

COVID-19: Outbreak & Impact

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TAKEAWAYS: This is the first of a series that offers some economic perspectives on the current COVID-19 pandemic. The article addresses two questions. The first question concerns the origin of the virus outbreak during its early days, highlighting the downsides of a top-down, command-and-control political system and recent global trends. The second question concerns COVID-19's local economic impacts that also depend on the extent of resilience in the community.

Question: Could the COVID-19 pandemic be avoided?

This novel coronavirus has a genetic link to the virus that caused the SARS outbreak in China in 2003. But unlike SARS and many influenza outbreaks in the past, COVID-19 has become an epidemic that is spreading on a worldwide scale. The virus has spread across all continents in the world except Antarctica, or the South Pole.

The outcome might have been drastically different from what we are experiencing today if the outbreak had not begun in China. The following are some contributing factors for the development of this global crisis beginning with a single death.

System Failure

According to Chinese authorities, the coronavirus was first found in a seafood and poultry market in Wuhan, a city in Central China, as early as December last year. It is now obvious there was a delay in raising awareness of the virus outbreak within China and then around the world.

Li Wenliang, a 34-year-old eye doctor in Wuhan, was one of the “whistleblowers” who spoke up about the emergence of the disease in early January. He was punished by local authorities for “spreading rumors” until his death from COVID-19 in early February. After the central government eventually disciplined local officials for Li’s reprimand and death weeks later, Chinese citizens demanded on social media “accountability

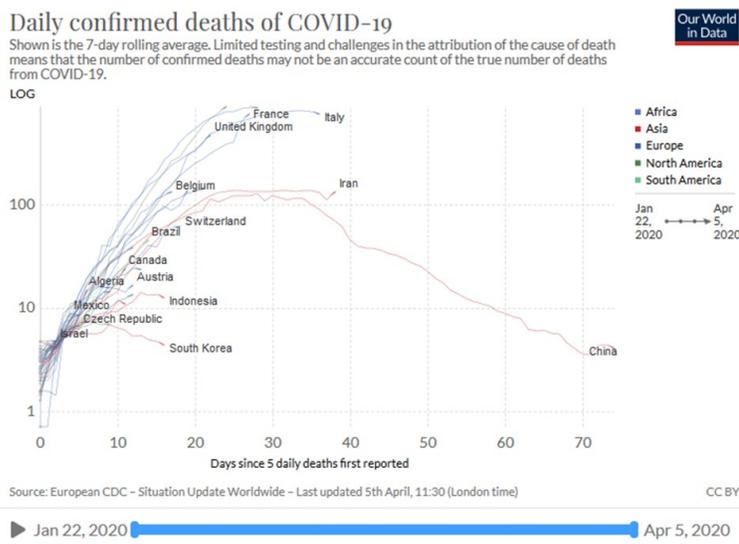
and transparency,” and “freedom of speech” that the Chinese government does not tolerate for the sake of “economic prosperity and stability.”

While Wuhan officials might have underestimated the severity of the disease, the public health cover-up coincided with the timing of the Chinese New Year when the largest annual human migration on Earth occurred. Regardless, central government officials believed the coronavirus could be contained within mainland China. They have resisted interventions from other nations, notably the United States.

From Wuhan Virus to COVID-19

Another factor for the lack of a timely warning for the rest of the world is China’s influence over the World Health Organization. COVID-19 is the official name given by the WHO on February 11. Before the WHO announced this official name, the virus was popularly referred to as the “Wuhan coronavirus” or “Chinese coronavirus.” This name change was widely construed as a way to dismiss China as the epicenter of the global crisis.

Other than the dispute over a namesake, the WHO seems to have overestimated the ability that China handled the virus outbreak. Not until after more than 100,000 people worldwide were infected with this respiratory disease by mid-March, the WHO’s Director General, Tedros Adhanom, had relegated the



through Europe. This explains the outsized numbers of deaths from COVID-19 in Italy and Iran, both are members of this new Silk Road project. At the beginning of the year, Italy promised to be a “magnet” for Chinese visitors in 2020.

The current epidemic clearly reflects the ties between China and the United States beyond trade. In addition to Americans traveling between the two countries, the numbers of college students, tourists, and visa (such as HB-1 and EB-5) holders from China have soared over the past decade.

By the time American passengers aboard the Diamond Princess cruise ship outside Japan returned home in February, scores of “hidden carriers” of COVID-19 and infected travelers from China had already entered the country. Before President Trump imposed restrictions on travels into the U.S., more than 400,000 had flown from China since the coronavirus surfaced in mid-January, according to New York Times.

situation as “limited” and then “sustained” person-to-person transmission before declaring it a “pandemic” for the fear of offending Chinese officials.

Globalization

Without timely and accurate data on infection cases from China and the WHO, the rest of the world was not able to act swiftly and so most countries were ill-prepared for a preemptive response to the epidemic. COVID-19 also seems to have spread faster than other similar diseases, including SARS in 2003 also originated from China. So, how different is the world today?

Globalization has made the world smaller figuratively. This process refers to the movement of people and goods and services across different parts of the world. China has built a bullet train system across the country. In addition to buses and vehicles, high-speed trains had helped some of the estimated 5 million people flee Wuhan before the city sealed its borders on January 23.

Economic ties between China and the rest of the world, notably the United States, have also strengthened remarkably in the past 20 years. As the world’s second largest economy behind only the United States, China has loosened restrictions on its citizens’ overseas travel and entry of foreigners.

The One Belt One Road initiative has further tightened the economic and trade ties between China and countries all the way

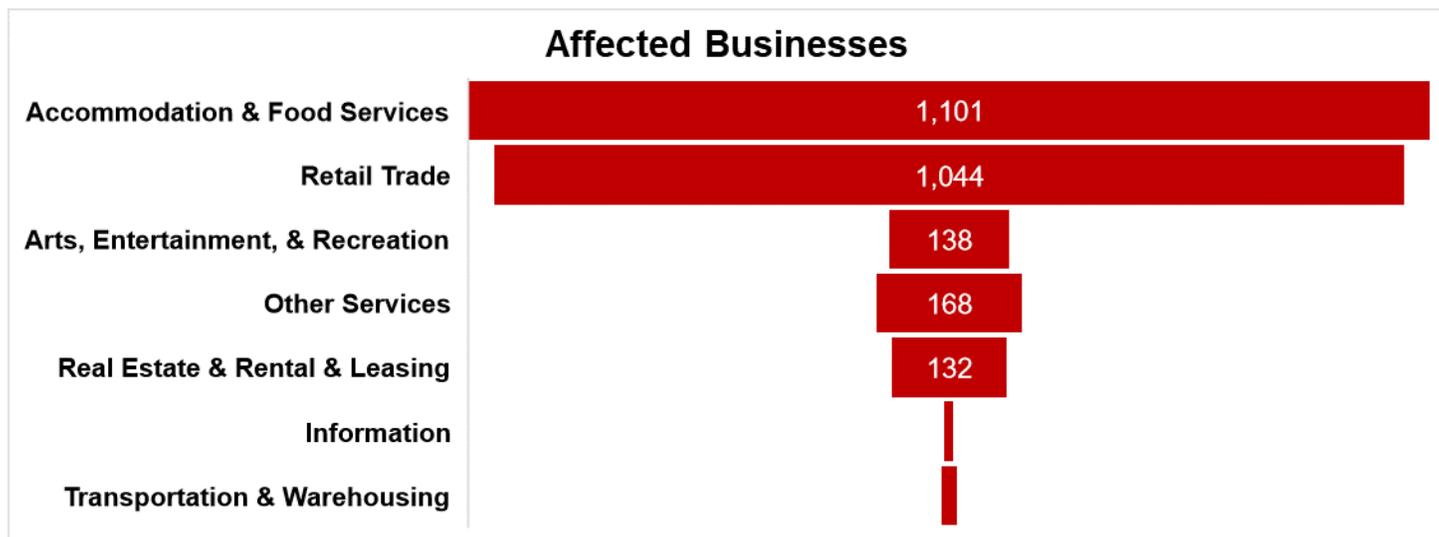
Question: How has the pandemic affected our economy?

Much of the U.S. economy is paralyzed following the executive orders for businesses across the nation to close and for people to stay at home. According to the Bureau of Labor Statistics, the nation lost 701,000 jobs in March—the most monthly loss since the depths of the Great Recession in 2009. A record 6.6 million Americans filed unemployment claims.

In the Coastal Bend region, there is no reported death from COVID-19 at the time of writing. But as for the rest of the nation, the policy measures to limit its spread have devastating impacts on businesses. To monitor how local businesses fare during the current crisis, the Corpus Christi Regional Economic Development Corporation has teamed up a consortium of economic development agencies and chambers of commerce in South Texas to launch a series of surveys.

Surveys

The [results](#) of the first survey highlight the immediate impact of state governor’s executive orders issued on March 19 to avoid social gatherings, visiting gyms and salons, and eating and drinking at restaurants and bars. According to more than 850 respondents and 388 complete returns, 29% of local businesses were closed voluntarily in addition to 12% of local businesses that were closed by the state and local executive orders. Those that remained open were operating at 68% capacity. The typical business



One-Month Stay-at-Home Impact on Sales



owner in the survey had experienced a 40% revenue loss and expected to be able to survive the current condition for no more than six weeks before closing permanently. Nearly one in five business owners had laid off at least some workers, and 5% of businesses had begun terminating staff.

The financial impact on operations and liquidity was the top concern among business respondents. Without sufficient working capital to stay the course, most small businesses are facing a dilemma: Layoff at least some employees now or shut down permanently in time.

Stay at Home Order

The preliminary survey data on local businesses help us project the impact of a state-at-home order, or community lockdown, on the local economy. On March 31, Governor Abbott enforced President Trump's social distancing protocols and extended his previous stay-at-home executive orders to April 30.

The mandates direct all residents to minimize gatherings and in-person contact with non-family members except for obtaining essential services, such as healthcare, grocery stores, banking and financial services, and utilities. An accompanying chart lists the estimated numbers of business establishments in the Corpus Christi metro area that are impacted by those directives.

As a result of the executive orders, the accommodation and food services sector are hit the hardest, followed by the retail trade and entertainment sectors. In the Corpus Christi metro areas, an estimate of about 1,100 businesses in the so-called hospitality sector, including hotels/motels, and restaurants and bars, are directly affected. So are about the same amount of retail stores.

The lockdown protocol also affects the area's movie theaters and studios in the information sector. In the transportation sector, air travel and local transportation, such as taxi services, are affected.

As residents are ordered to stay and work at home, the utility industry, and grocery stores and supermarkets in the retail trade

sector in fact experiencing rising business activity. These businesses do not show up in the chart, but they will be accounted for in the estimation of the net negative impact of COVID-19 on the local economy.

We estimate the impact on gross revenues, or sales, of industries in the Corpus Christi metro area under the scenario of a stay-at-home order. The accompanying bar chart displays estimates for revenue changes by NACIS 2-digit sector given the assumption that the stay-at-home order will last for one month. According to the executive orders, gyms, barber shops, salons, and recreational sport establishments are shut down, resulting in total revenue losses.

Hotels and motels are assumed to be down by 90%. Restaurants are allowed to provide only takeout and drive-thru services, so they together are expected to lose 75% of their pre-crisis business. On the other hand, utility providers, hospitals in the health care sector, and grocery stores and online retailers in the retail trade sector are expected to garner more sales.

All told, the executive orders adversely affect an estimated total of 2,615 business establishments in the metro area, or 26% of the total. An estimate of 36,283 employees are on these businesses' payroll, representing 16% of the overall regional employment.

After accounting for the positive impact on certain businesses, the estimated net revenue loss among local businesses amounts to \$179 million if the stay-at-home order lasts for one month. This figure represents the "direct" impact on the local economy.

Ripple Effects

Reducing the scale of operations in hotels and restaurants not only reduces their revenues and staff, but also indirectly affects the business vendors that provide them with supplies and services. For example, a reduction in business for a hotel or restaurant also means a reduction in business for food and drinks provided by its local vendors.

The Bureau of Labor Statistics' input-output model is a popular tool that traces the full effect of revenue changes in one business

or industry on revenue changes in other industries within a region. According to the model customized for the Corpus Christi metro area, 10 fewer workers employed in restaurants and bars together lead to a loss of another 3 jobs in the area economy.

On this page are screenshots of "total" economic impact estimates using an [app developed by Impact DataSource](#), an economic consulting company based in Austin. Estimates of the total impacts include the direct impact of changes in consumer spending in various industries due to the stay-at-home orders as well as the spillover effects on the rest of the Corpus Christi economy. In addition to the assumption about the length of the stay-at-home orders, there are alternative scenarios about how fast the economy will recover.

Resilience

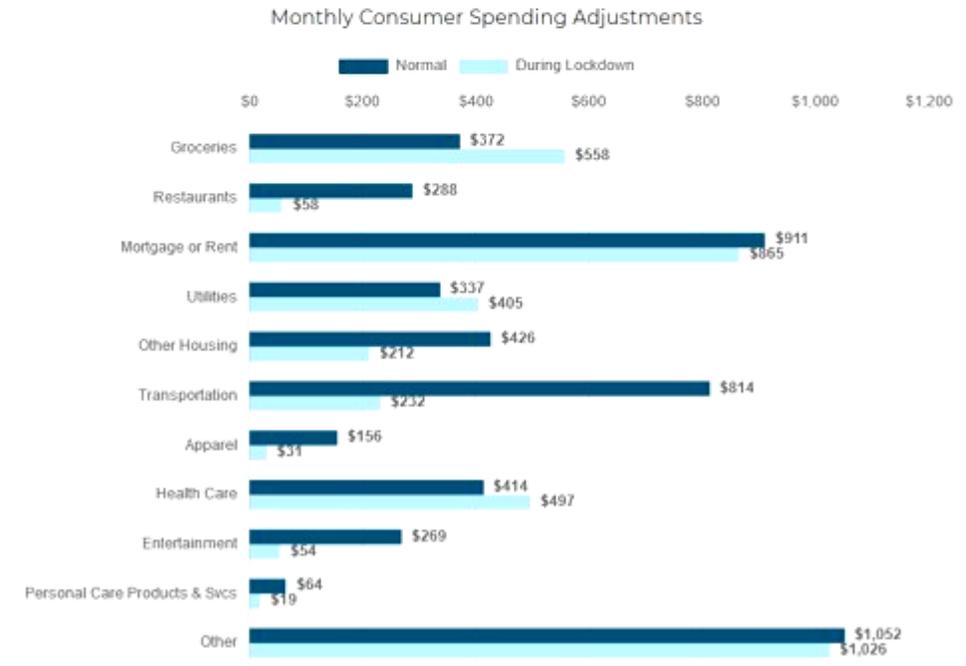
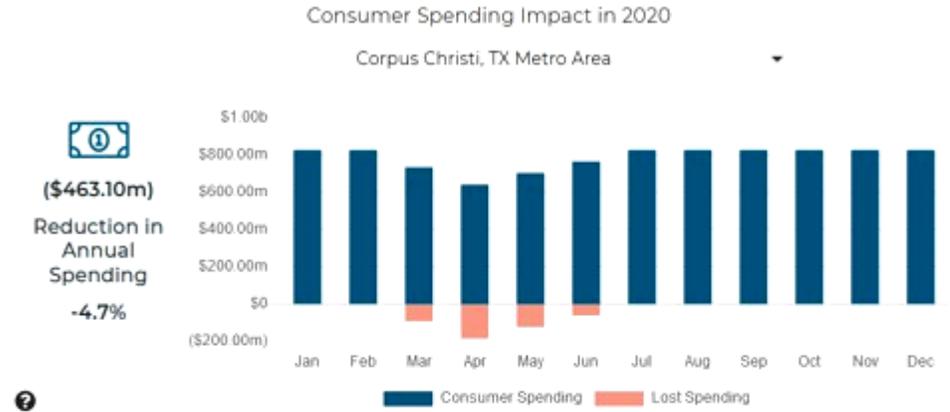
According to the model, a one-month stay-at-home order will result in a total reduction of \$463 million in spending or revenue if the economy can fully recover within the next three months. If Corpus Christi takes six months to recover, then the economic losses will increase 60% to \$741 million.

Alternatively, if the stay-at-home order lasts for one more month through the end of May instead of April, then the estimated economic losses will become \$648 million under the speedier recovery scenario.

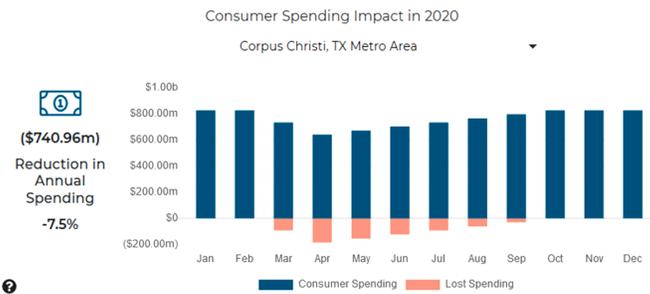
But if the economy cannot fully recover until the end of the year, then the total economic toll of this policy measure will swell to nearly \$1 billion.

These exercises highlight not only the side-effects of existing policy measures to combat the spread of coronavirus, but also the significance of how fast a business community can bounce back following the crisis. The latter is commonly called disaster resilience.

PROJECTED LOCKDOWN DURATION (MONTHS) 1 PROJECTED TIME TO RECOVERY (MONTHS) 3



PROJECTED LOCKDOWN DURATION (MONTHS) 1 PROJECTED TIME TO RECOVERY (MONTHS) 6



PROJECTED LOCKDOWN DURATION (MONTHS) 2 PROJECTED TIME TO RECOVERY (MONTHS) 3

