THINKING BEYOND THE PANIC

COVID-19's Long-Term Impact on Supply Chains in Asia

PERCH PERSPECTIVES

APRIL 2020

“And upon the awful heads of the Gorgones great Phobos (Fear) was quaking.”[1]

Hesiod

1 https://www.theoi.com/Daimon/Deimos.html

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EXECUTIVE SUMMARY

The evolution of a pandemic is by nature unpredictable. The sheer number of ever-changing variables — how long it will last, how far it will spread, what mutations it will undergo — makes it extremely difficult, even for health experts and doctors, to have a firm grasp of what will come tomorrow, let alone what the outbreak's final public health consequences will be. Uncertainty breeds fear, which spreads along with the pathogen, infecting populations as fast as digital media can carry its wrath.

Anticipating the long-term consequences of COVID-19, which first emerged in China but has since spread around the world, presents several major analytical challenges. First, new information is constantly being reported, which can undermine assumptions that went into crafting a scenario rather quickly. This creates the risk that long-form reports will be out of date by the time they are published. Second, there are unknowns related to the policy responses that different government makes, which can alter how bad the final outcome will be, and itself carry unanticipated side effects. With so much uncertainty, it is difficult for companies and individuals with limited resources to plan for every contingency.

However, even accounting such incertitude, there are preexisting regional and global trends that the COVID-19 outbreak can reasonably be expected to accelerate. Rather than laying out multiple scenarios and trying to anticipate which seems most likely based on a number of unpredictable variables, this report will instead focus on outcomes that the coronavirus makes more probable regardless of the ultimate severity or duration of the outbreak.

All of the following trends will fundamentally alter how business is conducted in China, the Asia-Pacific, and the United States.

MAJOR THEMES

1 **The Chinese Communist Party (CCP) stumbles, and criticism grows:**
Forced by the crisis into relaxing restrictions on communication and the flow of information — which enabled news to spread about the government's initial mishandling of the outbreak — Chinese authorities will face a challenge in trying to put the lid back on.

2 **The quest for alternatives to China:**
Aware of the risk posed by overdependence on China for their supply chain, companies will scramble to establish geographic alternatives.

3 **From comparative advantage to geopolitical leverage:**
The COVID-19 pandemic has raised the alarm about overreliance on any one country, but especially a potential adversary like China, for critical goods and inputs. The relationship between two countries will play a greater role in determining where companies are able to conduct business.

4 **Near-term risks to the global economy:**
Companies will struggle to stay liquid as demand falls and supply shortages occur simultaneously, which will be exacerbated by restrictions on the transportation of people and goods. Liquidity shocks in either the corporate debt or mortgage markets would quickly cripple the financial system, which would threaten a systemic financial crisis on top of the impending recession risk.

There will still be significant opportunities to make money in China in the decade ahead, but any company operating in China needs to reassess its tolerance for political risk and make sure that a contingency strategy is in place for when business becomes hostage to geopolitics.

Before digging into the details of these trends, it's worth quickly reviewing what makes COVID-19 unique.

WHAT IS THE CORONAVIRUS AND WHAT ISN'T IT?

What has colloquially come to be referred to as "the coronavirus" is known to scientists as SARS-CoV-2. It is part of a broader family of coronaviruses, of which severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS) are both members. It is not related to influenza, which most people call the flu. SARS-CoV-2 causes a disease called coronavirus disease 2019, or COVID-19. Unlike both SARS and MERS, which in severe cases cause pneumonia in the lower respiratory tract, COVID-19 infects both the upper and lower respiratory tracts.[2] This means that it can cause severe pneumonia, like SARS and MERS, while spreading more quickly than influenza.

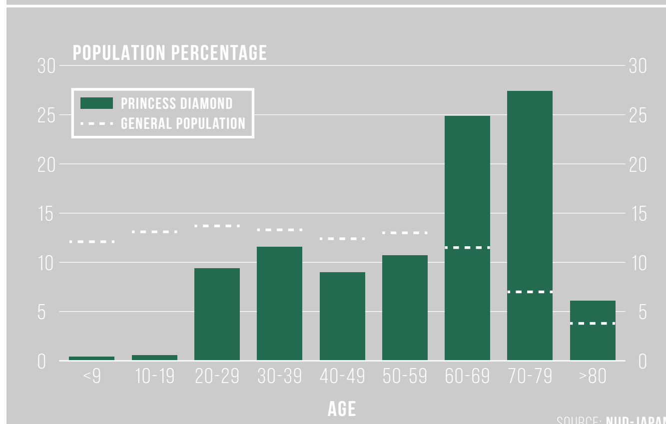
The fatality rate of COVID-19 initially hovered around 2 percent, below that of both SARS (10 percent)[3] and MERS (35 percent).[4] However, in early March the World Health Organization (WHO) released data indicating that COVID-19's death rate may be closer to 3.4 percent, which, if true, would make it deadlier than the Spanish flu of 1918-19, which had a fatality rate of 2.5 percent.[5] Of course, the Spanish flu was particularly scary for many since it disproportionately killed young adults in prime health, whereas deaths from COVID-19 have been concentrated among the elderly or people with certain preexisting health issues. While COVID-19's actual death rate is likely lower than 3.4 percent — not all mild and asymptomatic cases will be reported — it is, according to the WHO, an order of magnitude deadlier than influenza, which has a death rate of around 0.1 percent.[6]

It's worth keeping in mind how much we don't know about the virus, given the relatively little time researchers have had to collect and analyze data. Jeremy Samuel Faust, an emergency medicine physician and professor at Harvard Medical School, argues that COVID-19 will likely be far less deadly than the WHO statistics suggest.[7] His argument is based on the following premises. First, data coming from China is inherently unreliable, so a healthy degree of skepticism must be retained when reviewing public health statistics released by Beijing. Second, preexisting illnesses may be difficult to distinguish from the incremental deaths caused by COVID-19. Some 9 million people in China die each year, many of them from chronic obstructive pulmonary disease and emphysema, and COVID-19 usually leads to death via pneumonia and other pulmonary complications.[8]

Faust instead points to the data coming from the Diamond Princess, the cruise ship that was quarantined after COVID-19 was detected aboard, as a better estimate of what the true fatality rate may be. He makes a convincing argument that this data is more reliable in terms of not only trustworthiness but also collection rigor. In the case of the Diamond Princess, systematic testing was instituted over a controlled population, and a number of asymptomatic cases were detected — cases that otherwise may be missed. Seven people from the Diamond Princess have died, representing a 1.1 percent fatality rate among infected individuals, which Faust says can convincingly be argued are "excess deaths" compared to what the fatality rate on the ship would have been (zero). Six of those who died were aged 70 and up (the age of the seventh person has not yet been released), which Faust argues also tells us about which demographics are most at risk.

However, there are limits to what we can glean from the Diamond Princess. For instance, older demographics were far more heavily represented than is normal in the general population[9]:

PRINCESS DIAMOND CRUISE SHIP: PASSENGER AGE DATA



The 60-and-up age groups are seriously overrepresented relative to the general population, which should caution us against drawing firm conclusions from the fact that every death among Diamond Princess passengers has been in those 70 and up. That said, even the data from China indicates that older, sick people are more at risk of developing serious complications from the disease than younger people.[10]

2 https://www.reuters.com/article/us-china-health-study/new-coronavirus-spreads-more-like-flu-than-sars-chinese-study-idUSKBN20D2W6
3 https://www.cdc.gov/dotw/sars/index.html
4 Al Awaidy, Salah; Khamis, Faryal. "Middle East Respiratory Syndrome Coronavirus (MERS-CoV) in Oman: Current Situation and Going Forward. Oman Medical Journal, May 2019. Accessed via: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6505341/
5 https://wwwnc.cdc.gov/eid/article/12/1/05-0979_article
6 https://www.livescience.com/is-coronavirus-deadly.html
7 https://slate.com/technology/2020/03/coronavirus-mortality-rate-lowerthan-we-think.html
8 Zhou, Malgeng et al. "Mortality, morbidity, and risk factors in China and its provinces, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017." June 2019. Accessed via: http://dx.doi.org/10.1016/S0140-6736(19)30427-1
9 National Institute of Infections Diseases. "Field Briefing: Diamond Princess Covid-19 Cases, 20 Feb Update." Accessed via: https://www.niid.go.jp/niid/en/2019-ncov-e/9417-covid-dp-fe-02.html
10 https://www.statnews.com/2020/03/03/who-is-getting-sick-and-how-sick-breakdown-of-coronavirus-risk-by-demographic-factors/

1 THE CCP STUMBLES, AND CRITICISM GROWS

The Chinese Communist Party committed serious errors during the early stages of the COVID-19 outbreak. This is not the first time the CCP has stumbled through a crisis, though it may be one of the most politically consequential episodes to date. What makes this crisis particularly challenging for the CCP is that managing a public health crisis requires the rapid dissemination of new information to the public. Leaders must quickly update the public with new findings about the nature of the disease, where it's spreading, what if any emergency measures are being implemented in certain places, and whether quarantines are in effect.

Allowing the free exchange of information, however, puts the party ill at ease. Indeed, the CCP is known for often reflexively limiting freedom of speech and press in moments of crisis. Yet limiting the flow of information at the outset of the crisis was how the CCP exacerbated it in the first place.

COVID-19 may have been detected in China as early as November 2019.[11] By December, Li Wenliang, a doctor in Wuhan, had already treated the first known case. After recognizing certain similarities between it and SARS, Li shared his findings with colleagues. Rather than reward his effort, the CCP arrested Li on charges of rumormongering, and he was forced to sign a document claiming that the information he had shared was false.[12] The CCP ordered several Chinese laboratories to stop testing, eliminate samples of the virus, and limit the spread of information about it.[13]

The CCP, in other words, certainly knew about the disease by early January at the latest, several weeks before the Lunar New Year Holiday. Though the CCP extended the holiday and encouraged people to stay at home for longer, it still allowed massive gatherings of families in Wuhan to celebrate the holiday.[14] This led to a rapid spread of the virus within Wuhan. When the Lunar New Year ended, people who had flocked to cities to visit families returned home, carrying the disease with them.

As news of the party's early failings has spread, people began criticizing the CCP more openly than usual. The mayor of Wuhan, the epicenter of the outbreak, went so far as to publicly criticize Beijing's handling of the situation, an extremely unusual act of opposition for a regional official in China.[15] The Communist Party subsequently removed him from his position as mayor.[16]

Expressions of disapproval of the CCP's handling of the COVID-19 outbreak have not been limited to high officials. As social media erupted, some went so far as suggesting that Chinese people must be able to replace their leaders if they prove themselves incapable. In a recent SupChina podcast, Tony Lin, a producer at Quartz, recounted how one Chinese woman suggested in an online forum — couched in a joke — that perhaps there should be a reality TV show where, instead of performers, politicians are forced to compete for votes. Someone responded that such a thing already exists — it's called democracy.[17] The fear of CCP officials is that scattered dissatisfaction such as this can coalesce into organized public opposition.

Despite being slow to respond, the CCP has since taken control of the situation. It has mobilized major portions of its civilian population more rapidly than some countries could mobilize their armies. The CCP's response to COVID-19 is a sort of microcosm of how the country generally operates: slow to react, but when it does, it goes all in.

When this outbreak does pass, the CCP will clamp down on press freedoms again. That's to be expected. By that time, however, many will know that for weeks the CCP chose to save face rather than limit the spread of the virus.

It's worth remembering that COVID-19 hit China as it was dealing with other significant challenges to the political regime: African swine fever, army worm, the trade war, and general economic malaise including a debt-laden financial system. Before Li discovered COVID-19, the CCP was already under mounting pressure. Any one of these challenges could be dealt with on its own, but it's the combination of all of them that must be monitored closely.

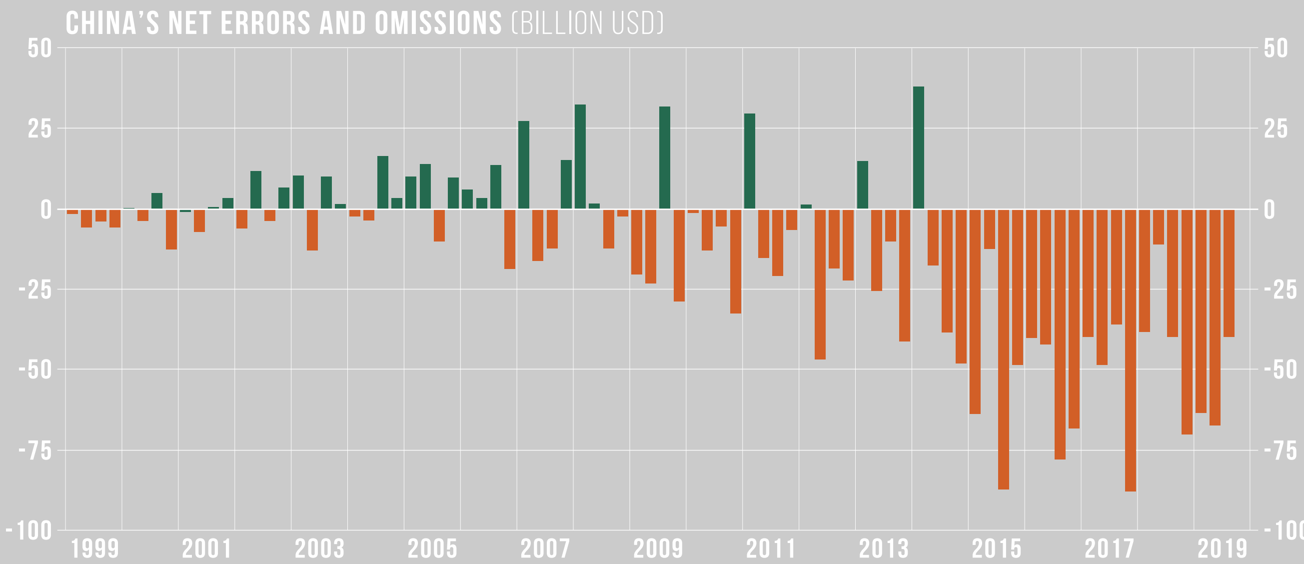
11 https://www.foreignaffairs.com/articles/china/2020-03-18/coronavirus-could-reshape-global-order
12 https://foreignpolicy.com/2020/02/15/coronavirus-xi-jinping-chinas-incompetence-endangered-the-world/
13 https://www.nationalreview.com/corner/coronavirus-crisis-caused-by-decisions-chinese-government/.
14 https://www.latimes.com/science/story/2020-03-03/how-bad-could-coronavirus-outbreak-get
15 https://www.wsj.com/articles/chinas-premier-tours-virus-epicenter-as-anger-bubbles-at-crisis-response-11580109098
16 https://www.reuters.com/article/china-health-hubei/update-1-chinas-virus-hit-hubei-dismisses-provincial-health-commission-party-boss-director-idUSL4N2AB0GT
17 https://supchina.com/podcast/outraged-by-the-outbreak-citizen-journalism-and-coronavirus-censorship

1 THE CCP STUMBLES, AND CRITICISM GROWS

China flails. A test case.

One way to benchmark CCP authority is to look at how effectively it can control capital flows. As concerns about instability in China rise, people are motivated to get their money abroad and, often, invested in hard assets so that it can be protected against seizure from the Communist Party. Beijing has implemented a number of capital controls in recent years — both on individuals and companies — to limit this outflow. While many of these measures have been effective, there are signs that demand to move capital abroad remains strong.

Measuring capital outflows is a tricky proposition, especially given the politically sensitive nature of the metric. One way to go about this is monitoring the "Net Errors and Omissions" line of China's balance-of-payments accounts. Net errors and omissions is essentially the part of a country's balance of payments that remains unaccounted for, and for most countries it is relatively small.[18] China's, however, has been growing ever larger in recent years, hitting several new highs in recent quarters.



SOURCE: CHINA'S STATE ADMINISTRATION OF FOREIGN EXCHANGE

If net errors and omissions become more negative, it is a sign that capital outflows are likely increasing, and that the CCP's control of cross-border transactions is deteriorating. This may not indicate growing political opposition, but it is an indirect way to measure faith in the CCP. Of course, a healthy degree of skepticism must be maintained when reviewing any statistics released by China, especially those that are politically sensitive. Still, net errors and omissions is a useful proxy measure for how firmly the CCP is able to manage capital flows, and therefore one measure of its control on the country.

Conversely, indications that the CCP is effectively in control of capital flows can be indirectly measured by looking for declines in asset prices or construction activity in nearby markets that have been buoyed in recent years by an influx of Chinese capital. For example, in Cambodia, a construction boom has been fueled by Chinese investors seeking to park their capital abroad in physical assets. A recent ban on gambling in Cambodia — implemented by the Cambodian government but with Beijing's strong encouragement — drove some 400,000 Chinese nationals back to the mainland, and has led housing prices to fall by over 30 percent in some areas.[19] Though the ban was targeting fraud, the fact that Beijing retains the ability to limit external investment sufficiently to cause such a strong reaction in market prices means that, for now, it still holds the reins fairly firmly.

18 https://www.wsj.com/articles/back-door-capital-outflows-should-worry-beijing-11571051723

19 https://asiatimes.com/2020/02/chinese-exodus-pinpricks-cambodia-property-bubble/?utm_source=The+Daily+Report&utm_campaign=ad8e59209f-EMAIL_CAMPAIGN_2019_08_30_12_15&utm_medium=email&utm_term=0_1f8bca137f-ad8e59209f-31654325

2 THE QUEST FOR ALTERNATIVES TO CHINA

COVID-19 will accelerate the movement of supply chains outside of China, and companies that can move quickly to access and establish those production hubs first will be best positioned to benefit from this trend. Finding and retaining local partners with experience in navigating local business and political climates will be critical.

COVID-19 made abundantly clear that the global supply chain has become overdependent on China. Microsoft[20] and Apple[21] both acknowledged that their businesses would be materially affected this year because of the impact of COVID-19 on their supply chains. Major car manufacturers are facing delays, and some are even being forced to fly certain components in from China in suitcases.[22]

These headline disruptions are not isolated incidents. Over 90 percent of businesses that will find their supply chains most affected by COVID-19 are headquartered in the United States.[23] As entire cities in China have been placed under mandatory quarantine, factories have shut down or decreased production, creating a shortage of critical components.

As economic specialization among countries has increased and the movement of physical products across borders has become easier in recent decades, the most successful companies are those that have developed lean inventory practices that depend on sophisticated and efficient supply chains to deliver a particular component right as it is needed for assembly. While this limits the amount of cash that must be locked up in holding inventory, it also poses the risk that disruption in one point of the supply chain can have "a relatively immediate impact on partner supply chain facilities in other parts of the world," according to Barbara Hoopes, an associate professor of business information technology at Virginia Tech.[24] Even small disruptions can therefore cause longer delays as the rest of the downstream portion of the supply chain struggles to plug the fulfillment gap.

Something that may buffer that disruption is, ironically, that many businesses had already begun preparing for a disruption in trade from the ongoing trade war. As uncertainty surrounding trade negotiations grew, many companies began to prepare by building excess inventory in the event that an unexpected outcome suddenly made it difficult to procure certain components. This could limit the near-term severity of any supply shocks but would not avoid the long-term problems that may still arise.

One thing that supply chain experts do seem to agree on is that companies must begin to diversify supply chains so that their critical suppliers are geographically spread out.[25] But there simply aren't as many good options to produce certain types of products outside of China. Further, moving around complex supply chains — especially for digital components — is no easy task, and takes a remarkable amount of planning and investment.[26]

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20 https://www.cnbc.com/2020/02/18/the-significance-of-apples-coronavirus-warning.html percent5d percent20and
21 https://www.wsj.com/articles/apple-says-wont-meet-revenue-guidance-in-quarter-due-to-coronavirus-11581974923
22 https://www.wsj.com/articles/the-coronavirus-scare-this-time-is-different-11582632012?mod=article_inline
23 Dun & Bradstreet. "Business Impact of the Coronavirus: Business and Supply Chain Analysis Due to the Coronavirus Outbreak."Accessed via: https://www.dnb.com/content/dam/english/economic-and-industry-insight/DNB_Business_Impact_of_the_Coronavirus_US.pdf
24 https://www.qsrweb.com/articles/coronavirus-effect-on-supply-chains-potentially-worse-than-2002-sars-outbreak
25 See https://spendmatters.com/2020/02/17/chinas-coronavirus-outbreak-puts-global-supply-chains-at-risk and https://hbr.org/2020/02/prepare-your-supply-chain-for-coronavirus and https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-supply-chain-update.
26 https://www.bloomberg.com/news/articles/2020-02-26/this-is-what-the-coronavirus-means-for-the-chinese-supply-chain

2 THE QUEST FOR ALTERNATIVES TO CHINA

The reason China is so hard to replace has to do with its demographics and history.

China has the largest labor force in the world, and it is better connected internally than most nearby low-wage competitors in part because China began its crawl out of poverty earlier than many other Asian countries, but also because the CCP had centralized authority over the distribution of wealth as it was created. As a result, China has more developed infrastructure and transportation systems than many alternative countries that could offer competitive labor rates. China also has advanced manufacturing skills that don't exist at a similar scale in other South or Southeast Asian countries.

Other countries simply lack the skill, capacity, or demographics to serve as viable suppliers for every country that needs a dependable backup. Taiwan is modern but small and plagued with constant political uncertainties due to its tenuous relation with China. Indonesia and the Philippines both have larger populations than Taiwan but face severe geographic hurdles that make developing intra-regional infrastructure difficult. They also lack the advanced manufacturing skill available in China. Japan and South Korea are both possible alternatives, but their labor is far more expensive than China, and the size of their workforce much smaller. Japan and South Korea's combined populations of 178 million — which includes children, the elderly, and other non-working adults — represent less than 25 percent of China's active labor force, let alone its total population.

In South Asia, India certainly has a rapidly growing labor force[27]. But the quality of its infrastructure is notoriously lacking.[28] Its railway and roads systems are outdated and in major need of investment and repair, and they present a serious drag on the country's economic activity.[29] India even lacks the infrastructure needed to provide water to the country's burgeoning population.[30]

Put simply, alternates to China are currently limited. Companies that have depended upon Chinese suppliers for large production of critical components now know that they must seek out viable alternatives. A push for these limited alternate locations will lead to competition between companies with a heavy current concentration in China that wish to establish bases of production elsewhere. While this trend was clearly already established as a result of the trade war, the sheer unpredictability of measures implemented to limit the spread of COVID-19 in China, such as forced quarantines and factory closures, has exposed the vulnerabilities of overreliance on one node in a supply chain — in this case, China. Companies that are able to move quickly and establish supply hubs in new countries will be able to better manage future supply risks than those that find themselves either resource-constrained or with limited extra-China expertise.

The need to quickly establish hubs of production of scale that can lessen dependence on China will also drive greater investment outside of it. Countries with competitive advantages in certain products will stand to benefit in the long run from this trend. A number of countries in Latin America that make products that China currently exports en masse may be principal recipients of some of this investment. For example, Brazil is a major producer of electrical machinery, Chile of nuclear reactors and related parts, Colombia of medical equipment and motor vehicle parts, and Mexico of plastics and furniture.[31]

27 https://data.worldbank.org/indicator/SL.TLF.TOTL.IN?locations=IN-CN percent5d. percent20This
28 https://www.pwc.com/gx/en/capital-projects-infrastructure/assets/gridlines-india-article-2013.pdf
29 https://www.bhp.com/media-and-insights/prospects/2018/07/the-paradox-of-indias-infrastructure/
30 https://www.arcgis.com/apps/MapJournal/index.html?appid=72e6ba2840a9437d8536d763d019f33f
31 https://www.dnb.com/content/dam/english/economic-and-industry-insight/DNB_Business_Impact_of_the_Coronavirus_US.pdf

3 FROM COMPARATIVE ADVANTAGE TO GEOPOLITICAL LEVERAGE

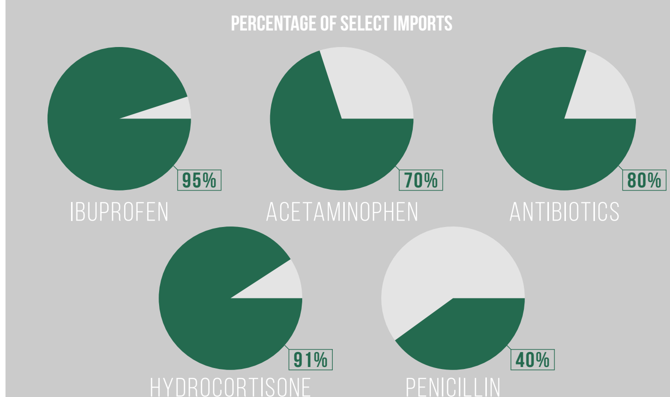
Underpinning the system of free trade that sustains the modern global economy is the economic concept of comparative advantage. A country has a comparative advantage in the production of some item when it can produce it more efficiently and cost-effectively than others. Traditional economic theory suggests that a country with a comparative advantage in some product should specialize in its production, and other countries should purchase that good from the specialized country rather than duplicate those supply chains at a greater cost.

However, if a specializing country decides that the immediate domestic need for its products is more important than the profit it would generate from exporting them — for example, a health crisis creates a sudden, massive demand for pharmaceutical products that had previously been sent abroad — that trade model falls apart. In such a scenario, countries that have come to depend upon the specialized country can quickly find themselves in a perilous situation. At that point, national interest will begin to trump international commercial cooperation.

COVID-19 is exposing the national security risk posed by commercial dependence upon an increasingly adversarial China, and thereby threatens to disrupt the system of global trade built on comparative advantage. Take pharmaceuticals as one example. China is the second-largest exporter of pharmaceutical drugs to the United States[32], and approximately 80 percent of all active pharmaceutical ingredients — inputs to the production of drugs — used in U.S. drugs are imported from China.[33] A further 80 percent of the United States' supply of antibiotics comes from China.[34] The economic advantage here is obvious — China's cost of production for certain drugs is cheaper than that of the U.S., and over the last two decades pharmaceutical production has therefore shifted to where drugs, especially generic drugs, can be made more cheaply.

However, as production shifted, the U.S. lost the capacity to produce critical drugs on its own. For example, the U.S. is no longer able to domestically produce penicillin; the last plant in the U.S. that could closed in 2004.[35] Beyond penicillin, the U.S. currently lacks capacity to produce generic antibiotics at any meaningful scale, and 90 percent of the drugs consumed in the U.S. are generic drugs. While India is also a large source of U.S. drug imports (up to 50 percent of all generic U.S. drugs come from India[36]), India itself is heavily dependent upon China for the active pharmaceutical ingredients that it uses in the production of those pharmaceuticals — perhaps as much as 80 percent of those ingredients come from China.[37] Additionally, India itself has already begun to restrict the export of certain pharmaceutical ingredients, in preparation for its own potential COVID-19 outbreak.[38]

CHINESE PHARMACEUTICAL IMPORTS TO THE U.S.



SOURCE: PHARMA NEWSLETTER - WASHINGTON TIMES

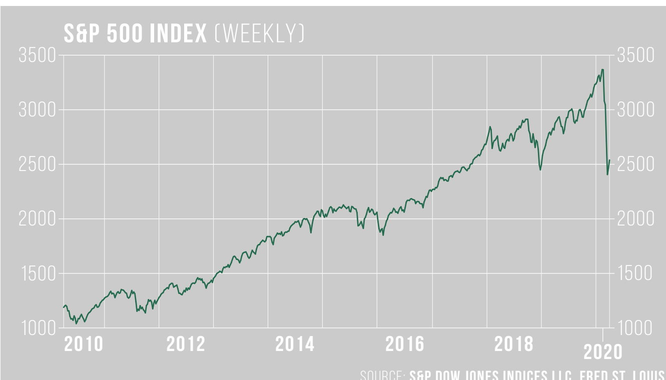
U.S. legislators are beginning to recognize the strategic risk posed by the country's overdependence on China for drugs, and in March they introduced a bill to attempt to ramp up domestic production of drugs that U.S. industry can no longer produce.[39] While this dynamic has already begun to play out in markets for pharmaceuticals, in time it will spread to other industries as well.

In the new world order that's emerging, decisions about what's produced where will cease to be a purely economic concept, and the geopolitical relationship between two countries will play a greater role in determining where companies are able to conduct business, much as it was during the Cold War. COVID-19 has elevated the United States' commercial dependence on China for pharmaceuticals to a national security risk. In the future, there will need to be redundancy. COVID-19 will, in other words, contribute to the prevailing trend toward a multipolar world, where centers of power are distributed more evenly around the world, rather than the unipolar world that the United States has dominated for the last 30 years.

32 https://www.cfr.org/in-brief/coronavirus-disrupt-us-drug-supply-shortages-fda
33 https://www.finance.senate.gov/chairmans-news/grassley-urges-hhs-fda-to-implement-unannounced-inspections-of-foreign-drug-manufacturing-facilities
34 https://www.thepharmaletter.com/article/coronavirus-exposes-the-weak-links-in-the-pharma-supply-chain
35 https://www.uscc.gov/sites/default/files/RosemaryGibsonTestimonyUSCCJuly152019.pdf
36 https://www.cnbc.com/2020/03/24/us-drug-shortage-fears-grow-as-india-locks-down-due-to-the-coronavirus.html
37 https://www.uscc.gov/sites/default/files/RosemaryGibsonTestimonyUSCCJuly152019.pdf
38 https://www.bbc.com/news/business-51731719
39 https://www.cotton.senate.gov/?p=press_release&id=1342

4 NEAR-TERM RISKS TO THE GLOBAL ECONOMY

Cast into a sea of uncertainty, markets have, unsurprisingly, gone haywire. On March 12, the Dow Jones had its worst day since 1987.[40] Later, on March 24th, it had its best day (in percentage terms) since 1933[41]. The Federal Reserve stepped in to provide up to $1.5 trillion ($500 billion made available in three tranches) in liquidity to short-term lending markets to limit the risk of exogenous liquidity shocks (economic wonkspeak for running out of cash), an unusually large amount for short-term Fed operations. The Bank of Canada followed suit shortly thereafter. The Fed subsequently implemented additional measures, cutting the federal funds rate — the rate that banks pay to borrow from the Fed — from 1.5 percent to 0-0.25 percent.[42] The federal government followed by passing a massive, $2 trillion stimulus package to support areas of the economy that monetary policy cannot[43].



Some near-term risks are somewhat easier to anticipate than others. So long as significant uncertainty remains, companies that depend on the type of activities that health officials recommend avoiding will suffer. Travel and travel-related companies, such as airlines and cruise lines, will experience lower volume. By mid-March, videos of nearly empty airplanes and an almost vacant Los Angeles International Airport terminal started to appear on social media.[44]

Businesses that rely on the gathering of large crowds, such as concerts and sports events, will also suffer. Some have suggested that operators of stadiums and cruise ships could cushion the blow to sales by repurposing their assets to serve as quarantine locations.[45] Maybe they could, but it's unclear where the payment for those services would come from.

As demand to move people and goods has fallen, so too has the price of oil. Layered on this is the recent spat between Russia and Saudi Arabia, which together have driven the price of Brent crude to about $30 per barrel, an unthinkable price at beginning of the year.[46] All told, OPEC is anticipating essentially no growth in oil demand in 2020.[47]

Some companies will benefit from the outbreak, but not nearly enough to offset its overall negative economic impact. For one, businesses that sell products that grow in demand during uncertain times will benefit. Companies such as those that sell frozen, freeze-dried, or other survival-type foods are already swamped with orders, with some companies facing 6-8 week delays. Firearm sales will increase as people grow concerned about whether COVID-19 will lead to social unrest. Generally, producers of consumer staples will still face the same economic headwinds, even if individual products that remain in high demand during the peak of the pandemic — like toilet paper and rubbing alcohol — will soften the blow for some of their lines of businesses.

Then there are companies that either benefit from or provide services that support remote work, such as teleconferencing companies or makers of other productivity software and hardware, which is already being used extensively as more businesses shut their offices for the foreseeable future. This may accelerate broader adoption of remote work in new sectors of the economy (at least in sectors where remote work is possible). One possible silver lining is that, as more people are forced by the exigency of the situation to learn how to work remotely, they will gain new skills that enable them to offer their skills and services to a broader geographic area in the future, potentially expanding the ways they earn income later on.

For many companies, slow or no growth will be a secondary problem compared to the immediate risk posed by liquidity shocks — running out of cash necessary to maintain their operations - even if future business prospects post-pandemic are promising. In China, only 15 percent of medium-sized businesses are estimated to have enough cash on hand to fund operations beyond three months, should their cash flow become disrupted.[48] To mitigate this risk, Beijing has been pushing banks to roll over loans that were scheduled to mature in order to limit the extent of the damage that a liquidity crunch may have on the broader economy.[49]

40 https://techcrunch.com/2020/03/12/stocks-dive-on-dows-worst-day-since-1987-tech-crashes-and-bitcoin-is-no-haven/
41 https://www.wsj.com/articles/global-stock-markets-dow-update-3-24-2020-11585012632
42 https://www.bloomberg.com/news/articles/2020-03-12/bank-of-canada-follows-fed-with-market-liquidity-measures.
43 https://www.forbes.com/sites/advisor/2020/03/27/your-guide-to-the-federal-stimulus-package/#5895daa62711
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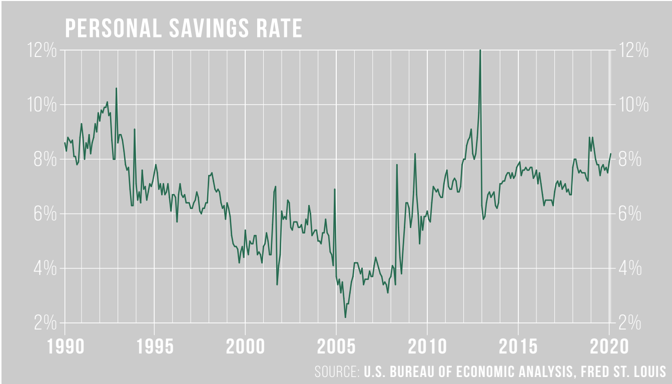
47 https://oilprice.com/Energy/Crude-Oil/OPEC-Now-Sees-Zero-Growth-In-Global-Oil-Demand-In-2020.html
48 https://www.wsj.com/articles/coronavirus-cure-worse-than-disease-for-chinas-small-businesses-11581937519?mod=article_inline
49 https://www.scmp.com/economy/china-economy/article/3052474/coronavirus-china-grants-banks-extra-funding-spur-loans-hard

4 NEAR-TERM RISKS TO THE GLOBAL ECONOMY

Yet as businesses struggle to maintain volume, bad loans in China are anticipated to increase. S&P estimates that bad loans may double in China as a direct result of COVID-19.[50] For a country that's already plagued by an overreliance on construction and a dangerous intermingling between development and the financial sector, growth in bad loans would become a longer-term problem that will not be easily solvable.[51] Companies that can afford to save now, or that can maintain access to capital markets throughout periods of market volatility, will weather this storm best. This is true both in and outside of China. Such incentives to save more and invest less will slow growth all around.



Though many have identified supply shortages as the primary economic consequence of COVID-19, widespread quarantines will lead to an extended period of depressed consumer spending, as people stay home hoping to weather the storm. How long such a period of suppressed spending lasts will depend on the ultimate severity of the virus, which remains uncertain. However, it's easy to imagine how a decline in both investment and consumer spending for any considerable amount of time increases the risk of recession. Further, supply shocks that result in higher prices, combined with decreased consumer demand, raise the specter of stagflation — or the prevalence of inflation during periods of stagnant growth. The Fed has already identified this as a potential issue and lowered rates to attempt to get ahead of it.[52] However, monetary policy has been pushed to the limit in recent years, and interest rates were already at or near all-time lows around the world. The risk from a period of suppressed investment and consumer spending has forced the government to step in with fiscal stimulus. However, the U.S. government is also strapped for cash, so its ability to increase spending for an extended period of time is limited. Its debt is already around 100 percent of GDP, and its budget deficit in 2019 was nearly $1 trillion (about 4.5 percent of GDP). Further, the Trump administration grew the deficit with tax cuts, which many argued amounted to overstimulating the economy during a prevailing period of economic growth when instead it could have cut expenses to save dry powder for leaner times.

One mitigating factor that could limit the damage of a short period of suppressed consumer demand is the current U.S. personal savings rate, which is hovering around 8 percent. Historically this is not unusually high, but it is higher than it's been in recent years, and much higher than it was in the years leading up the 2008-09 crisis.[53]

However, the savings rate varies greatly across income brackets. The savings rate for the bottom 60 percent of earners hovers closer to 0 percent. It becomes slightly positive for top 60-80 percent bucket, and becomes more positive for those in the top 20 percent.[54] In other words, the people who would need to have cash on hand the most during a downturn — those who live paycheck to paycheck — wouldn't find themselves particularly comforted by a higher average national savings rate. Such a savings buffer is, therefore, material, but would not be a panacea for a sustained period of economic stagnation or slow growth.

Additionally, COVID-19 has already affected global logistics activity. By late February, port calls by commercial vessels had decreased by up to 30 percent compared to a year ago.[55] Nine percent of global shipping capacity, equivalent to 2.04 million TEUs (twenty-foot equivalent units), is inactive, which is greater in terms of TEUs than the decline seen following the 2008-09 financial crisis (although in percentage terms, the post-2009 decline was greater, at 11.7 percent).[56] Maersk has issued a warning to expect greater uncertainty in the volume of its business in 2020[57], and supply shortages may lead to a decline in global auto market sales of 8 percent in 2020.[58]

50 https://www.cnbc.com/2020/02/20/coronavirus-latest-updates.html
51 https://geopoliticalfutures.com/real-estate-debt-china-one-road-discontent/
52 https://www.bankrate.com/banking/federal-reserve/interest-rate-decrease-winners-losers/
53 https://fred.stlouisfed.org/series/PSAVERT
54 https://www.npr.org/2020/02/21/808289804/the-indicator-the-candidates-should-be-talking-about
55 https://www.scmp.com/business/companies/article/3051784/shipping-lines-face-troubled-waters-oil-tankers-container
56 https://www.supplychaindive.com/news/coronavirus-renders-nearly-9-of-container-shipping-fleets-inactive/573200/
57 https://www.supplychaindive.com/news/maersk-lower-volume-coronavirus-recovery/572632/
58 https://press.trendforce.com/node/view/3334.html

CONCLUSION

It's impossible, by definition, to prepare for a black swan event. But the outlines of the post-pandemic world are already clear, and thus it is possible to prepare for what comes next. COVID-19 is no bubonic plague, and it is unlikely to upend the social order as radically as did the outbreak of 1348-50, which paved the way for the Renaissance and the early modern period. **But it will contribute to a shift in where global power resides, and how nations are forced to interact with each other.**

Businesses that have become accustomed to doing business in China will need to reassess their tolerance for political risk, both as the regime continues to encounter domestic political opposition and as the U.S. recognizes the risks to its own population posed by undue dependence on Chinese supply chains. Companies will need to establish alternate geographies for production in places that cannot yet support manufacturing at similar scales. **Alternatives to production in China exist but are limited, which means businesses that can act quickly to establish partnerships in new countries will benefit more than those that drag their feet.**

Commercial success in the next decade will require a realization that the inevitable march toward global integration and cooperation envisaged in the mid-to-late 2000s was not inevitable after all. Business decisions will need to be made alongside careful considerations of the geopolitical risks posed by doing business in parts of the world that, until recently, were considered safe. **The great dream of globalization imagined by so many will turn out to be just that, and strategic competition that's been witnessed throughout all of human history will again become increasingly commonplace.**

THINKING BEYOND THE PANIC

COVID-19's Long-Term Impact on Supply Chains in Asia

PERCH PERSPECTIVES

APRIL 2020