THE COVID-19 PANDEMIC THE IMPACT ON EMERGING AND DEVELOPMENT ECONOMIES

INTRODUCTION

Humans are social creatures that live based on interaction with one another, including economic activities and pandemics that brings unpredictable negative social and economic impact. The Covid-19 Pandemic has now reshaped globalization and transformed the industrial society into an Information and digital society. This third-wave (Toffler, 1984) is mark by the widespread use of internet-based information technology, digital service industries with artificial intelligence as the driving of economic and social development.

Meanwhile, Covid-19 has also shown a big gap between large companies with substantial market capitalizations such as Microsoft, Apple, Alvabhet

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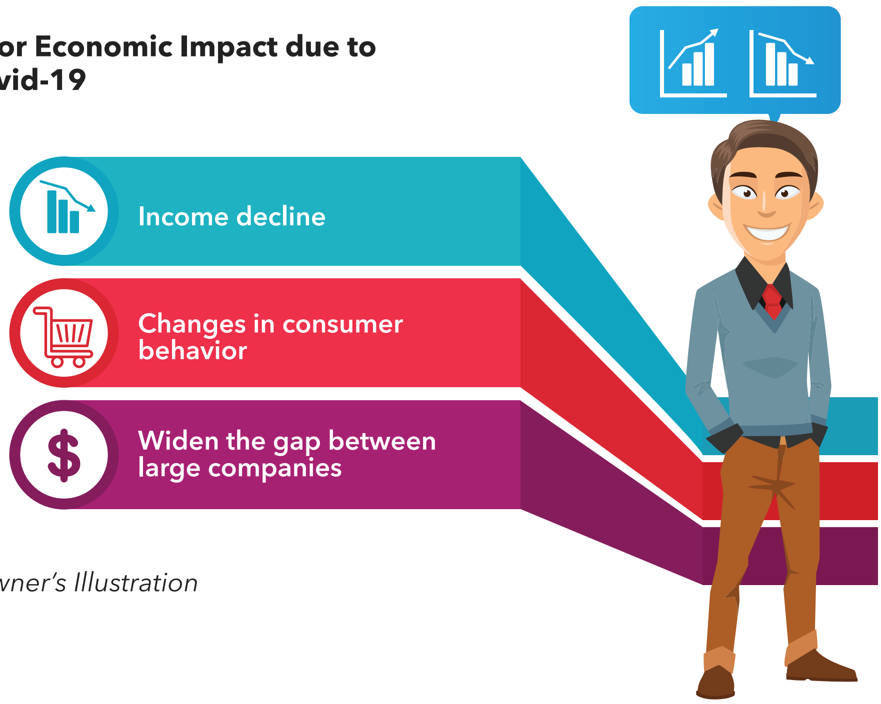
and Face book in the developed economies that survive the Pandemic. Similarly, in Emerging and Developing countries, their small-medium enterprises that forms the back-bone of their economy are also surviving this pandemic better than other businesses.

This paper analyzes the effect of this long-lasting pandemic on the developing and emerging economies. Covid-19 pandemic was detected in 2019 in Wuhan in China and then spread to Hong Kong and then other countries, as it has considerably broader reach in terms of numbers of both countries and people affected than other virus-related disasters. This broader reach is explained by the increased integration of the global social and economic supply chain linkages so entrenched in the globalized ecosystem since 1980s (Hassan et al. 2020).

There have been several large-scale virus-related disease outbreaks since 2000, such as including Severe Acute Respiratory Syndrome (SARS) (2002-03), Swine Flu (2009-10), Middle East Respiratory Syndrome (MERS) (2012-13), Ebola (2014-15), and Zika (2016), but Covid-19 have beaten them all by affecting the economy and financial systems of almost 211 countries, with more than 100 million diagnosed and 2.0 million deaths at the point of writing this article (December 2020). The previous virus-related pandemics had a relatively high mortality but low infection rates compared to Covid-19 that is highly contagious but relatively less fatal but generating greater economic losses due to its prolonged persistence (Verikios et al., 2011).

COVID-19 has had major economic consequences for the affected countries. The direct impacts on income due to premature deaths, workplace absenteeism, and reduction in productivity has created a negative supply shock, with a significant decline in manufacturing productivity due to global supply chain disruptions and closures of factories. For example, China the second largest economy on the globe experienced a 54 % decline in its production index since February 2019. In addition to the impact on productive economic activities, the pandemic has transformed the consumers spending behaviour mainly due to decreased income and household finances, as well as increase in the propensity to save in fear of uncertainty on the longevity of the epidemic. Service industries such as tourism, hospitality, and transportation have suffered significant losses due to reduction in travel and low demand for their goods and services, causing an estimated loss of to $314 billion

Figure 1: Major Economic Impact due to Pandemic Covid-19



Sources: Owner's Illustration

and more to come until travel restrictions are lifted.

Global financial markets have not been spared by the effects of COVID-19 spread. As the numbers of cases started to increase globally, mainly through the US, Italy, Spain, Germany, France, Iran, and South Korea, the world financial and oil markets significantly declined. Since the start of the year, leading U.S. and European stock market indices (the S&P 500, FTSE 100, CAC 40, and DAX) have lost a quarter of their value, with oil prices declining by more than 65% as of April 24, 2020.

IMPACT ON EMERGING MARKET AND DEVELOPING COUNTRIES

This economic impact of this pandemic is more severely felt mainly in more than 115 emerging and developing economies. These economies are more vulnerable and suffer high fatality rates from disease outbreaks because of pre-existing low-quality health care systems and poor access to water and sanitation services, relatively high rate of existing medical conditions among the populace, and limited resources to effectively manage any form of pandemic. In emerging and developing economies, weak social safety nets in these economies magnify the economic impacts of pandemics for lower-income households, as low-income workers typically have limited savings to buffer income shocks, and work in environments where the risk of infection is high. It is expected that there will an increase in extreme poverty globally by at least 15 percent or roughly 84 million people, mainly from emerging economies (World Bank Report, June 2020).

In most of these labour-intensive economies, the necessitated measure of social distancing has caused economic disruption through closure of factories and increase in unemployment. Since the pandemic is global, the export-oriented economies suffer greatly as importing countries reduce their imports due to

decrease in demand for goods and services. This decline in demand for goods and services further aggravates the decline in economic activities and consequently affect the financial system due to the reduction in demand for investment capital. Stimulus package by government coupled with emergency assistance for both individuals, business, and government development expenditure will to a certain extent slow-down the economic decline but will not be able to sustain the decline for long as no economy has unlimited resources to sustain these emergency measures.

The standard operating procedure (SOPs) for mitigating this crisis requires social distancing, wearing masks, and frequent sanitizing the hands have adversely affected the economic sectors that require close socialization such as the hospitality, tourism, hotel, public transportation, food services, financial sector and related businesses (Joo et al., 2019; Siu and Wong, 2004). This has resulted in lay-off or workforce and necessitated these economies to provide whatever affordable financial support from the scarce resources available and further stretched their debt burdens (Kose et al., 2020). This has aggravated the predicament of these economies by not only eroding the living standards of the poorer section of the population and set back decades of economic development but also resulted in lower foreign direct investment; increase unemployment, retreat from global trade, supply and financial linkages. With no immediate solution in sight, and the only policies so far are to address the short-term consequences, as the global recession is expected to be deeper and longer than expected. For example, the Malaysian government has provided short-term financial assistance packages to businesses to help them through this challenging time.

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The closure of factories and production of goods and services, have impoverished these countries and jeopardize their growth and gains from the recent decades and has significantly impacted on widening the income inequality gap and deepening the disparities of wealth between the rich and the poor in both emerging and developing economies.

For example, IMF Blog (29 October 2020) documented that the average Gini coefficient for emerging Market and developing economies is expected to rise to 42.7, which is comparable to the level in 2008, during the global financial crisis.

With the global economy under lockdown, governments are pursuing emergency fiscal measures to mitigate the short-term effects of drastic interruptions to the normal income, credit, and spending patterns among businesses and households. Though these measures are politically expedient, the real effectiveness of these measures depends very much on the extent of pre-existing vulnerabilities such as the levels of leverage, the dependence on large external financing needs, and the level of existing political, social, economic and financial structural issues (Huidrom et al. 2019).

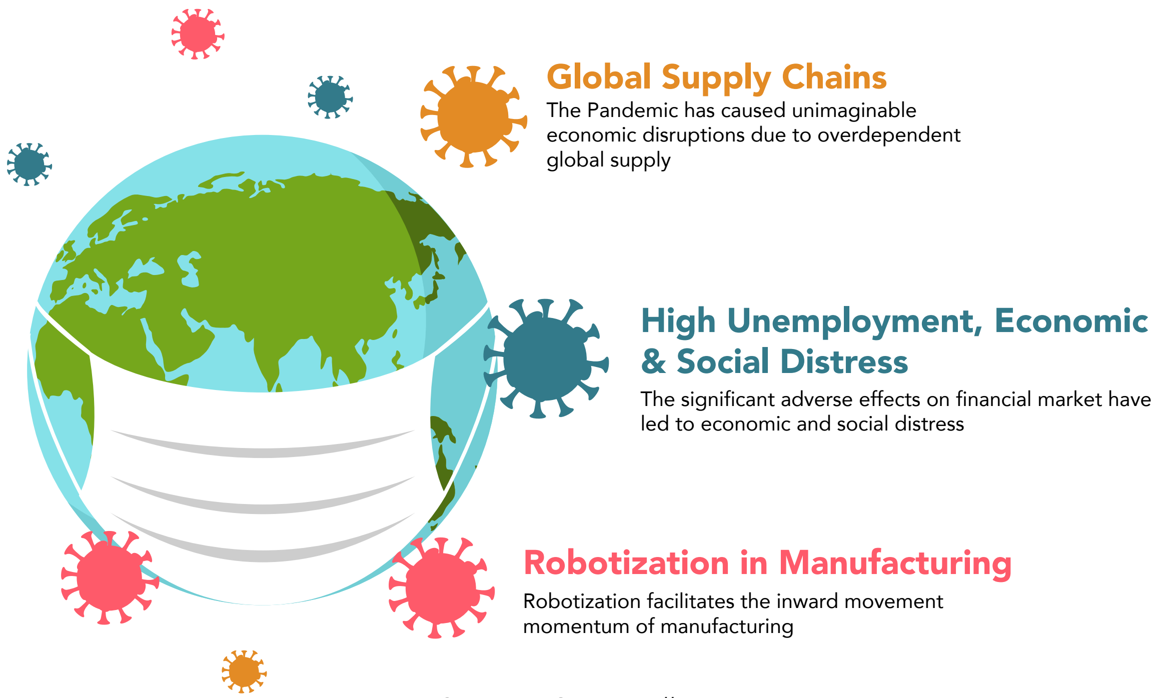
There is a significant slump in consumer spending globally due to loss of income due to unemployment and the uncertainty of the length of the pandemic. On average, it is forecasted that gross public-debt-to GDP ratio for developed nations is expected to rise from 105 percent in 2019 to 132 percent in 2021, due to substantial prolonged deficit spending due to urgent fiscal measures supporting households and firms to buffer the economic adversity. It is forecasted to reduce global output by more than 12 trillion dollars and 40 million fatalities before a safe and effective vaccine is developed and exported globally by end of 2021 (Foreign Affairs, October 2020).

This paper briefly overviews the vulnerability and predicament of the emerging and developing economies due to the Covid-19 pandemic. The paper is divided into 6 sections. Section 1 provides an overview of the pandemic, Section 2 provides brief on the possible economic effects, and Section 3 explains some strategies to mitigate the pandemic in both developed and developing economies, and Section 4 postulates the possible scenarios of changes happening in the post-crisis period in these economies and Section 5 explains the geopolitics of developing and manufacturing effective and safe vaccine on the global scale and the possible ways to make it happen. Finally, Section 6 concludes with a brief summary and possible lessons learned from this global pandemic.

ECONOMICS EFFECT

The pandemic has shown the risk of overdependent on global supply chains that a break-down due to the pandemic has caused unimaginable economic disruptions globally. For example, when China being the second largest exporter of auto parts and consumer electronics was hit the pandemic and had to close factories to control the contagion, this caused automobile sector in the US, Japan, South

Figure 2: The Economic Impact of the Pandemic Covid-19 towards Developing and Emerging Countries



Sources: Owner's Illustration

Korea and many Asian countries to close their production outlets until the Chinese supply of parts resumed few months later.

Though the economic impact of the pandemic has been global, the developing and emerging economies have to bear a greater brunt developed economies. Most of the emerging and developing economies that relied heavily on oil revenue, global trade, tourism, or remittances from abroad, and commodity exports are badly affected. For these economies, despite the burden of constrained resources, high political uncertainties and underdeveloped financial, social and economic infrastructure to deal with such glossal challenge, the immediate politically expedient measure by most governments was to provide health, financial and social safety nets from their weak fiscal positions, further dampening their long-term growth prospects and living standards. The significant adverse effect on their financial markets have weakened the market confidence, reinforced the loop of fear, fire sales, capital shortfalls, margin calls and credit contractions and mass exit of investment capital (Ma, Rogers, and Zhou, 2020).

This closure of factories has caused high unemployment and economic and social distress in the effected economies. The natural reaction to these changed conditions for business and trade, firms all over the globe are now innovating ways to diversify their supply chain and trying to locate production facilities nearer to home, to allow them to better manage pandemic related adversities on their economies.

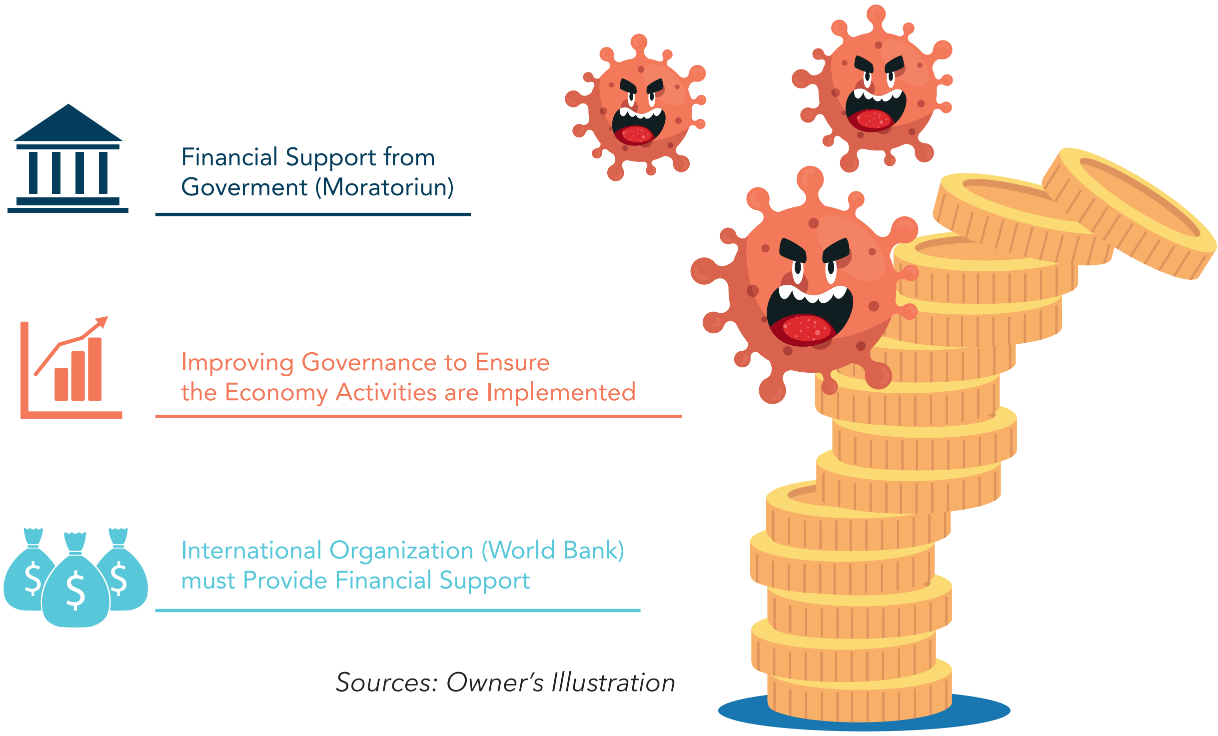
This inward movement of manufacturing facilities to mitigate the risks of supply chain disruption will not only take time but need a coordinated government support

Another development is the robotization of manufacturing facilities to facilitate the inward movement momentum of manufacturing facilities for mitigating the adversities of the globalized supply chains and labour problems. Unlike developing and emerging markets, these measures are actively initiated by developed countries that have the financial resources to be the first-movers. For example, in the European Union alone, 2.6 trillion dollars have been allocated as state-aid in various member countries to facilitate these necessary changes. However, the empirical evidence (reported by the Economist, October 2020) covering 64 countries suggests that though the ability of the supply chains to keep working in crisis times (robustness) is weak but they have greater ability to bounce back (resilience) from the weak positions. This is supported by the IMF data that shows that the actual decline in trade is only 10 percent compared to earlier forecasted of 13 to 32 percent. This inward movement of manufacturing facilities to mitigate the risks of supply chain disruption will not only take time but need a coordinated government support. Governments can facilitate these measures by shortening and diversifying the supply chains through digitalization of production facilities and services and training high-skilled workers to augment the application of these new technologies, and revising the regulatory infrastructure to support these new developments.

STRATEGIES TO MITIGATE THE IMPACT OF COVID 19

With the current shut down on economic activities initiated by the physical mitigation measures, policymakers have implemented relief programs of an unprecedented scale that focus on support for health care systems, expanded social benefit programs, and measures to help firms and households. Developing countries like Malaysia provide

Figure 3: Possible Measures to Cope with the Pandemic



Sources: Owner's Illustration

financial support for the most vulnerable sector of the society and have arranged a mandatory moratorium period for borrowers from financial institutions to defer the outstanding payment for period of six months (April to September 2020) for individuals, retail, and small and medium enterprises. These measures ease the financial burden and enable households to have higher disposable income to buy necessities and slow-down the economic decline.

Once the crisis is over, a set of comprehensive reforms will be required to boost the long-term growth prospects of these economies by first improving governance to ensure all planned projects to revive the economy activities are implemented efficiently and improving the business environments to attract more direct investments, expanding investment in education and public health.

Hopefully, more pragmatic and affordable international comprehensive financial packages will be considered for these nations and reinstate the global trade,

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investment and financing supply chains. Financial support will be required from the intranational organizations (like IMF and World Bank). Ideally, these intranational will take a new norm to help these economies not only finance but develop and manage their economic plans to help them recover quickly and reinstate themselves into the global trade, investments and finance links.

WHAT IS EXPECTED OF THESE ECONOMIES IN THE POST-PANDEMIC PERIOD?

There are now new norms as most people will work from home, hold real-time face-to- face meetings and discussions through various choice of online technologies (like Zoom or Microsoft Team) other technological based communication systems from different geographical areas and countries. The education system in schools and universities will now be conducted full time online programs with lower costs for students and greater financial burden for educational outfits to invest in the technological infrastructure. Even shopping for food and essentials will be on-line based. This new mode of working environment will reduce overall costs of travelling, refreshments, rent and utilities but will require greater investment in high grade communication technology to stay competitive. Quality of hardware and software will be upgraded to provide high quality internet connection throughout the nation as well as globally, that will now provide better educational facilities for the rural poor students that have been deprived of such quality education. Students at remote area in Sabah, for example, don't have to climb to the tree top for a better connection.

The new norm will increase the level of competency and work efficiency, properly guided by a set of new governance and performance guidelines. Employer will require to develop a revised work performance-based evaluation as compared to the old time-based performance. Health and security services will still operate on the normal mode in compliance with strict mitigation measures as these essentials are important for public health and safety.

In the post crisis, it is expected that most of the emerging and developing economies will address the economic damage of prolonged economic depression by pursuing macroeconomic policies and flow credit to households and firms to restore international confidence. These economies need to diversify their economy and pursue trade policies that promote diverse exports, infrastructure investment to enable private sector competition, effective regulation to avoid market concentration, and support for innovation through research and development and embrace technological developments to stay competitive (Ruch 2019).

Figure 4: The Economic Expectation Post-Pandemic Period

Sources: Owner's Illustration

Once the crisis abates and the global economy stabilize, the recovery in the developed markets is expected to have spill over effects on these developing economies through increased real incomes, lower inflation and interest rates, and the expansion of energy-intensive and technological based activities. This will increase per capita incomes and living standards, reduce poverty and mitigate income inequality gap in the long-term. Recovery in all economies and business opportunities will rise as all economies will work towards recovery. These economies will need to get ready and search for opportunities to increase demand their products globally, and simultaneously, to increase job opportunities to restart the economic recovery.

Possibly, creative destruction of current investment capital to replace productivity-enhancing changes will necessitate investments in new and more technologically advanced capital and to train more highly skilled workers (Bloom 2014). Moreover, destruction of old capital will provide opportunities for environmentally friendly new investments, especially if these initiatives are part of the structural reforms (Strand and Toman 2010). Consistent with the efforts to restore healthy and safe environment and overcome the climate change (in the name of modern living) dilemma as promoted by the United Nation who unveil the road map called Sustainable Development Goals 2015-2030. There are lots of business opportunities in the 17 SDG's goals and 169 targets such as no poverty, zero hunger, good health and well-being, quality education, gender equality.

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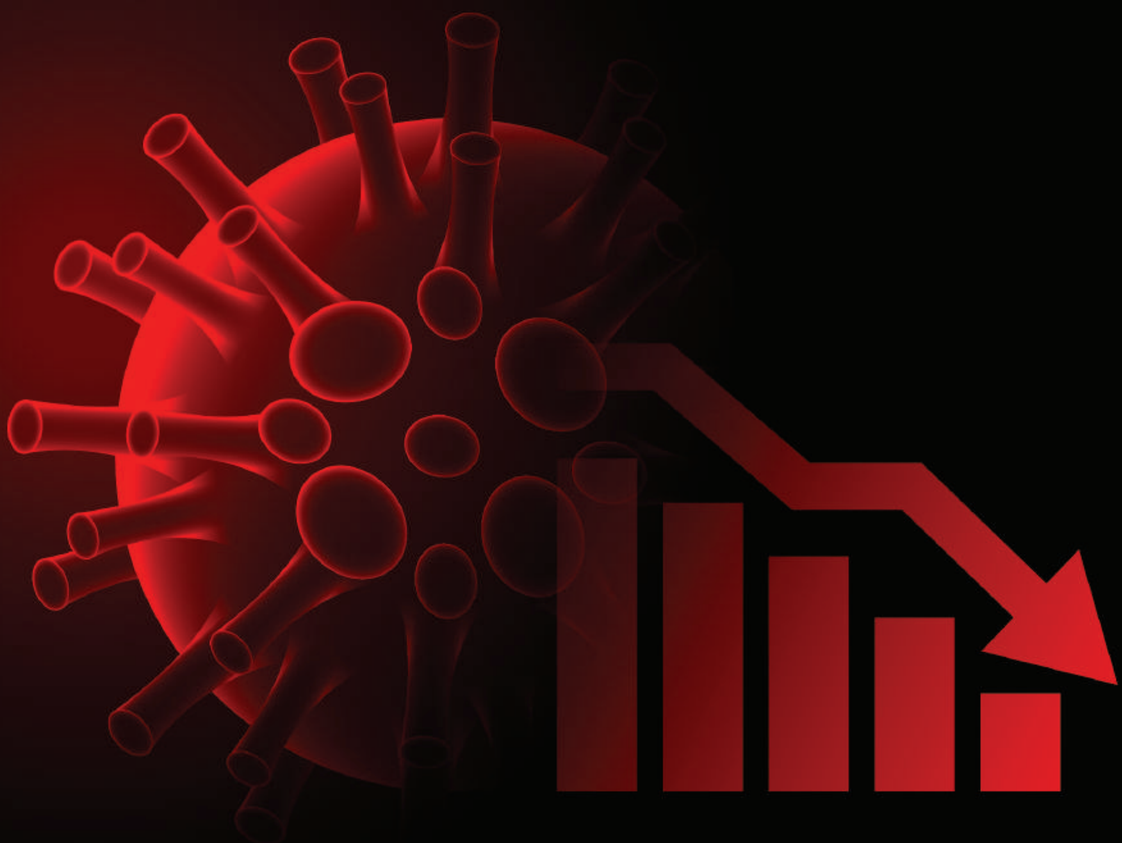
The work from home culture that was necessitated by contagion mitigating measures will induce greater investment into communication technology causing structural changes in the labour market due to significant portion of permanent job loss and increase demand for online-based businesses and e-commerce. Investment in the hardware (mostly end user perspective) and software such as apps (business application; government services application) will incur high development costs but better chance of long-term survival. Also, since it is expected that since greater number of people will be connecting online, firms will employ anyone with internet connection irrespective of his or her location.

The social distancing could be a blessing in disguise as it will necessitate investments in more efficient business practices, including robotics and digital technologies such as artificial intelligence, facilitating investment in human and physical capital. This will require development of research and development capabilities; encouraging reallocation of resources toward more productive sectors; fostering technology adoption and innovation; and promoting a growth-friendly macroeconomic and institutional environment (World Bank 2020). In fact, social distancing encourages the use of technology in payment system like less usage of paper and coin money (research found that paper and coin money carries large number of germs and potentially act as vectors of transmissible disease).

The necessitated use of new technologies will require an improved quality and effectiveness of governance that will consequently improve the business climate, improve labour and product market flexibility, and strengthened legal systems and property rights, foster effective competition, and address inequality and set the foundations for more effective adjustment to adverse events (Anbarci, Escaleras, and Register 2005).

The pandemic necessitated the closing of both public and private educational outfits due to the SOPs required to mitigate the spread of the pandemic, such as caused disruptions in the mode of their operations as face-to-face delivery becomes constrained. Also, the policy on travel ban and border closure limit students and potential students (as well as the constraints on initiatives by marketing & promotion staff, for example, going out on marketing and promotion mission) from entering the country to pursue their study at the local institutions of higher learning.

Prolonged closures of the institutions in the education sector will not only cause income losses, but also lasting setbacks to human capital development and accumulation necessary for economic prosperity (UNESCO 2020; Wang et al. 2020). Learning from the Ebola epidemic in West Africa in 2014 suggests that school closures were associated with higher dropout rates and wider gender gaps in educational attainment (UNDP 2015). In most developing economies, there will large rate of school dropouts and pressure on the labour markets as youngsters scramble for low skilled jobs for their economic survival. Consequently, with little chance to find a job and no financial assistance, will contribute to increase of social problems among the younger generation. Therefore, it is necessary for governments to take proactive measures to continuously support this sector through properly thought-out policies to ensure continuous development of essential human capital for economic growth and prosperity.



THE GEOPOLITICS IN VACCINE DEVELOPMENT

There is a need for developing a safe and effective vaccine that can be exported globally. Comparing with previous pandemics, Covid-19 is tougher as it deals with global connectivity and no country has a total control over the supply chains, but are heavily interdependent. Given the global reach of this pandemic, it requires international cooperation and coordination among the developed nations, especially those with the necessary resources and infrastructure capabilities to develop an effective vaccine. Currently, most developed nations that have potential vaccine development capabilities are in denial of the need for global cooperation in an entrenched interdependent ecosystem and trying to find an effective solution on their own.

Imagine, even if America wants to develop a vaccine on its own, this will be challenging as the supply chain for the active inputs for the vaccine are controlled by China and India. In fact, China supply more than 60 percent of antibiotics and pain killers to America and the EU and most of the virus-related research is outsourced to India.

Even if effective vaccines are developed, the rich countries will have the first opportunity and priority to supply it to their own people, as they are already competing to block any exports and lock-in complete access. For example, in June this year, the United States bought all the supply of remdesivir, the first drug proven effective against Covid-19, leaving none for UK, EU and the rest of the world (Osterholm and Olshaker, 2020).

This is not only morally and ethically reprehensible but not in the health interest of every country on the globe. The lack of global coordination will not only make the vaccines more expensive through the bidding process by rich economies but also cause unprecedented humanitarian sufferings in the emerging and developing economies, and intensify the resentment against the rich economies for hoarding the vaccines. These resentments will

cause emerging economies to retaliate by disrupting the supply chains and cause unnecessary delay to develop effective vaccines.

For example, there are currently 160 candidate vaccines against the new covid-19 virus in development with 21 clinical trials. Some of these vaccine candidates use a compound extract of a soapbark tree from Chile (Elke Weber, 2020), which is processed in Sweden and eventually supplied to the manufacturers in the rich economies. Imagine, if Chile retaliate by halting the export of this adjuvant, this will delay the vaccine production until an acceptable alternative adjuvant is found. In summary, vaccine development process requires an international coordination and global cooperation for their own survival. The rich nations need to be cognizant that in this globalized world, cross-border supply chains of this nature are not only important in facilitating the production of effective and safe vaccines for all but also ensuring a fair distribution of the vaccine globally.

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Bollyky and Bown, (2020) suggests that one way to resolve this selfish dilemma is to have an effective Covid-19 trade and investment agreement among all countries. They postulate that even with an international agreement in hand, there is no way to ensure that the signatories to the agreement will be able and willing to honour their responsibilities, for example, the rich economies not totally acting in their self-interest and emerging economies not disrupting the supply chains in facilitating the manufacturing the vaccines. One possibility is to undertake the agreement through an established international forum such as the G20 and/or G7 trade and health ministers. It must be agreed upon that the vaccine manufacturing countries will have a priority in the number and allocation of doses needed to achieve a critical public health objective, especially for their front liners, and the rest of the supply must be exported globally. It must also be agreed upon that the vaccine for the poor economies must be free or heavily subsidized, and the need to utilize the current available supply chains channels to distribute the vaccines.

To reduce the risk for early signatories, it must be agreed upon there must be a minimum number of vaccine producers committed to the agreement before it become enforceable. Since, even when a safe and effective vaccine is produced, there will be risk of failures or health injuries especially those with pre-existing conditions that might make manufacturers liable to pay compensation. Consequently, manufacturers will not commit to any global allocation plan unless there is some way to indemnify them from such risks. Global users have to bear the risk if the vaccines do cause injury and are subjected to compensation claims. This international agreement must ensure that all cross-border supply chains must not be disrupted, and there must not be any form of supply restrictions of related materials for manufacturing countries.

Having some sort of agreement between countries is certainly a positive towards finding an effective global solution to the current pandemic, but more important is the recognition of the importance of interdependence and the need for effective coordination of efforts. This requires each country to the signatory to have effective leadership committed to the agreed cause, a competent state infrastructure to ensure support to commitments and social trust of the citizens on the mutual benefits to such a commitment and support their leaders. In reality, what will eventually happen, if such an agreement is possible, only time will tell.

CONCLUSION

Overall, developed economies has also cut interest rates and unleashed liquidity measures to prevent credit crunch, bankruptcies and massive lay-offs to stop an economic recession. Buying massive amount of treasury bills to provide the liquidity to the financial sector by central banks in developed nations has dampened the yields on most government bonds to almost zero, thus boosting consumer spending. The stock markets became bullish due to higher demand for technology-based stocks, buying-back shares by firms to sustain share prices and distribute funds to shareholders and to increase value of stock options.

The low interest rates have led to higher asset prices and contribute further to wealth inequality gap, as only those with cash have the ability to purchase the assets. Social cohesion which is so essential for maintaining social stability is at risk as younger generation are frustrated by their inability to generate enough cashflows to address this widening gap of wealth inequality and declining social mobility imposed by the pandemic.

For emerging and developing economies that depends on trade, tourism and commodity exports, and their corporate and public debts are predominantly in US Dollars, suffer from currency depreciation and inflation that makes it more difficult to cut interest rates to pursue fiscal policies to address both the short-term and long-term measures. Their limited capability to borrow for emergency need has led most developing economies into financial turmoil and resort to external financial support from transnational organizations. For example, to date, IMF have lent out 89 billion dollars to these countries during this pandemic period through various currency swap lines and cashing out treasury bonds, basically to revive and shore up confidence in these economies.

Developing economies with strong leadership need to embrace and cope with the necessary structural changes in the economy, business, technology and the expectations of the society to survive in this reshaped globalized world. Governments must cooperate to lift regulatory constraints for sharing and application of advance technology in the economy, and allow for greater cross border flow of data to lift barriers to trade, and encourage technological innovation in health, economic and education sectors.

Governments must be prepared to initiate fiscal stimulus not only to financially support the needy, create jobs through infrastructural projects and developing Small and Medium (SMEs) scale businesses that form a strong foundation of most developing economies. The distribution of benefits from these initiatives is expected to first flow to those with technological skills and related technical education, until these economies make their digital economy more competitive with better regulations and firm commitment towards long-term economic plans supported by strong political leadership.

Finally, developing economies will need to embrace new technologies but will face challenges in the new normal era. The challenge for developing countries is that digitalized industries may cause new problems such as increasing unemployment, uniformity and accuracy of population data and how to control this data with population size. Technology has become so fundamental, no matter how big or small the company is, if the company has innovation and mastery of technology, it is likely to survive in this pandemic crisis. There is no need for complicated technology with a large amount of capital, but simple application of technologies to facilitate living comfortable in this new era. It means now it is the time to unlock the Industry of 4.0.

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