The Economics of COVID-19

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Introduction

The COVID-19 pandemic is an unprecedented event that has disrupted the lives of everyone. Not only has it killed hundreds of thousands of people and infected millions more, it has also shut down schools and businesses, halted international travel, and forced governments to enact stay-at-home and social distancing orders. Although the health consequences of COVID-19 are the most important aspects of the pandemic, its economic effects will also impact most Americans. It is therefore important to study how COVID-19 affects the economy. This paper will discuss how the ongoing pandemic has altered consumer demand, the advantages and disadvantages of three different potential economic policy responses to COVID-19, and the long term impacts that the pandemic will have on the economy.

For consumer demand, we analyze how COVID-19 affects three industries: food, healthcare, and recreation. We find that in all three of these industries, some sub industries are doing better, and some are doing worse. In the food industry, for example, the restaurant industry has seen a decline in demand due to social distancing guidelines, while groceries stores have actually benefited from the pandemic. This phenomenon is also seen in the healthcare industry, where pharmaceutical procedures have seen an increase in demand and medical procedures have seen a decrease, and recreation, in which travel and leisure have seen a decline in demand and media based entertainment has seen a massive increase.

In our discussion of policies that mitigate the effects of the COVID-19 pandemic on the economy, we analyze three different policies. In doing this, we discuss the effects of implementing these policies while also considering their costs. First, we find that although stimulus checks will help many Americans purchase necessities, this policy will be more effective in some groups than others due to differences in the US population. Next, we show that reducing the interest rate, which would usually stimulate the economy by incentivizing spending and making loans more appealing to borrowers, may not have its desired effects because there is little to spend money on now that many businesses have suspended operations due to the pandemic. Lastly, we argue that allowing the Fed to purchase bonds from companies may help the economy by giving businesses liquid capital at reasonable rates, but doing so would require changes to federal law that may not be feasible or desirable.

Lastly, we discuss long term impacts of the COVID-19 pandemic. We argue that the pandemic, and the stay at home orders that accompany it, will lead to more people doing their jobs remotely in the future, but only for those who are highly educated with high paying positions. We also argue that social interactions will be permanently changed due to COVID-19. Specifically, we believe that social media will be used and valued even more due to the pandemic leading to an increase in demand for communication platforms and devices, potentially leading to further innovation in these sectors.

Consumer Demand

The spread of the COVID-19 pandemic has had and will continue to have immense consequences on demand-side economics in the United States, particularly in the food, healthcare, and recreation industries.

The food industry can be broken down into two distinct fields — restaurants and grocery stores — both of which experienced starkly opposite responses in the face of COVID-19. Restaurant sales have plummeted since the start of the COVID-19 outbreak (Guilford). Sales have dropped by roughly 80% in major US cities such as Boston, New York City, Atlanta, and Chicago in just the first two weeks of March according to OpenTable (see figure 1), proving that the spread of COVID-19 in densely populated areas has pushed American consumers to behave more cautiously and demand less of non-essential goods (Guilford). Surprisingly, according to the same source, pizzerias and restaurants which specialize in organic and fresh produce have not suffered with respect to their sales, demonstrating another key observation about American consumer preferences — that some sectors will thrive regardless of the setbacks posed to American consumers. Grocery store sales, on the other hand, have surged moderately since shortly before the start of the COVID-19 outbreak. Throughout the entire month of February, before the start of quarantine across the United States, grocery store sales were roughly 50% higher than they were in February of 2019, as well as previous years (*Earnest Research*). Anecdotally, major producers such as Kroger Co. and General Mills have gone from extreme surpluses for the past two decades, to only a few weeks' supply at any given time thus far in 2020 (Guilford). This proves that the outbreak of COVID-19 in the United States has managed to break a two-decade long trend in consumer behavior: American consumer spending habits have gone from leaving a surplus in stores (and thus a relative deficit in households) to a deficit in stores (and thus a relative surplus in households), and this furthers the notion that the spread of COVID-19 in is decreasing consumer demand. To further support this statement, Doug McMillon, CEO of Walmart, claims that most of Walmart's produce sellers have sold over three months of intended supplies in only two weeks since the beginning of quarantine in the United States. This pattern of massive deficits in American grocery stores has a very high risk of leading to a global supply chain collapse in the summer of 2020 according to Miguel Particrio, CEO of Kraft-Heinz, and this is bound to change American consumer behavior drastically going into the future, with Americans becoming more frugal in their spending.

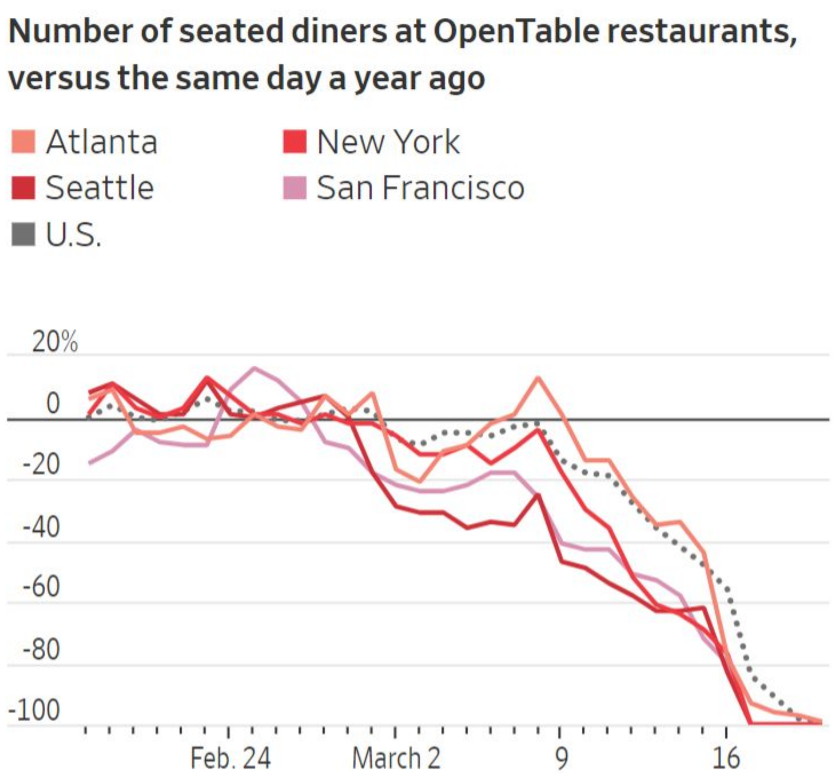

Figure 1 - OpenTable restaurant data, "includes online reservations, phone reservations and walk-ins."

Source: "Guns, Groceries andNews: What Sells in a Pandemic—and Doesn't"

Like the food industry, the healthcare industry can also be broken down into two distinct fields — medical procedures and pharmaceutical goods — both of which, again, experienced opposite responses in the face of COVID-19. The occurrence of non-COVID-19-related medical procedures has decreased since the beginning of quarantine across the United States and will continue to decrease going into summer of 2020 (Nathan-Kazis). Providence St. Joseph Hospital in Seattle, a hotspot of the COVID-19 outbreak in the United States, has reported a 50% drop in visits related to heart attacks in the month of March, relative to March of 2019 and years prior, and doctors know that this is “too good to be true” and they believe that this is because of social distancing laws and fear of becoming infected with COVID-19 (Feuer). Similarly, emergency room visits are down by 50% across all New York City area hospitals relative to March of 2019 (Feuer). The medical-device firm Boston Scientific claims to be losing $10 million to $40 million in sales due to a decline in surgeries in disease-stricken areas, particularly big cities, and while this is only a fraction of the firm’s billion-dollar yearly revenue, it highlights the growing trend in American consumer behavior in the face of COVID-19: consumers are being pushed to behave more cautiously and demand less non-essential goods. Pharmaceutical goods, on the other hand, have faced a similar fate to grocery stores, in that sales of consumer health products have increased significantly since February of 2020, at the cost of massive shortages inside pharmacies. During the month of March pharmacies across the United States sold out their inventories of drugs within hours of stocking and many are not expecting to restock until June, and as many as 100,000 products are considered in critical state, all because American consumers are rapidly stocking up, showing how their behavior is changing due to fear of COVID-19 spreading (Feuer). On top of consumers rapidly depleting America’s drug supply, international trade on drugs itself has come to a halt, as 85% of medicines have at least one component from China, and as a result of the COVID-19 outbreak in China during early 2020, factory production is at an all-time low, worsening the situation in the United States even more (*BDO United States*). This has led to 20 key drug shortages in the United States as of late February (Hahn). The COVID-19 pandemic does have a silver lining with respect to consumer behavior going into the future, however. Experts predict Americans will practice appropriate health and safety measures long after the pandemic comes to an end, and this increase in health well-being will increase demand in the future for consumer healthcare products and offset any long-term disruptions within the healthcare market (Sokolova).

As with the food and healthcare industries, the recreation industry can also be broken down into two distinct fields— leisure/travel and media/technology— which also experienced starkly opposite responses in the face of COVID-19. Consumer spending on leisure and travel has dropped significantly with the beginning of quarantine in the United States, as studies show that 20% of Americans are avoiding movie theaters, 15% of Americans are cancelling vacation travel, and profits in these industries are down by 50% since the end of 2018 (*Earnest Research*). Additionally, 74% of Americans feel anxious about travel within the United States (Glusac) and Disney, one of the cornerstones of the leisure and travel industry, is projected to lose over $2 billion in revenue due to park closures (Rodriguez). This clearly demonstrates a key change in consumer behavior in response to the COVID-19 outbreak: as with food and healthcare, American consumers are being pushed to behave more cautiously and demand less of non-essential goods. On the other hand, media and technology spending has increased significantly. According to AT&T, Netflix has broken all-time records in their two decade-long history, with roughly 16 million new signups in the first three months of 2020, compared to just 550,000 in the last three months of 2019. Netflix's profits in the beginning of 2020 are double what they were at the beginning of 2019 and their market share has risen by 30% as "investors bet on its ability to benefit from people spending more time indoors." (Thomas) This highlights a key change in consumer demand with the onset of COVID-19 in that Americans are changing how and what they demand entertainment with, in that they are transitioning from outdoor-based to indoor-based recreational activities, and the changes in firms' profit accurately reflects this phenomenon.

Potential Policy Responses

There is no doubt that COVID-19 will have widespread and severe effects on the economy, but there is some disagreement on what should be done to control, lessen, and fix its impact. Because fiscal policy, and to a lesser extent monetary policy, is a highly politicized and divisive issue, there are many proposed responses. This section will discuss three different policy responses to COVID-19's economic impact and analyze the benefits and costs of implementing them.

One fiscal policy response, which has been proposed by Senator Bernie Sanders, is to provide every household in the United States with 2,000 dollars every month for the duration of the COVID-19 pandemic (Pramuk). In the United States, a similar idea has already been implemented, where individuals are being given a one-time payment, the amount of which depends on income, marital status, and the number of children an individual has. The payments are progressive, so if individuals have a higher income, they will receive less money (Bernard and Lieber). Sanders's proposed policy has numerous benefits. One is that it helps Americans, many of whom lost their jobs or are working fewer hours due to the pandemic, pay for necessities like food and utilities, the consumption of which cannot be greatly reduced. This policy is especially helpful so that Americans can afford to pay for their housing, a commodity in which switching to a cheaper option is costly, time consuming, and difficult. This is backed by data, which suggests that the demand for housing is income inelastic (Albouy et al). These stimulus payments, therefore, are needed in order for Americans who have been economically impacted by COVID-19 to continue purchasing necessities and to prevent drastic changes in quality of life. Although this policy would be beneficial to many Americans, it does have flaws. One of the problems with this policy is that it does not account for differences in the cost of living of individuals in different geographical locations. It is more expensive to live in some areas than others, and as a result, the effectiveness of this policy will likely differ among individuals. A solution to this problem might be to adjust these payments based on geographical locations using an index of commonly purchased goods and necessities, but this would probably be too costly to implement and would also delay these payments by a considerable amount of time, making them less effective in helping Americans. These payments also will not fully support middle and high income households that are affected by the pandemic for similar reasons. Although these households make more money than low income households, many of them have also seen job losses and pay cuts (Parker et al) and will therefore need government assistance in order to continue paying bills and purchasing necessities. The cost of housing and food within some of these households may be higher than 2,000 dollars per month. Given the median middle class household has savings of 4000 dollars (Pulliam and Sawhill), some may have to sell off their assets, face foreclosure, or take on considerable amounts of debt if the pandemic lasts for many months. Increasing the amount of these payments would fix this problem, but it may not be fiscally or politically feasible. This policy, therefore, has many problems, but will, at least partially, help many Americans with the economic uncertainty of the COVID-19 pandemic.

One potential monetary policy response is to reduce the federal funds rate below 0%. Although the Federal Reserve has already reduced the target for the federal funds rate, the interest rate at which banks borrow from each other, to between 0% and .25% (Cheng et al), the Fed could reduce this rate further by targeting a negative federal funds rate. Some central banks, like those of Japan, Sweden, the European Union, Denmark, and Switzerland, have already done this in the past (Strauss). Since the federal reserve rate influences other interest rates, this would reduce the interest rates on loans, making them less expensive for borrowers, and the interest rate of savings accounts, incentivizing spending. This could help stimulate the economy by lessening the impact that the pandemic has on businesses. Cheaper loans would allow businesses to continue operating even when they are bringing in less revenue, and more spending would increase revenue for businesses. Lastly, this policy would reduce mortgage rates further (Cheng et al), allowing homeowners to refinance their homes at more favorable rates, which will lower the number of foreclosures caused by the pandemic. This plan, however, also has some drawbacks. One is that it makes saving money more expensive. This is detrimental to those with savings accounts. If the federal funds rate is negative for a long period of time, or if the interest rate is reduced too much, some people and businesses may choose to withdraw their savings from banks, and to choose to store it in other ways. This will decrease the money supply, which will raise interest rates, decreasing the effectiveness of the policy. This may even make the economy worse if interest rates rise above where they are now. In addition, this policy may not be as effective as it would be if the recession was not caused by a pandemic. As stated earlier, lower interest rates incentivize spending, because they lower the opportunity cost of spending money instead of saving it. With the COVID-19 pandemic, however, consumers may not spend more money if interest rates are lowered. As Stanford economist John H. Cochrane pointed out, encouraging more spending may not help the economy because many businesses were forced to close due to stay at home orders and social distancing policies (*Economics in the Time of COVID-19*), meaning that there is little to spend money on. Reducing interest rates below 0%, therefore, may not have the positive economic impacts it usually would in mitigating the effects of a recession.

Another potential policy response would be for Congress to allow the Federal Reserve to purchase a limited amount of corporate debt in the form of bonds. This was recently proposed by Eric Rosengren, the president of the Federal Reserve Bank of Boston (Bernanke and Yellen). This would give liquid capital to businesses at favorable rates, allowing them to continue operating while revenue has slowed or stopped due to the COVID-19 pandemic. Although this would prevent job losses and many businesses from failing, this policy does have many downsides. One is that this action by the Federal Reserve is currently not possible. Although other central banks can enact this policy, the Federal Reserve is only allowed to buy bonds issued by the government of the United States. In order to enact this policy, therefore, the Federal Reserve Act must be amended (Condon and Torres). The process to change federal law in order to implement this policy may be lengthy, so purchasing corporate debt bonds may not be feasible in time for it lessen the effects of COVID-19. Some lawmakers may also have reservations about expanding the powers of the Federal Reserve, so changing the Federal Reserve Act and executing this policy may not be possible at all. In addition, allowing the Federal Reserve to purchase corporate debt may lead to corruption and favoritism (Condon and Torres). This is because certain parties within the Federal Reserve may choose to invest in certain companies over others for their own monetary gain.

Long Term Impacts

The possible long term changes in our economy and society as a result of the Coronavirus are potentially immense and greatly depend on the timeline of quarantine measures and shutdowns. Furthermore, the virus will have varying effects on different sectors. How the virus changes work arrangements, social interactions, role of government, and even trade is dependent on the nature of the sector and it's state before Coronavirus made its appearance.

Work arrangements-remote work

One sector that is expected to experience tremendous acceleration is the availability and acceptability of working remotely. A study done in 2017 by Gallup on the State of the American Workplace found that "43% of employees work remotely with some frequency." These figures are up from 39% in their 2012 study. Remote work options have steadily been on the increase in the last 10 years and is a natural consequence of technological advancement. Many, like Kate Lister, president of the Global Workplace Analytics "foresee that this [Coronavirus] is going to really accelerate the trend." While quarantine measures may have forced companies to adopt work from home cultures, the acceleration of this new work culture may not be completely reversible.

Of course, when talking about an increased remote workforce, distinctions are important. According to Global Workplace Analytics, “Full time employees are four times more likely to have remote work options than part-time employees” with nearly a quarter of these remote workers earning over $100,000 in high capacity industries (Owl Labs). Meaning, traditionally educated, higher earning workers are more likely the forerunners of the remote workplace model and in the long term will be as well. Not all jobs are able to be carried out remotely, this is even evident in our need for essential workers during the pandemic who travel in order to complete their tasks. Therefore, an increase in remote work post Coronavirus will most likely be in industries and roles that were previously supporting it and in roles that were already heading in this direction. These roles will see a surge in remote employment, while others (barring extreme technological advancement within their industry) will remain steady at pre-coronavirus remote employment levels.

While remote has proven to be the greatest alternative to the traditional workspace during this global pandemic, remote work has its fair share of shortcomings that may hinder company performance and the economy as a whole. Companies across the country have already begun the long term transition to remote work in areas that are possible. However, “Shifting from mostly on-site to fully remote ... is considerably more complicated than just sending employees home with laptops” (Thomas). Transitioning to a fully remote workplace requires significant shifts in management practices and communication methods. Because there is less physical interaction in a remote workplace, productivity can not be easily tracked and monitored. In a remote world, only the end result counts (Thomas). Isolation also forces workers to bear more of a responsibility on their own elements of a task. They must have greater levels of productivity, as well as communications skills and patience. Due to all of these factors, projects will often require more of an effort to complete. More difficult company tasks may be delayed, or even shut down due to the lack of communication and cohesiveness in a remote workplace. Remote work will put company culture to the test. While many companies will be successful and increase overall productivity, others will suffer due to their failure to adjust to the new environment. Therefore, it is possible that without further technological advancement and methods to address these issues, in the long term many jobs will return to traditional brick and mortar, face-to-face settings.

Social interactions

The long term effects of Coronavirus on social interactions may have potentially damaging consequences for much of society. Many people are dealing with the stress and threat of job loss, over-crowded homes, isolation, work-place trauma for healthcare professionals, loneliness ,and general uneasiness and uncertainty. These are issues that will not just disappear when the doors reopen, they can have long lasting effects on the mental and social health of millions of people. In fact, “after months of carefully and habitually avoiding others, merely venturing out and being in proximity to others will be intensely anxiety provoking for many" (The Boston Globe). To compound these effects, a surge in use of social platforms reveals a trend that may make things worse. For example, Zoom’s active mobile users were 151% higher in March 2020 than in the previous year (Reuters) and the social media app TikTok, which helps teenagers cope with quarantine measures, saw a “27 percent increase in the first 23 days of March compared to February…” (Newsweek). With generations of tech-savvy millennials and Gen Z who were already the most connected, yet isolated, generations in history before the virus, the boom in usage of these apps are here to stay in the long term giving part to a continuation of social media interactions. In the long run, the rising use of technology to communicate will continue to shape industries. The demand for telecommunication, social media platforms, and conferencing services will continue to rise at unprecedented levels, pushing for more innovation in these sectors.

While many continue to struggle with maintaining social interactions through social media platforms, children are most at risk during this present age of social distancing. Children often depend on their peers as a hub for social development (Campbell). Although social distancing measures prevent in person interactions and appear to have a detrimental effect on the long term social development of kids, the effects may be less permanent than they seem. For one, kids under the age of five may actually benefit from the quarantine. As younger children often rely on their parents for developing early social interaction skills, they may come out of social distancing with healthy attachment styles and proper social abilities (Campbell). While it is becoming more of a challenge to develop the younger generation socially, parents can play a big role in promoting certain habits that will be a positive force in their social lives. Actions such as giving their children positive support or “outs”, understanding their need to be online, and encouraging daily exercise are methods that will greatly improve and promote social development among young adults and children in general (Campbell). The noted benefits of parents being more present in the lives of their children will drive a demand for the parents of young children to work remotely. In the long run, the quarantine effects of the Coronavirus may shift public perception on working from home from a ‘luxury’ to more of a necessity, permanently changing the landscape.

Conclusion

Throughout this paper, we have shown that COVID-19 will have widespread and severe impacts on the economy. Specifically, we discussed how the pandemic has disrupted consumer demand, especially in the healthcare, food, and recreation industries, and how it will change American society, like where we work and how we will socialize with others. We also analyzed potential policies that could lessen the impacts of COVID-19 on the economy. These included giving American households $2,000 a month, lowering the federal funds rate to below 0%, and allowing the Federal Reserve to purchase company bonds.

Of course, we do not know when the COVID-19 pandemic will end, the full severity of its impact, or how it will change our society. By the end of the pandemic, we will have learned more about the virus itself and how we, as a society, responded to it. When this happens, we will obtain a more complete picture of the effect the pandemic had on consumer demand and how society changed because of the pandemic.We will have also learned which policies would have best countered the economic repercussions of COVID-19. Until then, this paper serves as our best estimate about how the economy will respond to the ongoing pandemic and the effectiveness of proposed policies designed to mitigate its effect.

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