Economic and food security implications of the COVID-19 outbreak[1]

An update with insights from different regions

April 14, 2020

Introduction

As the Coronavirus disease continues to assail the world, the economic outlook – and with it any prospects for improvements in food security – continues to darken. The Financial Times recently ran a piece entitled "Global economy in sharpest reversal since the Great Depression".[2]

In this update, we explore the ramifications of the global economic downturn across different regions, building on insights provided by WFP's Regional Bureaux. We recognize that COVID-19 entering Africa, Asia and the Pacific and the Americas has added an important new dimension to the disease's economic and food security implications. However, our focus – for now – remains on the exposure of poor and food-insecure countries[3] to economic damage trickling down from the world's biggest economies. We will examine the second layer of damage, caused by local outbreaks and measures to prevent the virus from spreading, more closely in future updates.

The extent to which the global economic downturn is impacting low-income economies through different channels is becoming increasingly visible. Prices of primary commodities, whose export is vital for large parts of the developing world, have plunged with the price of crude oil falling from more than 60 USD/barrel at the beginning of the year to around 25 USD/barrel today with jaw-dropping implications for export earnings from oil (Figure 1). Tourism contributes significantly to foreign exchange earnings in several vulnerable countries (Figure 3); the UN World Tourism Organization expects international tourist arrivals to decline by 20 - 30 percent in 2020.[4] Remittances, responsible for up to 30 percent of GDP in low-income economies, fell considerably during the global financial crisis of 2008 – and are likely to do so again. The flow of foreign direct investments is expected to shrink by 30 - 40 percent in 2020/21.[5]

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[2] https://www.ft.com/content/19d2e456-0943-42fc-9d2d-73318ee0f6ab

[3] More specifically, here and in the following we focus on all countries listed in the annex table.

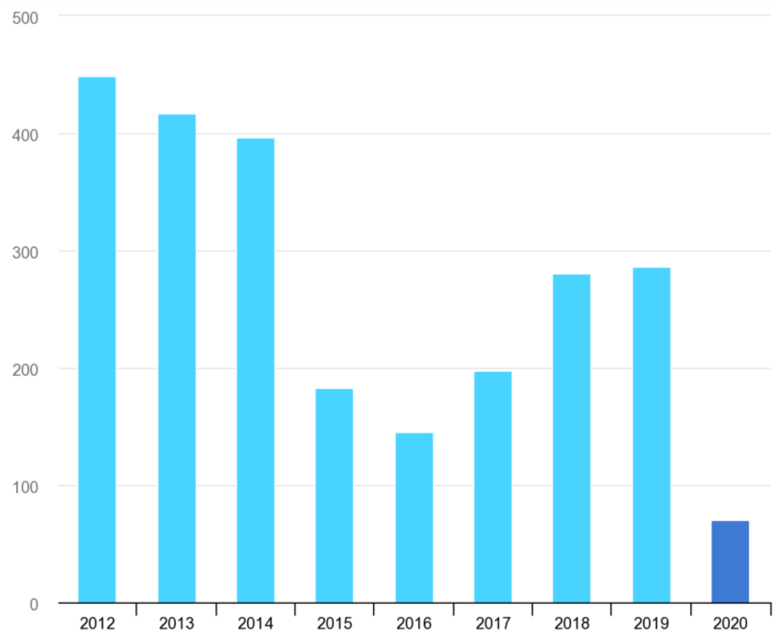
[4] https://www.unwto.org/news/international-tourism-arrivals-could-fall-in-2020

[5] https://unctad.org/en/PublicationsLibrary/diaeiainf2020d3_en.pdf

Trade is typically denominated in USD and exports, thus, indicate growing reserves of foreign exchange. Similarly, tourists bring hard currency into a country and so do remittances. With these sources running dry, a country risks not having enough USD to pay for vital imports. This leaves countries reliant on imports to meet food needs very exposed. Ensuing currency depreciation can further aggravate the situation, putting upward pressure on domestic food prices at a moment when household purchasing power is tumbling on the back of incomes lost to the crisis. ILO estimates a reduction in working hours in the second quarter of 2020 equivalent to 195 million full-time workers.[6]

A country's vulnerability to any of these transmission channels, however, is not the lone determinant of the fate of its economy. Foreign exchange reserves worth several months of imports allow a country to maintain crucial food imports even in the face of crumbling export earnings. Meanwhile, a high public debt burden (Figure 2) can hamper a country's capacity to respond to economic shocks – the World Bank estimates the debt stock of developing countries at USD 7.8 trillion.[7] With a significant portion of the public budget devoted to servicing debt, it will be a struggle to find the necessary resources to respond to the impact of COVID-19. In the case of Africa, Brookings[8] and the Overseas Development Institute[9] had already warned about the continent's growing debt burden constraining government spending before the arrival of the COVID-19 pandemic.

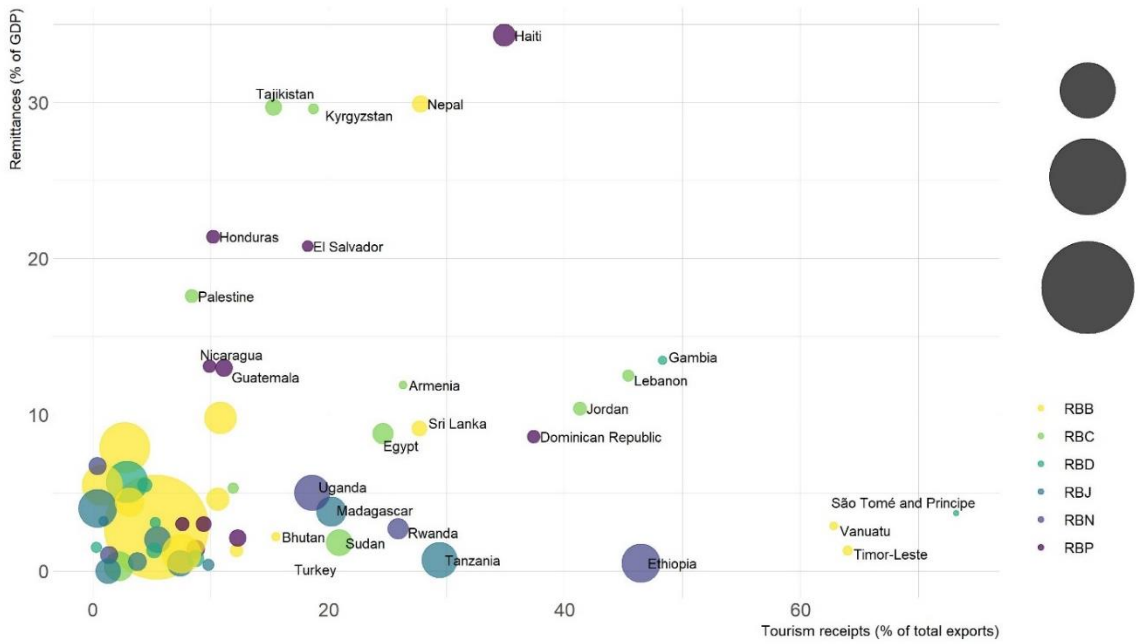
Figure 1: Net income from oil production in selected producer economies, if oil prices stay where they are



Source: International Energy Agency

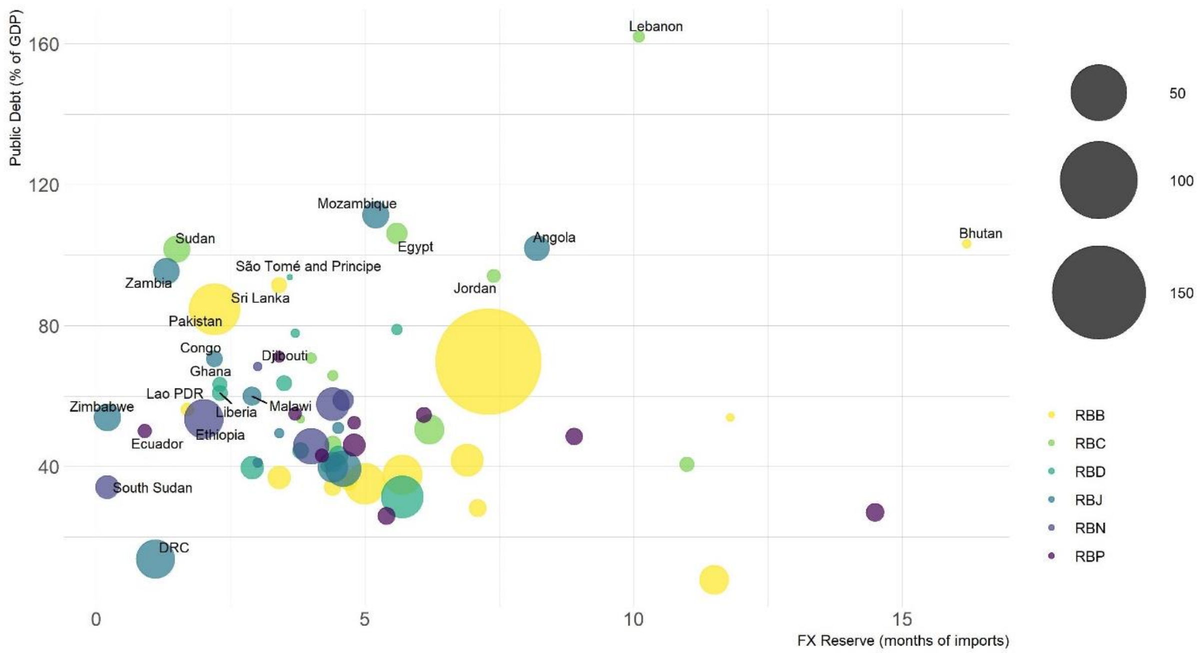
[6] https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/briefingnote/wcms_740877.pdf
[7] https://www.worldbank.org/en/news/press-release/2019/10/02/debt-stocks-of-developing-countries-rose-to-78-trillion-in-2018-world-bank-international-debt-statistics
[8] https://www.brookings.edu/blog/africa-in-focus/2019/04/10/is-a-debt-crisis-looming-in-africa/
[9] https://www.odi.org/sites/odi.org.uk/files/resource-documents/12491.pdf

Figure 2: Dependency on remittances and tourism



Notes: Bubble size indicates the number of undernourished (millions). Colours are according to WFP's Regional Bureau covering the country with RBB in Bangkok (Asia); RBC in Cairo (Middle East and Northern Africa); RBD in Dakar (West and Central Africa); RBJ in Johannesburg (Southern Africa); RBN in Nairobi (East Africa); and RBP in Panama (Latin America and the Caribbean).

Figure 3: Economic capacity to respond



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East Africa – a hunger hotspot with fragile economies exposed on different fronts

While East Africa has been one of the world's fastest growing regions in recent years – around 6 percent annually over the past three years, twice the growth of Africa as a whole or the global average – its economies are far from immune to the adverse impacts of COVID-19. [10]

What's more, the disease strikes at a time when the region is fighting an ongoing desert locust outbreak and is recovering from drought and floods in 2019. Food insecurity is alarmingly high with more than 15 million people in IPC phase 3 or above in Ethiopia, South Sudan, Somalia and Kenya[11]. Home to only 3 percent of the world's population, the region hosts 22 percent of the world's total number of acutely food-insecure people. Given the urban poor are so vulnerable, the food security situation could further deteriorate should COVID-19 quickly spread to rural areas and disrupt highly labour-intensive agricultural production. All countries in the region are currently gearing up for the first of the year's agricultural seasons, which starts in March.

While East African countries are generally net commodity importers, **South Sudan** is a notable exception. Crude petroleum accounted for more than 99 percent of the country's merchandise exports in 2017. This puts South Sudan at the mercy of global energy price swings with little to buffer the current free fall of the oil price, depriving it of much needed foreign currency; South Sudan holds only 1 weeks' worth of imports in foreign exchange reserves. Whereas food imports account for about 25 percent of total exports in value, cereal imports and own production are almost equal in tonnage. This delicate situation could lead to a further deterioration in the already high levels of food insecurity. Currently, more than half of South Sudan's population is food-insecure, including 1.5 million in IPC phase 4 (emergency) and 20,000 in IPC phase 5 (catastrophe).

A net commodity importer, COVID-19 and the ensuing global economic downturn has put the economy of **Ethiopia – a net commodity importer -** at risk for a different reason - the importance of its tourism and travel sector. The sector is highly concentrated in Africa, with 10 countries accounting for about 80 percent of the continent's travel and tourism exports. Ethiopia relies on the sector for a larger export share than any of the other countries on the continent.[12] Air transport generates about 40 percent of exports, with travel and tourism together bringing the share up to almost half. Meanwhile, the coronavirus pandemic has sent Ethiopian hotel occupancy tumbling by 50 percent;[13] and Ethiopian Airlines Group has already announced the loss of over USD190 million. The country is ill-equipped to cope with these shocks. The Economist Intelligence Unit (EIU) has declared that Ethiopia's economy is "on the brink of collapse".[14] A fiscal deficit of 2.5 percent paired with a current account deficit of 5.5. percent, foreign exchange reserves of only two months and public debt of more than half of GDP do not leave Ethiopia much room to act. The EIU's most recent adjustment to the forecast GDP growth of 7.1 percent in 2020 was, thus, a downward revision by almost 8 percent, amounting to a contraction of 0.6 percentage points.[15]

While an economic downturn in the world's biggest economies hits South Sudan and Ethiopia particularly hard, other countries in the region might be less exposed because of the structure of their economies. Two very fragile economies with an extreme dependence on food imports, however, merit special mention. **Djibouti** imports food worth nearly twice the value of its exports; at the same time, its economy is centred to a large extent on the port, with transport (including port provisions)

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[10] UNECA, Impact Assessment of Covid-19: The Case of Eastern Africa

[11] While there are significant numbers of food insecure populations in Uganda, Burundi and Djibouti, recent IPC figures are not available for these countries.

[12] http://country.eiu.com/article.aspx?articleid=559267439

[13] https://www.thereporterethiopia.com/article/local-hospitality-loses-50-percent-market-covid-19

[14] http://country.eiu.com/article.aspx?articleid=1219274305

[15] http://country.eiu.com/article.aspx?articleid=899312673

generating 30 percent of exports. Meanwhile, **Somalia's** food import dependency dwarfs Djibouti's: the country imported USD 1.56 billion of food but exported only USD 325 million in goods and services in 2017. Granted that statistics are hard to come by, Somalia's economy is widely believed to rely on international donor funding and remittances,[16] the latter of which will probably contract significantly. Somalia has some resources to confront the COVID-19 economic fallout as the country has recently normalized relations with multilateral lenders, begun debt relief and is set to receive an IMF funding package.[17] Nevertheless, the recent downward revision of the GDP growth forecast is on a par with Ethiopia's (down by almost 8 percent, from 3.5 to 4.2 percent).[18]

West and Central Africa – multiple shocks threaten the food security of millions

While many West and Central African countries continue to be affected by conflict (for example Burkina Faso, Cameroon, Mali, Niger, Nigeria) and climate-related shocks, the major fallout from COVID-19 is likely to be commodity market volatility and supply chain disruption impacting food imports. The recent drop in oil prices will undoubtedly result in substantial evaporation of government revenue in major oil exporting countries such as **Cameroon, Chad, Nigeria and Senegal,** which could increase the cost of imports of critical goods such as food.

Nigeria stands out among these countries because oil provides over 90 percent of its export revenue and foreign currency earnings. The drop in oil price to below USD 30 per barrel has likely left a huge gap in government revenue, especially considering that the country's 2020 budget benchmarked oil price at USD 57 per barrel. Consequently, there has been an increased volatility in the exchange rate of the local currency, Naira, against USD in recent weeks, forcing the Central Bank to devalue the official exchange rate by 15 percent and more can be expected in the coming weeks. The impact of such devaluation will be a rising cost of living as people's purchasing power is reduced. For a country which has the world's highest number of poor people, estimated at more than 95 million people according to the World Poverty Clock, the consequences will be dire for this segment of the population. According to a recent estimate by the *Cadre Harmonisé*, over 7 million people will be in IPC phase 3 or above in the country from June to August 2020.

The other major factor that will increase vulnerability of countries in the region is the risk of COVID-19-induced supply chain restrictions anticipated to affect countries such as **Benin, Gambia, Liberia, Sao Tome and Principe, Senegal and Sierra Leone**. In these countries, food imports exceed 50 percent of total exports. With an expected increase in food prices as the region moves into the lean season, many consumers could easily be priced out due to further market disruptions. In countries such a**s Liberia, Senegal and Togo** which are receivers of large volumes of remittances – exceeding 9 percent of GDP, about twice the regional average – a major contraction in remittances would wipe out the consumption power of millions of households, again with dire consequences for food security.

Southern Africa – unprecedented climate shocks and macroeconomic fragility pushing millions into food insecurity

Southern Africa region has been afflicted in the recent past by growing climate-related shocks, resulting in a record number of people being pushed into food insecurity. According to an April 2020 OCHA Humanitarian Snapshot report, the region is now home to 15.6 million severely food-insecure people,[19] most of them in Zimbabwe, Zambia, Mozambique, Malawi and Tanzania. Atop this fragility,

[16]http://country.eiu.com/article.aspx?articleid=539287837
[17]http://country.eiu.com/article.aspx?articleid=559275239
[18]http://country.eiu.com/article.aspx?articleid=719311455
[19]https://reliefweb.int/sites/reliefweb.int/files/resources/ROSEA_20200402_SouthernAfrica_Humanitarian_Snapshot_April2020.pdf

vulnerable and commodity export-dependent economies such as Angola, Mozambique, Zambia and Zimbabwe are expected to be significantly affected by the economic fallout of COVID-19.

In the case of **Angola**, heavy reliance on oil export revenue, which contributes over 70 percent of government revenue, and a very high public debt burden – estimated at 102 percent of GDP in 2020 – signal a double tragedy for the country. Just like many oil-producing countries, Angola set a very high benchmark oil price of USD 55 per barrel in its 2020 budget and clearly this is going to leave a huge gap in government revenue, with the current low oil prices effectively piling more pressure on debt servicing obligations. This will have a serious impact on the government's capacity to mobilise resources to respond to COVID-19 and for social welfare spending.

Similarly, **Zambia** derives over 60 percent of government revenue from commodity exports, specifically minerals. With a slowdown in global economic activity, this has led to significant government revenue losses. Again, with a very high public debt burden estimated at 95.5 percent of GDP in 2020 according to the 2019 IMF Article IV Consultation report, the decline in export revenue will place additional strain on the country's ability to service its debt. Reduced government revenue coupled with high debt obligation will likely lead to a reduction in its social welfare spending with a negative impact on food security in the country. Considering that the government's 2019-2021 medium-term budget already programmed a reduction in spending on the farmer input support programme - a key pillar of increasing agricultural production and productivity – any further reallocation of resources due to COVID-19 will have dire consequences on the medium-term food security of the country.

Zimbabwe, on the other hand, has suffered deteriorating economic conditions for nearly two years. In that period, the country has experienced deficit agricultural production as a result of below-average rainfall. Consequently, the country has been faced with an increasing import bill as it must import extra food to meet domestic consumption needs. With significantly low foreign currency reserves estimated at just one weeks' worth of imports according to the IMF, the COVID-19 pandemic will increase the economic shocks battering the country. A likely reallocation of limited resources to contain COVID-19 will undoubtedly reduce investment in other equally critical sectors such as agriculture, which could contribute to exacerbating the current low domestic agricultural production. This will have dire consequences on the medium-term food security of the country.

Middle East and North Africa – oil price collapse and macroeconomic fragility could inflame the region

Whilst the Middle East and North Africa have been plagued by major conflicts in countries such as Syria, Libya and Yemen, which have displaced millions of people in recent years, COVID-19-induced vulnerabilities are going to be more pronounced in countries that are heavily dependent on commodity export revenue, particularly oil, and/ or those with fragile macroeconomic conditions (high public debt and/or low foreign currency reserves). Here, we must highlight Iran, Iraq, Libya, Lebanon and Sudan as examples of countries in the region which are particularly vulnerable because of their dependence on oil exports - impacted by the recent drop of oil prices and global demand[20] - or pre-existing macroeconomic challenges.

Although the share of oil in **Iranian** government revenue declined steadily from approximately 60 percent in 2009 to about 30 percent in 2019, the country is still particularly vulnerable because it has been increasingly using oil revenues to finance imports of critical goods such as food and medicine.[21] For example, in 2019/2020 oil revenue accounted for roughly USD 21-26 billion of the government

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[20] https://www.iea.org/reports/oil-2020

[21] https://www.atlanticcouncil.org/blogs/iransource/iran-s-crude-oil-exports-what-minimum-is-enough-to-stay-afloat/

budget, of which about USD 14 billion was used to finance imports.[22] Two factors are likely going to amplify the negative impact of the decline in the price of oil on government revenue. Firstly, existing sanctions have greatly reduced the volume of oil exported by the country. Secondly, even though the country's 2020 benchmark oil price has not been officially published, assuming it is close to the 2019/2020 benchmark of USD 50-54 per barrel,[23] the country will lose a lot of revenue, given current prices. It is conceivable that any drastic reduction in government oil revenue will severely impact the country's universal cash transfer programme which is not only credited with reducing poverty in the country but also with providing food security to the poor.[24]

Iraq, just like Iran, depends heavily on oil export revenue to finance the government budget. General estimates indicate that over 90 percent of government revenue comes from oil exports. The country will lose considerable revenue with the current prices because its benchmark oil price in the 2020 budget is USD 55.8 per barrel. This revenue decline will not only reduce the capacity of the government to respond to the impact of COVID-19 but will also have implications for the payment of public sector wages - a critical factor as 30 percent of the work force is employed either directly or indirectly by government. Additionally, government social welfare spending, which provides critical welfare support and assures the food security of thousands of the poorest households, may be reduced.

Although **Libya** is historically one of the major oil producers in the region, the recent collapse in global oil prices may not affect it too much because the ongoing conflict in the country had already reduced its oil output in recent months to negligible amounts.[25] As the conflict between the rival governments in Tripoli and in the east of the country intensified earlier this year, oil production in the country dropped from over 700,000 barrels per day to less than 100,000 barrels per day in early March 2020. Given its dependence on food imports, the country may still suffer from the fallout of COVID-19 if other countries implement export restrictions.

Lebanon's vulnerability stems from very high public debt and fiscal deficit (162 percent and 11.5 percent of GDP, respectively), according to IMF staff projections for 2020, which are forecast to continue growing in the next two years. Due to a lack of sufficient funds, the country in March 2020 defaulted on USD 1.2 billion Eurobond payments. Consequently, the local currency, which has been pegged to the USD for more than two decades, has seen considerable volatility against the USD in recent months and lost over 40 percent of its value in the parallel market. With the World Bank already warning that a deterioration of the current economic situation could push up to 50 percent of the population into poverty, the growing cost of living in the country will threaten the food security of millions of people.[26]

Just like Lebanon, **Sudan** also has a very high public debt burden, standing at 101.7 percent of GDP and low foreign currency reserves of 1.5 months' worth of imports. This presents serious challenges for the country in mobilising resources to respond to the impact of COVID-19. The already-high public debt burden and existing sanctions on the country make it particularly difficult to access fresh external funding or restructure existing debt so that resources can be redirected to meet increasing domestic needs. This will likely weaken the volatile economic situation in the country which has seen prices of essential food commodities rise continuously since the start of the year. This could increase the

[22] https://www.atlanticcouncil.org/blogs/iransource/iran-s-crude-oil-exports-what-minimum-is-enough-to-stay-afloat/
[23] https://oilprice.com/Energy/Energy-General/Iran-Looks-To-Reduce-Dependence-On-Oil-To-Zero.html
[24] https://www.worldbank.org/en/country/iran/overview
[25] https://www.worldoil.com/news/2020/1/28/libya-s-oil-output-just-days-away-from-complete-stoppage
[26] https://www.worldbank.org/en/news/press-release/2019/11/06/world-bank-lebanon-is-in-the-midst-of-economic-financial-and-social-hardship-situation-could-get-worse

number of food-insecure people from the current Humanitarian Response Plan estimate of 6.1 million in 2020.[27]

Other than the countries highlighted above, a few other countries in the region could see increased vulnerabilities as a result of declining remittances or declines in tourism revenue. For example, in Kyrgyzstan and Tajikistan, where remittances exceed 20 percent of GDP, with the shutdown of economies around the world due to COVID-19, it is likely such critical revenue sources may dry up, thereby increasing the vulnerability of recipients. In the same way, other countries such as Armenia, Egypt and Jordan – where international tourism revenue receipts exceed 20 percent of total export revenue - stand to lose a lot to travel restrictions around the world or people choosing not to travel out of caution.

Asia and the Pacific – a blow to tourism will unsettle the region

Both the Asian Development Bank and the Economic and Social Commission for Asia and the Pacific highlight how the decline of tourism will affect the region's economies.[28]

Nepal will be one of the first countries to suffer from the reduced arrival of international tourists who generate about 30 percent of its foreign exchange earnings. The country's economy could come under attack on several fronts at once while its macroeconomic fundamentals hardly allow for a swift response to the crisis. Food imports account for up to 70 percent of Nepal's exports and remittances stand at almost 30 percent of GDP. More than 9 percent of these come from Saudi Arabia and the United Arab Emirates, both of which are under stress from plummeting oil prices, possibly with devastating consequences for remittance flows, which have been affected by declines in oil prices in the past.[29]

While primary commodities feature far less prominently among the merchandise exports of economies in the region than elsewhere, this does not hold for all countries. Oil generates 60 percent of merchandise export revenues in **Timor-Leste**, a country which spends about the same amount on food imports as it earns through all its exports. Timor-Leste further heavily relies on tourism as a source of foreign exchange. Together, crude petroleum oil and tourism make up almost 80 percent of its exports. Should these two sources of revenue fall away simultaneously, it will be hard for the country to shoulder its food import bills, even if prices in international markets remain stable.

Afghanistan is another country that stands out for its vulnerability in the current crisis. The country, host to more than 10 million acutely food-insecure people, imports food worth more than twice the value of its total exports. To make matters worse, grapes, tropical fruits, apples and pears account for about 30 percent of Afghanistan's merchandise exports. Should the country, at risk to import more COVID-19 cases through its porous border with neighbouring Iran, be forced to implement a nationwide lockdown[30], value chains for fresh produce could easily be jeopardized, and with them critical export earnings.

While Afghanistan, Nepal and Timor-Leste are exceptionally vulnerable to the reverberations of COVID-19 outbreaks in the world's biggest economies, there is no time for complacency regarding the rest of South Asia, Southeast Asia and the Pacific. The shock to private consumption following

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https://reliefweb.int/sites/reliefweb.int/files/resources/Sudan%202020%20Humanitarian%20Response%20Plan%20Summary.pdf

28 ESCAP, The Impact and Policy Responses for COVID-19 in Asia and the Pacific
ADB BRIEFS, The Economic Impact of the COVID-19 Outbreak on Developing Asia

29 https://blogs.worldbank.org/peoplemove/data-release-remittances-low-and-middle-income-countries-track-reach-551-billion-2019 (Figure 3)

30 According to the University of the Oxford COVID-19 government response tracker, Afghanistan has so far only shutdown several cities.

measures to prevent the spread of COVID-19 across large parts of Asia will have a heavy economic toll, particularly in South Asia, where this has been an important driver of growth. The EIU recently revised forecasts for GDP down by 4 percent in Bangladesh which has already seen the return of half a million migrant workers, mainly from Middle Eastern oil-producing countries since the start of the crisis, and is home to almost 25 million chronically food-insecure people.

Latin America and the Caribbean – the oil price drop will shake a region grappling with the world's second-largest migrant crisis

The COVID-19 crisis hits Latin America at a moment when regional GDP was already forecast to grow sluggishly or even contract and it is under pressure from the exodus of around five million people from Venezuela, a migrant crisis second only to Syria's.

The region's high dependence on the export of primary commodities – copper, soy, crude oil and iron ore, representing 75 percent of its exports – makes it very vulnerable to price swings in international commodity markets as the one driven by the global economic downturn following the outbreak of the coronavirus disease. "China sneezes, Latin America catches a cold," writes the EIU[31]; and China is not the only sneezing country today. **Venezuela**'s already crippled economy, with the highest inflation worldwide, is one of those that rely heavily on oil exports. These accounted for 99 percent of merchandise exports in 2018. Moreover, Venezuelan oil production decreased from 1273,1 thousand barrels/day on average in 2018 to 865 thousand barrels/day in February 2020 amidst US sanctions, compounding the shock to export earnings from plunging prices.[32] Fuel exports also make up 60 percent of merchandise exports for **Colombia** – the Colombian peso lost almost 20 percent of its value since the beginning of the year – and more than 40 percent for **Ecuador**. Unable to stimulate the usual response in demand because of a paralyzed global economy and lower oil prices, oil exporters are confronted with the double whammy of tumbling prices and low demand. The International Energy Agency projects Ecuador's oil and gas income will fall by 85 percent relative to 2019.[33] This comes at a time when the country is already struggling to pay its foreign debt and stay on track with a USD 4.2 billion IMF bailout, leaving it with little fiscal space to manage the pandemic.[34] While food security may not be as pervasive across the region as in other parts of the world, early projections by WFP's Regional Bureau paint a bleak picture. Severe food insecurity is expected to increase six-fold in Colombia and the numbers of people suffering from moderate food insecurity to increase from 2.11 to 3.78 million. In Colombia, Ecuador and Peru the vulnerable migrant population– some of the most affected by movement restrictions and heavily reliant on informal income – can grow by 70-80%. The number of severely food-insecure Venezuelan migrants in Ecuador is projected to double and the pandemic could leave Venezuela itself with 14 percent of its entire population severely food insecure.[35]

While primary commodity exports are arguably the most important channel through which COVID-19 affects Latin America's economies, the region's reliance on remittances and tourism adds to its vulnerability. Amidst a struggling global economy, a decline in remittances by seven percent compared to the previous year (implying a drop by USD 6 billion in remittances from the US) is seen as a conservative estimate.[36] Central America and the Caribbean will suffer most with remittances accounting for 10 percent of GDP on average and significantly more in some countries, e.g. almost 35

[31] http://country.eiu.com/article.aspx?articleid=1459036329&Country=Ecuador&topic=Economy
[32] https://www.opec.org/opec_web/en/about_us/171.htm
https://tradingeconomics.com/venezuela/crude-oil-production
[33] https://www.iea.org/articles/energy-market-turmoil-deepens-challenges-for-many-major-oil-and-gas-exporters
[34] https://www.ft.com/content/31955ac0-6554-11ea-b3f3-fe4680ea68b5
[35] Government of Venezuela has not endorsed the findings of this assessment.
[36] https://www.thedialogue.org/analysis/migrants-and-impacts-of-the-covid-19-pandemic-on-remittances/

percent in **Haiti** (Figure 3). Haiti stands out not only for its high reliance on remittances. In addition, 35 percent of its export earnings come from tourism. Together with food imports worth 80 percent of total exports and limited fiscal space (high public debt, negative current accounts and fiscal balance), this is a toxic combination in a country where half the population is chronically food insecure and which is home to 3.7 million people in IPC phase 3 or above. Only slightly less exposed through remittances and tourism, El Salvador, Honduras and Dominican Republic still pale in comparison with Haiti as all three are much better placed in terms of food import dependency and food security.

The situation in neighbouring **Cuba** is very preoccupying. The country is exposed simultaneously on different sides while already under pressure from US sanctions and spill-over effects of the crisis in Venezuela, which the pandemic will likely intensify. There has been speculation that the combination of the three could bring about conditions similar to the so-called "Special Period", which saw a 30 percent contraction in GDP.[37] Tourism and travel accounts for about a quarter of Cuba's export earnings. The country officially closed its borders on 24 March, shutting down its tourism sector. Estimates for 2018 see cash remittances at USD 3692 million, about 4 percent of GDP, but more than a quarter of export earnings.[38] Diminishing flows of USD to the island coincide with reports of failed debt payments[39] and record level budget deficits.[40] The government already announced in February that it might not be able to secure steady supplies of essential non-food items such as soap.[41] Meanwhile, Cuba imports about 60 percent of its food. This share could increase on the back of intermittent oil supplies from Venezuela – the winter crop was produced with just 40 percent of the usual fuel supplies – with dire prospects for food security on the island.

While the EIU still forecast 0.9 percent GDP growth at regional level in January 2020, it has now revised its expectations to a 4.8 percent contraction of GDP, outpacing all the rest of the world but the Euro Zone. The Economic Commission for Latin America and the Caribbean estimates that COVID-19's economic ramifications could trigger a rise in unemployment by 10 percent across the region, while pushing an additional 35 million of the region's 620 million inhabitants into poverty and causing a rise in extreme poverty from 67.4 to 90 million.[42] Already terribly high, these estimates are based on the more optimistic view of a 1.8 percent contraction in regional GDP with COVID-19 contained in China; and have been qualified as a reference projection given the current revised estimated GDP contraction of 3 to 4 percent.[43]

Narrowing down the countries at risk

While it does not look like COVID-19 will leave any country undamaged, some are more vulnerable than others from an economic and food security perspective. Based on the analysis above, we revisited our initial list of particularly vulnerable economies region by region, zooming in on those most at risk. While we have previously concentrated on primary commodity export and food import dependency together with macroeconomic capacity, this time we looked beyond these factors, considering also reliance on remittances and the importance of tourism. This allows us to identify countries susceptible to being hit not only on one front but to experiencing double (or even triple) blows from a global recession. These are highlighted in red in Table 1 below.

[37] https://www.thedialogue.org/blogs/2020/04/cuba-2020-a-las-puertas-de-una-crisis-humanitaria/
[38] https://www.ascecuba.org/remittances-cuba-revisited-impact-new-measures/
[39] http://country.eiu.com/article.aspx?articleid=949106678
[40] https://www.miamiherald.com/news/nation-world/world/americas/cuba/article241492896.html
[41] http://country.eiu.com/article.aspx?articleid=1579086941
[42] https://www.cepal.org/en/pressreleases/covid-19-will-have-grave-effects-global-economy-and-will-impact-countries-latin
[43] CEPAL, Coyuntura, escenarios y proyecciones hacia 2030 ante la presente crisis de Covid-19

Table 1: Countries at risk

Region	Country	Chronically food insecure (undernourished) Millions	Acutely food insecure (IPC phase 3 or above) * millions
East Africa	Burundi		1.7
	Djibouti	0.2	0.15
	Ethiopia	21.6	8.1
	Somalia		2.7
	South Sudan		6.1
West and Central Africa	Benin	1.1	0.02
	Cameroon	2.4	2.1
	Central African Republic	2.8	2.1
	Chad	5.6	1
	Gambia	0.2	0.1
	Ghana	1.6	0.02
	Guinea	2.1	0.3
	Liberia	1.8	
	Mauritania	0.5	0.6
	Niger	3.6	2.0
	Nigeria	25.6	7.1
	São Tomé and Principe	0.0	
	Sierra Leone	1.9	1.3
Southern Africa	Angola	7.4	0.6
	Congo	2.1	
	DRC		13.1
	Mozambique	8.3	2.0
	Zambia	8.0	2.3
	Zimbabwe	8.5	6.0
Middle East and North Africa	Algeria	1.6	
	Armenia	0.1	
	Iran	4.0	
	Iraq	11.1	2.5
	Jordan	1.2	0.1
	Kyrgyzstan	0.4	
	Lebanon	0.7	0.5
	Libya		0.3
	Palestine		1.7
	Sudan	8.2	6.2
	Syria		6.5
	Tajikistan		
	Yemen	11.0	15.9
Asia	Afghanistan	10.6	10.6
	Bangladesh	24.2	1.3
	Bhutan		
	DPR Korea	12.2	
	Nepal	2.5	
	Papua New Guinea		
	Timor-Leste	0.3	
	Vanuatu	0.1	
Latin America and the Caribbean	Bolivia	1.9	1
	Colombia	2.4	0.3
	Cuba		
	Dominican Republic	1.0	2.1
	Ecuador	1.3	0.02
	El Salvador	0.6	0.6
	Haiti	5.4	3.7
	Honduras	1.2	1.9
	Peru	3.1	0.04

	Venezuela	6.8	9.4

** All numbers come from the latest IPC projections for 2020 except West and Central Africa which come from the Cadre Harmonise 2020 projections. Both IPC and Cadre Harmonise are compatible. Government of Venezuela has not endorsed the finds of this assessment.*

Annex: Risk indicators by country

Table 2 shows the indicators used to categorize countries. We used data on four measures to highlight particularly vulnerable countries. These are

- The Economic Stability pillar of the Proteus Index[44], which captures both dependency on food imports and economic capacity to respond;
- Fuels, ores and metals exports as a share of total merchandise exports;
- Remittances as a percentage of GDP; and
- Tourism receipts as a share of total exports.

Red highlights flag when a country stands out for its vulnerability in a specific dimension. To determine this, we use the following thresholds,

- Economic Stability ≥ 0.47;
- Fuels, ores and metals export ≥ 40 percent of merchandise exports;
- Remittances ≥ 20 percent of GDP; and
- Tourism receipts ≥ 30 percent of total exports.

If a country passes the threshold in any of the four dimensions, we include it in the list of countries at particular risk (Table 1). Cuba is the only country which appears on this list without meeting any of the thresholds. We included it after considering the island's perilous current situation; and reviewing additional sources, which indicate that its Economic Stability Index (currently based on data from 2017) likely exceeds 0.47 when considering more recent data.

Table 2: Risk indicators by country

Region	Country	Economic Stability (Proteus)	Fuels, ores and metals exports % of merchandise exports	Remittances % of GDP	Tourism receipts % of total exports
East Africa	Burundi	0.68	12.8	1	1.4
	Djibouti	0.79	0.73	2.6	6.46
	Ethiopia	0.55	0.7	0.5	46.5
	Kenya	0.46	6.9	2.9	14.98
	Rwanda	0.45	28	2.7	25.9
	Somalia	0.67	30.56		
	South Sudan	0.65	98.77	6.7	0.4
	Uganda	0.41	7.1	5	18.6
West and Central Africa	Benin	0.48	3.2	3.5	6.28
	Burkina Faso	0.38	18.1	3	4.62
	Cameroon	0.38	47.4	0.8	8.7
	Central African Republic	0.49	3.8		
	Chad	0.38	93		
	Côte d'Ivoire	0.34	14	0.7	3.96
	Gambia	0.57	0.1	13.5	48.3
	Ghana	0.32	51.8	5.5	4.4
	Guinea	0.53	61.3	0.3	0.19
	Guinea-Bissau	0.44		3.1	5.3

[44] https://dataviz.vam.wfp.org/global-coverage-proteus-food-security-index-oct-2019

	Liberia	0.62		12.8	
	Mali	0.36	1.1	5.4	6.06
	Mauritania	0.38	48.7	1.5	0.3
	Niger	0.46	50.6	3	6.37
	Nigeria	0.37	94.3	5.7	2.9
	São Tomé and Principe	0.88	1.7	3.7	73.2
	Senegal	0.46	27.2	9.9	10.21
	Sierra Leone	0.51	9.3	1.3	5.2
	Togo	0.41	13.9	9.1	15.46
Southern Africa	Angola	0.38	98.5	0	1.3
	Congo	0.45	46.2		0.93
	DRC	0.46	83.1	4	0.4
	Eswatini	0.35	1.4	3.2	0.9
	Lesotho	0.39	0.5	15.7	1.92
	Madagascar	0.46	19	3.8	20.2
	Malawi	0.43	0.3	0.6	3.8
	Mozambique	0.43	78.8	2	5.5
	Namibia	0.36	31	0.4	9.8
	Tanzania	0.40	2.2	0.7	29.4
	Zambia	0.23	78.4	0.5	7.4
	Zimbabwe	0.40	43.3	8	3.35
Middle East and North Africa	Algeria	0.31	94.7	1	0.46
	Armenia	0.43	40.9	11.9	26.3
	Egypt	0.38	30.1	8.8	24.6
	Iran	0.29	74	0.3	
	Iraq	0.35	100	0.3	2.2
	Jordan	0.43	8.3	10.4	41.3
	Kyrgyzstan	0.41	35.7	29.6	18.7
	Lebanon	0.55	12.5	12.5	45.4
	Libya	0.50	88.6		
	Palestine	0.55	6.4	17.6	8.4
	Sudan	0.52	45.39	1.8	20.9
	Syria	0.47	5.1		
	Tajikistan	0.32	52	29.7	15.3
	Tunisia	0.32	7.8	5.3	11.9
	Turkey	0.30	6.7	0.1	16.6
	Yemen	0.56	0.5	13.3	
Asia	Afghanistan	0.77	11.7	4.4	3.1
	Bangladesh	0.47	1.2	5.5	0.8
	Bhutan	0.48	44.5	2.2	15.5
	Cambodia	0.42	0.1	5.6	26.24
	DPR Korea	0.49	32		
	India	0.36	18.2	2.8	5.4
	Indonesia	0.37	29.9	1.1	7.5
	Lao PDR	0.43	38.9	1.3	12.2
	Myanmar	0.43	27.1	4.6	10.6
	Nepal	0.54	1.7	29.9	27.8
	Pakistan	0.39	4.2	7.9	2.7
	Papua New Guinea	0.37	54.9	0	0.15
	Philippines	0.36	6.6	9.8	10.8
	Sri Lanka	0.38	3.4	9.1	27.7
	Timor-Leste	0.74	62.7	1.3	64
	Vanuatu	0.54	1.6	2.9	62.8
Latin America and the Caribbean	Bolivia	0.47	76.6	3	9.4
	Colombia	0.28	61.2	2.1	12.3
	Cuba	0.45			
	Dominican Republic	0.32	2.2	8.6	37.4
	Ecuador	0.35	42.4	3	7.6
	El Salvador	0.39	4.9	20.8	18.2
	Guatemala	0.41	7.1	13	11.1

Haiti	0.57	1.2	34.3	34.9
Honduras	0.38	3.4	21.4	10.2
Nicaragua	0.39	1.3	13.1	9.9
Peru	0.36	63.9	1.4	8.7
Venezuela	0.43	88	0.4	1.9