
# MENA Crisis Tracker – 9/20/2021

The MENA Crisis Tracker is a weekly newsletter that provides information on public health indicators, expected economy-wide losses, and social consequences of the ongoing COVID-19 crisis in the Middle East and North Africa. COVID-19's spread, fatality, and economic costs are particularly difficult to ascertain when testing is far from universal. Data transparency is key to facilitate context-specific policy responses, which require tradeoffs between public health outcomes and socio-economic conditions in the short run. But publicly available data must be interpreted with caution because testing is far from universal. In addition to presenting COVID-19 related indicators with caveats, the Tracker provides links to publicly available research on the economics of the pandemic and potential policy responses.

Highlights from this edition:

- **Missing Data Alert**: In the absence of universal testing, general mortality rates during 2021 can be compared to pre-pandemic mortality as a proxy for the public health consequences of the pandemic. Unfortunately, MENA countries do not offer publicly available data on deaths.
- High-income MENA countries lead in testing per capita – see Public Health Tracker. Testing data for Algeria, Yemen, and Syria has been updated using Worldometer data, but WB staff cannot corroborate the information using official government sources. Many MENA countries have positivity rates above the WHO's recommendation of 5% or lower.
- The Tracker presents information on vaccination efforts across MENA. See last section under Public Health Tracker.
- Global evidence indicates that testing per person tends to rise with income per capita, after controlling for population size and the quality of public health systems. This finding confirms that developing economies are at a disadvantage relative to rich countries. See What Is Correlated with Testing per Capita.
- Expected macroeconomic losses due to the pandemic have surged since March 2020, reaching 6.6% of MENA's 2019 GDP as of August 1st, 2021 relative to the counterfactual scenario of no crisis. The expected GDP losses are highest for Lebanon, with an expected accumulated loss in 2021 equivalent to 29.2% of its 2019 GDP. See Macroeconomic Costs.
- The economic losses have increased poverty relative to the counterfactual scenario without the crisis. Yet estimates of increases in the number of poor people might be underestimated. See Poverty and Social Costs.
- In many MENA countries, food prices have risen by more than 20 percent since February 14th, 2020. See Insights from the MENA Welfare Observatory.
- Insights from Academia includes two new papers: one paper on policies to manage debt surges that finds that no policy options are without political, economic and social costs; and a second paper that investigates the effect of de jure globalization policies on FDI in the GCC and finds a significant positive effect of economic and social globalization on FDI inflows but a significant negative effect of political globalization.


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# I. Public Health Tracker

Under the hypothetical of universal testing, the spread of the virus is measured by the number of COVID-19 cases per capita, and its fatality rate is tracked by the number of deaths per capita. Given that the incidence of testing around the world and in MENA is far from universal, indicators of the spread are neither strictly reliable nor comparable across countries. In fact, it is likely that countries with more widespread testing will present higher rates of spread and fatality. Hence the degree of testing itself must be tracked to put the indicators of the spread and deaths in perspective. Testing is tracked by two indicators: the number of tests per capita and the test positivity rate (number of positive cases over total tests) which tends to decline with the incidence of testing. Table 1 provides a summary of the indicators and their caveats.

**Table 1: Summary of Public Health Indicators**

| | Indicator | Caveats |
|---|---|---|
| **Testing** | Tests per capita | Testing data is sparse for some economies |
| | Test positivity rate (number of positive cases over total tests) | Emerging rule-of-thumb: Test-positivity rate should be below 5 percent |
| **Spread** | Number of COVID-19 cases per capita | Testing is not universal; many cases may be missed |
| **Fatality** | Deaths due to COVID-19 per capita | COVID-19 deaths may be misattributed, or at-home deaths may be missed; deaths may be underestimated |

**Missing data alert**: Given that testing is not universal, an arguably more trustworthy indicator of the fatality rate is the difference between total deaths reported during the spread and pre-pandemic mortality trends. Currently, most MENA countries do not provide readily accessible historical or recent data on the number of deaths (due to any cause). This alone indicates that MENA faces a transparency challenge.

Another caveat to keep in mind is that each country may be at a different stage of the pandemic. A country may seem to be faring better than another, although at the peak of the outbreak it may suffer more. Without universal testing, the true spread of the virus can only be understood by random population testing.[1][2] Notably, reported numbers are susceptible to selection bias, since it is common for only those with symptoms to be tested. Random population testing has only been undertaken in a few places. In New York State, random testing of 3000 individuals revealed that 14 percent were carriers of the COVID-19 antibody as of April 23.[3] In Indiana, random population

[1] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7138654/

[2] https://www.medrxiv.org/content/10.1101/2020.04.09.20059360v2

[3] https://www.reuters.com/article/us-health-coronavirus-usa-new-york-idUSKCN2252WN

testing in April suggested that the virus had a 2.8% prevalence rate in the state, implying that for every officially reported case of COVID-19, 10 cases were unreported.[4] In a state in southern Brazil, a program was launched to randomly test 18,000 people. A significant upward trend was observed over the course of three surveys, with an increase in seroprevalence from 0.135% in the first round to 0.222% in the third during the early days since the arrival of the virus in southern Brazil. [5]

In the MENA Region, few studies have tried to assess the seroprevalence of antibodies against SARS-CoV-2. In Al-Madinah, Saudi Arabia, after studying samples from 1,212 healthy blood donors between mid-May and mid-July, 2020, a study showed a seroprevalence of 19.3%.[6] In Iran, and based on a larger sample size of 8,902 individuals, random testing conducted between April and June 2020 showed a seropositivity rate of 17.1%.[7] A second study conducted in Iran's Guilan province during April 2020, based on 551 individuals, exposed an even higher seroprevalence of 22%.[8] However, it is important to notice that seropositivity rates may largely vary depending on the population and the surrounding circumstances. In Jordan, after studying 746 healthy blood donors living under strict lockdown measures between January and June 2020, it was found that none of the individuals carried COVID-19 antibodies. Still, it is possible that the spread of the virus could be much higher than reported by official statistics.

**News Highlights**:

- Fewer Covid-19 cases in Middle East, but situation is fragile, says WHO.
- Saudi Arabia leads regional adoption of online shopping post-pandemic.
- Middle East's First Expo to Open in Dubai Under Shadow of Pandemic.
- Iran approves U.S. firm J&J's shot as it fights fifth Covid wave.
- UAE central bank sees COVID-19 increasing money-laundering risks.

[4] https://www.medrxiv.org/content/10.1101/2020.04.09.20059360v2

[5] https://www.nature.com/articles/s41591-020-0992-3

[6] https://www.sciencedirect.com/science/article/pii/S1319562X20306641

[7] https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(20)30858-6/fulltext

[8] https://www.medrxiv.org/content/10.1101/2020.04.26.20079244v1

The information below covers data for the date ending: September 20, 2021.

## 1. Testing as of September 20, 2021.

Table 2 presents each country's tests per million of population and the test-positivity rate. Test positivity rates have improved slightly in a few countries yet remained largely unchanged in most countries since January 2021. A high test-positivity rate implies that testing is selective and that it is insufficient relative to the spread of the disease.

Based on last week's data, Arabian gulf countries continue to lead the region in terms of having the highest tests per million and low-test positivity rates in the region, specifically the UAE (8,036,149) and Bahrain (3,535,059) as previously, and now Oman (4,749,201) due to recent resumption of data releases. Notably, three countries have consistently lacked testing data over the course of the pandemic: Syria, Algeria and Yemen. Algeria last reported its testing data in May 2020 when its test positivity rate was 108 percent. Yemen's tests per million of population remained constant between May and September 2020 and, given that its test positivity rate exceeded 100 percent throughout that period, it appears to have been selectively testing, and reporting untested or probable cases of COVID-19. Syria is the only country that has not published any testing data since the beginning of the pandemic. The three countries above have not been providing official updates on testing data. While the Worldometer database has recently updated testing data for these three countries, World Bank staff are unable to corroborate this data from the Worldometer database using official, government sources.

Lebanon has not released new testing data since September 6th, 2021; Both Oman and Iran have not released new testing data in the previous week (since September 13th, 2021).

**Table 2. COVID-19 Tests per Million of Population as of September 20, 2021**

| Country | Tests/1M | Total Tests | Tests last week | Cases/Tests |
|---|---|---|---|---|
| United Arab Emirates | 8,036,149 | 80,647,472 | 2,310,243 | 1 |
| Oman | 4,749,201 | 25,000,000 | - | 1 |
| Bahrain | 3,535,059 | 6,268,158 | 116,044 | 4 |
| Jordan | 946,650 | 9,775,341 | 194,033 | 8 |
| Kuwait | 931,654 | 4,050,151 | 105,759 | 10 |
| Qatar | 927,902 | 2,605,369 | 37,140 | 9 |
| Saudi Arabia | 800,303 | 28,388,496 | 330,009 | 2 |
| Lebanon | 704,201 | 4,780,275 | - | 13 |
| West Bank and Gaza | 452,469 | 2,373,297 | 58,984 | 16 |
| Iraq | 362,282 | 14,968,455 | 205,126 | 13 |
| Iran | 353,155 | 30,123,729 | - | 18 |
| Morocco | 254,076 | 9,513,141 | 159,132 | 10 |
| Tunisia | 238,565 | 2,855,364 | 124,549 | 25 |
| Libya | 231,798 | 1,619,061 | 31,967 | 20 |
| Djibouti | 213,518 | 214,681 | 3,042 | 6 |
| Egypt* | 35,284 | 3,693,367 | 624,688 | 8 |
| Yemen* | 8,662 | 265,253 | - | 3 |
| Syria* | 5,749 | 103,566 | - | 30 |
| Algeria* | 5,152 | 230,861 | - | 87 |
| **MENA Region** | **495,590** | **227,476,037** | **4,300,716** | **6** |

Source: Authors' calculations based on data from Worldometer (https://www.worldometers.info/coronavirus/). Color coordination done as follows: 0-5% Green, 6-10% Yellow, 11-19% Orange, 20% + Red. "-" means data is not currently available. Countries should aim to be below the 5 percent test positivity rate threshold, according to a May 12th advisory statement by the World Health Organization. * = World Bank staff have not been able to corroborate the data reported in the Worldometer database.

## 2. Spread of COVID-19 as of September 20, 2021

Table 3 presents the number of reported COVID-19 cases per million of population, cases in the past week and percentage change in cases last week compared to the preceding week. Bahrain (154,677), Kuwait (94,583), Lebanon (91,081) and Qatar (83,869) have the highest rates, although. all four posted percentage reductions in weekly cases (-29%, -10%, -22% and -21%, respectively).

In countries with ongoing conflicts such as Iraq, Libya, Syria, and Yemen, weak testing capacity could often lead to fewer reported positive cases and paint a potentially misleading picture of low spread. Nonetheless, Syria reported a moderate increase in positive cases (27%) last week

compared with the preceding week, while Yemen (-17%), Libya (-18%) and Iraq (-27%) reported moderate decreases in positive cases. Seven other MENA countries reported decreases in Covid cases compared to the preceding week, ranging from -9% in West Bank and Gaza, to -32% in the United Arab Emirates. Jordan (2%), Tunisia (36%) and Egypt (38%) reported a low to moderate increases in weekly covid cases, whereas Djibouti reported an elevated increase (117%) in cases.

**Table 3. Total Cases per Million Population as of September 20, 2021**

| Country | Cases/1M | Total Cases | Cases Last Week | Cases last week relative to previous week |
|---|---|---|---|---|
| Bahrain | 154,677 | 274,264 | 521 | -29% |
| Kuwait | 94,583 | 411,180 | 396 | -10% |
| Lebanon | 91,081 | 618,278 | 4,780 | -22% |
| Qatar | 83,869 | 235,487 | 845 | -21% |
| Jordan | 78,790 | 813,601 | 6,217 | 2% |
| West Bank and Gaza | 73,284 | 384,390 | 14,629 | -9% |
| United Arab Emirates | 73,009 | 732,690 | 3,804 | -32% |
| Iran | 63,598 | 5,424,835 | 129,049 | -22% |
| Tunisia | 58,479 | 699,928 | 14,909 | 36% |
| Oman | 57,641 | 303,423 | 318 | -27% |
| Iraq | 47,806 | 1,975,220 | 24,455 | -27% |
| Libya | 47,381 | 330,945 | 7,015 | -18% |
| Morocco | 24,563 | 919,681 | 15,034 | -27% |
| Saudi Arabia | 15,408 | 546,549 | 557 | -26% |
| Djibouti | 11,975 | 12,040 | 180 | 117% |
| Algeria | 4,499 | 201,600 | 1,532 | -26% |
| Egypt | 2,837 | 296,929 | 3,972 | 36% |
| Syria | 1,705 | 30,709 | 1,211 | 27% |
| Yemen | 283 | 8,667 | 253 | -17% |
| **MENA Region** | **30,981** | **14,220,416** | **229,677** | **-19%** |

Source: Authors' calculations based on data from Worldometer (https://www.worldometers.info/coronavirus/). Color coordination done as follows: Any % decrease is Green, 0-24% increase is Yellow, 25-49% increase is Orange, 50%+ is Red.

## 3. COVID-19 Fatality as of September 20, 2021

Table 4 shows the deaths per million of population, and the latest weeks percentage change in deaths relative to the preceding week. A limitation of this measure is that it may underreport deaths by not counting deaths that occur at home, or by misattributing COVID-19 deaths to other causes.

Due to either case, the numbers reported may be underestimates. Tunisia (2,048) has the highest rate in the region, followed by Iran (1,374) and Lebanon (1,213). These countries joined ten other MENA countries—Jordan, Oman, Libya, Iraq, Morocco, Saudi Arabia, Qatar, the UAE, and Algeria—in posting declines in Covid-related deaths this week relative to the previous week, ranging from -1% to -71%. West Bank and Gaza, Kuwait and Egypt had moderate increases, while Syria had an elevated increase from a relatively low base.

**Table 4. COVID-19 Fatality Rate – Deaths/Million population as of September 20, 2021**

| Country | Deaths/1M | Total Deaths | Deaths last week | Deaths last week relative to previous week |
|---|---|---|---|---|
| Tunisia | 2,048 | 24,510 | 305 | -21% |
| Iran | 1,374 | 117,182 | 2,871 | -21% |
| Lebanon | 1,213 | 8,236 | 44 | -52% |
| Jordan | 1,028 | 10,616 | 68 | -12% |
| Bahrain | 783 | 1,388 | 0 | - |
| Oman | 778 | 4,093 | 4 | -71% |
| West Bank and Gaza | 747 | 3,919 | 102 | 13% |
| Libya | 644 | 4,501 | 74 | -29% |
| Kuwait | 561 | 2,439 | 8 | 14% |
| Iraq | 528 | 21,822 | 326 | -18% |
| Morocco | 372 | 13,910 | 364 | -23% |
| Saudi Arabia | 244 | 8,661 | 38 | -14% |
| Qatar | 215 | 604 | 0 | -1 |
| United Arab Emirates | 207 | 2,075 | 13 | -19% |
| Egypt | 162 | 16,970 | 99 | 21% |
| Djibouti | 158 | 159 | 2 | - |
| Algeria | 127 | 5,694 | 116 | -27% |
| Syria | 118 | 2,127 | 50 | 32% |
| Yemen | 54 | 1,643 | 59 | -3% |
| **MENA Region** | **546** | **250,549** | **4,543** | **-20%** |

Source: Authors' calculations based on data from Worldometer (https://www.worldometers.info/coronavirus/). Color coordination done as follows: Any % decrease is Green, 0-24% increase is Yellow, 25-49% increase is Orange, 50%+ is Red. "—" indicates not applicable due to change from 0 cases the previous week.

## 4. COVID-19 Vaccinations as of September 20, 2021

Countries in the MENA region face mixed prospects of vaccine rollout in 2021-22. Arabian Gulf countries such as the UAE, Qatar, and Bahrain lead the region in the percent of the population vaccinated at 76.5%, 74%, and 62.5%, respectively (Table 5).

Data on vaccine doses administered has been inconsistent across the region. While most MENA countries have been consistently updating their vaccination numbers, other countries have been slow to release updated figures.

**Table 5. COVID-19 Vaccinations as of September 20, 2021**

| Country | % of population vaccinated | Cumulative COVID-19 vaccine doses administered | Vaccine Contracts | Vaccine clinical trial participation (Y/N) | Vaccine imports through COVAX Facility (Y/N) |
|---|---|---|---|---|---|
| Algeria | 9.4% | 9.99 million by September 12th | Sputnik V, AstraZeneca, and Sinopharm | N | Y |
| Bahrain | 63.2% | 2.54 million by September 19th | Pfizer and BioNTech, Sinopharm, AstraZeneca | Y | N |
| Djibouti | 2.6% | 66,010 by September 15th | Sputnik V | N | Y |
| Egypt | 4.1% | 11.99 million by September 15th | 40m from Sinopharm, AstraZeneca | Y | Y |
| Iran | 16.0% | 42.00 million by September 18th | Sputnik V | N | N |
| Iraq | 6.0% | 6.67 million by September 11th | 1.5m doses – Pfizer, Sinopharm, 1m Sputnik V | N | Y |
| Jordan | 31.0% | 6.81 million by September 19th | 3m doses - Pfizer and BioNTech | Y | Y |
| Kuwait | 21.3% | 2.38 million by July 3rd | 1m doses - Pfizer, BioNTech, AstraZeneca | N | Y |
| Lebanon | 17.9% | 2.72 million by September 19th | 2.1m Pfizer, AstraZeneca | N | Y |
| Libya | 1.9% | 1.38 million by September 15th | $9.6 million of vaccines contracted with WHO | N | N |
| Morocco | 45.2% | 37.24 million by September 14th | 65 million - Sinopharm and AstraZeneca | Y | Y |
| Oman | 31.1% | 4.34 million by September 13th | 370,000 Pfizer-BioNTech doses, AstraZeneca | N | N |
| Qatar | 75.7% | 4.65 million by September 18th | Pfizer-BioNTech and Moderna | N | Y |
| Saudi Arabia | 50.3% | 40.89 million by September 19th | Pfizer-BioNTech | Y | Y |
| Syria | 1.1% | 403,254 by August 30th | 5,000 doses received | N | Y |
| Tunisia | 26.2% | 7.02 million by September 19th | 2m doses – Pfizer, 1m Sputnik | N | Y |
| UAE | 80.3% | 19.45 million by September 19th | Sinopharm and Pfizer | Y | Y |
| West Bank & Gaza | 10.8% | 1.86 million by September 19th | 37,440 Pfizer and 24,000 AstraZeneca delivered through COVAX | N | Y |
| Yemen | 0.05% | 322,934 by September 12th | 2.3 million doses with COVAX | N | Y |

Source: Data on vaccination from Our World in Data (https://ourworldindata.org/covid-vaccinations). The Pfizer-BioNTech vaccine has been approved by the WHO for emergency use. Other vaccines have been approved on a national level as follows: Sinopharm in China, UAE, Bahrain, and Egypt; Sputnik V in Russia, West Bank and Gaza, Algeria, and Paraguay; AstraZeneca vaccine in the UK, India, Argentina, Morocco, Kuwait, and Mexico.

# II. What Is Correlated with Testing per Capita?

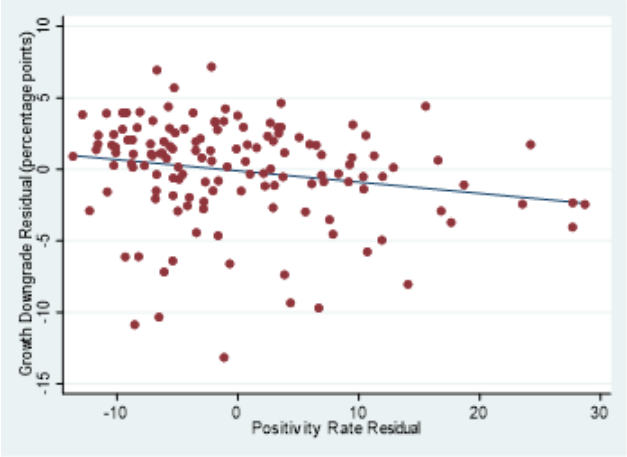
Using data on testing as of September 20, 2021 we can draw some insights about the correlates of testing across countries. The regression results reported in Table 6 below show that countries that are richer, have better health security and capabilities, or are smaller, tend to test more per capita. The regional fixed effects (not presented in Table 6) show that the Gulf Cooperation Countries group has the largest coefficient, followed by South Asia, then Europe and Central Asia. These are the only regions with statistically significant coefficients relative to East Asia and the Pacific. The conclusion is that richer countries test more, but there are no scale effects from being a larger economy. Arabian gulf countries on average appear to have more testing per capita than countries from other regions apart from South Asia after controlling for population size and GDP per capita.

**Table 6. Correlates of Testing per Capita – Scale vs. Per Capita Income**

| **Model** | **OLS** | | |
|---|---|---|---|
| **Outcome Variable** | **Log of Tests per Million of Population (as of September 20, 2021)** | | |
| | **(1)** | **(2)** | **(3)** |
| Log of GDP per capita (constant 2010 US$), 2018 | 0.736*** | 0.720*** | 0.572*** |
| | (0.085) | (0.087) | (0.087) |
| Log of Population, 2018 | -0.240*** | -0.268*** | -0.282*** |
| | (0.060) | (0.065) | (0.055) |
| Global Health Security Index, 2019 | 0.031*** | 0.030*** | 0.028*** |
| | (0.010) | (0.010) | (0.010) |
| Days since the 100th case (September 19, 2021) | | 0.001* | 0.001 |
| | | (0.001) | (0.001) |
| Constant | 8.661*** | 8.585*** | 10.315*** |
| | (1.180) | (1.178) | (1.094) |
| Region Fixed Effects | NO | NO | YES |
| Number of observations | 163 | 163 | 163 |
| Adjusted R2 | 0.724 | 0.725 | 0.768 |

note: *** p<0.01, ** p<0.05, * p<0.1, Robust Standard Errors. East Asia & Pacific omitted.

**Figure 1: Change in Forecasts October '20 - October '19 vs Total Positivity Rates (Cases/Tests %)**




Note: Y axis is the difference in growth projections (using IMF WEO data) for year 2020, October 2020 minus October 2019. X axis is the total positivity rate is a percentage calculated by dividing total number of cases by total number of tests (using Worldometer data). Sample includes all countries for which data is available.

On the right, we introduce several control variables: log of GDP per capita in 2019 (in USD, October 2020 WEO), total trade value in GDP in 2019 (percent), days since first positive case until Nov. 30, 2020 (JHU), and tourism as a % of export in 2018 (WDI).

| | Growth Downgrade (Oct 2020 minus Oct 2019) | |
|---|---|---|
| | -1 | -2 |
| Total positivity rate as of Dec 7, 2020 | -0.0309 | -0.0786*** |
| | -0.0337 | -0.0277 |
| Log of GDP per capita in 2019 | | -1.583*** |
| | | -0.458 |
| Tourism (% of exports in 2018) | | -0.126*** |
| | | -0.0187 |
| Trade (% of GDP in 2019) | | -0.0055 |
| | | -0.0045 |
| Days from the first confirmed case as Nov 30 | | -0.0038 |
| | | -0.0067 |
| Constant | -9.072*** | 1.296 |
| | -0.614 | -1.726 |
| Observations | 139 | 139 |
| R-square | 0.00413 | 0.389 |

Standard errors in parentheses
* p<0.10, ** p<0.05, *** p<0.01

The downward trendline in Figure 1 that demonstrates the relationship between change in growth forecasts and total test positivity rate reveals a negative correlation between the two variables. Using a global sample for which data is available, regression results indicate that, even after controlling for log of GDP, tourism, and trade, a higher test positivity rate means a lower GDP growth forecast. As reported in Table 6, countries that are more developed tend to have higher incidences of testing. Figure 1 shows that countries who have maintained a low overall test positivity rate are likely to have a growth forecast.

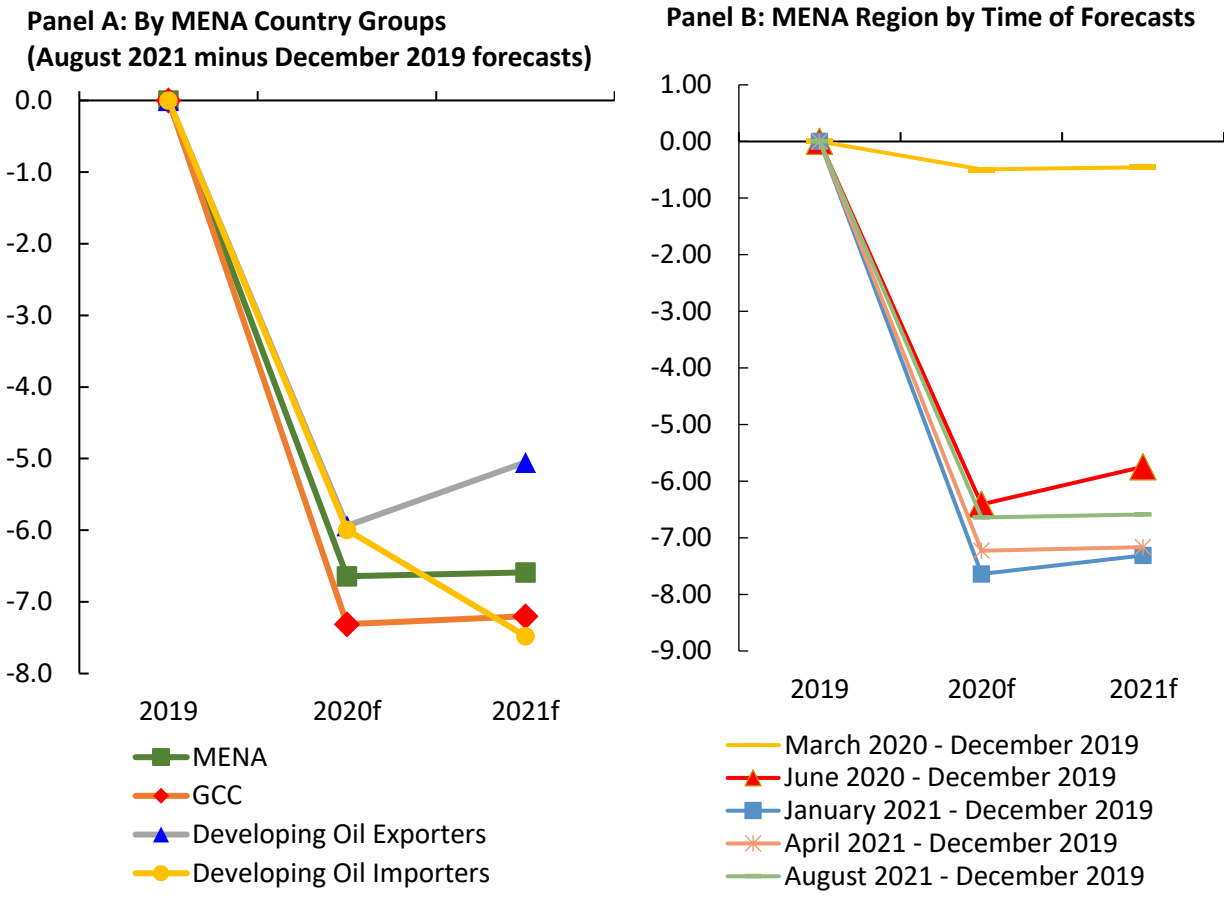
# III. Macroeconomic Costs

Updated consensus growth forecasts by the private sector were released on August 3rd, 2021 containing information available through August 1st, 2021. We compute the effect of the crisis on the level of economic activity (GDP) as the growth downgrade for 2020 plus the impact of the changes in growth forecasts for 2021. MENA's 2021 GDP level has been downgraded by 6.6 percentage points on average (see Panel A of Figure 2).

The largest GDP-level downgrade is seen in forecasts for Developing Oil Importers (7.5 percentage points lower than what was implied by the forecasts of December 2019), followed by GCC (7.2 percentage points) and Developing Oil Exporters (5.1 percentage points). These GDP-level downgrades can be interpreted as the expected macroeconomic costs of the COVID-19 pandemic and oil price collapse as a percent of MENA's 2019 GDP.

The expected GDP losses for 2021 have remained substantial as more information became available. In addition, the recovery in GDP level in 2021 will not be a V-shaped recovery (Panel B of Figure 2). The 2020 GDP level downgrade for MENA, using the baseline December 2019 forecasts, was 0.5 percentage points in March, 1.8 percentage points in April, 5.1 p.p. in May, 6.4 p.p. in June, 6.9 p.p. in July, 7.3 p.p. in August, 7.5 p.p. in September, 7.7 p.p. in October, 7.4 p.p. in November, and 7.5 p.p. in December. Then, in 2021, the GDP level downgrade for MENA has been 7.6 percentage points in January of 2021, 7.3 p.p. in February, 7.5 p.p. in March, and 7.2 p.p. in April, 7.4 p.p. in May, 7.1 p.p. in June, 7.2 p.p. in July, and 6.6 p.p. in August. This trend reflects private sector forecasters' pessimistic view of the cost of the crisis during 2020 and into 2021.

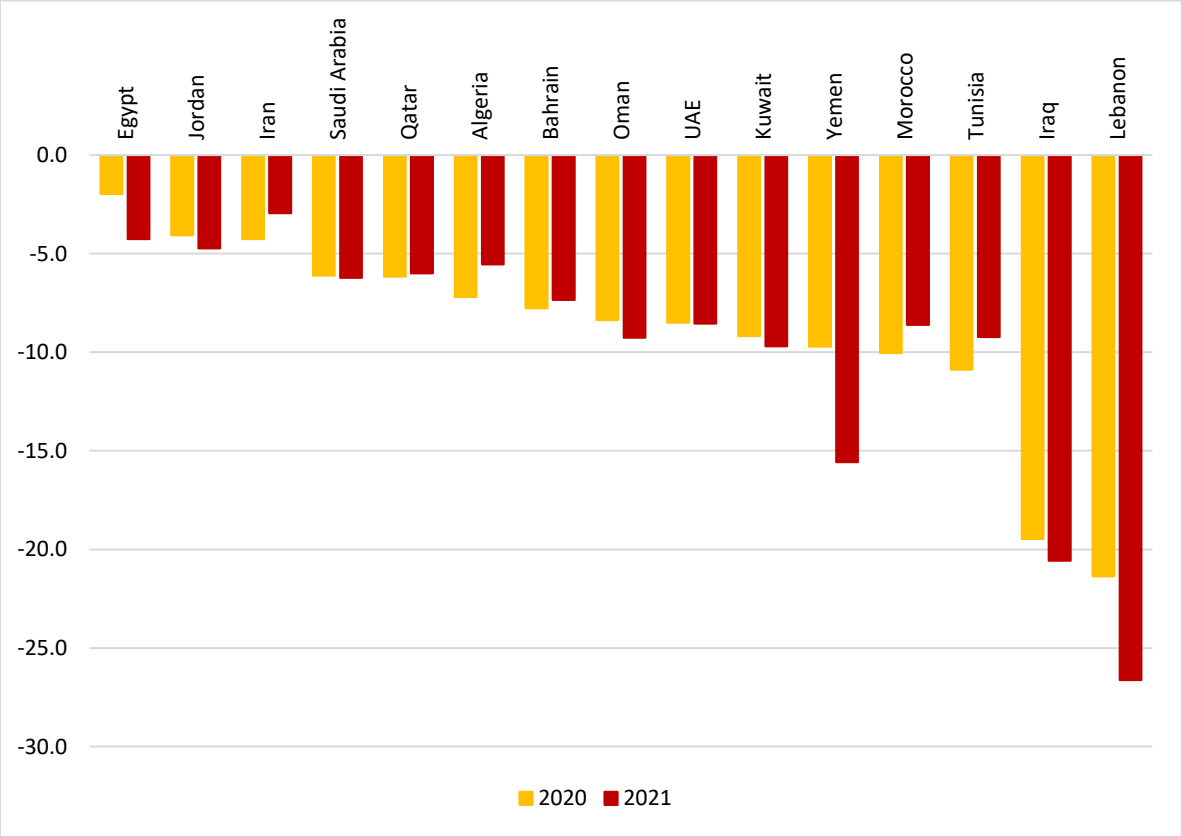
**Figure 2. Not a V-Shape Recovery Relative to the Counterfactual of No Crisis: The Expected GDP Losses of the Crisis**




Sources: World Bank Staff calculations based on data from Focus Economics.
Notes: "*GCC"* includes Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and UAE. "*Developing Oil Exporters*" includes Algeria, Iran, Iraq, and Yemen. "*Developing Oil Importers"* includes Egypt, Jordan, Lebanon, Morocco, and Tunisia. "*MENA*" includes countries in all three groups. Data for Egypt correspond to its fiscal year, running from July 1 to June 30 in Egypt.

Figure 3 presents expected GDP-level downgrades by various private sector forecasters for each country. The 2021 GDP-level forecasts for most countries were downgraded sharply (compared with the 2020 GDP-level forecasts in December 2019), with Lebanon witnessing the most significant downgrade. Moreover, Figure 3 also reveals that the expected GDP losses during 2020 are not expected to be recovered during 2021. All countries' GDP are expected to remain well below their no-crisis counterfactual levels.

**Figure 3. Not a V-Shape Recovery Relative to the Counterfactual of No Crisis: Expected GDP-Level Downgrades of the Crisis by Country in 2020 and 2021**




Source: World Bank Staff calculations based on data from Focus Economics. Note: Data for Egypt corresponds to fiscal years (July 2019 -June 2020, and July 2020 – June 2021) not calendar years, which makes it not comparable to the data from other countries.

# IV. Poverty and Social Costs

The crisis shock will increase poverty in 2021. The uncertainty of the magnitude of the economic shock caused by the pandemic, as well as the uncertainty of the distribution of its effects on household per capita consumption, imply that any estimate of the expected percent changes in poverty due to the pandemic relies on restrictive assumptions. Tables 7 and 8 present alternative estimates of expected percent changes in poverty headcounts for 8 developing MENA economies. Both tables show estimated impacts of the pandemic by applying poverty-rate-to-growth elasticities to changes in GDP forecasts by Focus Economics. In both sets of estimates, the elasticities are based on the assumption that the economic shock is "inequality-neutral," which means that they rely on the assumption that all households are impacted by a constant proportion of the GDP shock equal to 0.85, which is known as the "pass-through rate."

Table 7 uses a common elasticity for the eight MENA countries at each poverty threshold, which is the median elasticity for the sample of MENA countries listed in the table at each poverty line. These elasticities were estimated with pre-crisis data by Mahler, Lakner, Aguilar and Wu (2020).[1] In contrast, the estimates reported in Table 8 allow for the poverty-to-GDP elasticities to vary across countries as well as across poverty thresholds. These estimates were provided to the Tracker by the World Bank's MENA Poverty team.

Lastly, please note that if a country has negligible pre-crisis poverty rates at low poverty-line thresholds, the absolute change in poverty rates (the number of poor people as a share of the population) can also be negligible. This is the case of Lebanon in Tables 7 and 8.

[1] The median MENA regional inequality-neutral elasticity for the international poverty rate ($1.9 in 2011 PPP) is -4.8, for the lower middle-income poverty rate ($3.2 in 2011 PPP) is -3.3, and for upper middle-income poverty rate ($5.5 in 2011 PPP) is -2.3. All these MENA-specific elasticities are larger in absolute values than median elasticities for the world as provided by World Bank Economist, Daniel Mahler of the Development Economics Data Group (DECDG) on May 1, 2020. The median global elasticities are lower: -1.4 for the $1.9 threshold (1.4% decline in $1.90 headcount ratio per 1% increase in GDP), the median elasticity for $3.2 is -1.2, and the median elasticity for $5.5 is -0.9.

**Table 7. Estimates of Increases in Poverty Headcounts due to the Crisis based on Private-Sector Growth Forecasts as of August 2021 and Median MENA Poverty Elasticities (percentage of pre-crisis poverty rates)**

| Country | Change in Forecasts (%) | % Change in Poverty Rates Due to the Crisis GDP Losses | | |
|---|---|---|---|---|
| | | International poverty rate ($1.9 in 2011 PPP) | Lower middle-income poverty rate ($3.2 in 2011 PPP) | Upper middle-income poverty rate ($5.5 in 2011 PPP) |
| | 2021 | 2021 | 2021 | 2021 |
| Algeria | -6.2 | 29.8 | 20.5 | 14.3 |
| Egypt | -4.4 | 21.1 | 14.5 | 10.1 |
| Iran | 2.7 | -13.0 | -8.9 | -6.2 |
| Iraq | -20.9 | 100.3 | 69.0 | 48.1 |
| Jordan | -4.8 | 23.0 | 15.8 | 11.0 |
| Lebanon | -29.2 | 140.2 | 96.4 | 67.2 |
| Morocco | -7.9 | 37.9 | 26.1 | 18.2 |
| Tunisia | -9.9 | 47.5 | 32.7 | 22.8 |

Source: MNACE Staff calculations based on data from Focus Economics and poverty-GDP elasticities by Daniel Mahler (World Bank, DECDG). The median MENA regional inequality-neutral elasticity for the international poverty rate ($1.9 in 2011 PPP) is -4.8, for the lower middle-income poverty rate ($3.2 in 2011 PPP) is -3.3, and for upper middle-income poverty rate ($5.5 in 2011 PPP) is -2.3. * indicates that pre-crisis poverty rates at the indicated thresholds were estimated at zero. Forecasts for Egypt are based on data from its fiscal year of 2021, which runs from July 1st, 2020 to June 30, 2021.

**Table 8. Estimates of Increases in Poverty Headcounts due to the Crisis based on Private-Sector Growth Forecasts as of August 2021 using Varying Elasticities (percentage of pre-crisis poverty rates)**

| | Change in forecasts (%) | % Change in Poverty Headcount Due to Expected GDP Losses from the Crisis | | |
|---|---|---|---|---|
| Country | 2021 | International poverty rate ($1.9 in 2011 PPP) | International poverty rate ($3.2 in 2011 PPP) | International poverty rate ($5.5 in 2011 PPP) |
| Algeria | -6.2 | 18.6 | 30.9 | 18.5 |
| Egypt | -4.4 | 18.2 | 11.9 | 3.6 |
| Iran | 2.7 | -9.7 | -8.0 | -5.1 |
| Iraq | -20.9 | 135.3 | 69.6 | 28.2 |
| Jordan | -4.8 | 1.3 | 17.5 | 14.1 |
| Lebanon | -29.2 | 0 | - | 184.0 |
| Morocco | -7.9 | 23.6 | 24.0 | 18.0 |
| Tunisia | -9.9 | 55.4 | 42.3 | 28.9 |

Source: World Bank Staff calculations based on data from Focus Economics and varying poverty-GDP elasticities. "—" indicates that pre-crisis poverty rates at the indicated thresholds were estimated at zero.[2]

As mentioned, the estimates of the impact of the crisis on the number of poor people presented in Tables 7 and 8 rely on the weak assumption that the impact is "inequality neutral." Yet, it is likely that some individuals or households will be more severely affected than others. Across the region, those at risk of falling into poverty are probably self-employed, informal sector workers who lack social protection, and individuals working in sectors directly hit by the COVID-19 crisis. Migrant workers—for example in GCC countries—are excluded from safety nets available to citizens. In addition, the crisis is affecting some industries more than others, which implies that the economic risk of individuals depends on their sector of employment. For example, hard-hit sectors include tourism, retail, textile, and garment industries, which are particularly salient for the economies of Lebanon, Tunisia, Morocco, and Egypt. Individuals whose livelihoods are tied to these sectors are probably at a higher risk of falling into poverty. Thus, the estimates of the expected increases in the number of poor people need to be interpreted with a grain of salt. But it suffices to say that poverty is expected to rise, possibly by large numbers.

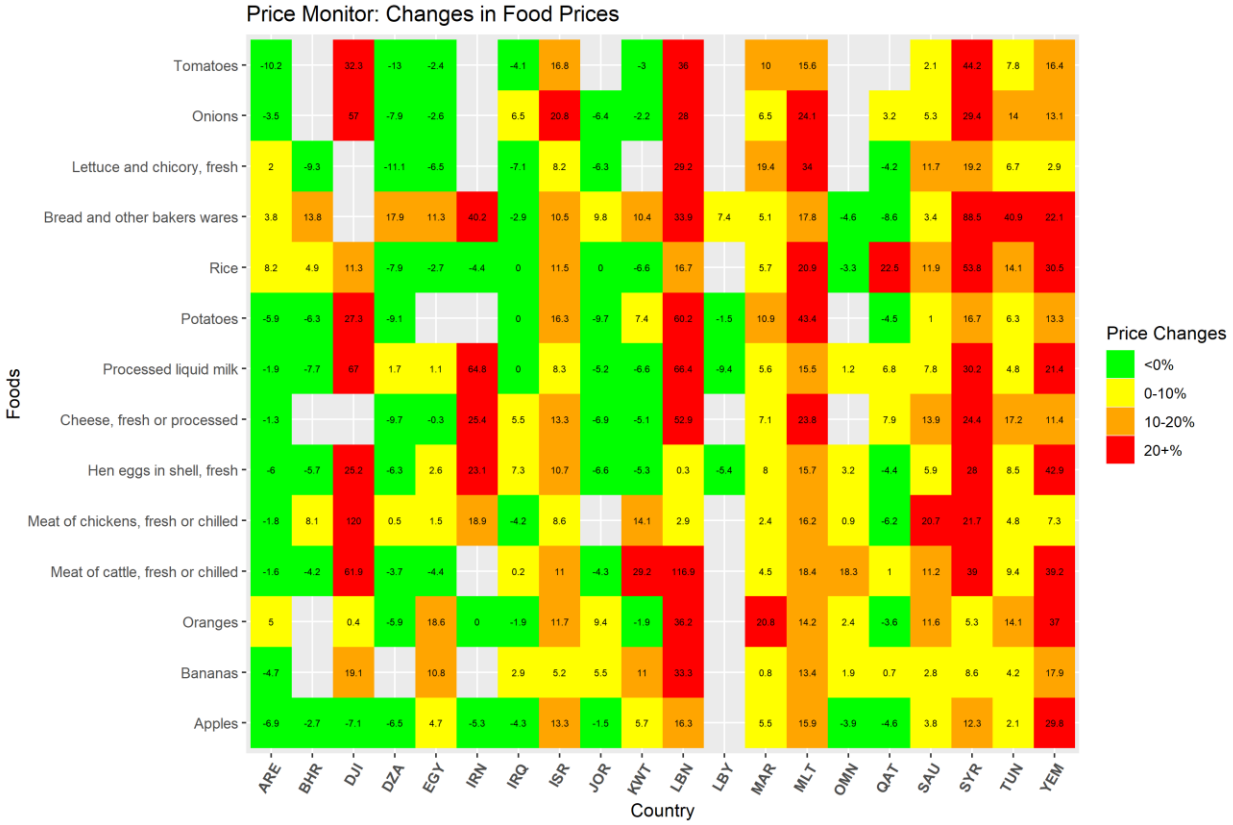
[2] The estimates of the increase in the number of poor people relative to the counterfactual scenario of no crisis are based on simulations. The results are sensitive to the pre-Covid distribution of household consumption per capita. In the case of Lebanon, the original data come from the 2011/2012 household survey. The poverty rates since then were estimated by applying a pass through of GDP per capita growth to household per capita consumption, assuming that all households were affected by the same proportion -- the inequality-neutral shock assumption. Earlier this month, the revised 2011 purchasing power parities data (released in May 2020 from the International Comparison Program (ICP)) was updated in the poverty calculation. The result was that measured poverty in 2011 and all subsequent years were estimated to be lower than previously thought. More importantly, the distribution of per capita consumption at the bottom tail (low levels of per capita consumption) is flat, and thus the poverty elasticity with respect to GDP shocks also fell. This explains why the current estimates in Table 8 for Lebanon and other countries are lower than those previously reported in this Tracker.

# V. Insights from the MENA Welfare Observatory (Poverty Team)

## 1. Food Price Changes

COVID-19 poses considerable risks to already vulnerable populations. One of these risks come from rising food prices, which have come under stress due to breakdowns in global supply chains. Food-price inflation is assessed here by analyzing changes in food prices since February 2020 (prior to COVID-19) across the MENA region, for five food categories: carbohydrates, diary, fruits, meats, and vegetables. Across the region food prices have been rising (see Figure 6). In most countries price increases have been modest (5% or less) but in Djibouti, Iran, Lebanon, Syria, Yemen, and even Malta prices of staples have increased by more than 20 percent since February 14th, 2020. Lebanon, Djibouti, Syria, and Yemen have been particularly hard hit, with prices increasing across the board between February 14th, 2020 and September 6th, 2021. Since food expenditures tend to account for a large share of poor households' consumption relative to rich households, food inflation tends to be regressive.

**Figure 4: Food Price Changes between February 14th, 2020 and as of September 6th, 2021**




Note: WB calculations based on food price data from the FAO.

# VI. Insights from Academia

1. The Aftermath of Debt Surges

   Debt in emerging market and developing economies (EMDEs) is at its highest level in half a century in the wake of Covid-19. In about nine out of 10 EMDEs, debt is higher now than it was in 2010 and, in half of the EMDEs, debt is more than 30 percentage points of gross domestic product higher. Historically, elevated debt levels increased the incidence of debt distress, particularly in EMDEs and particularly when financial market conditions turned less benign. This paper reviews an encompassing menu of options that have, in the past, helped lower debt burdens. Specifically, it examines orthodox options (enhancing growth, fiscal consolidation, privatization, and wealth taxation) and heterodox options (inflation, financial repression, debt default and restructuring). The mix of feasible options depends on country characteristics and the type of debt. However, none of these options comes without political, economic, and social costs. Some options may ultimately be ineffective unless vigorously implemented. Policy reversals in difficult times have been common. The challenges associated with debt reduction raise questions of global governance, including to what extent advanced economies can cast their net wider to cushion prospective shocks to EMDEs.

2. Globalization and Foreign Direct Investment in the GCC Countries: A Recipe for Post COVID-19 Recovery

   This study investigates the long-run relationship between the de jure economic, social, and political globalization and foreign direct investments (FDI) in the Gulf Cooperation Council (GCC) to establish whether policies that foster trade and investment relations among geographical entities can help revive the GCC countries from the prevailing economic debacles of the Covid-19 pandemic. This study is driven by the GCC's quest to fully overcome the economic challenges occasioned by the outbreak of the global pandemic and position itself as the most potent regional economic bloc in the MENA region. The study employs the panel data of the six GCC countries—Bahrain, United Arab Emirates, Kuwait, Qatar, Oman, and Saudi Arabia—from 1971 to 2017. The findings a fully modified ordinary least square regression show that de jure economic and social globalization has a significant positive impact on the region's FDI inflows. The impact of de jure political globalization on FDI is statistically significant but negatively signed. Based on these findings, the paper offers some holistic policy recommendations to the GCC region as recipes for timely recovery from the economic impact of COVID-19 and beyond.

3. COVID-19 pandemic leads to greater depth of unaffordability of healthy and nutrient-adequate diets in low- and middle-income countries

   Unaffordability of healthy diets affected 3 billion people before the COVID-19 pandemic, 2.5

billion of whom lived in 63 low- and middle-income countries. In these 63 countries, income losses due to the pandemic have markedly worsened the affordability gap. The proportion of people unable to afford half the cost of a healthy diet increased from 43% to 50%; this increased unaffordability will aggravate undernutrition, micronutrient deficiencies and diet-related non-communicable diseases.

4. Competition, capital growth and risk-taking in emerging markets: Policy implications for banking sector stability during COVID-19 pandemic

   This paper investigates how banking competition and capital level impact on the risk-taking behavior of banking institutions in the MENA region. The authors use data for more than 225 banks in 18 MENA countries to test whether increased competition causes banks to hold higher capital ratios. The analysis shows that banks tend to hold higher capital ratios when operating in a more competitive environment, and that banks in MENA increase their capitalization levels in response to a higher risk and vice versa. Further, banking concentration (measured by the HH-index) and credit risk have a significant and positive impact on capital ratios of IBs, whereas competition does play a restrictive role in determining the level of their capital. The results hold when controlling for ownership structure, regulatory and institutional environment, bank-specific and macroeconomic characteristics.

5. The Geography of Remote Work.

   Cities with higher population density are seen to specialize in high-skill service jobs that can be done remotely. The urban and industry bias of remote work potential shaped the COVID-19 pandemic's economic impact. Many high-skill service workers started to work remotely, withdrawing spending from big-city consumer service industries dependent on their demand. As a result, low-skill service workers in big cities bore most of the recent pandemic's economic impact. Our findings have broader implications for the distributional consequences of the U.S. economy's transition to more remote work.


# VII. Useful Resources for Information on COVID-19

| COVID-19 & Government Response Trackers | Description | Link |
|---|---|---|
| World Bank | World Bank COVID-19 Operations Projects | https://www.worldbank.org/en/about/what-we-do/brief/world-bank-group-operational-response-COVID-19-coronavirus-projects-list |
| Worldometer | Daily updates of data on COVID-19 spread, fatalities, and testing per capita | https://www.worldometers.info/coronavirus/ |
| Coronavirus News Tracker | Daily updates on COVID-19 media coverage including the levels of panic and misinformation | https://coronavirus.ravenpack.com/ |
| WHO Tracker | Daily updates of new COVID-19 cases, total confirmed cases, and death totals | https://covid19.who.int/ |
| Our World in Data | Visualization and downloadable data on daily COVID-19 statistics | https://ourworldindata.org/coronavirus |
| Bloomberg Live | COVID-19 visuals including global map of travel restrictions | https://www.bloomberg.com/graphics/2020-coronavirus-cases-world-map/ |
| Johns Hopkins Coronavirus Research Center | COVID-19 totals of cases, deaths, and testing with visuals | https://coronavirus.jhu.edu/map.html |
| Financial Times Coronavirus Tracker | Visualization of COVID-19 daily deaths per country including government response stringency index | https://www.ft.com/coronavirus-latest |
| Oxford University | Government response Tracker | https://www.bsg.ox.ac.uk/research/research-projects/coronavirus-government-response-tracker |
| Ugo Gentilini (World Bank Social Protection Expert) | Social Protection Response to COVID-19 | https://www.ugogentilini.net/ |

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|---|---|---|
| Worldwide Lockdown Dataset | Dataset of lockdowns by country | https://www.kaggle.com/jcyzag/covid19-lockdown-dates-by-country#countryLockdowndates.csv |
| IMF | Global Fiscal Support Monitor with a breakdown of country-specific fiscal responses to COVID-19 | https://blogs.imf.org/2020/05/20/tracking-the-9-trillion-global-fiscal-support-to-fight-COVID-19/ |
| The Guardian | COVID vaccine tracker: when will a coronavirus be ready? | https://www.theguardian.com/world/ng-interactive/2020/aug/31/covid-vaccine-tracker-when-will-a-coronavirus-vaccine-be-ready |
| **Human Mobility Data** | **Description** | **Link** |
| Cuebiq | Analysis of mobility and shelter in place analysis by tracking movement of its users through their devices (mostly US so far). Cuebiq maintains direct relationships with 80+ apps that reach a diverse base of anonymous, opted-in users, giving the ability to collect accurate and precise SDK location data at scale on a daily basis. | https://www.cuebiq.com/visitation-insights-covid19/ |
| Facebook Disease Prevention Maps | Mobility patterns tracked using Facebook data | https://dataforgood.fb.com/tools/disease-prevention-maps/ |
| **Satellite Data (to capture COVID-19 effects)** | **Description** | **Link** |
| ESA: Sentinel 5P | Air Pollution Maps | https://earth.esa.int/web/guest/missions/esa-eo-missions/sentinel-5p |
| NASA Goddard: Black Marble | Night Lights maps | https://blackmarble.gsfc.nasa.gov/#home |


| Social media and Crowd-sourced data | Description | Link |
|---|---|---|
| Premise | Custom questions as part of on-going micro-surveys, for example perceptions of social distancing measures, government support, livelihood impacts | https://www.premise.com/ |
| Google Trends | High frequency data COVID-19 related searches | https://trends.google.com/trends/story/US_cu_4Rjdh3ABAABMHM_en |
| Waze | Crowd-sourced data on quarantine-related road closures, medical testing centers, and emergency food distribution centers | https://www.waze.com/covid19 |