

Appraisal of Global Economic Outlook in the time of COVID-19

Abyaya Neopane and Swarnim Waglé

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Summary

Towards the end of 2019, the global economy appeared to be on an optimistic path of expansion, financial markets were bullish, and trade and political tensions were predictable. The onslaught of COVID-19 in early 2020, has abruptly cast a dark shadow of uncertainty through a concerted health, economic and humanitarian crisis playing out synchronously across the world.

As countries have tried to 'flatten the curve' through lockdowns and social distancing guidelines, these measures have restricted the flow of goods, capital and labor, disrupted global supply chains, and resulted in losses of jobs and income, defaults and bankruptcies. Global efforts to flatten the 'infection curve' has triggered a macroeconomic 'recession curve'.

The IFIs have projected a contraction of the global economy ranging between 3.3 percent and 5.2 percent, which is likely to worsen under more pessimistic scenarios. Cross border flows such as trade, capital flows and remittances also are expected to shrink in 2020. Likewise, logistics restrictions have prompted multinational firms to either diversify supplies over efficiency gains or turn inwards.

Tourist arrivals is estimated to fall by 60 to 80 percent in 2020, translating to a decline in international tourism receipts (exports) of USD 80 billion globally. Nevertheless, countries are trying to carve safe corridors or 'bubbles' where groups of countries that have tamed the spread of coronavirus would be allowed to travel only among themselves as tourists or even temporary migrants. Furthermore, consumers tend to buy more essential goods and postpone conspicuous consumption in uncertain times: worldwide spending on tourism has seen a fall of over 50 percent. Likewise, lockdowns have prompted adoption of digital and low-touch activities.

Some countries stand out for having tackled COVID-19 through widespread testing and contact tracing, early preparedness; harnessing of technology, often a result of sustained public investments in health infrastructure and leadership that believes in accountability.

Background

Towards the end of 2019, the global economy appeared to be on an optimistic path of expansion, financial markets were bullish, and trade and political tensions were predictable. In 2020, the IMF projected the world economy to grow at 3.3 percent, with advanced economies growing at 1.6 percent and developing economies at 4.4 percent. The financial market in 2019 was poised to mark a peak after the global financial crisis in 2007-2008.¹ The onslaught of COVID-19, announced first on December 31, 2019, has abruptly cast a dark shadow of uncertainty through a concerted health, economic and humanitarian crisis playing out synchronously across the world.

The SARS-CoV-2 virus that causes COVID-19 has spread to over 188 countries. As of June 21, 2020, there have been about nine million confirmed cases, and over 450,000 deaths. The crisis stands out for three reasons. First, the global economic recession that is unfolding as a result of the health emergency and containment measures is the worst since the Great Depression, 1929-1933. Second, there is uncertainty about the intensity, span, duration and the ‘end-game’ of the pandemic. Third, the crisis is unusual in its combination of shocks on three simultaneous fronts: demand, supply, and financial intermediation, limiting the efficacy of a standard rulebook of stimulating aggregate demand during economic stagnation.

In the short run, a country has a finite supply of health care – limited number of hospital beds, capacity for oxygen therapy, intensive care units, and health professionals. This caps the number of infections a country can treat at a point of time. If the virus spreads unchecked in an exponential manner, the health care system is overwhelmed, as was seen even in the most prosperous economies, from Lombardy to New York. This is what motivated countries to “flatten the curve” through physical distancing, quarantines and lockdowns (see Figure 1). However, this impels the fundamental character of public health and economic growth to collide. During a contagion, people need to be separated and segregated whereas economies require integration and connectivity to grow. Global efforts to flatten the ‘infection curve’ has triggered a macroeconomic ‘recession curve’.²

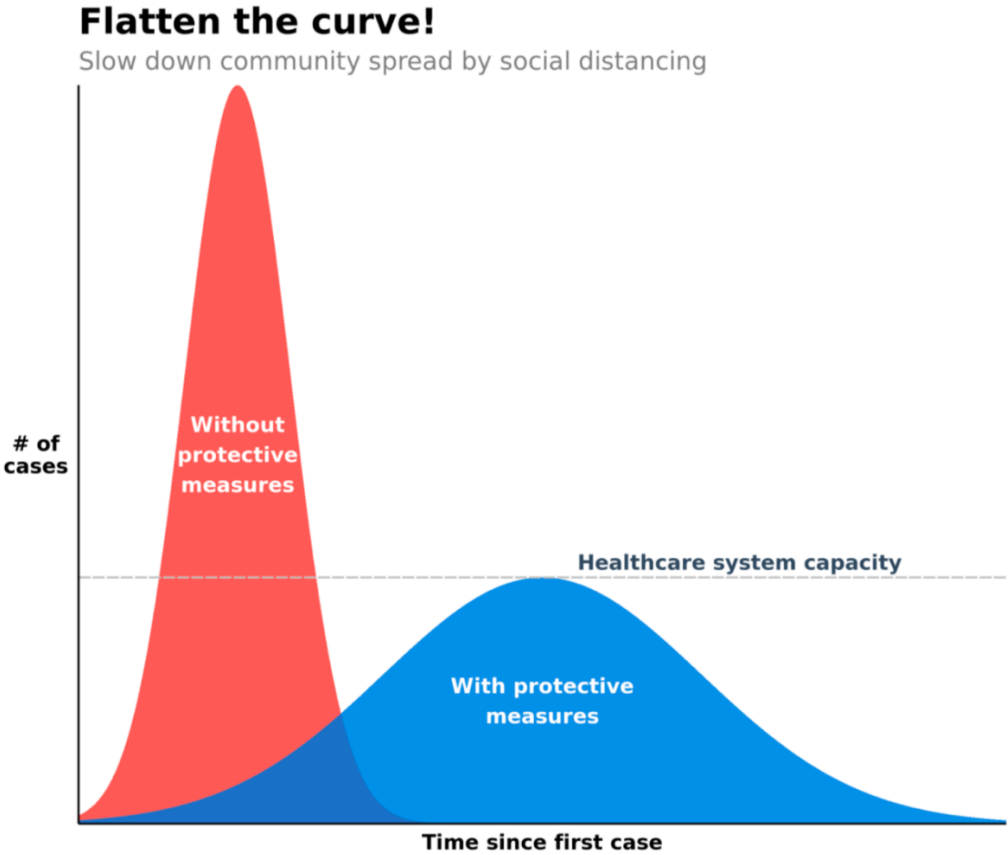
The restriction on the production of goods, and flow of capital and labor disrupts global supply chains. A prolonged recession implies loss of incomes, accumulation of public debt, and bankruptcies of private firms on a mass scale. Structural unemployment will likely exacerbate inequality and impose social costs through deteriorating public health. There will be new work

¹ <https://www.theguardian.com/business/2019/dec/31/global-stock-markets-post-best-year-since-financial-crisis>

² Gourinchas (2020)

practices and attitudes towards traveling. Reduced travels might help efforts to curb carbon emissions, but the pandemic itself has distracted the world from an equally urgent crisis of climate change. Lockdowns everywhere have heightened the importance of technology in connecting people and facilitating commerce. While digitalization will get a boost, greater reliance on technologies also poses new threats, such as cybersecurity.³

Figure 1: Why “Flatten the curve”?



Source: London Business School (2020)

The world economy is projected to contract by three percent in 2020, with advanced economies (AE) and emerging markets and development economies (EMDE) estimated to shrink by 6.1 percent and one percent, respectively, according to the IMF. The World Bank projects a global contraction of 5.2 percent. Likewise, the ADB expects Asia’s growth to slow down to 2.2 percent in 2020. Under optimistic assumptions, IMF predicts that the world economy will rebound in

³ See WEF (2020). “COVID-19 Risks Outlook A Preliminary Mapping and Its Implications.”

2021 with a growth of 5.8 percent. The ADB predicts a growth of 6.2 percent in Asia in 2021. (See Table 1)

Table 1: Growth projection in 2020-2021

Country/Region	IMF		ADB		World Bank	
	2020	2021	2020	2021	2020	2021
World	-3.03	5.8	-	-	-5.2	4.2
Emerging and developing Asia	1.04	8.5	-	-	-	-
Developing Asia	-	-	2.2	6.2	-	-
South East Asia	-	-	1	4.7	-	-
South Asia	-	-	4.1	6	-2.7	2.8
East Asia and Pacific	-	-	-	-	0.5	6.6
Europe and Central Asia	-	-	-	-	-4.7	3.6
Latin America and the Caribbean	-	-	-	-	-7.2	2.8
Middle East and North Africa	-	-	-	-	-4.2	2.3
Sub-Saharan Africa	-	-	-	-	-2.8	3.1

Source: World Economic Outlook 2020, IMF (2020); Asian Development Outlook 2020, ADB (2020) and Global Economic Prospects 2020, World Bank (2020).

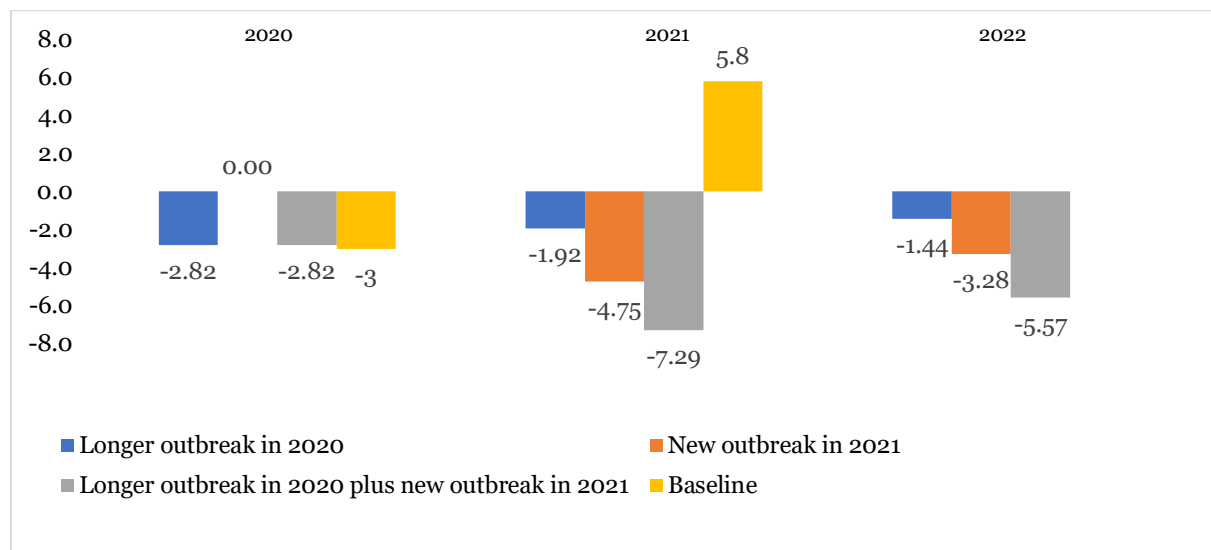
Uncertain trajectories

Given the prevailing uncertainty, projections of economic growth will keep evolving towards a negative direction. Sandefur and Subramanian (2020) argue that the growth projections for emerging and developing economies (EMDE) by IMF are optimistic. They point out that it is unusual for EMDE to have a lower level of economic contraction (of five percentage points) than advanced economies for several reasons. First, developing countries have had stricter responses in terms of lockdown, triggering deeper recessions. Second, as slow growth requires greater financial assistance from international financial institutions (IFIs), projections from these institutions might exhibit an upward bias. The authors claim that assuming developing countries

are impacted no better than advanced economies, global growth could decline by up to 4.5 percent (instead of -3 percent).⁴

The IMF’s projections on April 14, 2020 of a global contraction of three percent in 2020 and a good rebound of 5.8 percent in 2021 are based on a best-case scenario of the pandemic fading in the latter half of 2020. An alternative scenario (see Figure 2) where the fight against the pandemic takes 50 percent longer than the baseline, the world economy shrinks by 2.8 percent in 2020 and by 1.9 percent in 2021. In another scenario where there is an additional outbreak in 2021, world output shrinks by 4.7 percent in 2021 and by 3.3 percent in 2022. In the worst-case scenario, where it is assumed that the outbreak lasts longer in 2020, and there is another outbreak in 2021, output falls by a whopping 7.2 percent in 2021. This cannot be shrugged off: when a flu pandemic ravaged the world in 1918, it claimed at least 50 million lives worldwide (2.5 percent of the global population of nearly 2 billion). The flu came in three waves (see Figure 3), with the second wave being the deadliest.⁵

Figure 2: Growth rate projected by IMF 2020-2022



Source: IMF (2020)

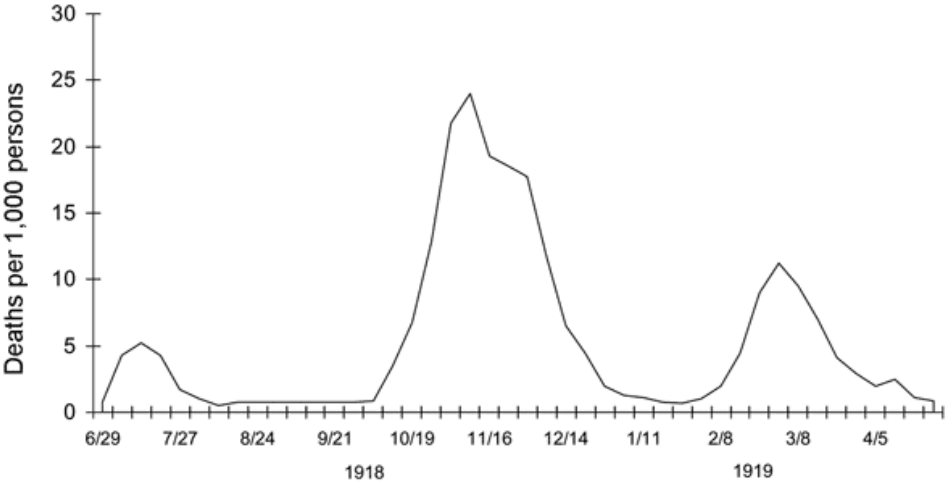
⁴ Sandefur and Subramanian (2020)

⁵ Killingley, D., & Phillips, H. (Eds.). (2003). *The Spanish Influenza Pandemic of 1918-1919: New Perspectives*. Routledge.

As economies reopen, what would the path to recovery look like? There are several scenarios that are possible based on the longevity of the pandemic, unemployment rate, the depth of the recession, among others; these are V-shaped, U-shaped, W-shaped and L-shaped recovery.

The V-shaped recovery is an optimistic outcome characterized by a sharp drop of GDP that is followed by a steep recovery – depicting a ‘V’ shaped curve. Likewise, another scenario, a U-shaped recovery, describes a situation where the level of GDP stays low for a longer time but eventually reaches a pre-crisis level. Furthermore, in a more pessimistic scenario, the recovery is W-shaped (double-dip). Here, the GDP first plummets sharply and then slowly rises temporarily – as lockdowns are lifted, the economy experiences a slight boost – but effects of unemployment and bankruptcies causes the GDP to fall back again, finally recovering after employment and business climate return to normalcy. Similarly, the worst recovery path is an L-shaped recovery characterized by a sharp fall in GDP, followed by a sluggish growth over a long period of time. Recovery of advanced economies after the Global Financial Crisis in 2008 was L-shaped.

Figure 3: Deaths during the Spanish flu that came in three waves



Source: Killingray and Phillips (2003)

Life is not expected to return to normal – a new normal – unless people are confident that they can be treated and cured. This is a medical view, and this requires the invention of either a vaccine or anti-viral treatments that are efficacious. However, throughout world history, pandemics have

also ended socially, when the “epidemic of fear” about the disease wanes, and people learn to adapt and live with the disease.⁶

Lockdowns cannot continue forever because the likelihood of mass hunger and other diseases will likely overtake the immediate threat of COVID-19. Countries around the world have, therefore, started to ease the closure of their economies. In the UK, where over 30,000 have died, a ‘three stage plan’ to revive the economy has been announced. Italy, another hotspot has started to open restaurants, with social distancing measures. Likewise, Germany resumed its premier football league, Bundesliga, but in an empty stadium. China has opened factories and offices, with restrictions, and at lower rates of capacity utilization.

Inequality and social immobility are expected to worsen as the economy runs at ‘90 percent’. For people with strong networks and tele-communicable jobs, working from home is a matter of adaptation with no likely dip in productivity. However, junior professionals would miss out on networking opportunities and mentoring by seniors. Many jobs, especially in travel and hospitality do not lend themselves to tele-communicability. Likewise, people from less fortunate circumstances will find it difficult to be socially mobile.⁷

Economic sentiments

This section assesses the world economy by looking at various scenarios in trade, investment and remittances; travel and tourism; and consumer confidence.

Cross-border flows

During, and in the aftermath of the pandemic, trade policies will be introverted. World trade is likely to fall by 10 to 30 percent in 2020. As countries leave the idea of treating firms and goods equally regardless of their origin, it will lure countries towards greater protectionism, undermining over 70 years of multilateral principles in commercial relations such as the Most Favored Nations (MFN) and National Treatment (NT).

⁶ New York Time 2020, Coronavirus Plagues Pandemic History, viewed 25 May 2020, <<https://www.nytimes.com/2020/05/10/health/coronavirus-plague-pandemic-history.html>>

⁷ Economist (2020). <https://www.economist.com/briefing/2020/04/30/the-90-economy-that-lockdowns-will-leave-behind>

Even as and when economies reopen, the world will not revert to unfettered movement of people, goods and capital. Before the pandemic, some advanced countries had begun to look inwards and toy with populism, clearly exhibited in the United States and the United Kingdom. Politics after the pandemic is likely to accentuate issues around immigration and trade under a new rubric of ‘self-reliance’. In India, the Prime Minister has said the pandemic gives an opportunity to become self-reliant (“*Aatma nirbhar*”). In Japan, economic stimulus is available only for firms that repatriate factories. Similarly, the United States has urged companies such as Intel and Apple to relocate to the US.

In 2020, all sources of cross-border flows will slow: the WTO expects trade to fall by 10 to 30 percent; UNCTAD reckons foreign direct investment to fall by 30-40 percent, while the World Bank estimates a decline in remittances by 20 percent.⁸

The pandemic has restricted supply of raw materials, intermediate inputs as well as final goods – posing a serious challenge for Global Value Chains (GVCs) that account for 70 percent of international trade and 22 percent of global output. These multinationals also hold a significant share of global employment – in 2016, US multinationals employed 43.3 million people worldwide.

Fall in demand across all levels of the value chain, along with logistics restrictions make it challenging for suppliers to remain afloat. For example, in Bangladesh, the pandemic affected garment suppliers in three phases. First, as Wuhan and other parts of China went on a lockdown, 90 percent of Bangladeshi suppliers reported higher prices and delayed shipment of raw materials caused by the fall in supply of raw materials (fabrics) from China. Second, as the pandemic hit buyers in the lower end of the value chain, 80 percent of suppliers in the upper end started facing payment delays. In the third phase, as buyers cancelled orders, suppliers found themselves in a grim financial situation.⁹

The pandemic has prompted multinationals to follow two paths post COVID-19 – either diversify supplies over efficiency gains or look inwards. For instance, Indian automotive giants Tata Motors

⁸ WTO (2020), UNCTAD (2020) and World Bank (2020)

⁹ <https://blogs.worldbank.org/psd/foreign-direct-investment-and-global-value-chains-wake-covid-19>

and Maruti have started increasing local content in their production, which before the pandemic were supplied from China.¹⁰

However, governments need to be mindful that reshoring does not reduce supply chain risk. Instead, reshoring tends to increase the cost of production and weaken competitiveness. More importantly, such inward looking policies tend to hit developing countries that heavily depend on GVCs for income, employment and growth. Possible relocation strategies by multinationals nevertheless give countries that could not latch on to the earlier wave of GVCs a chance to integrate.

World Bank (2020) finds a number of transmission channels through which output, trade and employment will be affected. First, *employment shock* caused by factory closure and social distancing guidelines that forces worker and factories into idleness is expected to reduce employment by three percent. Second, *trade cost shock* triggered by a combination of additional inspections, reduced hours of operation, road and border closures, and increases in transport costs is expected to increase trade cost by 25 percent.¹¹ Third, *tourism shock* caused by travel restrictions is likely to result in a fall of international tourism by 25 percent. Fourth, *services shock*: as demand moves away from services that require close human contact (such as tourism, restaurants), to consumption of goods and less (or no) contact-based services, those services are estimated to see a fall in demand of 15 percent.¹²

Fall in air travel implies fewer planes, which means less room for air freight. As countries put up stringent border checks and longer compliance time, border costs will rise. The WTO expects the cost of shipment to increase at a value equal to 3.4 percent of global tariff. The average global tariff was around eight percent in 2018; this increases global tariff to over 11 percent.

Similarly, around 80 percent of shipments takes place by sea. Any disruptions to sea transport as a result of containment policies would disrupt trade flows and supply chains. Heiland and Ulltveir-Moe (2020) find a 20 percent fall in container ships compared to previous years, which will disrupt trade. When demand increases as slowly lockdowns are lifted, a limited supply of containers is likely to increase the cost of containerized transportation worldwide. Note that the

¹⁰ <https://blogs.worldbank.org/psd/foreign-direct-investment-and-global-value-chains-wake-covid-19-lead-firms-gvc>

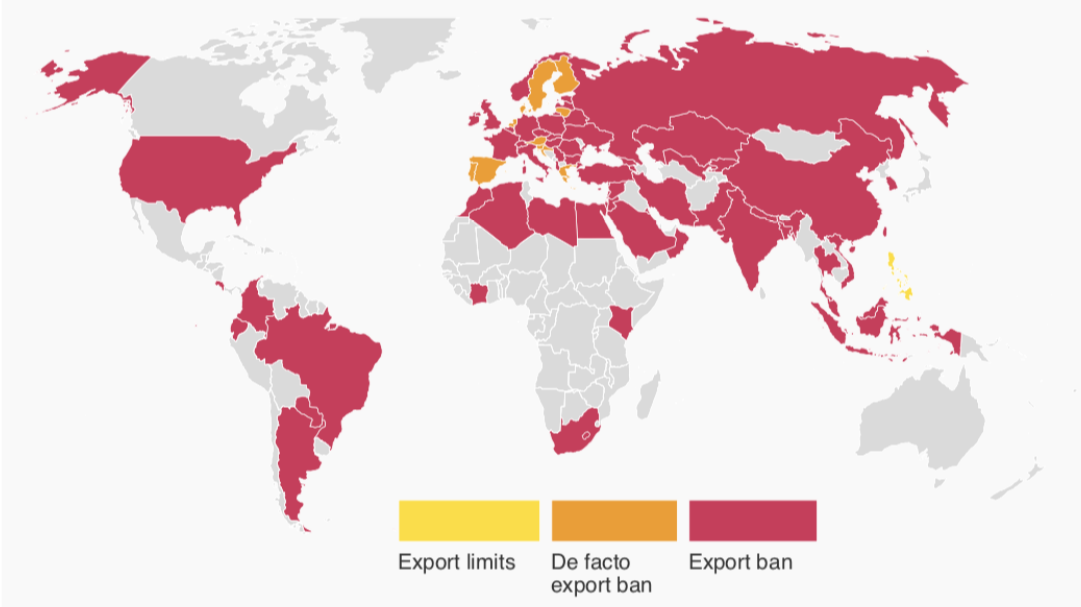
¹¹ Evans et al. (2015) find rise in trade case of 10 percent after the Ebola outbreak in affected countries.

¹² World Bank (2020), 'Global Economic Prospects', Washington, D.C., World Bank.

humble containers account for more economic expansion globally than all trade agreements put together after the 1970s: in 22 industrialized countries, it was found that containerization increased bilateral trade by 320 percent in the first five years and by 790 percent over 20 years; in contrast, a free trade agreement only boosted trade by 45 percent in 20 years.¹³

As COVID-19 exacerbates, governments around the world are struggling to meet the demand of medical products such as masks, equipment and medicines. This has led a number of governments around the world to resort to export restrictions in medical supplies (see Figure 4). As of April 25, 2020, there were at least 75 countries that put up export curbs and even bans on medical supplies. While this might look like self-interest, it is not pareto optimal.¹⁴

Figure 4: Sicken thy neighbor: Nations that have curbed exports of medical supplies.



Source: Official documents and media reports assembled by the Global Trade Alert team, University of St. Gallen, 20 April 2020.

¹³ See Bernhofen et al. (2013): http://web.archive.org/web/20130818212052/http://www.nek.lu.se:80/publications/workpap/papers/WP13_4.pdf
¹⁴ This is because of several reasons. First, curbing of medical goods in trading partners disrupts their COVID-19 planning and public health interventions. Second, Espitia et al. (2020) find export restrictions increase the cost of medical goods by almost 23 percent. Prices of flow splitters for oxygen supplies is projected to rise by 33 percent, protective goggles and masks by 40 percent, enzymes by 19 percent and medical ventilators by 12 percent.¹⁴ Third, while export ban might ensure domestic supply of medical goods remain inside the country, it does not encourage further production, especially in firms that are in a position to extract internal economies of scale. See Evenett (2020).

The WTO (2020) expects a recovery of trade in 2021 but it is conditional on the duration of the outbreak along with the efficacy of various policy responses. In an optimistic scenario which assumes a steep decline in trade that is followed by a recovery that starts in the second half of 2020, the volume of world merchandise trade is projected to fall by almost 13 percent and is expected to recover by 21.3 percent in 2021. While in a pessimistic scenario that assumes a sharper fall in trade along with a prolonged and incomplete recovery, trade is projected to fall by 31.9 percent and is expected to rebound by 24 percent in 2021 (see Table 2).¹⁵

Nearly all regions are expected to suffer double digit decline in trade. North America is likely to suffer the most in term of exports in 2020 with a fall of 17 percent, followed by Asia at 13 percent. Imports are likely to fall the most in South and Central America region (22 percent) followed by North America (14 percent) and Asia (11 percent). As trade shrinks, poorer countries would find it harder to catch up, while richer countries would find cost of living go up.

Table 2: Merchandise trade volume, 2018-2021 (Annual % change)

Flow/Region	Historical		Optimistic scenario		Pessimistic scenario	
	2018	2019	2020	2021	2020	2021
Volume of world merchandise trade	2.9	-0.1	-12.9	21.3	-31.9	24
Exports						
North America	3.8	1	-17.1	23.7	-40.9	19.3
South and Central America	0.1	-2.2	-12.9	18.6	-31.3	14.3
Europe	2	0.1	-12.2	20.5	-32.8	22.7
Asia	3.7	0.9	-13.5	24.9	-36.2	36.1
Other regions	0.7	-2.9	-8	8.6	-8	9.3
Imports						
North America	5.2	-0.4	-14.5	27.3	-33.8	29.5
South and Central America	5.3	-2.1	-22.2	23.2	-43.8	19.5
Europe	1.5	0.5	-10.3	19.9	-28.9	24.5
Asia	4.9	-0.6	-11.8	23.1	-31.5	25.1
Other regions	0.3	1.5	-10	13.6	-22.6	18

Source: WTO (2020)

¹⁵ https://www.wto.org/english/news_e/pres20_e/pr855_e.htm

International capital flows have also been shrinking. UNCTAD (2020) projects FDI flows to fall by 30 to 40 percent worldwide in 2020, down from a value of \$1.54 trillion in 2019 (see Table 3). Exacerbated by the fall in oil prices, the energy and basic material industry is expected to be the hardest-hit sector with foreign investment falling by 208 percent; while airlines and automotive industry is expected to witness a decline in investment flows by 116 percent and 47 percent, respectively. FDI is projected to decline further by five to 10 percent in 2021, and finally start recovering in 2022 in an upper bound of expectations.¹⁶

Various economies have tightened their FDI policies, particularly on approval and screening procedures, amid the COVID-19 crisis. For instance, Spain introduced an ex-ante authorization requirement in sectors such as critical infrastructure, robotics and energy, among others for FDI originating outside the EU and EFTA. Likewise, India amended its FDI policy to now require investors from countries with contiguous borders to get prior approval. Earlier, this procedure was required only for companies incorporated in Bangladesh and Pakistan. These inward-looking measures might make sense in the short run so as to avoid opportunistic takeovers during the pandemic but are counterproductive post-crisis. In the first quarter of 2020, investment in the US by Chinese venture capitalists shrunk to USD 400 million, 60 percent lower than 2018. At the same time, the main federal pension fund of the US has stopped buying Chinese shares.¹⁷

Table 3: FDI inflow historical growth rate and projections for 2020 (Annual % change)

Group of economies and region	Historical			Projected decline
	2017	2018	2019	2020
World	-14	-12	3	-40 to -30
<i>Developed economies</i>	-25	-20	5	-40 to -25
Europe	-16	-36	18	-45 to -30
North America	-40	-2	0	-35 to -20
<i>Developing economies</i>	7	0	-2	-45 to -30
Africa	-10	22	-10	-40 to -25
Asia	7	-1	-5	-45 to -30

¹⁶ The UNCTAD expects a U-shaped recovery.

¹⁷ Economist (2020): <https://amp.economist.com/leaders/2020/05/14/has-covid-19-killed-globalisation>

Latin America and the Caribbean	14	-5	10	-55 to -40
<i>Transition economies</i>	-25	-31	59	-45 to -30

Source: UNCTAD (2020)

Due to a fall in wages and employment in host countries, global remittance is projected to fall by 20 percent in 2020.¹⁸ Remittances are projected to fall by 27 percent in Europe and Central Asia, followed by Sub-Saharan Africa (23 percent), South Asia (22 percent), the Middle East and North Africa (19 percent), Latin American and the Caribbean (19 percent) and East Asia and the Pacific (13 percent). The World Bank expects remittances to rebound by 2021, growing at a rate of 5.6 percent to USD 470 billion in low- and middle-income countries.

Studies show how remittances have aided the alleviation of poverty and catalyzed social mobility. It has also proven to increase spending on education, investment in assets along with improving nutritional outcomes and reduced child labor across households. A significant fall in a major source of income affect families, especially those that are vulnerable to shocks, possibly pushing them back into poverty. While remittances tend to be counter-cyclical – migrant workers send more money back home in times of crisis and economic hard shift, this rare crisis has not made that possible.

Tourism and transportation

In 2019, tourism accounted for almost a third of global services exports and represented 4.3 percent of total investment, amounting to USD 948 billion worldwide. Employing over 330 million people, tourism accounted for one in every 10 jobs around the world in 2019.¹⁹ The United Nations World Tourism Organization (UNWTO) estimates that tourist arrivals would fall by 60 to 80 percent in 2020, translating to a decline in international tourism receipts (exports) of USD 80 billion globally.²⁰ In Asia, tourism fell by 35 percent in early 2020, with a decline of tourists by 40 percent, 22 percent and 33 percent in North-East Asia, South Asia and South-East Asia, respectively. Similarly, the World Travel and Tourism Council (WTTC) estimates 50 million jobs loses in 2020.²¹ This is bad news for countries that depend on tourism for jobs, incomes, and foreign currency.

¹⁸ World Bank (2020). <https://www.worldbank.org/en/news/press-release/2020/04/22/world-bank-predicts-sharpest-decline-of-remittances-in-recent-history>

¹⁹ WTTC (2019)

²⁰ <https://www.unwto.org/news/covid-19-international-tourist-numbers-could-fall-60-80-in-2020>

²¹ WEF (2020)

In the EU where tourism accounts for four percent of GDP, less than five percent of hotel rooms in Spain and Italy are occupied and the number of people travelling by airplanes dropped from 5 million to 50,000. Similarly, in the Maldives where tourism accounts for two-thirds of GDP, the World Bank expects a sharp GDP fall of 8.5 percent in 2020.

One innovation that countries are trying in tourism is to carve safe corridors or ‘bubbles’. Australia and New Zealand (possibly together with Fiji) are considering a Trans-Tasman bubble where groups of countries that have tamed the spread of coronavirus begin travel only among themselves. At a second stage, tourists from South Korea or China could also be allowed. Similarly, the Baltic states of Estonia, Latvia and Lithuania have initiated a travel-bubble. Akin to a preferential trade agreement, these tourist corridors if implemented with rigorous precautions could help resuscitate tourism while limiting the risk of coronavirus spreading.

Consumer spending

The pandemic has altered our daily lives irretrievably. Working from home has become a routine, students across all tiers have become familiar with distant learning, while people mostly from lower-income levels have been living with a constant fear of income and job losses. In this regard, a survey by McKinsey and Company explores how consumer sentiments have changed during the pandemic.²²

First, consumers all around the world have seen declining incomes. The number of respondents who faced a fall in income was highest in Brazil (70 percent) followed by India (65 percent).²³ Other countries had an income fall of over 27 percent.

Second, consumers tend to buy more essential goods: spending on groceries has increased by over 0-14 percent in all countries (see Figure 5); so have spending on home entertainment in all countries except France, where it has instead decreased by 1 to 14 percent. Similarly, spending on flights, hotels/resorts, vehicle purchase, adventure and tours among other, have seen a fall of over 50 percent in almost all countries. In terms of method of shopping, consumers in the US and APAC are shopping more online across major categories such as groceries, take out delivery and

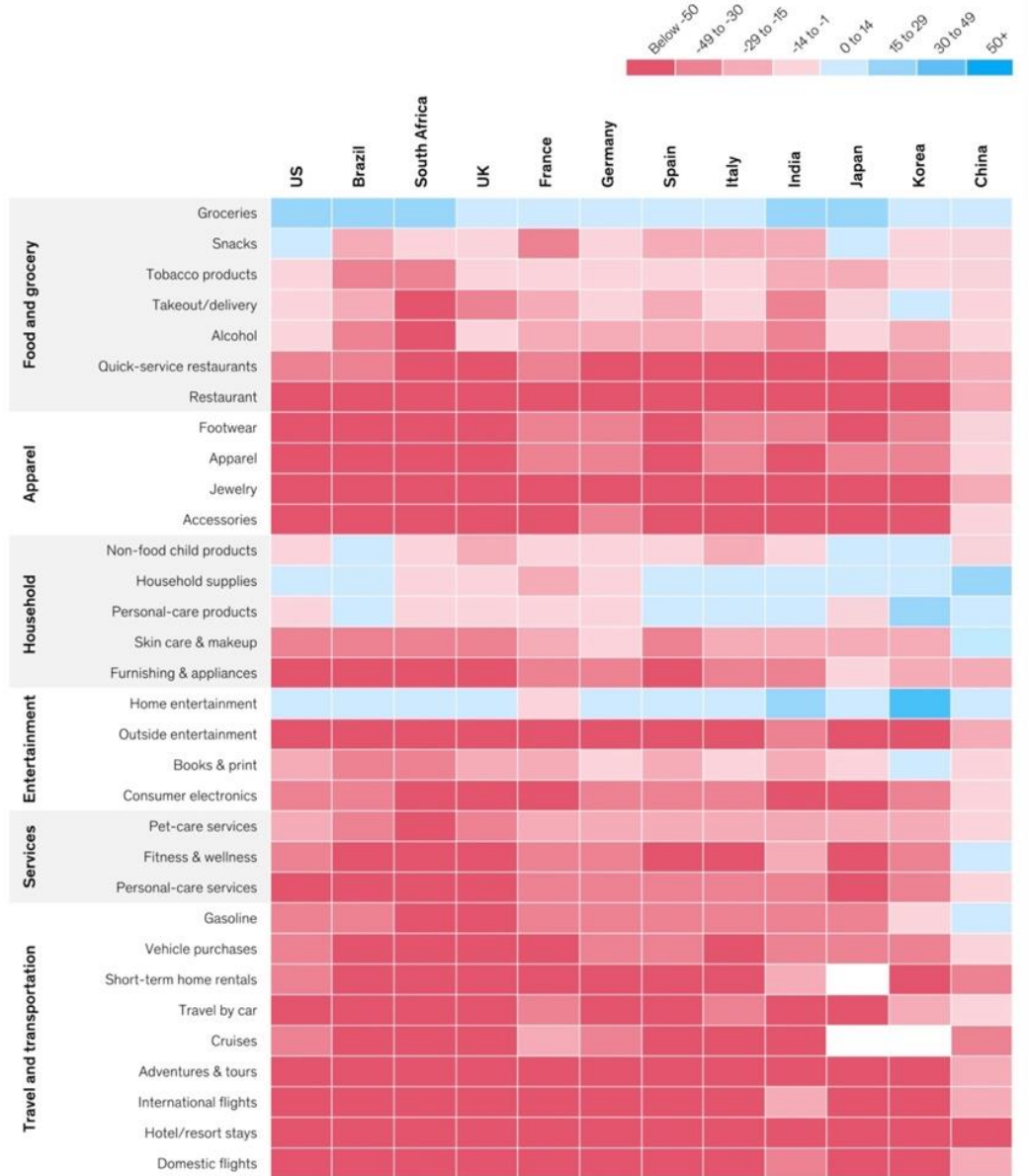
²² The survey included the following countries: United States, Brazil, South Africa, UK, France, Germany, Spain, Italy, Japan, India, Korea and China.

²³ India also saw the highest increment in income as cited by 17 percent of respondents.

home entertainment. With increased demand though online platform, investment in digital infrastructure will increase, so would development of new technologies along these lines.

Third, lockdown seems to be an ideal time for consumers to adopt digital and low-touch activities. Restaurant curbside pickup and store curbside pickup, video conferencing, remote learning for children and telemedicine was found to have over 50 percent of new users.

Figure 5: Expected spending per category over the next two weeks compared to usual (% net intent)



¹⁰ "Over the next two weeks, do you expect that you will spend more, about the same, or less money on these categories than usual?"
¹¹ Net intent is calculated by subtracting the percent of respondents stating they expect to decrease spending from the percent of respondents stating they expect to increase spending.
 For Skin care & makeup, the China data only includes Skin care. Makeup net intent was -4.
 Source: McKinsey & Company COVID-19 Consumer Pulse surveys, conducted globally between March 15 and May 3, 2020.

Source: McKinsey (2020)

Key to containment

The world was already on the brink of a 4th Industrial revolution characterized by a much more ubiquitous internet; smaller, cheaper and more powerful sensors; artificial intelligence and machine learning. As the virus has prompted contactless interaction among humans, we will see greater use of these tools in our daily life – from contactless payments, drone delivery service, and online learning. Likewise, in times like this crisis, the use of AI in drug development can accelerate and complement scientists, while telemedicine can increase health access to poor and vulnerable households.²⁴

There are a handful of economies such as Germany, South Korea, Mongolia, Vietnam, New Zealand and the Indian state of Kerala that have stood out of controlling the spread of coronavirus. What could be the factors behind this success?

First, widespread testing followed by contact tracing. Testing is done to understand the rate of infection of the virus as well as to ensure early diagnostics of patients thereby increasing their chances of survival. Countries that have practiced mass testing have been able to better understand the virus and thus have been able to contain the impact. Tests were complemented by contact tracing. Germany, for example, conducts around 350,000 coronavirus tests per week, far greater than its European neighbors. As a result, it is one of the few places that has a high number of infections but low number of deaths. Additionally, after each patient gets infected, it religiously tracks down people who have come in contact with that person. As pre-symptomatic infections are more likely to spread the virus, testing has been done on both symptomatic and pre-symptomatic infections; countries that only tested symptomatic cases in the early days of the pandemic have seen a larger outbreak.

Second, the degree of preparedness during the early days of the pandemic has proven to lower COVID-19 cases and death rates. The Indian state of Kerala was one of the early responders. It set up a COVID-19 control room in Kerala's 14 districts by 24th January, and before its first case arrived on 27th January, it had already implemented WHO's protocol of test, trace, isolate and support. While India's active caseload has escalated by a multiple of 71, it has fallen by two-thirds in Kerala.²⁵

²⁴ <https://www.forbes.com/sites/bernardmarr/2020/04/03/9-future-predictions-for-a-post-coronavirus-world/#d99876f54106>

²⁵ <https://www.economist.com/asia/2020/05/09/vietnam-and-the-indian-state-of-kerala-curbed-covid-19-on-the-cheap>

Similarly, Mongolia took a number of steps as early as January. It asked schools to close by 27 January; in mid-February when the virus started spreading outside China, it cancelled a national holiday – Tsagaan Sar (Mongolian lunar new year) in an attempt to limit travel between Ulaanbaatar and provinces outside the capital. Furthermore, it sealed off border with China and Russia and banned international flights from hotspots such as South Korea. The government also formed an 832 member COVID-19 taskforce and set 336 monitoring check posts across the country on 23rd February. For a landlocked lower middle-income country, early preparedness enabled it to tackle the pandemic better than its elsewhere at similar levels of income per capita.²⁶ As of 17th June, it had 197 confirmed COVID-19 cases and zero deaths.

Early social distancing measures also seem to be an effective control measure. Shenoy (2020) finds areas that saw rainy weekends prior to government mandated lockdown caused people to stay at home sooner, thereby lowering the trajectory of COVID-19 cases and deaths in those areas.²⁷

Third, use of technology offers new ways of fighting the pandemic. Location can be traced through GPS in mobile phones, card and bank transaction and surveillance videos can be used to narrow down the location and hence strengthen contact tracing. South Korea embraced this technology by making information of people who have recently tested positive publicly available. The information includes the location of the person at different times of the day, which restaurant/shops the person visited, whether there was another person accompanying, among others. This enables authority to quickly quarantine and sterilize locations, while allowing the public to be aware if they have contracted the disease. Implementing this technology has been possible as South Korea is one of the most digitally connected countries with more than 96 percent of people having internet access and 95 percent of people owning smartphones. Whether and how these technological intrusions collide with individual liberty and privacy are matters to be discussed and enshrined in a new social compact between citizens and the state.

Fourth, the capacity of public health infrastructure is another important factor. Germany's public health care system, for instance, is strong and efficient. In January, the ratio of ventilators to a patient was 34 per 100,000 in Germany, while in other European countries such as Italy and Netherlands, it was merely 12 and seven respectively. Even as the pandemic worsened, Germany was able to increase its health care capacity from 28,000 ICU beds to 40,000.²⁸

²⁶ <https://thediplomat.com/2020/03/mongolias-small-country-strategy-for-containing-covid-19/>

²⁷ Shenoy, A, 2020, 'Early social distancing has large and persistent impacts: Evidence from rainy weekends'

²⁸ <https://www.nytimes.com/2020/04/04/world/europe/germany-coronavirus-death-rate.html>

Similarly, Vietnam another successful country during the pandemic benefits from prior investment in public health, especially in primary care. Because it faced epidemics such as SARS in 2003 and a pandemic such as the Swine flu in 2009, the society was aware and prepared for a new outbreak.

Fifth, while the above-mentioned countries have been tackling the pandemic in their own way, a strong and transparent leadership is perhaps another factor. In Germany, Angela Merkel, a trained scientist herself has been able to calmly communicate to the public in an informed manner, inspiring confidence. In Kerala, the health minister boosted morale of village-level committees working to build public hand washing stations. While in South Korea, the President disseminated coronavirus information early and consistently to inspire a ‘war time sense of purpose’ among the public. Leaders who downplayed the threat early on have seen worse effects in their countries.

Way forward – how far is the cure?

To tame COVID-19, the world has three options: i) develop a new vaccine; ii) approve existing anti-viral treatments; and iii) learn to live with the virus.

As of April 9, there are about 115 varieties of COVID-19 vaccines that are being tried out in different countries, out of which eight to ten look promising.²⁹ As with any other vaccine, the drug has to be proved to be not only safe, but also efficacious. A vaccine might be able to fight the coronavirus but should not harm humans in other ways. One vaccine that is in the forefront is the ChAdOx1 nCoV-19 vaccine, developed by the Jenner Institute at the University of Oxford, which in late April started clinical trials in 1,100 people. Likewise, there are vaccines being developed by companies such as Moderna, Pfizer and CanSino that also show promise.

There are two traditional types of vaccines – inactivated and attenuated (live) vaccines. In the former, the body is injected with pathogens that are dead; in the latter, the body is given an attenuated form of the pathogen. In the race for a COVID-19 vaccine, a new approach has been also explored: RNA and DNA vaccines. Under this type of vaccine, instead of injecting the pathogen’s antigen into humans, the body is given a genetic code needed to produce that antigen.

²⁹ According to Gates Foundation (2020). <https://www.gatesnotes.com/Health/What-you-need-to-know-about-the-COVID-19-vaccine>

When it comes in contact with the human cell, the immune system attacks it and learns how to defeat the antigen in the process.

Short of a vaccine, the second approach is to develop effective anti-virals. There are two candidates here. A drug that has already received FDA approval for emergency use for the treatment of COVID-19 is Remdesivir, an antiviral drug produced by an American pharmaceutical company Gilead Sciences, Inc., in response to Ebola. While the drug shortens the recovery time in patients, there is limited information about its effectiveness.³⁰ Another drug under consideration is Hydroxychloroquine (HCQ), a prescription used to prevent and treat malaria, systemic lupus erythematosus, discoid lupus and rheumatoid arthritis. Initial studies on HCQ showed it might be able to prevent the coronavirus from multiplying; however, recent studies suggest otherwise. In a study in France, researchers monitored 181 COVID-19 patients where 84 of them were treated with HCQ while 97 were not. The researchers found no significant difference among the two groups. Similar results were found in China from another study.³¹ Scientists have therefore not been able to form a consensus so far.

More recently, another drug – a steroid – Dexamethasone has shown promise. A study by researchers from the University of Oxford on a sample of 6,000 COVID-19 patients in the UK, revealed that dexamethasone lowers the risk of death from 40 percent to 28 percent for COVID-19 patients on ventilators, while cuts risk of death from 25 percent to 20 percent for patients on oxygen.³²

The third – and risky – approach is to slowly develop immunity. If at least 60 percent of the population are infected with, recover, and become immune to COVID-19, the remaining people will be less likely to get infected and thus are less likely to spread the disease. This mechanism keeps the spread of disease under control.³³ The human cost of getting there, however, might be high with a morally unconscionable number of avoidable deaths.

Sweden, for example, has taken this approach of a 'herd immunity'. While the government has issued social distancing guidelines, encouraged people to work from home, discouraged non-

³⁰ <https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-issues-emergency-use-authorization-potential-covid-19-treatment>

³¹ <https://www.france24.com/en/20200515-studies-see-no-benefit-in-hydroxychloroquine-treatment-for-covid-19-patients>

³² <https://www.bbc.com/news/health-53061281>

³³ <https://www.jhsph.edu/covid-19/articles/achieving-herd-immunity-with-covid19.html>

essential travel, and banned gathering of more than 50 people, the country remains open. Estimates show that about a quarter of Swedes have achieved immunity; with one survey result concluding 27 percent of staff of a hospital in Stockholm to be immune to COVID-19.³⁴ There have been over 30 thousand confirmed cases with around 3,700 deaths in Sweden. It has seen 27 percent more deaths than normal during the outbreak, which is lower than Britain (67 percent), a country that has imposed a lockdown. While the number of deaths is significantly higher than its Scandinavian counterparts – Norway (233), Finland (300) and Denmark (548), authorities in Sweden argue that it has not been the worst-case scenario given the radical measure the country has taken.³⁵ Nevertheless, Sweden’s herd immunity approach is difficult to emulate because the high rates of infection required have not been possible to attain. It may also not be desirable.

³⁴ <https://www.nytimes.com/2020/04/28/opinion/coronavirus-sweden.html>

³⁵ <https://www.nytimes.com/interactive/2020/05/15/world/europe/sweden-coronavirus-deaths.html>