ECONOMIC IMPACT OF COVID-19

CENTRAL AMERICA, ARGENTINA, COLOMBIA AND MEXICO

APRIL 2020
The following report is an effort of the Office of The Chief Economist (OCE) to analyze the transmission mechanisms and measure the magnitude of the economic impact of the COVID-19 pandemic in Central America, Argentina, Colombia and México. It should be noted that, due to the limited quantitative information available from official sources in the countries, this is an indicative exercise to inform and guide CABEI management decision-making. Therefore, it does not pretend to be categorical regarding the scope of the crisis in the countries covered. For this reason, the OEJ suggests for this analysis to be updated periodically once official records are published for the observed behavior of the economies. The arguments raised are the responsibility of their authors and do not reflect the official position of the Central American Bank for Economic Integration, nor of the central banks or governments.

This document has been prepared under the leadership of Florencia Castro-Leal, PhD, CABEI’s Chief Economist, with analytical contributions by Rodrigo Méndez Maddaleno, Economist, and estimations by Miguel Angel Medina Fonseca, Economist. Armando E. Navarrete, Principal Economist, oversaw the review and editing.
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EXECUTIVE SUMMARY

1. The world is in a state of emergency due to the rapid spread of COVID-19, an extremely contagious disease caused by a new strain of coronavirus\(^1\). On March 11 of this year, coronavirus was declared a pandemic by the World Health Organization. As of April 16, official data showed 2,088,425 confirmed cases, 139,419 deaths and 528,300 recoveries\(^2\). Almost every country in the world has taken measures to prevent, contain and mitigate contagion, which, collaterally, have affected the world economy. The immediate consequences have been a sudden stop of global production, creating disruptions in the supply chains, in market demand, in the activities of companies, and disruptions in financial markets.

2. This is an unprecedented crisis; its impact will be greater than the Great Recession of 2008-09 and its magnitude is compared to the Great Depression of 1930. Uncertainty regarding the duration of the pandemic and isolation measures, limits the ability to make inferences about the magnitude of the economic impact of the crisis in the region. The transmission channels that have been identified to date are three: External Sector, Real Sector and Fiscal Sector.

3. To inform and guide CABI management decision-making, estimates have been elaborated for two scenarios assuming an absolute halt of production in previously defined sensitive sectors; with a duration of four months for the hotel and restaurant sector (in both scenarios), and two to three months for the rest of the sectors. This exercise results in estimated GDP growth in 2020 ranging between -2.5 and -4.9 percent for Central America. Argentina’s estimates are between -5.7 and -7.6 percent, Colombia -2.0 and -4.0 percent and México between -4.4 and -6.9 percent. Economic growth will be mainly impacted by the reduction of activities in commerce, construction, transport, hotels and restaurants, and financial intermediation.

4. The sanitary measures promoted by the governments to attend the emergency caused by the COVID-19 will generate greater fiscal spending, less economic activity and, therefore, a fall in fiscal revenues. This coupled with the public policy agenda for economic recovery to boost each country after the crisis aiming to reduce the economic impact will most likely demand an increase in public debt. In this sense, estimates were made with the assumptions of scenarios one and two detailed in the previous paragraph, resulting in debt-to-GDP ratios increase on average, at least, between 4.7 and 7.6 percentage points in 2020 for the Central America region. Argentina’s estimates are between 6.2 and 9.0 percentage points, Colombia between 3.1 and 4.3, and México between 3.3 and 4.8. In consequence, governments, international development agencies, and risk rating agencies should be flexible when evaluating macroeconomic stability analyzes and future support requirements.

5. The increase in public debt to meet the health emergency caused by COVID-19, will most likely generate the displacement of public investment spending during 2020, and consequently less fiscal space to finance new productive investment projects in the future. Given the above, governments will have to manage alternative ways to continue making progress in addressing the existing gaps in public investment, within the framework of the economic recovery plan 2021, thus avoiding a fall in competitiveness associated with the decrease in supply of productive infrastructure.

6. Governments have reacted to the COVID-19 emergency with policy actions incorporating monetary and fiscal measures. Monetary policies have focused on providing liquidity and ensuring credit flows. Fiscal policies include direct transfers for vulnerable groups, soft loans for businesses, tax holidays, rents freeze in social insurance payments and buying medical supplies. In the medium term, policy proposals may include: country campaigns for tourists, strategies to attract national and foreign direct investment within each country investment agencies, adoption of measures to help businesses restart activity as well as promote entering of new firms, and enhance national competitiveness agencies to increase productivity.

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1 World Health Organization (WHO). [https://www.who.int/hewalth-topics/coronavirus#tab=tab_1](https://www.who.int/hewalth-topics/coronavirus#tab=tab_1)
2 Taken from John Hopkins Coronavirus Resource Center. [https://coronavirus.jhu.edu/](https://coronavirus.jhu.edu/)
7. The world is in a state of emergency due to the rapid spread of COVID-19, an extremely contagious disease caused by a new strain of coronavirus. The disease was declared a pandemic by the World Health Organization on March 11, 2020. As of April 16, official data showed 2,088,425 confirmed cases, 139,419 deaths and 528,300 recoveries.

8. Due to the virus rapid contagion rate, countries around the world have implemented health measures to contain it, such as: border closing; social distancing, which includes schools, universities, bars and restaurant, trade, banks, among other services; and declaration of states of emergency. Regarding the economic sphere, advanced economies have implemented the following monetary and fiscal policies.

- In the United States, the Federal reserve cut policy interest rates by 150 basis points, between 0.0-0.25 percent, alongside other actions aimed at providing liquidity and credit facilities for banks to maintain a constant flow of credit. On the fiscal side, the US Senate approved a US$ 2.0 trillion relief package, that contains programs for credit at favorable rates for small and medium enterprises (SME), direct subsidies to persons, and funds to strengthen hospitals.

- The European Central Bank implemented an asset-buying program aimed at public and private actors that amounts to €750.0 billion, also it has taken other measures to provide liquidity to the market. Fiscal policy varies in size between countries, for example, France and Germany have announced packages ranging from 2.0 to 4.5 percent of GDP respectively. Both packages contain similar measures concerning more budget to hospitals and medicine purchases, loans at favorable rates for SME’s, public utility payments, etc.

9. McKinsey carried out different scenarios on the economic impact of COVID-19 estimating the world economy will fall between -1.5 percent if the virus is contained quickly and there is a slow and immediate recovery, and up to -4.7 percent if the virus has an outbreak again and recovery stays slow for longer. The International Monetary Fund (IMF) forecasts a drop in world GDP of -3.0 percent, which would be reflected in a greater recession in advanced economies (-6.1 percent), and a smaller contraction in emerging markets and developing economies (-1.0 percent); the latter being partially offset by the growth in China (1.2 percent) and India (1.9 percent), both countries within this group.

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3World Health Organization (WHO). [https://www.who.int/health-topics/coronavirus#tab=tab_1](https://www.who.int/health-topics/coronavirus#tab=tab_1)
4Taken from John Hopkins Coronavirus Resource Center. [https://coronavirus.jhu.edu/](https://coronavirus.jhu.edu/)
6Approved by the Senate on March 25, 2020. The Coronavirus Aid, Relief, and Economic Security Act. [https://www.foley.com/en/insights/publications/2020/03/-/ media/cf64abdb8f84e88ba01e5696bc7eac.aspx](https://www.foley.com/en/insights/publications/2020/03/-/media/cf64abdb8f84e88ba01e5696bc7eac.aspx)
8World Economic Outlook, April 2020: The Great Lockdown.
TABLE 1. Economic impact of COVID19 in economic growth 2020 (percentage)

<table>
<thead>
<tr>
<th>World/countries/region</th>
<th>Mckinsey</th>
<th>FMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>-1.5 / -4.7</td>
<td>-3.0</td>
</tr>
<tr>
<td>United States</td>
<td>-2.4 / -8.4</td>
<td>-5.9</td>
</tr>
<tr>
<td>Euro Zone</td>
<td>-4.4 / -4.7</td>
<td>-7.5</td>
</tr>
<tr>
<td>China</td>
<td>-0.4 / -9.7</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Notes: Mckinsey’s ranges present two scenarios. Scenario 1 is rapid virus containment and recovery is slow; Scenario 2 there is a new virus outbreak and recovery is slow towards the end of the year.

Source: Prepared by the authors with information from the Mckinsey Global Report, March 9, 2020, and International Monetary Fund, WEO April 2020.

TABLE 2. CURRENT STATUS OF COVID-19 INFECTION

<table>
<thead>
<tr>
<th>Conceptos</th>
<th>BE</th>
<th>GT</th>
<th>SV</th>
<th>HN</th>
<th>NI</th>
<th>CR</th>
<th>PA</th>
<th>DO</th>
<th>AR</th>
<th>CO</th>
<th>MX</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confirmed cases</td>
<td>18</td>
<td>289</td>
<td>218</td>
<td>477</td>
<td>10</td>
<td>662</td>
<td>4,467</td>
<td>4,964</td>
<td>3,031</td>
<td>3,977</td>
<td>8,261</td>
<td>35,178</td>
</tr>
<tr>
<td>Recovered</td>
<td>0</td>
<td>21</td>
<td>46</td>
<td>25</td>
<td>6</td>
<td>124</td>
<td>165</td>
<td>416</td>
<td>737</td>
<td>804</td>
<td>2,627</td>
<td>5,386</td>
</tr>
<tr>
<td>Deaths</td>
<td>2</td>
<td>7</td>
<td>7</td>
<td>46</td>
<td>2</td>
<td>6</td>
<td>126</td>
<td>126</td>
<td>142</td>
<td>189</td>
<td>686</td>
<td>1,684</td>
</tr>
</tbody>
</table>

11. Given the Latin America’s openness and integration to international markets, the main mechanisms of transmission of COVID-19 economic impact are expected to be through the external sector. The harshness will depend on the behavior of the US economy, a market accounting for 35.0 percent of Latin American exports.

12. The flow of international remittances is expected to be affected, given that the highest concentration of Central American and Mexican migrants is in the United States (73.0 and 97.8 percent respectively) and that 86.4 and 98.2 percent, respectively, of transfers from remittances are originated from this country. In particular, the reduction in transfers will depend on the scope of restriction to mobility and social distancing in the US, coupled with the impact on the labor market. In this context, it is worth noting that unemployment insurance claims reached 12.5 million applicants as of April 11th. The greatest impact will be on those economies where remittances constitute a significant level as percentage of GDP, such as Guatemala, El Salvador, Honduras and Nicaragua, where they represent between 11.0 percent and 21.0 percent of GDP (see Figure 1) and constitute an important source of resources to mobilize domestic consumption.

INFOGRAM 1. Impact transmission dynamics

COVID-19 IMPACT IN THE WORLD
TRANSMISSION CHANNELS

EXTERNAL SECTOR
- Reduction in international demand of goods.
- Volatility in commodity price.
- Reduction in remittances Flow.
- Disruption of global value chains
- Fall in tourism sector.

REAL SECTOR
- Drop in trade and service sector
- Contraction on aggregate demand
- Fall in transport sector

FISCAL SECTOR
- Increase in government spending (deficit)
- Exchange rate volatility
- Increase in debt/GDP ratio

Source: Chief Economist Office, CABEI.

11 Taken from the Secretariat of the Central American Monetary Council SECMCA. http://www.secmca.org/simafir.html
13. Tourism is also considered to be a key channel to transmit the slowdown in economic momentum, mainly due to the implementation of policies related to border closures, temporary closure of tour operators, and reduction of airline activities. In this regard, the World Tourism Organization estimates that the arrival of international tourists could fall between -20 to -30 percent\textsuperscript{12}, this being one of the activities on which a lagged effect could be expected after the end of the health crisis. It should be noted that the income generated by this sector represents around 20.0 percent of the total exports of goods and services in Central America.

14. Additionally, an external supply shock is expected given the interruption of global value chains due to the fall in China’s industrial capacity down to 60.0 percent\textsuperscript{13} which will affect mainly the import sector due to delays on lead time.

15. The real sector will be affected through the activities of commerce, transportation, hotels and restaurants, construction, financial sector, entertainment services, among other economic activities. Likewise, the magnitude of the contraction of the real sector will be amplified depending on the duration of the sanitary measures of social distancing and isolation that the countries implement, which will directly affect the construction and financial intermediation. The combined weight within the GDP of all these economic activities is between 25.0 percent and 58.0 percent.

16. Given the potential impact, fiscal policy will have to adjust to minimize the negative effects on economic activity due to the health crisis. Governments will face the need to implement policies focused on maintaining income, principally through different measures concerning social protection. Also, fiscal efforts will have to be made to give a jump start to economic recovery, considering lower tax revenues which can limit the ability of countries to react to the crisis. Countries will have to foster policies aimed at avoiding mass bankruptcies, bolster liquidity and maintain credit flows. Stimulus packages in advanced countries range from 2.0 to 10.0 percent of GDP. This means governments will have to draw upon external and internal debt, and most probably incur in larger deficits than expected for the fiscal year 2020 translating in larger debt to GDP ratios. If countries must incur in external indebtedness, public finances will be more susceptible to movements in exchange rates potentially reducing their repayment capacity.


\textsuperscript{13} Citi Bank Novel Coronavirus Update March 2020.
FIGURE 2. Most affected economic activities in Central America, Argentina, Colombia and Mexico represent at least 25 percent of GDP (percentage)

Source: Prepared by the authors with information from the central banks and the Statistical Institute of Belize.
17. The measures implemented at the international level to contain the spread of COVID-19 will have direct and indirect effects on economic performance. Although there is a consensus on the possible transmission channels of the crisis, there is still much uncertainty about the magnitude of its effects on GDP growth. Due to the complexity of the crisis observed to date, it is foreseen its impact could be greater than the Great Recession of 2008-2009 and its magnitude comparable to the Great Depression of 1930.

18. In order to measure the economic impact, 3 scenarios were modeled for each country. The assumptions and findings are presented and discussed below.

- The crisis will have a direct impact on the following activities: construction, trade in non-food and beverages goods, transport, financial intermediation, hotels, restaurants, travel agencies and entertainment services.

- Scenario 1 includes the impact on GDP growth derived from an absolute halt in production, with a duration of 2 months; or its proportional equivalent divided into several months (for example, a partial slowdown on activity to 50 percent its normal capacity for 4 months).

- Scenario 2 includes the impact on GDP growth derived from an absolute halt in production, with a duration of 3 months; or its proportional equivalent divided into several months (for example, total full-stop of 1 month plus partial slowdown on activity to 50.0 percent in 4 months).

- In scenarios 1 and 2, it is assumed that the activity of hotels and restaurants would have an absolute halt in production of 4 months or its proportional equivalent divided into several months, considering the lagged effect of its recovery after the end of the health crisis.

- Scenario 3 is the average between scenarios 1 and 2.

- GDP growth for baseline scenario (S0) is from the International Monetary Fund estimates for 2020, World Economic Outlook database for October 2019.

- The results obtained do not include the secondary effects of the drop in demand by households for agricultural and industrial goods, or the lower demand for inputs from the activities identified in this exercise. Likewise, it does not measure the positive impact that future economic policies implemented by governments could have for economic recovery.

19. Main findings are (see Figure 3):

- In scenario 1 (S1), Central America’s economic growth would go from the projected 3.9 percent in October 2019 to an economic recession of **-2.5 percent**.

- In scenario 2 (S2), Central America’s economic growth would go from the projected 3.9 percent in October 2019 to an economic recession of **-4.9 percent**.

- In scenario 1, estimates indicate Argentina, Colombia and Mexico would face economic recessions of **-5.7, -2.0 and -4.4 percent**, respectively.

- In scenario 2, estimates indicate Argentina, Colombia and Mexico would face a economic recessions of **-7.6, -4.0 and -6.9 percent**, respectively.

- Scenario 3 (E3) is the simple average of the previous two, Central America’s growth would go from the projected 3.9 percent to **-3.7 percent**. Argentina, Colombia and Mexico would have estimates under this scenario of **-6.7, -3.0 and -5.6 percent**, respectively.
In order to quantify the findings detailed above, an analysis is performed by economic activity and for each country. The results of scenario 1 are presented in Table 3. While performing the analysis for scenario 2, the total fall is about 30 to 40 percent for each economic activity for each country.
### TABLE 3. Contribution to the drop in economic growth for Scenario 1 (percentage points)

<table>
<thead>
<tr>
<th>Economic Activity</th>
<th>BE</th>
<th>GT</th>
<th>SV</th>
<th>HN</th>
<th>NI</th>
<th>CR</th>
<th>PA</th>
<th>DO</th>
<th>CA</th>
<th>AR</th>
<th>CO</th>
<th>MX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>(0.6)</td>
<td>(0.7)</td>
<td>(0.9)</td>
<td>(1.1)</td>
<td>(0.9)</td>
<td>(0.8)</td>
<td>(3.4)</td>
<td>(1.7)</td>
<td>(1.5)</td>
<td>(0.8)</td>
<td>(1.2)</td>
<td>(1.3)</td>
</tr>
<tr>
<td>Commerce</td>
<td>(1.8)</td>
<td>(1.7)</td>
<td>(1.4)</td>
<td>(1.3)</td>
<td>(1.1)</td>
<td>(1.3)</td>
<td>(2.5)</td>
<td>(0.9)</td>
<td>(1.5)</td>
<td>(1.5)</td>
<td>(1.0)</td>
<td>(2.0)</td>
</tr>
<tr>
<td>Hotels and restaurants</td>
<td>(2.5)</td>
<td>(1.0)</td>
<td>(1.0)</td>
<td>(1.1)</td>
<td>(1.1)</td>
<td>(1.2)</td>
<td>(1.4)</td>
<td>(2.8)</td>
<td>(1.6)</td>
<td>(0.8)</td>
<td>(1.4)</td>
<td>(0.8)</td>
</tr>
<tr>
<td>Transport</td>
<td>(0.9)</td>
<td>(0.4)</td>
<td>(0.9)</td>
<td>(0.7)</td>
<td>(0.4)</td>
<td>(0.6)</td>
<td>(0.5)</td>
<td>(1.5)</td>
<td>(0.8)</td>
<td>(0.7)</td>
<td>(0.9)</td>
<td>(1.0)</td>
</tr>
<tr>
<td>Financial intermediation</td>
<td>(1.7)</td>
<td>(0.5)</td>
<td>(0.9)</td>
<td>(1.2)</td>
<td>(0.8)</td>
<td>(0.6)</td>
<td>(0.9)</td>
<td>(0.8)</td>
<td>(0.8)</td>
<td>(0.5)</td>
<td>(0.8)</td>
<td>(0.6)</td>
</tr>
<tr>
<td>Entertainment and other services</td>
<td>n.d.</td>
<td>(0.5)</td>
<td>n.d.</td>
<td>n.d.</td>
<td>(0.9)</td>
<td>n.d.</td>
<td>n.d.</td>
<td>(0.3)</td>
<td>(0.2)</td>
<td>(0.3)</td>
<td>(0.1)</td>
<td></td>
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</table>

**Total Drop Scenario 1**

<table>
<thead>
<tr>
<th></th>
<th>BE</th>
<th>GT</th>
<th>SV</th>
<th>HN</th>
<th>NI</th>
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<th>CA</th>
<th>AR</th>
<th>CO</th>
<th>MX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base scenario growth (SO)</td>
<td>2.1</td>
<td>3.5</td>
<td>2.3</td>
<td>3.5</td>
<td>(0.8)</td>
<td>2.5</td>
<td>5.5</td>
<td>5.2</td>
<td>3.9</td>
<td>(1.3)</td>
<td>3.6</td>
<td>1.3</td>
</tr>
<tr>
<td>Estimated growth scenario 1 (SI)</td>
<td>(5.4)</td>
<td>(1.3)</td>
<td>(3.3)</td>
<td>(1.8)</td>
<td>(5.1)</td>
<td>(2.9)</td>
<td>(3.2)</td>
<td>(2.4)</td>
<td>(2.5)</td>
<td>(5.7)</td>
<td>(2.0)</td>
<td>(4.4)</td>
</tr>
</tbody>
</table>

**Source:** Estimates made by the Chief Economist Office, CABI.

### TABLE 4. Contribution to the drop in economic growth for Scenario 1 (percentage)

<table>
<thead>
<tr>
<th>Economic Activities</th>
<th>BE</th>
<th>GT</th>
<th>SV</th>
<th>HN</th>
<th>NI</th>
<th>CR</th>
<th>PA</th>
<th>DO</th>
<th>CA</th>
<th>AR</th>
<th>CO</th>
<th>MX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>8.5</td>
<td>15.3</td>
<td>16.8</td>
<td>20.2</td>
<td>20.0</td>
<td>15.3</td>
<td>39.0</td>
<td>22.3</td>
<td>21.6</td>
<td>17.0</td>
<td>20.8</td>
<td>22.3</td>
</tr>
<tr>
<td>Commerce</td>
<td>23.7</td>
<td>35.6</td>
<td>25.0</td>
<td>24.2</td>
<td>25.5</td>
<td>23.2</td>
<td>28.7</td>
<td>11.5</td>
<td>23.9</td>
<td>33.7</td>
<td>17.3</td>
<td>34.6</td>
</tr>
<tr>
<td>Hotels and restaurants</td>
<td>33.8</td>
<td>21.4</td>
<td>18.8</td>
<td>21.2</td>
<td>26.2</td>
<td>21.7</td>
<td>15.7</td>
<td>36.8</td>
<td>25.0</td>
<td>17.4</td>
<td>25.6</td>
<td>14.4</td>
</tr>
<tr>
<td>Transport</td>
<td>11.9</td>
<td>7.4</td>
<td>16.2</td>
<td>12.6</td>
<td>9.5</td>
<td>11.7</td>
<td>5.9</td>
<td>19.4</td>
<td>12.3</td>
<td>16.7</td>
<td>16.3</td>
<td>17.3</td>
</tr>
<tr>
<td>Financial intermediation</td>
<td>22.2</td>
<td>10.4</td>
<td>16.7</td>
<td>21.9</td>
<td>18.8</td>
<td>11.1</td>
<td>10.7</td>
<td>12.3</td>
<td>10.8</td>
<td>14.4</td>
<td>10.2</td>
<td></td>
</tr>
<tr>
<td>Entertainment and other services</td>
<td>n.d.</td>
<td>9.9</td>
<td>6.6</td>
<td>n.d.</td>
<td>n.d.</td>
<td>16.9</td>
<td>n.d.</td>
<td>n.d.</td>
<td>5.0</td>
<td>4.5</td>
<td>5.6</td>
<td>1.3</td>
</tr>
</tbody>
</table>

**TOTAL**

100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0

**Source:** Estimates made by the Chief Economist Office, CABI.
21. The cumulative drop in scenario 1 shows for example a -6.4 percentage point drop for Central America, which, when adjusted by the baseline scenario, translates into a drop for GDP growth of -2.5 percent by 2020. The highest negative contributions come from hotels and restaurants, and commercial and construction activities; all of these being the most affected by border closings, curfews and social isolation. From a country perspective, a heterogeneous dynamic is observed, with Belize and the Dominican Republic being the highest, but with results for economic recession ranging from -5.4 and -1.3 percent, respectively. It is worth noting that the magnitude of the marginal contribution at the country level is consistent with the relative participation of each activity with respect to GDP.

22. Economic slowdown due to the economic effects of COVID-19 will negatively impact central government incomes. Additionally, fiscal efforts to alleviate the emergency will increase expenses, affecting in turn public sector fiscal balances. Thus, a fall in GDP and a deteriorated primary fiscal balance will have a negative effect on the debt to GDP ratio, under the assumption that the government will acquire new debt to finance new expenses.

23. To measure the impact of the crisis on the level of public indebtedness, the effect on the debt-to-GDP ratio of 2020 is modeled by using both the fall in economic growth from scenarios (S1) and (S2) as well as the deterioration of the primary fiscal balance. The following assumptions were considered for this exercise.

- The effect of slower economic growth on the primary fiscal balance was estimated. Specifically, the fall in the variable of total central government revenues to GDP between 2008 and 2009 was calculated, under the assumption that, at least, it will have an impact on fiscal revenues of 2020 similar to the world economic and financial crisis of 2008-09.

- To calculate the effect on current spending on GDP, the same methodology proposed for total central government revenues was used.

- The fall in total revenues/increase in central government spending to GDP was subtracted/added to the primary fiscal balance of the base scenario (S0). With this, the primary fiscal balance of scenario 2 was obtained. It is assumed that the primary fiscal balance of scenario 1 would be half of that calculated for scenario 2.

- For each scenario, the estimated GDP for each country, summarized in Figure 3, was used.

24. Once the assumptions were defined, the debt to GDP for each country was calculated using the following dynamic debt accumulation equation.

\[
d_t = \frac{\alpha (1 + r^d_t)}{(1 + g_t)} + (1 - \alpha) \frac{(1 + r^f_t)(1 + \Delta c)}{(1 + g_t)} d_{t-1} - sp_t
\]

- \(d\): Debt to GDP.
- \(\alpha\): Local debt participation.
- \((1-\alpha)\): Foreign debt participation.
- \(r^d\): Interest rate for local debt.
- \(r^f\): Interest rate for foreign debt.
- \(g\): GDP growth.
- \(sp\): Primary fiscal balance.

25. The main results indicate the following (see Table 5):

- The average increase in the debt to GDP ratio for the Central American region is **4.7 percentage points** in S1.

- The average increase in the debt to GDP ratio for the Central American region is **7.6 percentage points** in S2.

- Extra-regional partners, Argentina, Colombia and Mexico under scenario 1, show an increase of **6.2, 3.1 and 3.3 percentage points**, respectively.

- In the case of extra-regional partners, Argentina, Colombia and Mexico under scenario 2, show an increase of **9.0, 4.3 and 4.8 percentage points**, respectively.
TABLE 5. Central America, Argentina, Colombia and México: Estimated increase in debt to GDP ratio 2020 (percentage points)

<table>
<thead>
<tr>
<th>Concepts</th>
<th>GT</th>
<th>SV</th>
<th>HN</th>
<th>NI</th>
<th>CR</th>
<th>PA</th>
<th>DO</th>
<th>CA</th>
<th>AR</th>
<th>CO</th>
<th>MX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario 1</td>
<td>2.3</td>
<td>6.9</td>
<td>4.6</td>
<td>3.5</td>
<td>5.5</td>
<td>5.5</td>
<td>4.6</td>
<td>4.7</td>
<td>6.2</td>
<td>3.1</td>
<td>3.3</td>
</tr>
<tr>
<td>Scenario 2</td>
<td>4.8</td>
<td>9.8</td>
<td>7.1</td>
<td>4.5</td>
<td>9.5</td>
<td>10.7</td>
<td>6.9</td>
<td>7.6</td>
<td>9.0</td>
<td>4.3</td>
<td>4.8</td>
</tr>
<tr>
<td>Average</td>
<td>3.6</td>
<td>8.4</td>
<td>5.9</td>
<td>4.0</td>
<td>7.5</td>
<td>8.1</td>
<td>5.7</td>
<td>6.2</td>
<td>7.6</td>
<td>3.7</td>
<td>4.1</td>
</tr>
</tbody>
</table>

Note: Estimate for Central America is calculated as the simple average.
Source: Estimates made by the Chief Economist Office, CABI.

26. The increase in public debt to meet the health emergency caused by COVID-19, will most likely generate the displacement of public investment spending during 2020, and consequently less fiscal space to finance new productive investment projects in the future. Given the above, governments will have to manage alternative ways to continue making progress in addressing the existing gaps in public investment, within the framework of the economic recovery plan 2021, thus avoiding the drop in competitiveness associated with the decrease in the supply of productive infrastructure.
FIGURE 4. Central America, Colombia and México: Debt to GDP ratio estimated path, base scenario, scenario 1 and 2 (percentage)

Notes: Base corresponds to the scenario carried out prior to the outbreak of COVID-19. Argentina’s public debt is not projected since the government is managing its restructuring.
Source: Estimates made by the Chief Economist Office, CABEI.
27. Systemic and structural stress caused by COVID-19 has pressed on governments to implement policy responses to ameliorate the economic impact. Policymakers must make decisions as well as design, analyze and implement policies under time constraints, and without fully accounting for every possible effect; such is the case of the tradeoffs between sanitary measures and its macroeconomic effects. In this context, CABEI’s member countries have adopted a wide array of fiscal and monetary policy measures.

TABLE 6. Summary of fiscal and monetary measures

<table>
<thead>
<tr>
<th>Fiscal policy</th>
<th>Monetary policy</th>
<th>Economic recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Purchase of medical supplies.</td>
<td>• Monetary policy loosening to provide liquidity and stability to financial system.</td>
<td>• Country publicity campaigns.</td>
</tr>
<tr>
<td>• Funds to provide loans under favorable conditions to firms.</td>
<td>• Policy rate cuts.</td>
<td>• Local and Foreign investment attraction strategy partnering with each country investment agencies.</td>
</tr>
<tr>
<td>• Moratorium on utilities payments.</td>
<td>• Lowering of reserve requirements to maintain credit flow.</td>
<td>• Adoption of measures to facilitate restart operations by existing businesses and new firms’ entry.</td>
</tr>
<tr>
<td>• Moratorium/tax holiday of value added tax.</td>
<td>• Adjustments of credit rating rules to minimize impact on banks portfolios.</td>
<td>• Enhance competitiveness agency to improve productivity country wide.</td>
</tr>
<tr>
<td>• Discount/extension of due dates for income tax payments.</td>
<td>• Freeze on debt service, interest payments and debt restructuring.</td>
<td></td>
</tr>
<tr>
<td>• Moratorium/holiday of specific taxes (for example: tourism, air transport, etc)</td>
<td>• Low interest loans to financial sector.</td>
<td></td>
</tr>
<tr>
<td>• Temporary reduction or abolition of tariffs for essential products such as food/medical supplies/ medicine.</td>
<td>• Future markets, repos and swap lines with Federal Reserve.</td>
<td></td>
</tr>
<tr>
<td>• Holiday on social security contributions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Monetary transfers to vulnerable groups.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Office of the Chief Economist, CABEI.

14 The analysis covers the SICA countries and the regional partners Argentina, Colombia and Mexico.
28. Fiscal policy measures size varies between countries from 1.0 and 3.25 percent of GDP. Main policy actions such as monetary transfers to vulnerable groups or food delivery, purchase of medical supplies, creation of fund to provide loans under favorable conditions to businesses. Alongside these other complementary policies are moratorium on tax payments, rents and social insurance. Among CABEIS’s member countries there is some homogeneity and countries have implemented similar strategies to minimize COVID-19 economic impact. Although, little action has been taken to promote labor hoarding (through policies like wage subsidies) from existing firms that have had to shut down during the sanitary measures.

29. On the other hand, actions to loosen monetary policy and provide liquidity to the market and ensure financial system stability have been taken. In order to achieve this, policy rates have been cut, reserve requirements to banks have been lowered to maintain credit flows, also modification of norms related to credit rating to lower negative effect on banks portfolio’s. Other measures include freeze on credit and interest payments, grace periods for firms to adjust to the crisis. Additional actions have been taken by extra regional member countries such as using future markets, repos, and when possible opening a swap line with Federal Reserve.

GUATEMALA

30. Authorities approved the “Economic Rescue Law” which includes fiscal measures that account for 2.0 percent of GDP. Programs to be implemented include monetary transfers, creation of a fund to subsidize suspended employees and a fund to make working capital loans to individuals and firms. Also, Guatemala’s Central Bank reduced the policy rate by 75 bp to 2.0 percent and it has undertaken interventions on the foreign exchange market following its policy change. The Monetary Board also approved a temporary regulation concerning credit risk for restructuring loans, a moratorium on debt service and a use of generic provisions.

EL SALVADOR

31. Authorities have implemented measures such as an increase in health workers wages, a one-time subsidy to 60.0 percent of households, and a 3-month moratorium on utilities payments. Also, the due date for income tax payment has been moved forward 3 months for firms in the tourism sector that make less than US$ 25,000.0 and an exemption of special tourism tax. Additionally, a temporary suspension of tariffs for imports of food and medicine has been approved. Government has adopted a 25.0 percent reduction on reserve requirement for new credits, a freeze on credit ratings, and a temporary relaxation on credit conditions through a grace period for loan repayment.

HONDURAS

32. Government approved a fiscal package that accounts for 0.6 percent of GDP directed towards the purchase of medical inputs, building of temporary hospitals, hiring health personnel and providing food to 800,000 families. Alongside, the Economic Rescue Law was approved, which postpones taxes and social benefits to the second semester of 2020 in support to small and medium enterprises, also a 10.0 percent discount to income taxes was approved for firms that maintain its previous employment levels and extended unemployment benefits to formal workers (around 0.3 percent of GDP). Another law was approved to increase health infrastructure expenditures (1.6 percent of GDP), and a budget extension will allow government to acquire new debt, as much as 10 percent of GDP.

NICARAGUA

34. The Central Bank cut repo reference rate by 75.0 bp. Additionally, it cut the rate on the monetary deposits window by 60.0 bp.

COSTA RICA

35. Authorities have announced fiscal measures such as a 3-month moratorium on value added tax payments, income tax, custom charges and social security contributions. Additionally, a 4-month moratorium on tourism specific tax has been implemented. Finally, a subsidy to 375,000 households has been approved and a freeze in public sector wages increases (less police) in order to direct more resources to the crisis.

36. Costa Rica’s Central Bank cut policy rate by 100 bp to 1.25 percent, reduced the cost of credit, relaxed regulation concerning debt restructuring and repurchase, bestowed a 3-month moratorium on debt service and interest payments, reduced requirements related to minimum counter cyclical provisions for financial entities and authorized pension funds to provide partial funds to affected employees. The exchange rate has been let to float and the Central Bank intervenes when it considers it necessary to avoid imbalances.

15 To be financed by employers, government and social security.
**PANAMA**

37. Authorities approved a fiscal package of around 3.25 percent of GDP. Main actions are the building of a new hospital, medical inputs purchases, educational materials purchases, payment to informal employees and to small business owners, postponement of due dates for tax payments and a 4-month suspension of public services payments for persons earning less than US$2,000, retirees and the unemployed. Congress approved a law to allow government to make use of resources from Panama’s Savings Funds (assets are equivalent to US$1,300 millions).

38. Banks Superintendence allowed Banks to use accumulated dynamic provisioning (approximately 2.0 percent of GDP) to absorb the impact of credit losses. It has also allowed banks to restructure loans to troubled borrowers by adjusting current loan conditions (granting grace periods, reducing interest rates, eliminating fees).

**DOMINICAN REPUBLIC**

39. Authorities approved a fiscal package of 2.5 percent of GDP. Principal measures include an increase in health expenditures, money transfers to 811,000 families, a US$153 payment to workers affected by emergency, and a postponement of due dates for paying taxes.

40. The Central Bank cut policy rate from 4.5 to 3.5 percent, repo 1-day reference rate from 6.0 to 4.5 percent, overnight rate from 3.0 to 2.5 percent, reduced bank’s reserve requirements to 2% and included provisions for households and businesses preference with a maximum rate of 8.0 percent. Other measures adopted are debt relief by temporary freezing credit ratings for debtors, in case of refinancing credit rating is maintained and there is a 90-day period for debtors to update guarantees. The Central Bank has intervened on the exchange rate market to avoid imbalances.

42. The Central Bank aims to encourage bank loans through less reserve requirements for household, small and medium enterprises loans. Also, regulations that limit the Central Bank’s holdings of bank paper have been adjusted in order to promote more loans for SME’s, temporary reduction on bank provisioning and relaxation of rules of credit rating for bank loans and the refusal of credit to firms with delays on payroll tax.

**COLOMBIA**

43. The Emergency Mitigation fund will be financed by regional and stabilization funds. Additional support will be provided for the health sector and expeditious hiring for emergency related services. A new credit line has been created to support tourism firms, also new lines for payroll payment and loans for SME’s. Delayed tax collection for firms in the tourism and air transport industry were authorized, as well a delay in public services payments for poor households. A reduction in tariffs on strategic imports related to health and selected food industry has been approved, and there have disbursed money transfers for vulnerable groups have been disbursed.

44. The Central Bank cut policy rate by 50 bp and has implemented other measures to ensure liquidity on the financial and foreign exchange market. These include: (i) extension of long-term liquidity access and administered funds facilities to brokerage companies, trust funds and investment companies. (ii) and expansion of liquidity operations (repos); (iii) 10 billion program to buy securities issued by credit entities and (iv) 2 billion purchases of TES.

**MEXICO**

45. The government announced: 1) it will ensure enough resources to buy medical supplies by the Ministry of Health; 2) anticipated pension payment to retirees; 3) accelerate hiring and procurement processes to guarantee full budget execution; 4) consider the creation of a Health Emergency Fund to apply for additional resources accounting for 0.7 percent of GDP.

46. The Central Bank cut policy rate by 50 bp to 6.5 percent; performed several operations with government bonds to shorten maturity. Additionally, it announced measures to provide liquidity in MXN and US$ to the financial system and improve local financial markets functioning, such as: 1) reduction in required deposit on Banxico (around 15.0 percent of actual securities); 2) reduced by half the cost of repos; 3) installed a US$60 billion line with the FED; 4) enhanced the creation of a government bond market. Adjusted temporary accounting rules for banks and other financial institutions to facilitate debt restructuring; advised for suspension of dividend payments and stocks repurchasing.

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16 This fund was increased to 1.5 million families, who will receive a monthly payment of US $36, until May 31, 2020.
Worldwide, the COVID-19 pandemic has forced practically all the countries of the world to take measures to prevent, contain, and mitigate the contagion that, collateral, have affected the world economy. Short term impact of such measures is a sudden halt in global production, resulting in interruptions of global value chains, as well as a downward trend in household demand for services and disruptions in financial markets. Governments have already started to implement monetary and fiscal policies to ameliorate the economic impact.

Economic consequences will be mainly transferred through the external sector, given that economies are now more than ever interconnected with each other, but the impact is magnified by the necessary national measures to restrain mobility and foster social distancing. The external sector will be the main channel of transmission, affecting commerce, tourism and remittance flows; the shock will also have a negative impact on investment, aggregate demand, construction and transport. The cascading of events will call for public policies from governments with important fiscal pressure, and the counter-cyclical monetary policies could potentially result in increased indebtedness levels.

This is an unprecedented crisis where uncertainty about the duration of social distancing and isolation policies limits prospective analysis on how large the economic impact is going to be. However, in order to inform and guide CABEI management decisions, estimates have been made for two scenarios assuming an absolute halt of production in previously defined sensitive sectors, with an alternative duration of two and three months, and of four months for the activity of hotels and restaurants (in both scenarios); giving as a result that estimated GDP growth in 2020 ranges between -2.5 and -4.9 percent for Central America. Argentina’s estimates are between 6.2 and 9.0 percentage points, Colombia between 3.1 and 4.3, and México between 3.3 and 4.8. Given these potential outcomes, governments, multilateral organizations and risk rating agencies will have to be more flexible when considering future support for countries or performing macroeconomic stability analysis.

Countries public policy response includes on the fiscal aspect monetary transfers to vulnerable groups, loans under favorable conditions to firms and purchases of medical inputs. Additional measures are moratorium on tax, social security and rents payments. Monetary policy responses have focused on maintaining liquidity and credit flows, through cuts in policy rates, accompanied of temporary changes in banks regulations like lower reserve requirements, credit rating criteria, interest payment freeze and facilities for debt restructuring.

Health measures deployed by countries to fight COVID-19 emergencies will result in bigger government expenditures, lower economic activity and a fall on tax revenue. Thus, depending on how aggressive fiscal policies are to ameliorate the economic consequences, the higher the likelihood that public debt will rise. An estimate of debt dynamics for each of the countries under analysis has been performed, using the GDP growth scenarios resulting from the previous exercise. The model yields debt-to-GDP ratios rising between 4.7 and 7.6 percentage points in 2020 for the Central America region.
BIBLIOGRAPHY


