Measures to mitigate the economic impacts of a pandemic

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Introduction

Be it the Justinian Plague of 541 CE - driven by the radical shift to agrarian communities - or the Spanish Flu of 1918, with its accelerated spread through military camps, the force with which a pandemic hits humanity is colossal. Beyond the history books, however, not only do pandemics result in the loss of lives, but they also have disastrous effects on the international economy. With the power to paralyze a country's education, healthcare, tourism, infrastructure, and consumption pandemics have remained a key factor in dismantling a nation's socio-economic stability and development.

Thus far, the recent COVID-19 outbreak has brought the pervasive nature of pandemics to the forefront of global attention. The International Monetary Fund (IMF) revealed the dilapidated projections of the 2021 Gross Domestic Product (GDP), valuing it at depression of 6.5 percentage points[1] from the pre-COVID forecasts in January 2020. The adverse economic implications are acute on Less Economically Developed Countries (LEDCs) in particular, imperilling the improvement that was made in lowering extreme poverty from the 1990s.

The detrimental microeconomic impacts cost countries billions of dollars in post pandemic recovery stages. The World Economic Outlook (WEO) states that amidst lockdowns, economic policies must continue to cushion household income losses, as well as provide support to firms suffering the consequences of mandated restrictions to keep a nation's economy afloat.

Pandemics are geographically widespread, and cause a sizable deterioration in consumer demand and retail sales. This stands in contrast to epidemics, which are more localized. Epidemics themselves are capable of being very destructive as evidenced by, The International Growth Centre (IGC) which recently found that 12% of businesses surveyed in Liberia closed down in 2014 (due to the Ebola Epidemic), which was 7% higher than Africa's average business closure rate.[2] Since pandemics are much larger in scale, their impacts will be significantly more ruinous.

Pandemics undermine Goal 3.8 and Goal 8.3 of the United Nations Sustainable Development Goals that strive towards "universal health coverage, including financial risk protection by 2030"[3] and "promoting decent job creation, and encouraging growth of micro-, small, and medium-sized enterprises"[4] respectively.

Pandemics disproportionately impact poorer countries as they restrict mobility in industries and businesses, also reducing investments into the country's development. For developing countries that already suffer from unemployment, unstable tax revenues, and other forms of financial issues, a pandemic can prove unattainably expensive, resulting in their reliance on foreign investments—which are also dwindling. For example, in May 2020, foreign investors pulled out approximately 26 billion USD of investments from developing Asian Economies, with around 16 billion USD[5] from India itself. Not only did this increase concerns of an economic recession in Asia, but it also shed light on some underlying economic

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[1] 2020. Online. Internet. 10 Jul. 2020. Available: https://www.imf.org/en/Publications/WEO/Issues/2020/06/24/WEOUpdateJune2020.
[2] "The economic impacts of Ebola - IGC". *IGC*, 2020. Online. Internet. 10 Jul. 2020. . Available: https://www.theigc.org/impact/economic-impacts-ebola/.
[3] "SDGs .:. Sustainable Development Knowledge Platform". *Sustainabledevelopment.un.org*, 2020. Online. Internet. 7 Jul. 2020. . Available: https://sustainabledevelopment.un.org/topics/sustainabledevelopmentgoals.
[4] Ibid
[5] "COVID-19 Impact: Foreign investors pull out $26 billion from Asian economies, over $16 billion from India - Business News , Firstpost". *Firstpost*, 2020. Online. Internet. 2 May 2020. . Available: https://www.firstpost.com/business/covid-19-impact-foreign-investors-pull-out-26-billion-from-asian-economies-over-16-billion-from-india-raise-concerns-about-recession-8386041.html.

problems—the lack of macro-, and microeconomic planning, the need for global solidarity, and the absence of fund allocations to crises.

The growing globalisation of economies, an upsurge in economic interdependence and increased trading through imports and exports have created favourable conditions for a pandemic to logjam the global economy and throw nations into a standstill. The consequences are further exacerbated by the micro- and macroeconomic predicaments. From the higher risk of layoffs, to the medical expenditure and fading imports and exports, governments need to recurrently update policies and tackle loopholes.

As such, the international community must work towards guaranteeing international cooperation and coordination, making effective policy reforms, and increasing preparedness so as to combat the economic implications of a pandemic.

Definition of Key Terms

Government securities (G-Secs)

The Reserve Bank of India defines a Government Security (G-Sec) as, "a tradeable instrument issued by the Central Government or the State Governments. It acknowledges the Government's debt obligation. Such securities are short term (treasury bills) or long term (Government bonds and dated securities). G-Secs carry practically no risk of default and, hence, are called risk-free gilt-edged instruments."[6]

International Supply Chains

International supply chains are a dynamic grid that materialize when a company purchases or uses goods or services from overseas. It is inclusive of individuals, information, processes and resources involved in the fabrication, management and distribution of materials. It can span across numerous continents and countries for the intent of sourcing and supplying goods and services.[7]

Liquidity

The International Monetary Fund defines liquidity as "the ability of a solvent institution to make agreed-upon payments in a timely fashion."[8]

Oligopolies

Ellie Tragakes, an economic author, defines oligopolies as, "one of the four market structures, with the following characteristics: small number of large firms in the industry; firms have a significant control over price; firms are interdependent; products may be differentiated or homogeneous; there are high barriers to entry. Examples include the car industry, airlines, electrical appliances and the steel, aluminium, copper, cement industries (homogeneous products)." [9]

Pandemics

An epidemic taking place globally, or over a vast geographical region, crossing international boundaries and often impacting a great number of people.[10]

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[6]"Reserve Bank of India - Frequently Asked Questions". *M.rbi.org.in*, 2020. Online. Internet. 15 Jul. 2020. . Available: https://m.rbi.org.in/Scripts/FAQView.aspx?Id=79#1.
[7]"Global Supply Chains | CIPS". *The Chartered Institute of Procurement and Supply*, 2020. Online. Internet. 10 Jul. 2020. . Available: https://www.cips.org/knowledge/procurement-topics-and-skills/srm-and-sc-management/global-supply-chains/.
[8] *Global Financial Stability Report*. Washington, DC: International Monetary Fund. 2008. pp. xi. ISBN 9781589067202. OCLC 234146370
[9] Tragakes, Ellie. *Economics for the IB Diploma*. vols. 2nd ed., 2012.
[10] "WHO | The classical definition of a pandemic is not elusive". *Who.int*, 2020. Available: https://www.who.int/bulletin/volumes/89/7/11-088815/en/#:~:text=A%20pandemic%20is%20defined%20as,are%20not%20considered%20pandemics.

Protectionist Policies

The World Trade Organization define protectionist policies as, "measures taken by governments to defend the interests of their domestic industries by protecting them from foreign competition. These policies include tariffs, quotas, subsidies, embargoes, standardization, and several others. They are the cause of trade barriers and are responsible for distorting competition in international trade." [11]

Repos

The International Monetary Fund defines a repurchase agreement (repo) as a "transaction in which the borrower temporarily lends a security to the lender for cash with an agreement to buy it back in the future at a pre-determined price. Ownership of the security does not change hands in a repo transaction." They may be treated as a collateralized loan.[12]

Stagflation

The Balance defines stagflation as, "a combination of stagnant economic growth, high unemployment, and high inflation. It's an unnatural situation because inflation is not supposed to occur in a weak economy. In a normal market economy, slow growth prevents inflation. As a result, consumer demand drops enough to keep prices from rising. Stagflation can only occur if government policies disrupt normal market functioning." [13]

Tax Incentives

The United Nations Conference on Trade and Development defines tax incentives as, "any incentives that reduce the tax burden of enterprises in order to induce them to invest in particular projects or sectors."[14]

Background Information

Microeconomic Impacts

Often, while considering the impacts of a pandemic, the microeconomic impacts (namely on households) are overlooked. There are several reports on the economic impacts of pandemics, such as those of Bloom and Mahal (1997) and Brainerd and Siegler (2003), however, they concentrate solely on GDP per capita. Most of these studies show the reverse causality between GDP and pandemics but have ignored potential microeconomic impacts. The most prominent impact is higher evasion rates on loans as individuals are unable to reimburse the borrowed amounts. Research in South India displays that the default rates on small loans jump from 5% to 90% in times of pandemics[15]. Not only does this lead to interest accruing for borrowers, but it also deprives banks of cash. Furthermore, The Foundation for International Community Assistance (FINCA) on Impact Finance conducted research in Uganda wherein 70% of the responders conveyed that they were unable to run their businesses.[16] Additionally, workers aren't given their salaries, due to which they struggle with things like rent and essentials. For instance, in the United States more than 1 in 6 American workers have lost jobs since mid-march[17], more than 4 in 10 Americans would have difficulty of covering a rent of 400USD[18], and more than 2 in 5 people are falling back on

[11] "WTO | Glossary - a guide to WTO speak". *Wto.org*, 2020. Available: https://www.wto.org/english/thewto_e/glossary_e/glossary_e.htm.
[12]"What is a repurchase agreement? – IMF DATA Help". *Datahelp.imf.org*, 2020. Available: http://datahelp.imf.org/knowledgebase/articles/484377-what-is-a-repurchase-agreement.
[13]"Why Stagflation (Probably) Won't Reoccur". *The Balance*, 2020. Available: https://www.thebalance.com/what-is-stagflation-3305964.
[14]*Unctad.org*, 2020. Available: https://unctad.org/en/Docs/iteipcmisc3_en.pdf.

[15]"For Microfinance Lenders, Covid-19 Is An Existential Threat". *The Economist*, 2020, https://www.economist.com/finance-and-economics/2020/05/05/for-microfinance-lenders-covid-19-is-an-existential-threat.
[16] ibid
[17]*Usatoday.Com*, 2020, https://www.usatoday.com/in-depth/news/nation/2020/05/05/coronavirus-unemployment-jobless-americans-cant-pay-rent-buy-food/3020833001/.
[18]"31% Can'T Pay The Rent: 'It'S Only Going To Get Worse'". *Nytimes.Com*, 2020, https://www.nytimes.com/2020/04/08/business/economy/coronavirus-rent.html.

monthly bills.[19]Thus, it is vital to understand the multi-faceted issues – on microfinance industries, small business owners and the mass public - that pandemics cause.

Bankruptcy

Many microfinance institutions have a financial buffer that allows them to cope with short-term losses that arise during crises. Nevertheless, their viability is at risk of failure, and they may be compelled to default or to declare bankruptcy. There are two forms of bankruptcy – chapter 11 and chapter 7 – that corporations file for. Chapter 11 calls for negotiations on restructuring debt terms with creditors and Chapter 7 calls for liquidation and the sale of assets. General Motors (GM) declared bankruptcy in 2009 due to being impaired by the financial crisis. That being said, it very soon reclaimed its position and profitability as America's largest automaker by 2011. In 2020 – in response to the pandemic – big corporations filed for bankruptcy. Fashion brands like Aldo, J.Crew, and Debenhams, and restaurant chains like Chuck-E-Cheese closed their doors. In 2009, General Motors was able to remain intact back because it was a large listed company. Nevertheless, the economic recession was also at the forefront of global attention back then. This stands in contrast to 2020, where governments and companies are focused on tackling humanitarian health issues, with less attention on the economy.

As such, when a corporation files for bankruptcy, employees are terminated. Top-tier businesses often have more than 500 employees. For instance, Cirque du Soleil has dismissed 3,480 employees[20] on going bankrupt, leaving a large number of people without a cash inflow during such trying times.

Less Economically Developed Countries (LEDCs)

Irrespective of where a disease outbreak begins, LEDCs are often impacted the worst. They have poorer health services and in some cases, an inability to cope with shocks. Researchers predict that if a flu similar to the Spanish flu of 1918 struck today, 62 million deaths could occur, out of which 96 per cent would occur in LEDCs.[21] During a pandemic, vaccines are developed rapidly to be made available for treatments. However, despite concerted attempts to ensure fair access, LEDCs often receive them last because the sale of vaccines follow the logic of the market. Furthermore - being heavily reliant on foreign aid - LEDCs often face adverse implications during crises due to rising protectionist policies. This happens as nations tend to prioritise their interests over others in order to combat a predicament.

Protectionism

The COVID-19 crisis is manifesting economically as one of the fiercest trade wars on record, arguably since the Smoot-Hawley Tariff Act of 1930. As death rates from a pandemic surge, so do the regular concomitants of calamity like zero-sum struggles for advantage and protectionism. While nations jostle to obtain crucial medical equipment, there have been numerous allegations of shipments being diverted from the expected destinations. The core of this issue is the shortage of goods that are driving up prices. According to a survey undertaken by the Global Business Alliance, which represents U.S. branches of groups like BMW, Nestlé and HSBC, 77%[22] of leaders believed the U.S. would become more protectionist in investment, cross-border mergers and acquisitions, and government procurement in light of an outbreak. This tails any crisis as nations begin looking out for their own interests.

Foreign Investment

In the past, Foreign Direct Investments (FDIs) have been used as a barometer of economic health to test international companies, and their capacity to bring about global development. With the present-day freezing over of foreign investments, a

[19] ibid
[20] ibid
[21] Yamey, Ben. "Pandemics And The Poor". *Brookings*, 2020, https://www.brookings.edu/blog/future-development/2017/06/19/pandemics-and-the-poor/.
[22]"Register To Read | Financial Times". *Ft.Com*, 2020, https://www.ft.com/content/cbc25999-de4f-4d95-9f05-a32ea2d39964.

problem materializes once the health emergency abates: a deeper economic recession to encounter. The United Nations Conference on Trade and Development (UNCTAD) just revised their forecasts on the impacts of COVID-19 on FDI flows from -5% to -15% to -30% to -40% [23]. These contractions are possibly the most intense in modern history. In the instant aftermath of the 2009 financial crisis, FDI flows fell by 37%, down to 1.1 trillion USD, introducing the 'Great Recession'. However, at the onset of the coronavirus pandemic, the infection has already obliterated 500bn USD in foreign investment, with predictions of the worst yet to come.[24] The lower FDIs will adversely impact nations, as most multinational firms will lose funding and business and LEDCs will lose a major source of commerce.

Consumerism

Gaining insight into the economic impacts of a pandemic results in consumers pulling back from discretionary spending, like that of e-commerce goods. Amidst the negativity in the environment, consumer sentiment is impaired. This coupled with a depression in general income, causes consumers to become conservative and reluctant to spend money. Furthermore, the expectations of long lasting impacts and the learnings from the virus, will cause consumers to reshape their routines and finance, resulting in more money being put towards savings accounts. Therefore, there is an overall decline in consumerism.

International Trade

In 2008-09 the world faced a financial crisis, where trade flows sagged. A significant aspect that led to the slowdown in world trade is the synchronized nature of the decline in imports and exports. Back then, however, trade flows were impacted due to an economic recession not a humanitarian health issue. A decade later in 2019, The WTO stated that global trade was slowing down with around -0.1% decline in its volume[25]. This was drastically accelerated due to the coronavirus, where the expected dip rose to between -13% and -32%.[26] Considering goods travel overseas, the risk of contact between individuals is inevitably high, and that can cause a virus to spread. Trade also decelerates as there is no demand - considering consumerism has fallen - and industrial units shut down. Thus, amidst such situations, countries refrain from importing or exporting any goods.

Availability of resources

As major countries go into lockdown modes - inhibiting the operation of corporate offices and factories – companies are ceasing the production of common goods, causing the number of available resources to contract. In January 2020, many imports from China – a vital player in the manufacturing sector - did not make it to the cargo ships, delaying shipments on raw materials. Major inventories like those in Myanmar, Bangladesh, and Thailand experienced shortages in goods when wanting to deliver to global businesses, demolishing an entire supply-chain (consumer electronics for eg.). The lack of resources also sparks bidding wars, as most suppliers assert that they are not price-gouging but reflecting elevating costs – from the rise in demand – for raw materials and precautionary products. Price-gouging is a situation where businesses take advantage of an external crisis to charge elevated prices for basic goods – selling them significantly above their usual price. It often takes place during bidding wars, where suppliers find opportunities to gain higher profit.

Daily wage workers

In light of factories and companies shutting down production, the daily wage workers are adversely impacted. In such scenarios, due to the inflow of cash reducing in companies, the lost labour productivity, and an increase in absenteeism, there is a growing reluctance to pay workers. Thus, employers find loopholes to fire employees and save money altogether. Approximately 31.077% of the Indian workforce are daily wage workers who are directly impacted by pandemics such as COVID-19.[27] Globally, it is also found that LEDCs have a higher proportion of daily wage workers, therefore, they will face more adverse impacts as compared to another nation. For instance, Burundi has an average daily wage of 0.055 USD for a

[23] ibid
[24]Foreign Investment Is Drying Up Thanks To COVID-19. But There May Be A Silver Lining". *World Economic Forum*, 2020, https://www.weforum.org/agenda/2020/04/foreign-investment-covid19-economy-winners/.
[25]"Trade Set To Plunge As COVID-19 Pandemic Upends Global Economy". *Wto.Org*, 2020, https://www.wto.org/english/news_e/pres20_e/pr855_e.htm.
[26] ibid
[27]WRAP, BIZ, and Economy Politics. "Coronavirus Lockdown I: Who And How Many Are Vulnerable To COVID-19 Pandemic". *Businesstoday.In*, 2020, https://www.businesstoday.in/current/economy-politics/coronavirus-covid-19-daily-wage-workers-vulnerable-landless-labourers-agricultural-workforce/story/399186.html.

large sector of its population.[28] As such, the majority of the population falls below the living poverty line, and thus are cripplingly impacted when not paid regularly, falling short on essentials like: medical treatments, house rent, food, and even their children's education.

Medical Expenditures and Hospitals

The pressure on the medical industry increases drastically as there will be a surge in hospital admissions which results in a peak of operational and administrative expenditure. In fact, a recent study stated that the spread of a virus can cause the drainage of hundreds of billions of dollars on direct medical expenditure like hospital beds and ventilators. For instance, if 20% of the United States of America's population was to get infected, there would be an average of 11.2 million hospitalizations with 1.6 million ventilators used, costing an approximate 163.4bn USD.[29] If 50% of the population were to get infected then it could reach 408.8bn USD causing a huge strain on the healthcare sector.[30]
In this context, being the primary source of economic reliance at these times, medical and health insurance companies will also face economic implications. This is because people who invest in insurance will ensure their expenditures are accommodated for. However, in certain cases people even look away from health insurance as pandemics provide tailwinds to protection products. Therefore, even though people spend on insurance, there is a large proportion of the public that increase investment into the precautionary products (masks, sanitizers, gloves) instead.

The Agricultural industry

A zoonose is a disease or infection that is naturally transmissible from vertebrate animals to humans. Considering many pandemics are zoonoses this does have its impacts on the agricultural industry. If a virus were to develop from an animal, a country would input a lot of money into the agricultural industry, for things like the slaughter and containment of the animals that pose threats. Due to this, agricultural and crop-based trade might decrease, as foreign competition might have better produce. One example is the H1N1 Influenza virus that originated from North American and Eurasian pig herds and affected more than one third of the globe in 1918. It was an extremely dangerous outbreak killing over 675,000 Americans.[31] The US National Library of Medicine published an article on how agricultural intensification and environmental change can cause zoonoses. In light of this, governments might steer clear from any sort of agricultural developments to nullify their fear of any probable zoonoses.

Major Countries and Organizations Involved

India

India has borne Cholera (2001), SARS (2003), the Avian Influenza (2006), and COVID-19 (2019) amongst other contagions. The nation has shown responses through monetary and fiscal measures. For example, in response to COVID-19, the Finance Minister announced a stimulus package valued at 0.8% of the GDP, which included food and gas, cash transfers, and insurance coverage.[32] Additionally, the Prime Minister committed 150 billion rupees to health infrastructure, isolation beds, and other medical equipment.

International Labour Organization (ILO)

The International Labour Organization is an international agency that embodies blue- and white-collar workers, employers and government officials from 187 member states. They aim to establish just labour guidelines, and concoct rational policies and programmes. The Occupational Safety and Health – Management System (OSH-MS) is an approach by the ILO which works in developing countries to create emergency preparedness, and plan responses to pandemics, while formulating appropriate policies and assessments for problems such as but not limited to unemployment.

Islamic Republic of Iran

[28] Administration, Social et al. "Social Security Programs Throughout The World: Africa, 2019 - Burundi". *Social Security Administration Research, Statistics, And Policy Analysis*, 2020, https://www.ssa.gov/policy/docs/progdesc/ssptw/2018-2019/africa/burundi.html.
[29] "COVID-19 Could Cost The United States Billions In Medical Expenses". *Sciencedaily*, 2020, https://www.sciencedaily.com/releases/2020/04/200423160512.htm.
[30] ibid
[31] "1918 Pandemic (H1N1 Virus) | Pandemic Influenza (Flu) | CDC". *Cdc.Gov*, 2020, https://www.cdc.gov/flu/pandemic-resources/1918-pandemic-h1n1.html.
[32] 2020, https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19.

In June 2014, the Middle Eastern (MERS-CoV) pandemic debarked in Iran, triggering the highest number of cases, globally. In 2020, the Coronavirus caused havoc in the nation, which pushed the government to selling its residual shares (of public companies like The Social Welfare Fund) in 18 companies in hopes to generate funds. They needed to do so as - despite the virus - they were struggling with U.S Sanctions. Furthermore, in response to COVID-19, The Central Bank of Iran postponed loan payments by 3 months, and injected 1.5bn USD[33] into the foreign exchange market to stabilize the inflating Rial.

Italy

Centuries ago, in the year 1576, amidst the Italian Plague, even as neighbouring cities were destroyed, the northern Italian city of Ferrara managed to avoid even a single death from the pestilence. Records show that border controls, sanitary rules and personal grooming were crucial in the development of the region back then as well. At present, Italy was one of the first countries to see a negative net inflow of COVID-19 cases. Around 1.4%[34] of the Nation's GDP was apportioned as The 'Cura Italia' emergency package, which aimed to strengthen healthcare systems and preserve and maintain jobs and businesses. The government further aimed to promote liquidity, acquiring state guarantees of up to 400 billion euros which uncovered schemes to unlock liquidity for business and households.

People's Republic of China

With its high population density, China has the ideal breeding grounds for a virus. From Polio (2000), to A(H5N1) (2003), to SARS (2003), to A(H5N6) (2015), and even COVID-19 (2019), the nation has withstood inordinate damage. In 2003, the nation lost 12bn USD due to the restrictions imposed by the SARS outbreak.[35] The money was lost through the travel, tourism and retail industries mainly. In 2019, the COVID-19 pandemic contracted the economy by 6.8% in the first quarter[36]. The government has dispensed RMB 4.2 trillion on fiscal measures such as, epidemic prevention, production of medical equipment, and accelerated disbursement of unemployment insurance.

United States of America

The United States Centre for Disease Control (CDC) worked with the World Health Organisation (WHO) to establish an international effort to tackle the SARS. In reference to the Coronavirus, the nation's economy contracted by 5% and the unemployment rates reached 13.3%.[37] The country has created subsidiary bodies and introduced acts such as the 'Paycheck Protection Program' and 'Health Care Enhancement Act' respectively. These aim to support small business owners and provide grants and loans to hospitals. The Federal Reserve has also introduced several facilities such as the Money Market Mutual Fund Liquidity (MMLF), Term Assessment-Backed Securities Loan Facility and The Paycheck Protection Program Liquidity Facility (PPPLF).

World Health Organization (WHO)

The World Health Organisation works to offer leadership on matters vital to health. It engages partnership and joint action when necessitous, by shaping, researching, generating, translating and providing knowledge about any illnesses. During the Influenza, the organization offered daily updates, with risk assessments, and worked collaboratively with the United Nations System Influenza Coordination (UNSIC). Over the years, The WHO has scripted reports on each country and the pandemics, epidemics and illnesses it has encountered. It also recently launched the 'Strategic Preparedness and Response Plan' to assist weaker and slower countries.

World Trade Organization (WTO)

The World Trade Organization is the sole worldwide organization that manages the global rules of trade. The organization helps ideate monetary and fiscal policies, and forecasts the impacts of global crises on economies. The organization monitors trade-restricting and facilitating measures enacted by the Group of 20 leading economies and writes its biannual trade monitoring reports. During COVID-19, the organization has monitored a webpage that regularly gives updates on trade-related measures.

Timeline of Events

[33] Ibid

[34] 2020, https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19.

[35] Qiu, Wuqi et al. "The Impacts On Health, Society, And Economy Of SARS And H7N9 Outbreaks In China: A Case Comparison Study". *Journal Of Environmental And Public Health*, vol 2018, 2018, pp. 1-7. *Hindawi Limited*, doi:10.1155/2018/2710185.

[36] 2020, https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19.

[37] ibid

Date	Description
January 1918	The beginning of the Spanish Flu pandemic.
16th March, 2003	Over 150 probable cases of SARS were found globally.
March - April, 2003	Across the world financial analysts assess effects on stock markets and predict significant economic consequences if outbreak not controlled by June.[38]
5th July, 2003	WHO moves to declare that SARS outbreaks have been contained worldwide.
31st December, 2019	Wuhan Municipal Health Commission in China reported cases of pneumonia. A novel coronavirus was identified.
February, 2020	WHO released the ‘Strategic Preparedness and Response Plan’ to the international community to help states which have slower health systems.
11-12th February, 2020	400 experts and investors from across the globe, attended the WHO research and innovation forum on COVID-19.
11th March, 2020	COVID-19 was declared a pandemic by the WHO. A discussion paper was made for the 18th March Ottawa group meeting (cancelled) which elucidated on tariff reductions as a fiscal stimulus measure and posited tariff elimination as a direct response to the pandemic’s outbreak.
13th March, 2020	COVID-19 Solidarity Response Fund was launched to accept donations from corporate giants, private individuals and institutions. Italy, Spain, Switzerland, and Austria go into lockdown.
21st March, 2020	New Zealand and Singapore committed to keeping their supply chains open and operating.
25th March, 2020	Australia, Brunei, Canada, Chile and Myanmar decided to also commit to opening supply chains.
26th March – 28th March, 2020	G20 leaders had a virtual meeting forming deliberations in relation to international trade. They affirmed that they will work to resolve any and all disruptions in international supply chains. Moreover, John Denton ICC president wrote a letter to G20 trade ministers making recommendations such as eliminating tariffs, facilitating trade, removing export curbs, extending duty and fee payment timelines, and maintaining liquidity.[39]
30th March, 2020	G20 ministers had a virtual meeting and committed that medical supplies would be made affordable and that there will be a facilitation of trade of essential goods. They also decided that there will be a collective response of support to micro, small and medium sized enterprises.

Relevant Treaties and Events

[38] "WHO | Update 95 - SARS: Chronology Of A Serial Killer". *Who.Int*, 2020, https://www.who.int/csr/don/2003_07_04/en/.

[39] WHO | Update 95 - SARS: Chronology Of A Serial Killer". *Who.Int*, 2020, https://www.who.int/csr/don/2003_07_04/en/

- United Nations Resolution **(A/RES/74/274)** on International Cooperation for the provision and access to vaccines and medical equipment
- United Nations Resolution (**A/RES/74/270)** on maintaining Global Solidarity during COVID-19
- United Nations Resolution **(A/RES/74/265)** on Unforeseen and extraordinary expenditures for 2020
- The 1892 **Treaty on Maritime Quarantine Regulations for cholera on westbound shipping routes from the East'** decided upon at the International Sanitary Conferences to impede the spread of Cholera through trade.
- The opening of '**Office International d'Hygiene Publique'** in Paris, 1909 that worked to oversee international regulations on the quarantine of ships and ports to prevent the spread of plague and cholera.
- Discussion on the Influenza Pandemic of 1918 at the **13th International Sanitary Conference** which included deliberations on the impacts of the influenza.
- The revision of the 1926 International Sanitary Conference in 1944 to better reflect the new realities of global disease.
- The 1952 WHO creation of Global Influenza Surveillance and Response System (GISRS) with an aim to safeguard the world against the threat of influenza.
- The 1969 Adoption of International Health Regulations (IHR) by member states to create measures to disinfect international conveyances and make health – related rules for trading.
- The 2005 IHR revisions adopted as WHA Resolution 58.3 that prevents the spread of international infection through early identification and effective responses to events that pose a public health risk.

Previous Attempts to solve the Issue

Over the last hundred years, the global community has worked towards combating pandemics and their economic impacts. Given the international interconnectedness - through capital flows, the trade of goods and services and analysis of implications – there was a prototype formulated to capture growing interrelationships. It is the 'G-Cubed Asia Pacific Model', which provides analysis on a country and also the links between countries through goods and asset markets. The G-Cubed model "incorporates forward-looking intertemporal behaviour on the part of an individual agent." [40] This attribute is predominantly important when distinguishing the effects of a "temporary shock from that of a persistent shock."[41] It is able to provide a more detailed assessment of disease-associated costs. It's framework accounts for relations between industries and regions. The model is a completely dynamic one with significant macroeconomic detail which incorporates interactions between the real sector and the financial system. As a dynamic model it defines specifically the time path of the impacts. Overall, it accounts for shifts in interest rates, exchange rates and international capital flows due to its macroeconomic specificity and interconnected global and financial markets. Being discovered in 1992 made it greatly useful during the SARS pandemic in 2003. First used in China, it helped work out certain indexes, predicting how the economic shocks would occur in other regions globally. It calculated the shock on basis-points, the retail sale sector, and the services sector. While successful, the model has not been updated since the late 1990's, and nor does it bring to attention any of the microeconomic impacts that crises have. Thus, it has scope for being remodelled, to help in a greater capacity.

In regards to the COVID-19 pandemic, The G-20 have met in recent months to soften the effects of the virus, however, as previously mentioned the lack of support to the microeconomic aspects of society caused the recovery time to increase. While the G20 has looked into tariffs and cross border trade the microeconomic impacts still require attention.

The Government of the United States of America created the Coronavirus Aid, Relief and Economy Security Act (CARES) that included 293bn USD to provide one-time tax rebates to the population.[42] However, considering the duration of a pandemic, this may not be feasible over the long term. Moreover, the act does not allocate a sufficient sum of money to deal with housing.

Possible Solutions

First of all, nations with a high burden of diseases and a high risk of spark should be focused on. This includes domestic and foreign investment in basic structures of public health, including investments in animal and human surveillance, and a focus on resolving insecurity within LEDCs and their poorest regions. The International Working Group on Financing Pandemic Preparedness deliberates that developing countries should enhance funding in LEDCs with focus on "in-country capital investments and one-off spends; multi-country regional initiatives; and failed, fragile states where domestic resourcing

[40]PMC, Gov. *NCBI.NLM*, 2020, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3666729/.
[41] Ibid
[42]2020, https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19.

is not a realistic option."[43] This will be beneficial in lessening protectionism as - during such times – countries often cut off trading partners and foreign aid while looking out for their own interests. The impacts of this, however, will be worse on LEDCs than More Economically Developed Countries (MEDCs), as they require foreign aid.

Secondly, nations should monitor progress in preparation for pandemics. Governments should be accountable for strengthening their preparation — in particular for ensuring that all people, rich or poor, receive equal protection. Continued surveillance, objective assessments and the use of pandemic risk and preparatory indices are recommended. This may be inconvenient when it comes to the management of it. It can also be put off, considering the likelihood of a pandemic to occur. However, it is integral it be put in place so that nations don't face the economic shock during a crisis.

Thirdly, a fair access to pandemic vaccines and drugs should be assured. Strategies could include pre-purchase agreements, which specify minimum coverage and equivalent levels for distributing in developing countries. Wealthy nations or MEDCs often secure a greater share of vaccines. In 2009 for instance, while the wealthy countries secured huge advance orders, the poorer nations were unable to procure enough despite an international call for cooperation by the World Health Organization. Through global fiscal and monetary policy reforms - with guidance from the WHO, WTO and IMF – nations should work towards ensuring a fair distribution of vaccines.

Fourthly, there should be early investment in pandemic economic recovery. Specific facilities are required, such as the World Bank's Pandemic Financing Facility. Even wealthy nations may face domestic pressure to pay for their homes and to limit discretionary aid spending in the midst of a severe pandemic. Targeted assistance through safety nets, cash transfer or other means will help.

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