficient expenditure allocations must be followed. Therefore, inflationary financing of public deficits is not advisable, and neither is expenditure reallocation that ignores basic government services or flouts governance accountability.

Macroeconomic policies for coping with the pandemic can be organized into relief measures, recovery policies, and international coordination.

Relief Measures

The priority of public policy in the face of COVID-19 is implementing pragmatic and realistic public health measures (WHO 2020d). Economic policy should accompany these public health measures, making them financially feasible (through health care funding) and socially acceptable (through compensatory measures for people and businesses). To tackle the pandemic, the following relief measures are called for. The first is an increase in public health expenditures to increase the capacity of the health care system to treat critically ill patients (raise the red horizontal line in figure 2) and to provide free or subsidized medical attention for preventative and curative purposes (ECDC 2020b; WHO 2017). The second is to provide direct income support to vulnerable populations through such means as cash transfers, especially when containment measures are in place. This must be done quickly to mitigate any financial strains that households may face (Gentilini, Laughton, and O'Brien 2018; Parker and Todd 2017; Özler 2020). The third is assistance to affected production sectors and firms through temporary tax cuts, moratoriums on debt repayments, and temporary credit lines (Mukherjee, Subramanian, and Tantri 2018; OECD 2009; Spilimbergo et al. 2008).

Consider the case of Korea, which is successfully responding to the challenge posed by COVID-19. This response has been made possible through a special fiscal budget allocation. From mid-January 2020 until now, the government of Korea has allocated a budget of $22 billion, around 1.5 percent of GDP, to respond to the COVID-19 outbreak. The special budget has three main categories: 1) Disease prevention and treatment (around 10 percent of the budget), which includes funding for testing, quarantine, isolation and treatment; purchasing medical equipment; and loans to hospitals. 2) Support for households and young adults (25 percent), through such means as cash vouchers for low-income families, childcare subsidies, and an expansion of the existing employment support package for young adults (Republic of Korea, Ministry of Economy and Finance 2020). 3) Support for small-and-medium enterprises and local economies (65 percent), through loans and guarantees, as well as wage subsidies to preserve employment. Though developing countries may find it hard to replicate Korea's example, the basic principles can be applied in most countries.

First, government expenditures should be reoriented to increase public health care capacity. Virtually all advanced and many developing economies have introduced new health spending measures. The latter include, for example, Argentina, Brazil, China, India (0.1% of GDP), and Mexico (up to 0.7% of GDP) (IMF 2020b). The expenditures on public health needed to cope with the pandemic is bound to differ significantly across countries, not only because their exposure to the disease varies substantially but also because the preparedness of their health system for intensive care treatment is very different.

Second, government expenditures should help remedy some of the economic losses produced by containment and mitigation measures, reducing the direct pain inflicted on individuals and businesses and aligning incentives for social distancing. In fact, the support for shuttered businesses and furloughed workers without pay makes social distancing measures possible without causing catastrophic economic damage. Likewise, this support generates the incentive for people who should self-isolate to consider their symptoms and remain at home.

Advanced countries are implementing public provisions of wage subsidies, paid sick leave for workers who do not otherwise have it, expanded unemployment benefits, and general cash transfers during the worst of the health emergency and the implementation of containment measures. France, Japan, and Korea are subsiding firms and individuals for leave taken to care for children at home during school closures (Gaspar and Mauro 2020). In the United States, a recently passed bill mandates paid sick leave and allows firms to claim a tax credit for it (NPR 2020). Payments of unemployment insurance benefits are being accelerated and social safety nets are being widened in China, while in Korea job seeker's allowances for young adults have been increased (Gaspar and Mauro 2020). Broad-based one-off cash transfers have been

enacted in Australia; Hong Kong SAR China; and Singapore, and are being discussed in the United States and elsewhere (Australia, The Treasury 2020; Today 2020; Financial Times 2020a; Reuters 2020). Most ambitiously, Denmark is introducing comprehensive packages of compensation for the general population during the COVID-19 crisis (The Atlantic 2020).

Some of these policies may be helpful in middle-income countries and for workers in the formal sector, and thus deserve consideration. For example, in Chile, workers who must stay home but cannot telework will receive unemployment benefits while retaining their formal employment status (Chile, Ministry of Economy Development and Tourism 2020). Malaysia has a similar program whereby formal workers on leave without pay will be eligible for up to six months of a monthly cash transfer (The Edge Markets 2020) at an amount equivalent to half the monthly minimum wage. Workers who lose their jobs will also get cash transfers in Jamaica and Morocco (Gentilini, Almenfi, and Orton 2020).

For most developing countries, cash transfers may be advisable because they are easy to implement and have wide reach outside the formal sector. When they are general and untargeted, some of the payment will end up with those who do not need it, either because they do not face interruptions in income or employment (such as government workers) or because they have higher income. Whether this is a big concern depends on the country-specific income distribution and labor market conditions. In developing countries where most of the population is either poor or near-poor and work in often-precarious informal businesses, a simple untargeted transfer is best because only a small fraction of the transfer will go to those who do not need it (Özler 2020). In contrast, in middle-income countries with a larger fraction of the population who are better off (or in protected sectors), targeted payments are likely to be more cost effective and should be the focus, especially after the worst of the health emergency. Brazil, Chile, India, Indonesia, Iran, Peru, and Tunisia have announced transfers to low-income and/or self-employed/informal workers adversely affected by the containment measures (Gentilini, Almenfi, and Orton 2020; Gestion 2020; Globo 2020; Chile, Ministry of Economy, Development and Tourism 2020). A consideration for pursuing targeted cash transfers to deal with COVID-19 is whether they can fit in with the delivery system of existing transfer schemes and whether the latter have proven to be effective (Gentilini 2020). If no effective pre-existing system is in place for household targeting, other schemes can be considered, including using geographical targeting based on poverty maps and epidemiological/containment maps.

Support for businesses, from governments and central banks, is being provided through loan guarantees, direct lending, tax holidays, and direct cash payments. In advanced countries, some of the most ambitious programs have been announced by the US Federal Reserve and the Bank of England. The Bank of England's Covid Corporate Financing Facility (CCFF) involves direct lending to firms facing disruptions to cashflows via the Bank's purchase of large companies' commercial paper on behalf of the government (Bank of England 2020; Financial Times 2020b). The United Kingdom will also make direct payments to small businesses and delay a range of taxes (Financial Times 2020c). The Federal Reserve has announced potentially unlimited purchases of Treasury bills and mortgage-backed securities, as well as several new facilities to lend to large and small businesses (Federal Reserve Board 2020a). In Malaysia, a special relief facility of around $500 million in guaranteed funds is available to help alleviate short-term cash flow problems faced by small businesses (Bank Negara Malaysia 2020). In Chile, business tax payments can be deferred for several months (Chilean Ministry of Economy, Development, and Tourism 2020).

Central banks around the world are also cutting interest rates and widening lending facilities to banks to ensure sufficient liquidity and in the hope that credit to businesses is not disrupted (IMF 2020b). The US Federal Reserve has eased conditions on its discount window lending through lower rates and for longer periods to help banks meet the credit demands of customers (Federal Reserve Board 2020b). The central banks of many developing countries are taking similar steps. For instance, Brazil, China, Indonesia, Malaysia, Mexico, Peru, South Africa, and Turkey have introduced interest rate cuts; and Argentina, Brazil, China, India, Indonesia, and Malaysia have also reduced reserve requirements and/or expanded their money market operations to ease liquidity conditions (IMF 2020b).

Recovery Measures

Looking forward, the policy response will change from crisis management to macroeconomic stimulus, though the two are connected. Although the motivation for many of the policies already described is income support, they also serve a wider aim of preventing a public health emergency from having second-round economic effects through layoffs, bankruptcies, and possibly financial crises. Beyond these relief efforts, macroeconomic stimulus to prop up aggregate demand is less appropriate in the middle of the containment effort, as the corresponding negative supply shock is necessary to contain the spread of the virus (Baldwin and Weder di Mauro 2020). However, since some policies to stimulate demand act with a lag, policies can be formulated now in the hope of boosting demand later.

While policy interest rates are at or near zero in the United States and the European Union and in other developed countries—reducing the ability of central banks to cut further to stimulate the economy—most developing countries are a long way from the zero lower bound (ZLB). Ostensibly, this suggests that interest rate cuts in developing countries may be a potent stimulatory tool missing in the developed world. However, there is evidence that monetary policy transmission may be weak in many developing countries due to a lack of market-determined interest rates (and underdeveloped financial markets more generally), low rates of interbank competition, and exchange rate intervention (Mishra, Montiel, and Spilimbergo 2012). The effect of surprise monetary policy changes on exchange rates and stock markets has usually been smaller in non-OECD countries than OECD countries, Pennings, Ramayandi, and Tang (2015) find. Prices may also be more flexible in developing countries, weakening the transmission from financial markets to the real economy, especially in countries with histories of high inflation (Klenow and Malin 2010). One policy option in the face of weak transmission is direct lending from central bank to firms, as the Federal Reserve and Bank of England are starting to do. However, direct lending is fraught with challenges—especially in a weak institutional environment. Hence, policy makers in developing countries where monetary policy is ineffective may turn to fiscal policy to stimulate demand.

Fiscal stimulus, however, is not always effective in developing countries and so should be used with caution. The ability of fiscal policy to stimulate economic output is known as the "fiscal multiplier," and its size is actively debated. Empirical evidence from Ilzetzki, Mendoza, and Végh (2013) and Kraay (2012, 2014) suggests that on average the fiscal multiplier in developing countries is small. A multiplier of zero (as in Ilzetzki, Mendoza, and Végh 2013) suggests the government spending has no effect on GDP. A multiplier between zero and one (as in Kraay 2012, 2014) means that a $1 increase in government spending will increase output by less than $1: that is, private consumption or private investment get crowded out. While Ilzetzki, Mendoza, and Végh (2013) find that public investment multipliers can be larger in developing countries, public investment is notorious for long planning, as well as approval and regulatory delays (Leeper, Walker, and Yang 2010). This means that the projects may not be ready when the containment measures are ending. There is some evidence that persistent transfers can provide a sizable boost to local incomes—for instance, in the United States in the short term (Pennings 2019) and in Zambia in the longer term (Handa et al. 2018), though those multipliers are conceptually different from the country-level stimulus multipliers already discussed.

Fiscal multipliers depend on country characteristics: they tend to be larger (smaller) in countries with fixed (flexible) exchange rate regimes, closed (open) to trade, and with low (high) level of debt (Ilzetzki, Mendoza, and Végh 2013; Huidrom et al. 2019). Fiscal multipliers may be much larger at the zero lower bound of monetary policy interest rates

(Ramey and Zubairy 2018), but few developing countries are at the ZLB. Riera-Crichton, Végh, and Vuletin (2015) suggest that the multiplier vary by cyclicality and the state of the business cycle. Tax cuts are also likely to be less stimulatory in countries with low initial ratios of tax revenues to GDP, like many developing countries (Gunter et al. 2018). Some tax-based stimulus packages can be less effective (and more regressive) in developing countries because their informal sectors are larger. For example, a payroll tax cut would not benefit low-income informal workers. Given that lower-income workers may be more likely to spend their extra income, this reduces both the effectiveness of the stimulus and makes it less equitable.

The efficacy of fiscal stimulus also depends on fiscal space and institutional quality, both of which may be lower in developing countries. Fiscal stimulus is inappropriate for countries with very low tax collection capacity—such as most low-income countries—because a stimulus package large enough to have a macroeconomic impact will lead to a rapid rise in debt relative to revenues, raising the risk of default or crowding out other spending critical for development. While the costs of debt-financed stimulus have been lowered by record-low interest rates in developed countries, borrowing costs are rising in developing countries as investors flock to safer assets. For example, since the start of the pandemic, investors have withdrawn more than $83 billion from emerging markets, the largest outflow ever recorded (IMF 2020a). In countries with weak fiscal institutions, temporary fiscal stimulus can become permanent, as in some Latin American countries after the global financial crisis (Celasun et al. 2015).

In sum, the focus of fiscal policy in developing countries should be on avoiding procyclical cuts to public services, especially health services, during the downturn. In part, this is because many developing countries lack fiscal space or sizable multipliers and so fiscal stimulus is less effective. But it is also because recovery from the pandemic depends on maintaining adequate health services: procyclical health service cuts can make the countries more susceptible to later outbreaks.

This Research & Policy Brief has simplified the policy response into relief and then recovery. However, as Ferguson et al. (2020) and figure 2 suggest, there are likely to be multiple rounds of emergency and recovery—as with the Spanish flu—over an extended period until a treatment or vaccine are found. Developing countries need to make sure that they reserve fiscal space to fight these later outbreaks.

International Cooperation

The COVID-19 pandemic is a truly global shock that motivates a coordinated global response. As before, the first priority should be boosting health systems. As such, the World Bank Group is providing $6 billion in loans and assistance to developing country governments to strengthen public health care, as part of a broader $14 billion assistance package (World Bank 2020d). Because of the particularly precarious position of low-income countries, the international community will need to provide support, particularly in the event of a drawn-out pandemic, by transferring technologies for testing and early detection of cases of infection, increasing the peak capacity of weak health care systems, facilitating shifts toward greater service delivery and income-generating activities that are consistent with social distancing through investments in digital infrastructure, and ensuring health system readiness for the deployment of a cure and vaccine when they become available.

Developing countries are likely to find that at the very time they need to increase their budget allocations for health care and income support, their revenues have decreased because of the recession and international funding markets have dried up because of increased risk aversion. In this climate, many developing countries will need to borrow from international financial institutions like the International Monetary Fund (IMF) to avoid procyclical cuts to public expenditure (Hausmann 2020). Indeed, nearly 80 countries have already requested help (IMF 2020a). International financial institutions can also help central banks of developing countries by providing foreign currency liquidity in their domestic markets through dollar swaps, as was done during the 2008 global financial crisis (Georgieva 2020; Hausmann 2020). The Federal Reserve has recently extended swap lines to a number of middle-income countries, though more could be done (Federal Reserve 2020c). Likewise, the IMF is considering its own swap facility (IMF 2020a).

Unlike a global financial crisis, the COVID-19 pandemic carries unique epidemiological and containment-related cross-country spillovers. First, there are positive externalities across countries to reducing the number of infections through coordinated action, as COVID-19 does not respect borders and second-wave infections are likely. Second, measures to contain the virus —travel bans and quarantine measures—also hurt other countries connected through trade and migration linkages. Coordination and financial support to affected developing countries are needed so that they take account of both the positive and negative externalities of their actions as they tackle the disease.

Conclusion

The COVID-19 pandemic is a massive simultaneous negative demand and negative supply shock that creates new policy challenges. In the short term, the focus must be on containment and mitigation measures that slow the spread of the virus and on emergency relief measures that prevent a health crisis from creating mass unemployment and bankruptcies. The goal of macroeconomic policy in the near term is not to stimulate the economy—which is impossible, given the supply-restricting containment measures—but rather to support those affected by the public health measures. After the spread of the virus has been controlled and containment measures relaxed, attention of macroeconomic policy can turn to more standard demand-side macroeconomic stimulus.

Though necessary, social distancing measures create large economic costs. They are likely to be larger in developing countries due to the lack of market and social insurance, the high degree of informality, and the limited ability of governments to provide assistance. High costs to people and businesses may make strict containment measures less effective, as people flout them to survive. Soon, policy makers will need to weight the costs and benefits of various containment and mitigation measures, noting that the more restrictive the measure, the shorter it can be applied without creating an economic disaster that undermines broader development and social goals.

The macroeconomic recovery response to the COVID-19 pandemic in developing countries may involve both monetary and fiscal stimulus. However, as monetary transmission tends to be weak, fiscal space is limited, and fiscal multipliers are often small, the effectiveness of demand-oriented macroeconomic policy may be low in many developing countries. Instead the main goal, rather than stimulus, should be continuity of public services—including health care—and support to the vulnerable.

A global, highly contagious shock like COVID-19 requires international coordination that internalizes the positive externalities of reducing first- and second-wave infections and the negative externalities of unilateral actions that hurt other countries economically. Given the magnitude of the negative shock that COVID-19 represents, international cooperation will be needed as developing country governments see their revenues drop and their access to financial markets dry up. International coordination and cooperation may yet prevent the worst effects of the COVID-19 pandemic.

In the face of an emergency, a common cry is "Desperate times call for desperate measures." The problem with desperate measures is that they are often wrong. Critical times call for well-designed government action and effective public service delivery—preserving, rather than ignoring, the practices for macroeconomic stability and good governance that serve in good and bad times.

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