COVID-19: Fiscal Implications and Financial Stability in Developing Countries

Praew Grittayaphong and Paulina Restrepo-Echavarria

Abstract

The COVID-19 pandemic has been unlike any other crisis that we have experienced in that it hit all economies in the world at the same time, compromising the risk-sharing ability of nations. At the onset of the pandemic, the World Bank (WB) and the International Monetary Fund (IMF) jointly pledged 1.16 trillion U.S. dollars to help emerging economies deal with COVID-19. Would this amount have been enough to preserve financial stability in a worst case scenario, and what were the fiscal implications of the pandemic? In this article we aim to answer these questions by documenting the size of the fiscal measures implemented by different countries, the aid they received from the IMF and the WB to finance those fiscal measures, and the resulting changes in gross debt, debt composition and maturity, and fiscal deficits. We find that given the amount of debt that was maturing in Asia and Latin America in 2020 and 2021, if there had been a rollover crisis due to lack of demand for their newly issued debt, then what was pledged by the WB and IMF at the onset of the pandemic would not have been enough to preserve financial stability. However, there was no rollover crisis, and although fiscal deficits got considerably worse in 2020, they improved in 2021, albeit leaving gross debt at higher levels than those observed before the pandemic.

JEL codes: E62, E65, F34, H12, H62, H63, H84

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1. INTRODUCTION

The COVID-19 pandemic has been unlike any other crisis that we have experienced in that it hit all economies in the world at the same time. Usually, when a recession hits, it is specific to a particular country or to a set of countries that have correlated business cycles. Under these circumstances, in a world with financial integration, the impact of recessions on consumption and financial stability need not be that severe as there can be risk sharing between those countries or regions affected by the recession and those that are not. However, because COVID-19 was a global phenomenon, generating an economic collapse worldwide, this risk-sharing ability to navigate crises seemed much more elusive. Governments around the world had to react as fast as possible by putting together fiscal programs to rescue their nations. So, in the face of a worldwide economic crisis, who can lend financial aid to those countries with less resources and more liquidity constraints such that the world's financial stability is preserved?

The default answer to this question is the International Monetary Fund (IMF) and the World Bank (WB), who act as lenders of last resort. But they usually act as lenders of last resort when crises occur in certain regions. However, at the onset of the COVID-19 pandemic, many countries financially suffered due to necessary increases in fiscal deficits, increased public sector borrowing requirements, and greater debt vulnerability. The

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IMF and the WB stepped in and jointly pledged 1.16 trillion U.S. dollars (USD) to help emerging economies deal with COVID-19. Is this lending capacity provided by these two multilateral organizations enough to preserve the world's financial stability?

In this article we present an overview of the available data to get a sense of the answer to this question as well as the resulting effects on fiscal deficits. We start by documenting the size of the rescue programs that were implemented in the different countries by degree of development and the financing means. We find that developed countries were able to put together programs of around 24 percent of gross domestic product (GDP), while emerging countries put together programs that were only around 8.4 percent of GDP. We then look into the aids that were made available by the IMF and the WB to specific emerging markets, the fraction of the programs that were put together by each individual country to save their economy that was financed with new issuances of debt, and the resulting effects on debt composition and structure. Finally, given the fiscal implications of changes in debt levels, we document the changes in both primary and total deficits during the pandemic years, calculate the aggregate liquidity needs of a set of emerging markets (debt maturing in 2020 and 2021), and compare the resulting total number with the 1.16 trillion that was pledged by the IMF and the WB.

We find that countries in Asia and Latin America received financial assistance from the IMF and the WB at varying degrees. Most assistance was provided in terms of loans to address different types of balance of payments needs. However, some counties—like Nepal—also received grants. Asian countries, on average, experienced higher increases in gross debt as a percentage of 2019 GDP when compared to Latin American countries from 2019 to 2020. On average, gross debt (percentage of GDP) increased by around 7.5 percentage points in Asia and 2.1 percentage points in Latin America. We also find that, on average, countries in Asia had lower proportions of U.S. dollar-denominated debt when compared to Latin American countries. Moreover, the percentage of government debt (as a share of GDP) maturing in 2020 and 2021 was lower in Asia (after removing China) than in Latin America. In addition, both primary and total deficits in most emerging countries increased in 2020 but generally improved in 2021, showing fiscal discipline.

If we consider only rollover needs, Asia and Latin America needed 1,433.3 billion USD to roll over their debt in 2020 (including China) and 1,678.1 billion USD in 2021. This amounts to more than 3 trillion USD. This means that if there were no other refinancing means, the 1.16 trillion USD pledged by the IMF and the WB would not have been enough to maintain financial stability in these regions. However, it is crucial to note that the amount of international aid could have increased in the case of a rollover crisis.

The rest of the article proceeds as follows. Section 2 documents the fiscal measures implemented by different countries in response to the COVID-19 pandemic and the rescue programs made available by the IMF and the WB. Section 3 studies debt composition (domestic currency versus USD) and debt structure. Section 4 presents the changes in gross debt and fiscal deficits from 2019 to 2020, and Section 5 concludes.

2. FISCAL MEASURES

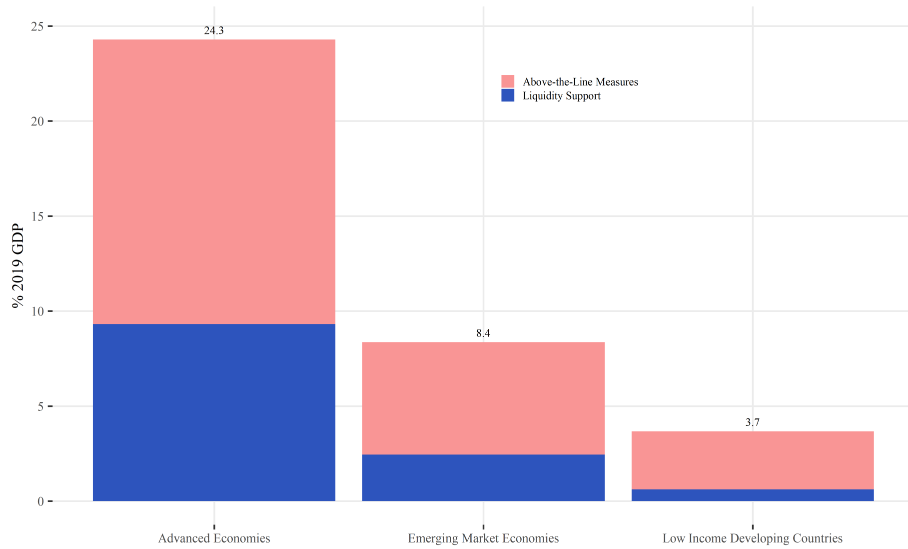
The COVID-19 pandemic generated economic disruptions of historic magnitude in most countries. As a result, different governments had to put together different fiscal measures to respond to it. These fiscal measures differed by country and were determined by degree of liquidity, ability to issue new debt, and access to multilateral organizations (like the IMF and the WB), among others. This implied that developed countries were able to react by putting together larger programs than emerging and low-income economies. Figure 1 shows these disparities. Advanced economies spent roughly 24 percent of their 2019 GDP on fiscal measures,[1] while emerging and low-income countries spent around 9 percent and 4 percent, respectively.

Fiscal measures can be divided into two categories that have different implications for public finances. According to the IMF, "above-the-line" measures are those affecting government debt, fiscal balance, and increased short-term needs for borrowing. These measures include additional spending, tax measures, and deferral of tax payments. On the other hand, "liquidity support" measures involve the creation of assets such as equity injections, loans, and asset purchases. This category also includes government guarantees that usually have no immediate effect on debt or deficits. However, they do create a contingent liability for the government.

Figures 2 and 3 show country-specific measures for different countries in Asia and Latin America, respectively. In Asia, the range of fiscal response to COVID-19 varied from 0.1 percent (Laos) to 17.6 percent (Mongolia) in units of their respective 2019 GDP. Some key fiscal measures governments had announced or taken include exempting tariffs of the import of medicines and medical supplies (China), offering discounts and refunds of water and electricity bills (Thailand), and providing a credit guarantee scheme for the small and mid-size enterprise (SME) sector (Bangladesh).

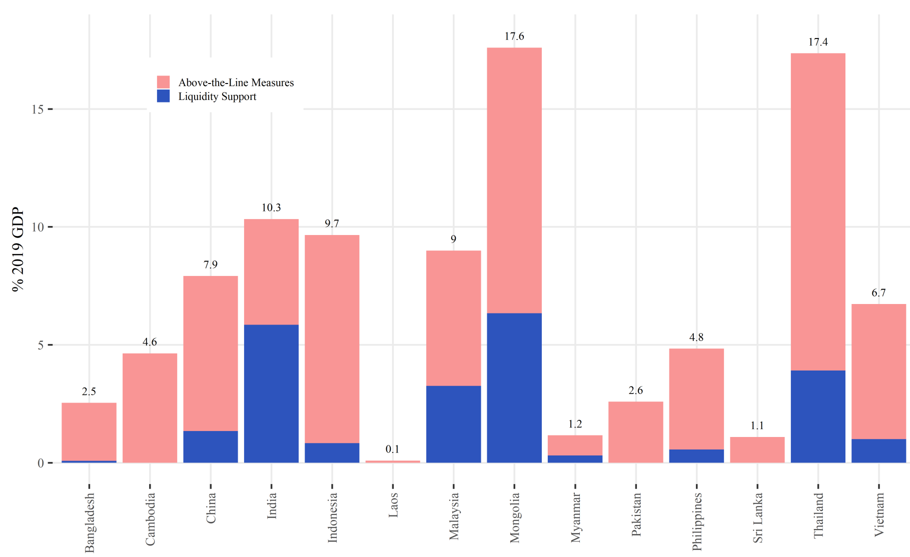
1. This includes COVID-19-related measures from January 2020 to September 2021.

Figure 1
Fiscal Measures in Response to COVID-19



NOTE: The database summarizes key fiscal measures governments have announced or taken in response to the pandemic starting in January 2020 to September 2021. "Above-the Line" measures include additional spending, tax measures, and deferral of tax payments. "Liquidity Support" generally involves the creation of assets such as equity injections, loans, and asset purchases. This is as a percentage of 2019 GDP.
SOURCE: Database of Fiscal Policy Responses to COVID-19.

Figure 2
Fiscal Measures in Response to COVID-19: Asia

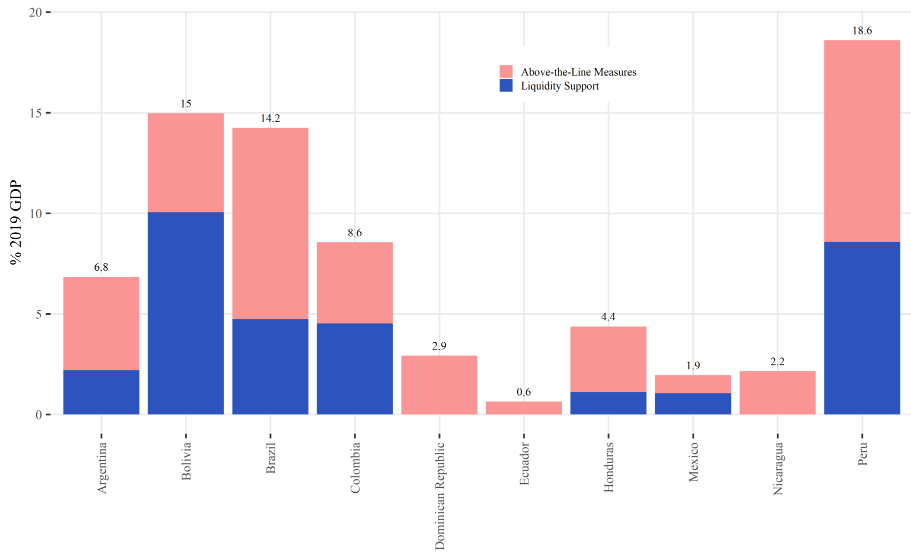


NOTE: Refer to Figure 1 for more information on the data.
SOURCE: Database of Fiscal Policy Responses to COVID-19.

As for the selected countries in Latin America, Ecuador spent the least on COVID-19 measures—as a share of 2019 GDP—at 0.6 percent, while Peru spent the most at around 18.6 percent. Some notable fiscal measures include raising the budget for the Health Ministry to improve virus diagnoses, purchases, and distribution of vaccines (Argentina); providing advance payment of pension benefits, wage bonuses to low-income workers, and sickness/disability benefits (Brazil); and injecting equity to Findeter and Bancoldex (Colombian Development Banks) for the purpose of credit lines.

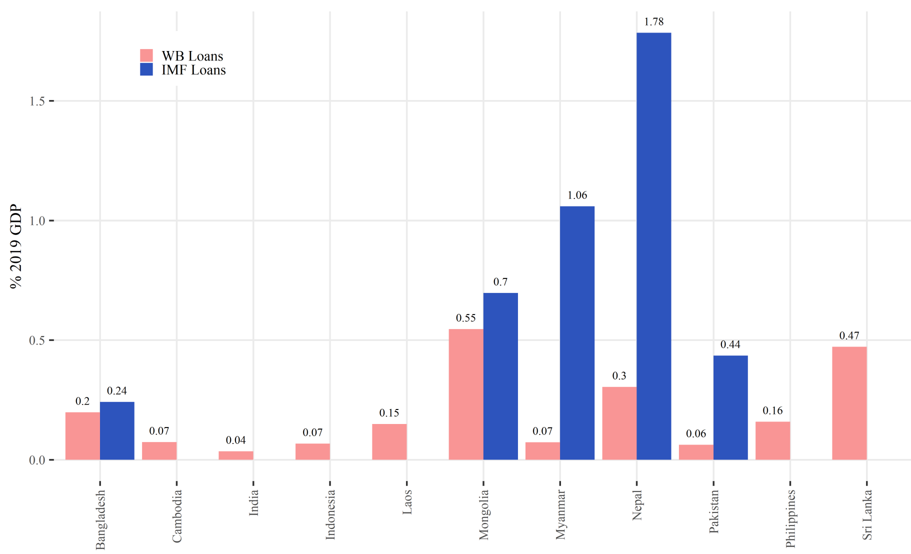
In the same way that Figures 2 and 3 show the magnitude of the fiscal measures implemented by different

Figure 3
Fiscal Measures in Response to COVID-19: Latin America



NOTE: Refer to Figure 1 for more information on the data.
SOURCE: Database of Fiscal Policy Responses to COVID-19.

Figure 4
Rescue Programs from the International Monetary Fund and the World Bank: Asia



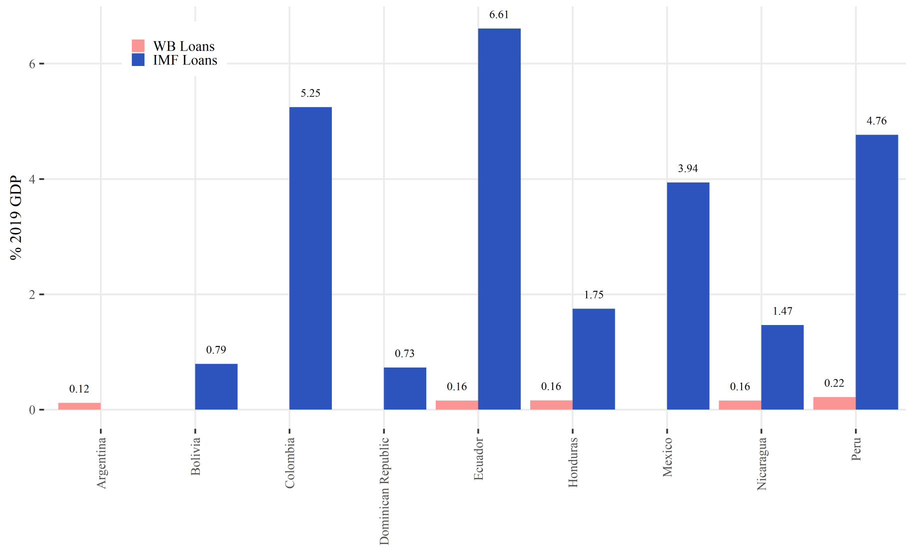
NOTE: The figure includes the IMF's COVID-19 financial assistance provided to the member countries through various lending facilities as part of the $1 trillion lending capacity promised by the organization and includes the WB's projects that are supported by the COVID-19 Fast-Track Facility (including support for vaccines). This excludes various additional funds provided by the WB for projects with components responding to COVID-19 and projects that receive COVID-19 funding through restructuring, redeployment, and reallocation of existing resources. The figure does not show any grants these countries may receive from the IMF and the WB.
SOURCE: IMF's COVID-19 Financial Assistance and Debt Service Relief and WB's COVID-19 Projects.

countries as a percentage of GDP, Figures 4 and 5 show the aid that they received from the IMF and the WB as a percentage of their 2019 GDP. Of the $1 trillion committed by the IMF to help member countries, as of March 2022, around $250 billion had been made available through various lending facilities and debt service relief.

Bangladesh, Mongolia, Myanmar, Nepal, and Pakistan are the countries in Asia that received financial

Figure 5

Rescue Programs from the International Monetary Fund and the World Bank: Latin America



NOTE: Refer to Figure 4 for more information on the data.
SOURCE: IMF's COVID-19 Financial Assistance and Debt Service Relief and WB's COVID-19 Projects.

assistance from the IMF. Bangladesh obtained $244[2] million from the Rapid Credit Facility (RCF) and $488 million from the Rapid Financing Instrument (RFI), and Myanmar received two rounds of RFIs and RCFs that amounted to roughly $729 million. Mongolia was given $99 million from the RFI, Nepal received $214 million from the RCF and $396 million from the Extended Credit Facility (ECF), and Pakistan acquired roughly $1.4 billion through the RFI. This financial assistance was disbursed in terms of loans; however, Nepal also received around $19 million of debt service relief from the Catastrophe Containment and Relief Trust as grants.

The IMF approved requests from eight Latin American countries for emergency financial assistance: Bolivia, Colombia, the Dominican Republic, Ecuador, Honduras, Mexico, Nicaragua, and Peru. Colombia, Mexico, and Peru received funding solely through the Flexible Credit Line Arrangement (FCL) for a total of $16.9 billion, $50 billion, and $11 billion, respectively. Bolivia and the Dominican Republic acquired financial support—$327 million and $650 million, respectively—from the RFI, while Ecuador obtained $643 million from the RFI and $6.5 billion from the Extended Fund Facility. Honduras received $439 million from the Stand-By Arrangement (SBA) and Arrangement Under the Stand-By Credit Facility (SCF), and Nicaragua got $124 million from the RFI and another $62 million from the RCF.

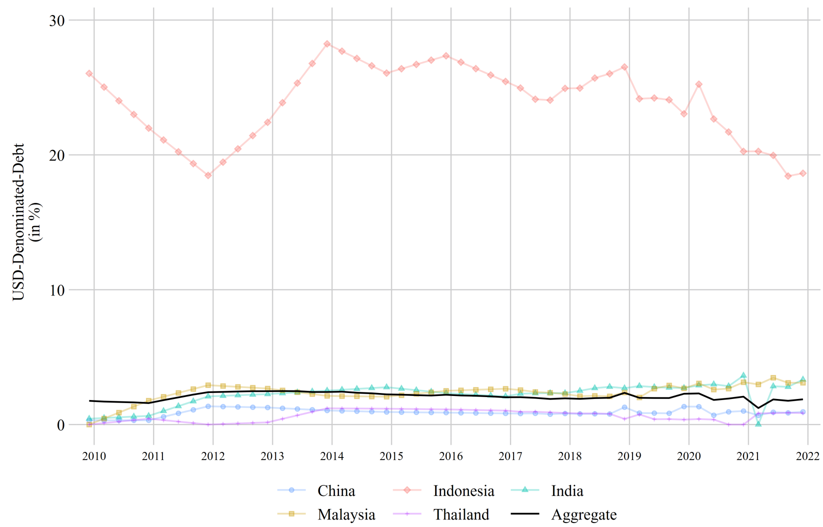
Figures 4 and 5 show values of the projects supported by the WB's COVID-19 Fast-Track Facility (including support for vaccines). Although the WB did provide funding for other projects with components responding to COVID-19, such as the Disaster Risk Finance and Insurance project in Indonesia, those were omitted from the figures. In Asia, the range of support varied from $20 million credit given to Cambodia to $1 billion received by India. In Latin America, out of the five countries supported by the WB, Nicaragua received the least credit ($20 million), while Argentina received the most, hovering around $535 million.

3. DEBT COMPOSITION AND MATURITY

Part of the fiscal measures that were implemented by the different countries were financed with debt, affecting fiscal sustainability. In this section, we look at debt composition and maturity. Usually, countries issue debt in either local currency or in USD. Issuing debt in USD may be a way for emerging market economies to attract diverse funding sources and to reduce financial frictions, but it is also a way to expose themselves to exchange rate risk, causing uncertainty as to the actual costs of servicing and repaying their debt. As such, it is important to look at debt currency composition and see if the pandemic forced countries to increase the fraction of their USD-denominated debt.

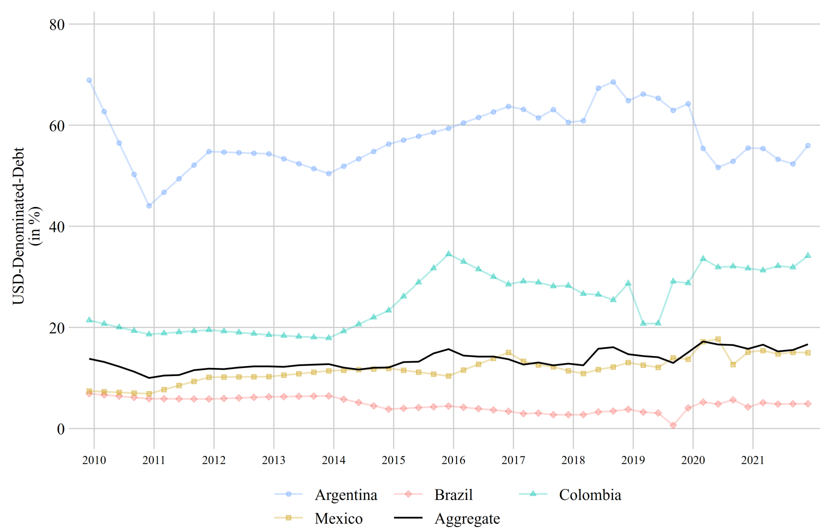
2. The amounts are calculated using the SDR/US$ conversion of the day of approval. The information was last updated on March 9, 2022; see IMF's COVID-19 Financial Assistance and Debt Service Relief for more information.

Figure 6
U.S. Dollar-Denominated Debt: Asia



NOTE: The numbers are a percentage of total government debt in each country.
SOURCE: Institute of International Finance.

Figure 7
U.S. Dollar-Denominated Debt: Latin America



SOURCE: Institute of International Finance.

Figures 6 and 7 present the composition of debt in selected countries in Asia and Latin America.[3] In general, Asian countries only have a small portion of government debt denominated in USD (less than 5 percent) except for Indonesia, which has kept it between 20 and 30 percent between 2010 and 2020 but has decreased its share in the last two years. Generally speaking, countries in Latin America have higher shares of USD-denominated debt compared to Asian countries. Over 30 percent of government debt in Colombia and around 55 percent in Argentina is USD-denominated. However, it is not clear if the pandemic generated an increase in USD-denominated debt for any of the countries, maybe except for Colombia.

In the same way as the fraction of USD-denominated debt affects a country's ability to repay, so does the debt structure. In other words, the fraction of debt that matures in a given year will be the most important

3. This is subject to data availability.

Table 1
Maturity Distribution: Asia

Country	Debt Maturing (Bill. USD)		Debt Maturing (% GDP)	
	2020	2021	2020	2021
Bangladesh	8.5	10.0	2.6	2.8
China	718.6	828.4	4.8	4.7
Indonesia	27.0	30.9	2.5	2.6
India	144.1	152.9	5.4	5.0
Laos	0.3	0.3	1.4	1.7
Sri Lanka	8.5	10.3	10.6	12.5
Myanmar	2.4	4.8	2.9	7.3
Mongolia	0.0	0.1	0.0	0.9
Malaysia	22.7	25.3	6.7	6.8
Pakistan	33.3	40.5	11.1	11.6
Philippines	18.1	36.5	5.0	9.3
Thailand	110.5	115.5	22.1	22.5
Vietnam	6.5	8.5	1.9	2.3
Aggregate	1100.5	1264.2	5.3	5.2
Aggregate (w/o China)	381.9	435.8	6.3	6.4

SOURCE: Bloomberg and IMF's World Economic Outlook (April 2022).

indicator for short-term debt sustainability and financial stability for the pandemic years. For this purpose, we calculated the total amount of government debt that matured in each year using data available one quarter before said year expressed in USD. For example, the amount of debt matured in 2020 was obtained from data available as of the fourth quarter of 2019. Note that here we are no longer referring to the debt that was issued in USD but to the total debt, which includes debt issued in both domestic and foreign currencies. However, for aggregation purposes, we have converted it and express it in billions of USD.

Tables 1 and 2 show the results for the individual countries. In 2020 the total debt maturing in Asia and Latin America combined was worth 1,433.3 billion USD, while in 2021 it was worth 1,678.1 billion. Those numbers account for 5.8 and 5.9 percent of GDP in 2020 and 2021, respectively. If we sum up the values for the two regions, then in 2020 they would have needed 1,433.3 billion USD to roll over their debt (including China), and in 2021 they would have needed 1,678.1 billion USD. This amounts to more than 3 trillion USD, meaning that if there were no other refinancing means, the 1.16 trillion USD pledged by the IMF and the WB would not have been enough to maintain financial stability in these regions. However, we do not know if the amount of international aid provided by the IMF and the WB could have changed in the case of a rollover crisis.

Because we previously showed the fraction of USD-denominated debt for these countries, for completeness, Tables 3 and 4 show the amount of dollar-denominated debt that was set to mature in 2020 and 2021 in Asia and Latin America. They show that—combined—39.7 billion USD worth of dollar-denominated government debt matured in 2020 and 23.3 billion in 2021. They account for 0.2 and 0.1 percent of GDP in 2020 and 2021, respectively.

Figures 6 and 7, and Tables 3 and 4, tell us that changes in debt composition resulting from the pandemic are not a source of concern but that the amount of debt that was maturing in 2020 and 2021 could have potentially resulted in a rollover crisis. Fortunately, in 2022, we know this was not the case and that these countries were able to roll over their debts, not only successfully but also making use of, at most, 250 billion USD from the IMF.

Table 2
Maturity Distribution: Latin America

Country	Debt Maturing (Bill. USD)		Debt Maturing (% GDP)	
	2020	2021	2020	2021
Argentina	40.6	41.5	10.4	8.5
Bolivia	0.0	0.0	0.0	0.0
Brazil	168.7	244.6	11.6	15.2
Colombia	8.0	5.0	2.9	1.6
Dominican Republic	1.7	2.1	2.1	2.2
Ecuador	1.5	0.2	1.5	0.2
Honduras	1.2	0.7	5.0	2.5
Mexico	110.1	119.8	10.1	9.3
Nicaragua	0.0	0.0	0.0	0.1
Peru	0.5	0.0	0.2	0.0
Venezuela	0.6	0.0	1.3	0.0
Aggregate	332.8	413.9	9.0	9.7

SOURCE: Bloomberg and IMF's World Economic Outlook (April 2022).

Table 3
Maturity Distribution for U.S. Dollar-Denominated Debt: Asia

Country	Debt Maturing (Bill. USD)		Debt Maturing (% GDP)	
Bangladesh	0.0	0.0	0.0	0.0
China	3.2	3.3	0.0	0.0
Indonesia	5.1	5.8	0.5	0.5
India	0.0	0.0	0.0	0.0
Laos	0.0	0.2	0.0	0.8
Sri Lanka	2.0	2.3	2.4	2.8
Myanmar	0.0	0.0	0.0	0.0
Mongolia	0.0	0.1	0.0	0.9
Malaysia	1.6	2.6	0.5	0.7
Pakistan	0.0	1.0	0.0	0.3
Philippines	0.8	1.6	0.2	0.4
Thailand	0.0	0.0	0.0	0.0
Vietnam	0.8	0.0	0.2	0.0
Aggregate	13.3	16.9	0.1	0.1
Aggregate (w/o China)	10.2	13.6	0.2	0.2

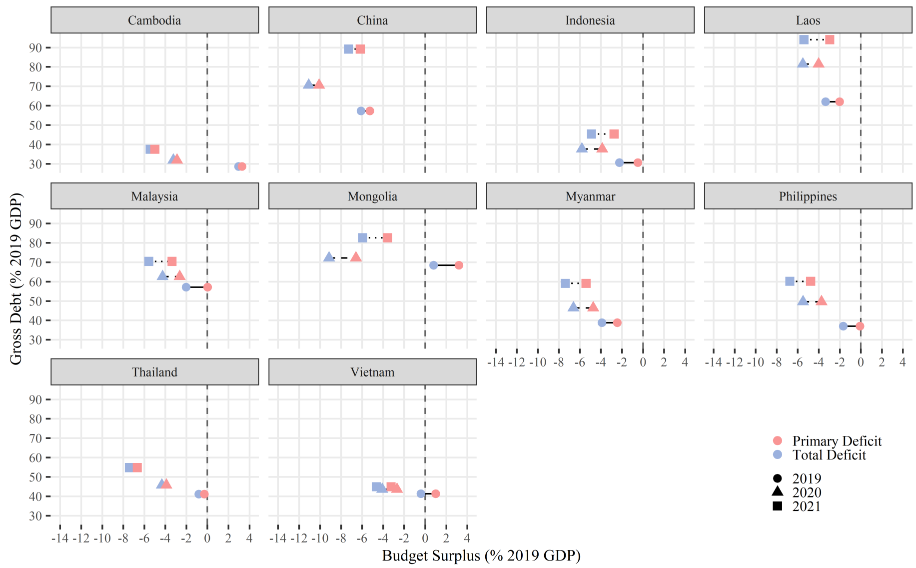
SOURCE: Bloomberg and IMF's World Economic Outlook (April 2022).

Table 4
Maturity Distribution for U.S. Dollar-Denominated Debt: Latin America

Country	Debt Maturing (Bill. USD)		Debt Maturing (% GDP)	
	2020	2021	2020	2021
Argentina	21.3	1.8	5.5	0.4
Bolivia	0.0	0.0	0.0	0.0
Brazil	0.7	2.7	0.1	0.2
Colombia	0.8	1.5	0.3	0.5
Dominican Republic	0.5	0.1	0.6	0.2
Ecuador	1.5	0.2	1.5	0.2
Honduras	0.5	0.0	2.1	0.0
Mexico	0.5	0.0	0.0	0.0
Nicaragua	0.0	0.0	0.0	0.1
Peru	0.0	0.0	0.0	0.0
Venezuela	0.6	0.0	1.3	0.0
Aggregate	26.4	6.4	0.7	0.1

SOURCE: Bloomberg and IMF's World Economic Outlook (April 2022).

Figure 8
Deficits and Debt to GDP: East Asia



NOTE: Total deficit (also "overall fiscal balance" in the IMF's Fiscal Monitor) is the difference between revenue and total expenditure. This does not include policy lending. In some countries, the overall balance is still defined as total revenue and grants minus total expenditure and net lending. Primary deficit (also "primary balance") is overall balance excluding net interest payments. The numbers are shares of 2019 GDP.
SOURCE: IMF's Fiscal Monitor (April 2022), IMF's World Economic Outlook (April 2022), and Haver Analytics.

4. CHANGES IN GROSS DEBT AND FISCAL DEFICITS

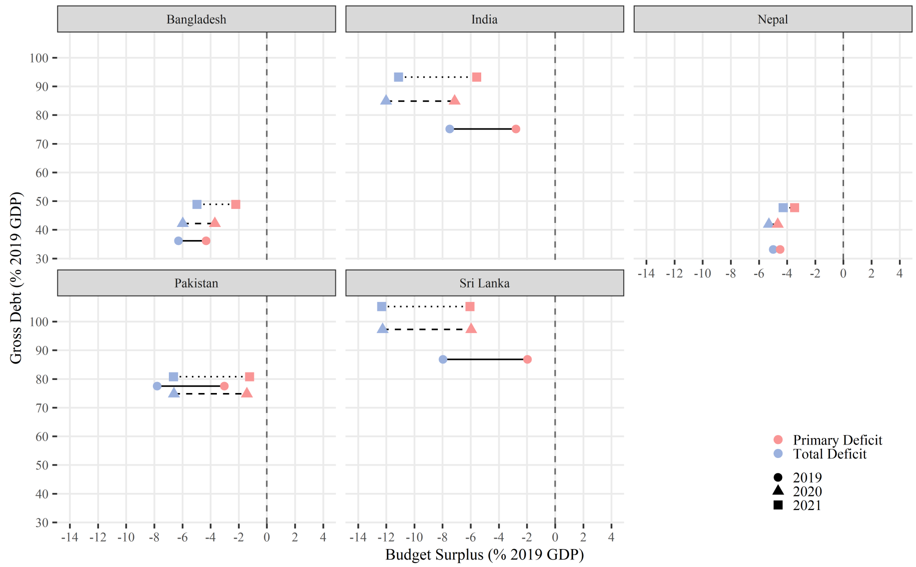
The total deficit of a country is the difference between spending and revenues, and the primary deficit of a country is the total deficit excluding interest payments. As such, the financial health of a country is reflected in both its primary and total fiscal deficits. To better understand the incidence of COVID-19 on financial standings in different regions, in this section we explore the changes in gross debt to GDP that resulted from the fiscal measures that were implemented to keep the different countries afloat during the pandemic and the effect that those changes in debt had on these countries' primary and total deficits.

Figure 8 shows the primary (red dot) and total (blue dot) deficits in 2019 and how they evolved into 2020 (denoted by triangles) and into 2021 (denoted by squares) in the x-axis, versus the changes in gross debt associated with these deficits in the y-axis, for a set of countries in East Asia. One can see that except for China, Mongolia, and Indonesia, all the other countries experienced increases in both gross debt and deficits. The primary deficits for these countries range between around a 4 percent surplus in Cambodia in 2019 and a 10 percent deficit in China in 2020, while the total deficits range between a 3 percent surplus in Cambodia in 2019 and close to a 12 percent deficit in China in 2020. Figure 9 is similar to Figure 8 but for South Asian countries. These countries did somewhat better than the East Asian countries in terms of the change in deficits, in that in general the deficits in 2021 are an improvement over those in 2020, but they all experienced increases in the debt-to-GDP ratio as did the East Asian countries.

Figure 10 shows the debt-to-GDP ratio versus the budget surplus for Latin America, in the same way that the previous two plots did it for East and South Asian countries. The behavior in Latin America is somewhat more heterogeneous. Brazil, for example, started off with a debt-to-GDP ratio close to 90 percent, but it decreased to just below 80 percent in 2020, increasing to 80 percent in 2021. Argentina had changes in deficits, but the debt-to-GDP ratio stayed more or less constant. Peru, Nicaragua, Honduras, Ecuador, the Dominican Republic, and Bolivia increased their deficits in 2020 as a response to the pandemic, increasing their debt-to-GDP ratios as well, but managed to decrease deficits in 2021 while increasing the debt-to-GDP ratio even further.

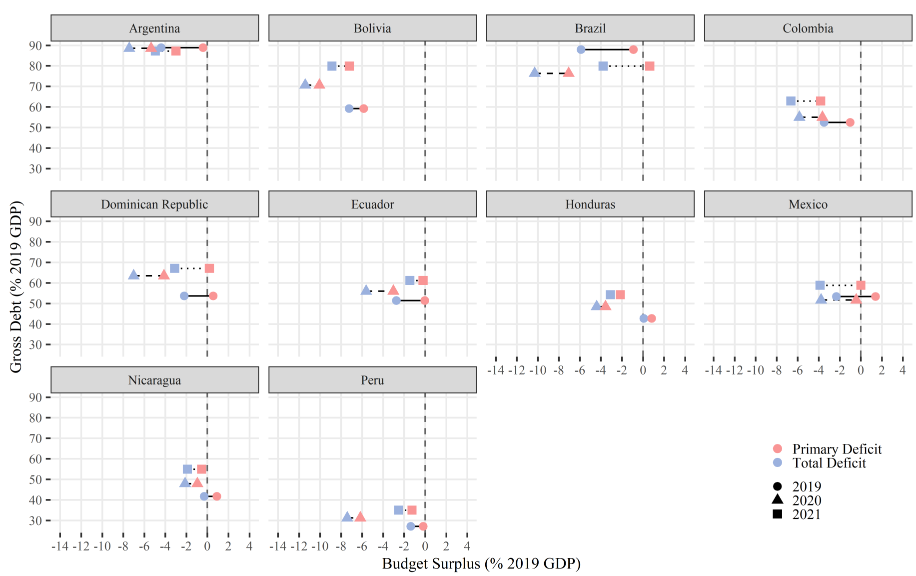
In all, the figures in this section show that most countries had to increase their debt-to-GDP ratios between 5 and 30 percentage points as a result of the pandemic. However, most could bring their deficit back down in 2021 after they increased it from 2019 to 2020 as a consequence of the fiscal measures implemented to rescue their nations from the onset of the pandemic.

Figure 9
Deficits and Debt to GDP: South Asia



NOTE: Refer to Figure 8 for more information on the data.
SOURCE: IMF's Fiscal Monitor (April 2022), IMF's World Economic Outlook (April 2022), and Haver Analytics.

Figure 10
Deficits and Debt to GDP: Latin America



NOTE: Refer to Figure 8 for more information on the data. The plot does not include Venezuela.
SOURCE: IMF's Fiscal Monitor (April 2022), IMF's World Economic Outlook (April 2022), and HAVER.

Table 5
Summary Table

Country	Fiscal Measures (% 2019 GDP)	Debt Matured in 2020-2021 (Billions USD)	Δ Gross Debt (% 2019 GDP)	IMF and WB Rescue Packages (% Total Fiscal Measures)	Δ Total Fiscal Balance (% 2019 GDP)
Argentina	6.8	82.1	-1.7	1.7	-0.6
Bangladesh	2.5	18.5	12.7	17.4	1.3
Bolivia	15.0	0.0	20.7	5.3	-1.6
Brazil	14.2	413.3	-8.0		2.1
Cambodia	4.6		8.9	1.6	-8.4
China	7.9	1547.0	31.9		-1.2
Colombia	8.6	13.0	10.5	61.3	-3.2
Dominican Republic	2.9	3.7	13.4	25.0	-0.9
Ecuador	0.6	1.7	9.7	1062.2	1.3
Honduras	4.4	1.9	11.6	43.6	-3.2
India	10.3	297.1	18.1	0.3	-3.6
Indonesia	9.7	57.9	14.8	0.7	-2.7
Laos	0.1	0.6	32.0	163.1	-2.1
Malaysia	9.0	48.1	13.3		-3.6
Mexico	1.9	229.9	5.5	202.2	-1.5
Mongolia	17.6	0.1	14.2	7.1	-6.8
Myanmar	1.2	7.1	20.3	97.5	-3.5
Nepal			14.6		0.7
Nicaragua	2.2	0.0	13.2	75.6	-1.6
Pakistan	2.6	73.8	3.3	19.3	1.2
Peru	18.6	0.5	7.9	26.8	-1.2
Philippines	4.8	54.6	23.1	3.3	-5.1
Sri Lanka	1.1	18.9	18.4	43.1	-4.4
Thailand	17.4	226.0	13.7		-6.6
Venezuela		0.6	-9.6		6.7
Vietnam	6.7	15.0	3.6		-4.2
Average	7.1	129.6	12.2	26.8	-2.0

SOURCE: IMF's World Economic Outlook (April 2022), IMF's Fiscal Monitor (April 2022), IMF's Database of Fiscal Policy Responses to COVID-19, IMF's COVID-19 Financial Assistance and Debt Service Relief, and WB's COVID-19 Projects. The average for the fourth column excludes Ecuador, Laos, and Mexico.

5. FINAL REMARKS

Table 5 presents a broad summary of our findings. It shows the relative size of the fiscal measures implemented in response to the COVID-19 pandemic, the changes in gross debt that resulted from the implementation of those fiscal measures, and the aid provided by the WB and IMF as a fraction of the total fiscal measures. It also shows the total debt maturing in 2020 and 2021 as well as the changes in total deficits between 2019 and 2021. The data say that, on average, countries spent around 7.1 percent of their GDP to mitigate the health and economic impact of COVID-19 and gross debt as a percentage of 2019 GDP increased by 12.2 percentage points between 2019 and 2021.

The second column shows the total amount of debt maturing in 2020 and 2021. Even though the country average is 129.6 billion USD, the total sum amounts to more than 3 trillion USD, which is more than twice the amount that was pledged by the WB and the IMF. The third column presents the change in gross debt (percentage points of 2019 GDP) from 2019 to 2021. Except for Argentina, Brazil, and Venezuela, gross debt as a percentage in 2019 GDP increased in every country on our list. The increased varied from 3.3 percentage points in Pakistan to 32 percentage points in Laos. The average change of gross debt is around 12.2 percentage points.

In terms of the IMF and the WB rescue packages as a percentage of the total fiscal measures, something worth noting is that the data for the fiscal measures go until September 2021, while the data for the IMF and the WB rescue packages go up to March and May 2022, respectively. This means that, presumably, if both rescue packages exceed the total measures, it could be because these were resources granted after September 2021. However, it could also be because there were some forms of aid that were granted but excluded from the fiscal measures calculations. The countries that are subject to these issues are Ecuador, Laos, and Mexico. Laos is a separate case because it was the only country to receive a grant from the WB, and as such its rescue package exceeds its total fiscal measures. However, this is not the case for Ecuador or Mexico, but we could not find more information about the discrepancy of the data.

Excluding Laos, Ecuador, and Mexico, on average, rescue packages from the IMF and the WB were worth around 26.8 percent of the total fiscal measures. We also find that out of the total increase in debt, roughly 17 percent was picked up by the IMF and the WB. Although 17 percent is by no means a small portion, it is small enough to hint at the ability of emerging countries to still attract outside lenders during the pandemic and indicates that even in the face of such a big crisis like the COVID-19 pandemic, the financial stability of emerging countries turned out to be much more resilient than might have been initially believed.

Finally, the last column of Table 5 shows the change in total fiscal deficits between 2019 and 2021. As we can see, even though Section 4 showed us that there was a general improvement in the deficits between 2020 and 2021, there was an overall worsening of fiscal positions due to an increase of the mean total deficit between 2019 and 2021 of 2 percentage points as a result of the pandemic.

In summary, the bad news is that if a crisis like the COVID-19 pandemic were to hit again and countries lost their ability to roll over their debt completely, the resources that were made available by the WB and the IMF as lenders of last resource (at least this time around) would not be enough to preserve financial stability in Asia and Latin America. However, the good news is that even though total fiscal deficits are 2 percentage points larger after the pandemic, they did show an improvement between 2020 and 2021, and most of the relevant developing countries showed a continued ability to raise liquidity and finance a crisis of the pandemic's magnitude.