

## POSS Sun Devils Report

Yiqian Cui Fiona Luo Leo Zhang Art Yu Yiwen Ma

COVID-19 has had an unprecedented impact on globalization, and through that, culture and education. Never before have institutions and industries been shut down so thoroughly, so the world has been forced to adapt: pushing forwards innovation and bringing technology to the forefront of everyone's lives, in everything they do.

The coronavirus is an unprecedented virus, we know some of the viruses like Sars, Avian Influenza, Ebola Virus, and Plague. They caused a sensation all over the world, but coronavirus caused longer time and more mortality. As the data shows, sars virus starts on December 5th or 6th, 2012 and ends on July 13th, 2013. This virus comes quietly and goes quietly too. It doesn't have a vaccine but the sars virus goes away. We use a long time to fix the economy and also other things that are lost on the Sars virus. Back to this coronavirus, we can see this virus starts in December, 2019 in China and is still going now. As the table below shows the cases happen in Canada:

Canadian cases:		
CONFIRMED 122,040	DEATHS 9.026	RECOVERED 108,484
5,565,908 tests administered		

This is a large number of deaths, and the countries spend much more money on this virus. The factories are closed. For example, Victoria Secret, Muji in America, and also some small businesses. Workers lost their jobs and some foreign countries works has to go back to their own countries. Lives are being ruined and we need to fix this status quo. Life will change, and the effect that coronavirus brings to us is permanently.

### 1.

Globalization is the spread of products, technology, information, and jobs across the cultures and world. Often used in economics for trade. In general, we can say that the current age of globalization is being defined by the west. For the United States being one part of globalization, Europe is another part. Now, take a step back to history. It wasn't always the west. Globalization hundreds of years ago was defined not by the west, but actually by two different countries. One of those countries was China, the other country was actually a group of countries in Europe; the exploration country such as Portugal, Spain, France, and so on.

Admiral Zheng He, who explored the maritime silk roads in the Ming Dynasty. His ships were enormous compared to anything that the European powers had. The technology of Zheng He was far in advance of those ships. His main flagship is about four hundred feet in length and it travelled around the South China Sea and Indian Ocean to trade. On the other

hand, Christopher Columbus is an Italian explorer who discovered North America. His ship was only one third the size compared to Zheng He's ship. So, it will be interesting to say what would actually happen if Christopher Columbus and Zheng He had met.

### Modern Day:

The industrial revolution has made communication and transportation much easier. Large factories produce products and can be shipped around the world. Our current day globalization started after the recovery from WWII around 1950 and it continued until today with international trade. Here, technology also played a role in globalization but this time it is not shipping, this time was communication's technology. We had radio in more advanced ways such as mobile phones, we also had things like email which literally changed the nature of trade which made it much more efficient. Globalization has since sped up to an unprecedented pace, with public policy changes and communications technology innovations cited as the two main driving factors.

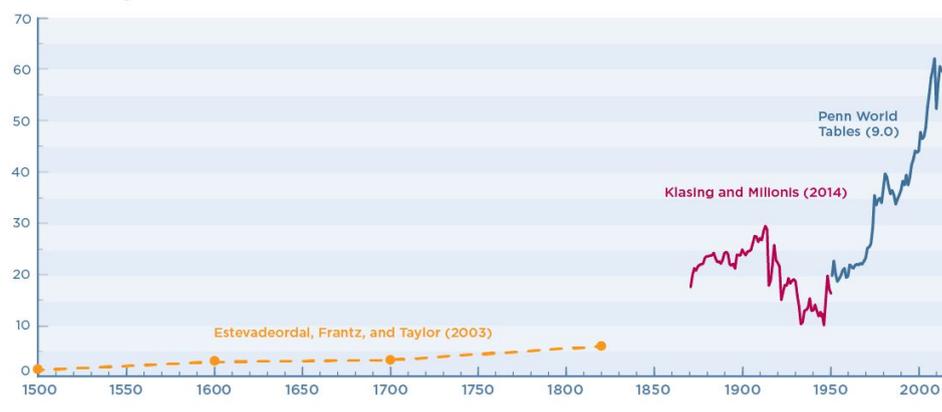
### Cultural Impact of Globalization:

-Language- There are over 7000 languages worldwide. English has taken over many languages through the internet, TV, movies, music, and businesses operating in other countries. As English becomes more frequently used by people many languages begin to disappear every year. Many information relating to cultural traditions that are passed down through generations with native languages are lost, so are those traditions.

-Shaping of culture- Globalization disperses every culture throughout the world making the planet more diverse. Creating deeper connections between different groups. For example, teens gain an understanding of Japanese culture through animation, comic books, and video games. We can enjoy food and cultural traditions from around the world in our hometown.

## Trade has skyrocketed in the past century

World trade as percent of world GDP (1500-2014)



**Note:** This chart displays data from three sources. Data from 1500 to 1820 is the average of the upper and lower bound and only includes the years 1500, 1600, 1700, and 1820. Data not available from 1821-1869.

**Sources:** See chart, "Globalization over 5 centuries," at <https://ourworldindata.org/trade-and-globalization> for full citations.

-Globalization has sped up to an unprecedented pace since the 1990s, with public policy changes and communications technology innovations cited as the two main driving factors.

-China and India are among the foremost examples of nations that have benefited from globalization.

-One clear result of globalization is that an economic downturn in one country can create a domino effect through its trade partners.

United Nations-

an international organization founded in 1945 after the Second World War by 51 countries committed to maintaining international peace and security, developing friendly relations among nations and promoting social progress, better living standards, and human rights.

G20-

Bring together systemically important industrialized and developing economies to discuss key issues in the global economy.

One critical step in the path to globalization came with the North American Free Trade Agreement (NAFTA), signed in 1993. One of NAFTA's many effects was to give American auto manufacturers the incentive to relocate a portion of their manufacturing to Mexico where they could save on the costs of labor. As of February 2019, the NAFTA agreement was due to be terminated, and a new trade agreement negotiated by the U.S., Mexico, and Canada was pending approval by the U.S. Congress.

The main idea of international trade is to let governments worldwide have integrated a free market economic system through trade policies and agreements over the last 20 years. The core of most trade agreements is the removal or reduction of tariffs.

Pandemic Impact on Globalization:

World Health Organization (WHO)-

Shipped medical resources to 148 countries with solidarity trials that strengthened laboratory, treatment capacity and biomedical equipment. Medical experts and helpers are deployed worldwide.

Also made strategic preparedness and response plans that aims to:

1. Improves country preparedness and response.
2. Accelerates research and development.
3. Coordinates across regions assess, respond and mitigate risks.

While there is no way to tell exactly what the economic damage from the global COVID-19 novel coronavirus pandemic will be, there is widespread agreement among economists that it will have severe negative impacts on the global economy.

Globalization is about the interconnectedness of people and businesses across the world that eventually leads to global cultural, political and economic integration. It is the ability to move and communicate easily with others all over the world in order to conduct business internationally.

-Kenton, Will. "North American Free Trade Agreement (NAFTA) Definition." *Investopedia*, Investopedia, 30 June 2020, [www.investopedia.com/terms/n/nafta.asp](http://www.investopedia.com/terms/n/nafta.asp). The main idea of international trade is to let governments worldwide have integrated a free market economic system through trade policies and agreements over the last 20 years. The core of most trade agreements is the removal or reduction of tariffs.

In order to have a stable globalized world, a strong economy and labor forces are needed in the process.

## 2.

Trade and Labor repercussions: economic and policy impact of pandemics, disruption and transformation.

As the COVID-19 spreads at an alarming speed, it has caused a massive rise in unemployment, and also has infected a great number of economic activities. The economy has suffered a severe blow in this situation, as evidenced by these following facts. First, while world trade was already slowing down prior to the COVID-19 pandemic, the economic and social disruptions brought by COVID-19 are resulting in a dramatic decline in trade. According to UNCTAD calculations based on national statistics, the value of international trade in goods has declined by about 5 percent in Q1 2020 and is expected to decline further by 27 percent in Q2 2020, which will be even more severe than the financial crisis in 2008. Secondly, there has been a drastic drop in global foreign direct investment (FDI). FDI involves more than just capital investment. The benefits FDI can bring, simply put, is the creation of jobs, provision of finance and technology, and an increase in exports. Namely, FDI has a huge impact on economic growth, which means that decreasing FDI represents the negative effect the pandemic has brought. FDI flows are expected to drop 40% this year, the UN announced, citing the pandemic as the principle factor. And it is also expected that FDI will shrink from its 2019 value of \$1.54 trillion (€1.36 trillion) to less than \$1 trillion for the first time since 2005(UNCTAD). However, there is a divergence between the real economy and the financial market. It seems that the financial market is doing well. Not only has the asset price been rising, but the stock markets have been rising as well.

Furthermore, the pandemic can have long term effects. Above all, the rapid rise in unemployment may increase poverty levels. In other words, the gap between rich and poor will grow due to the pandemic, because

“during the lockdown, top-earning workers were on average 50% more likely to work from home than low earners. At the same time, low-income workers were twice as likely to

have to stop working completely, compared to their higher-income peers”(<http://www.oecd.org/coronavirus/en/>).

Meanwhile, a decline in earnings may last years after the pandemic. Education’s rate of return will rise in a time of crisis, causing a greater economic divide among educated and uneducated workers; an increased unemployment rate creates an excess of uneducated workers, which in turn will decrease earnings. Another factor that will also decrease earnings is that working hours will be shortened. The latest ILO estimates show that working hour losses have worsened during the first half of 2020, reflecting the deteriorating situation in recent weeks, especially in developing countries:

“During the first quarter of the year, an estimated 5.4 percent of global working hours (equivalent to 155 million full-time jobs) were lost relative to the fourth quarter of 2019. Working Hour losses for the second quarter of 2020 relative to the last quarter of 2019 are estimated to reach 14.0 percent worldwide (equivalent to 400 million full-time jobs), with the largest reduction (18.3 percent) occurring in the Americas”(ILO Monitor: COVID-19 and the world of work)

Despite all the terrible impacts of the pandemic, we are heading towards recovery with the help of government interventions. Unlike a pure financial crisis, the pandemic is uncontrollable, and the recovery cannot be simply described. According to Christine Lagarde, the president of ECB, the recovery from pandemic will be constrained, uncertain, and fragmented. As government intervention is stabilizing the economy and helping the civil society, we can clearly see the effect of following policies that some countries released: providing unemployment benefits and more pension; helping the middle sector with providing more accessible credits. These policies make the recovery more steady because the economy opens gradually with less resurgence. Instead of opening up from lockdown too quickly, the government provides benefits and pensions in order to make sure that people can go back to work slowly, while the number of new cases can drop with slow but steady speed.

In addition to positive and negative welfare before and after the pandemic that effects free trade has on the economy, there are also a variety of other effects on the financial market.

### 3.

Financial markets play a vital role in facilitating the smooth operation of capitalist economies by allocating resources and creating liquidity for businesses and entrepreneurs. It allows money to flow between businesses, governments and households; thus promotes the development of the economy. “Financial markets refer broadly to any marketplace where the trading of securities occurs, including the stock market, bond market, forex market, and derivatives market.”[*Will Kenton, Financial Market, Investopedia*] Financial markets are vital to the smooth operation of capitalist economies; if there are problems in financial markets, the resulting financial crisis is likely to lead to an economic recession; for example, The Great Depression in 1929.

The effects of COVID-19 are significant: Rapid growth in unemployment, serious decline in GDP, irregular inflation combined with falling prices in some areas, and the most

importantly, economic stagnation. But before these, was the crash on financial markets. On 12 February, right before the COVID-19 outbreak, the Dow Jones Industrial Average, the NASDAQ Composite, and S&P 500 Index all finished at record highs; nonetheless, with the coronavirus arriving, the financial markets were broken.

According to NASDAQ Composite, stock markets worldwide reported their largest one-week declines since the 2008 financial crisis from 24 to 28 February; global markets into early March became extremely volatile, with large swings occurring in global markets. “On 9 March, most global markets reported severe contractions, mainly in response to the COVID-19 pandemic.” [Partington, Richard; Wearden, Graeme (9 March 2020). "Global stock markets post biggest falls since 2008 financial crisis". *The Guardian*.] “Three days later, there was another drop, Black Thursday, where stocks across Europe and North America fell more than 9%. Wall Street experienced its largest single-day percentage drop since Black Monday in 1987, and the FTSE MIB of the Borsa Italiana fell nearly 17%.” [Lopez, Jonathan (12 March 2020). "Europe crude, petchems prices extend losses as stocks suffer 'Black Thursday'". *Icis*.] During March 2020, global stocks saw a downturn of at least 25%, and 30% in most G20 nations.” [GmbH, finanzen net. "Goldman Sachs now says US GDP will shrink 24% next quarter amid the coronavirus pandemic - which would be 2.5 times bigger than any decline in history | Markets Insider". *markets.businessinsider.com*.]

The COVID-19 is the last straw that breaks the camel's back; not as the core reason of this financial crisis, but as an accelerant. According to the IMF report, the world economy was going through a synchronized slowdown since global growth had peaked in 2017. The Brexit and the China – United States trade war in 2019 contributed to this slowdown even more. Since the financial crisis of 2007–08, there has been a large increase in corporate indebtedness, “rising from 84% of gross world product in 2009 to 92% in 2019, or about \$72 trillion. In the world's eight largest economies, the total corporate debt was about \$51 trillion in 2019, compared to \$34 trillion in 2009.” “It was predicted that \$19 trillion in debt would be owed by non-financial firms without the earnings to cover the interest payments on the debt they issued”; so when the COVID-19 brought the financial crisis, the problem of unemployment and the collapse of services beat these companies down. These kinds of companies play an important role in financial markets; their collapse hit financial markets like a tsunami, by having no one to buy their goods and services because their products are designed for “non - COVID periods”.

The pandemic has exposed the instability and imperfection of the world's financial markets. Every financial crisis has a huge impact on the global economy; at a time when economic growth is slowing down and financial markets are becoming extremely unstable, improving the global economy has become a top priority.

With the deterioration of global financial markets, capital outflow and debt pressure in various countries have become inevitable. Under the impact of the uncertainty of the epidemic, the collapse of oil prices and the turmoil in the financial market, capital outflows from emerging economies have reached a record \$ 83 billion since the outbreak began. Some heavily indebted countries are under great pressure to repay their debts and face difficulties in servicing their principal and interest. Nearly 80 member countries have requested IMF assistance so far. The IMF announced that about us \$1 trillion could be used to support

countries in their response to the epidemic, including financing support, medium-term loans and medium-term lending facilities, and debt cancellation for LDCS through the Disaster Prevention and Relief Fund. The World Bank has also announced \$14 billion in support.

As a result of the pandemic, many countries rely on tourism, services and exporting for growth are in crisis; these countries do not have enough capital inflow to pay its debts, resulting in fleeing foreign capital and rapidly depreciating currencies. Currency is determined by the supply and demand for it as a result of economic activity. The price of currency is a reflection of the value. In countries with more severe outbreaks, the currency is usually more fragile. With this situation, countries tend to rely on FX reserves to defend their currencies and provide FX(Foreign Exchanges) liquidity to domestic sectors. According to OECD, “FX interventions intensified significantly since February 2020, reaching magnitudes comparable to those of the 2008 crisis, amid considerable turbulence and volatility in the FX market.” Countries have differed in their capacity to use international reserves, reflecting the size of buffers built up over time, as well as their funding needs. The World Bank and the IMF also issued a joint call on March 25th for official bilateral creditors to suspend debt payments for the poorest countries requesting debt extensions. Usually, capital of a country reflects its status, power and stability; with massive change of world capital distribution, the COVID may expose the weakness of some countries’ financial problems.

Unlike other recessions that result from financial-system crashes, this time it was triggered by a global pandemic, governmental and societal responses to it, and the resulting shocks to supply and demand. Like the governments, banks also find themselves juggling some big priorities that require concrete steps to reposition now while also recalibrating for the future. They’re working to keep their distribution channels open, despite social distancing advice and supervisory and compliance functions that were never designed for remote work. They’re trying to manage revenue and customer expectations, despite near-zero interest rates and growing pressure on consumers. And, they need to keep an eye on strategy and brand issues that will define their future, as market forces and customer behaviors potentially change coming out of this crisis.

On the way of recovering from the crisis, the banking systems have roles to play in getting the economy back on track. Across the regions where COVID-19 is predicted to be harder to recover, public authorities view their banking systems as a conduit for economic and monetary policies, aiming to reduce the immediate impact of the economic stop associated with measures to contain the coronavirus. They have implemented a broad array of measures to incentivize banks to continue lending and show flexibility toward struggling customers. In return, banking systems are receiving substantial liquidity support, and regulations are being relaxed temporarily. Nevertheless, some banking systems will have less latitude to provide support.

How effective a bank-supported economic recovery, however, will depend on banks’ resilience. Losses from loan defaults and increases in risk-weighted assets will deplete banks’ capital; it also depends on the spread of COVID-19 and the how well the public-health response to it.

Financial markets are not the only ones being hit; people's travel and work have been greatly affected, among which the impact of information exchange and education on human society is particularly prominent.

#### 4.

Education:

The effects of COVID-19 on the education sector has been primarily caused by the lockdown. Close to two billion people have had their schools closed due to efforts to reduce the spread of the coronavirus, about 98% of the world's students.

All these shutdowns occurred in the middle of many people's school terms, which leads to the first impact: interrupted learning. School learning is intended to build up on what one learns the previous term, allowing a student to gain in knowledge without being overwhelmed.

Thus, a problem begins when students do not go to school for an extended period of time. Comparing students' performance from before and after a summer break, there is on average a one month loss of learning, with more for lower-class children. Known commonly as summer learning loss, it is present in all countries that provide lengthy summer breaks, such as the USA and Canada. The loss is substantially reduced for children who participate in academic extracurricular activities.

Summer breaks are two months long, with a wealth of different programs one could take, while the lockdown has varied from two to six months, depending on the country. Public summer activities such as libraries and community centers have all been shut down, taking away the most easily accessible programs for more disadvantaged children. Such a long break, combined with a lack of summer education can only mean that even more learning is lost than through the summer.

To circumvent this, online learning has been used to continue to educate people through the lockdown. Online learning has previously been used for teaching, but usually on supplementary courses such as summer school, or free course sites such as edX. Now, all school courses have been transferred online. Though it may be difficult to quickly transfer regular courses online, web-based courses have advantages compared to in-school ones.

First off, learning online allows flexibility in schedules. When taking courses in school, one must stay at school for a specific amount of time, to a specific schedule, or else they are unable to learn. Online learning usually consists of lectures, watchable anytime, and homework, due at a few specific dates. This allows people to set when and where they want to learn. This allows people who may not have as empty of a schedule, such as those who have jobs, to also effectively learn.

Secondly, online learning is more accessible to greater numbers of students in larger areas. Courses taught by teachers require infrastructure like classrooms, which are not easily built or transported. Classes have limited sizes, which means many who apply will be turned away. Online courses offer a solution to this. Preprepared lectures and reading material can be offered to a massive amount of people from anywhere around the globe, who now do not

have to worry about transportation or availability of courses. The only requirement is teachers to give feedback, but one teacher can educate many more students than in a physical class. Though watching lectures may not have the personal touch of a teacher, online courses usually have a supervising teacher to clear up any questions and give feedback on work.

Disadvantaged children have to face even worse challenges. During normal school, there has always been an element of disparity between those with access to academic resources, and those who do not. Still, this problem has not been so pronounced, since there has always been support for students from teachers. Now, though, that equalizer has been taken away. Teachers unprepared for online teaching will provide content worse than regular school material, and getting instructions and help will be much more difficult. Those who have access to out-of-school activities now become much more capable.

As well, there is an inequality in access to technology. Now that programs have been converted online, those without good computers, internet access or online identification cannot will not be able to learn, entertain themselves, or even communicate. This pandemic has shown the importance of technology to be unparalleled, but “[i]n 71 countries worldwide, less than half the population has access to the internet. Despite this disparity, 73 percent of governments out of 127 reporting countries are using online platforms to deliver education while schools remain closed,” says UNICEF. Online teaching further increases the education gap between marginalized groups, and the rest of society.

Technology:

COVID-19 has accelerated the development of many fields of technology. Minimizing, or at least adjusting to the lockdowns has mandated new ways to transport, work and share.

To reduce chances of COVID spread, work in offices has been transferred to working from home. The world has discovered that millions of jobs can be done from anywhere, not just the office. People now are able to cut down lengthy commutes, saving time and money, and communicate effectively using video calls and data-sharing websites. At the same time, remote work brings a new set of problems for workers. Important and private information sent online is now vulnerable to hacking and data-breaches, while also making employees prone to becoming isolated. Shutting down workplaces will cause those whose jobs require an in-person presence, such as construction workers and restaurant staff to be out of work.

Online shopping and deliveries has also become more common. To deal with store restrictions, people have turned to buying from e-commerce platforms or directly ordering from preferred stores. The quantity of online shopping has increased 76% compared to last year’s June: \$4.2 trillion dollars in total. To deal with this sudden increase in demand as well as desire for safety, many companies, especially in China, are using robot delivery systems to move goods locally. Shopping online is becoming ever more convenient.

At the same time, this newfound popularity, combined with expensive lockdown restrictions is hurting other stores. Lacking infrastructure in place to move quickly to online deliveries, and their physical stores becoming effectively useless, retail companies are struggling to survive the pandemic. Small businesses are especially vulnerable. A recent survey by

Goldman Sachs states that “51% [of small business owners] say their business will only be able to continue to operate for 0-3 months, [while] 96% say that they have already been impacted by COVID-19.” Small businesses tend to not have significant cash reserves in place, depending on their monthly earnings. Many of these businesses involve more physical work, such as restaurants and hotels, which are now shut down.

Culture:

COVID-19 now has a presence in every country in the world, whether through infected people or lockdowns and other safety measures. This has led to a closure of almost all cultural locations and events. Museums, libraries, concerts and other public events have been canceled or closed.

Small-time artists and musicians, though, have been disproportionately impacted. Normally, these artists depend on live performances and tours to earn money. It is difficult for them to earn money from selling merchandise, since music is easily pirated and producing these products cost them money. Now, hundreds of concerts have been canceled, taking away what these people live off of. This issue is possible to alleviate, though. Artists are now converting to online performances through live streams, or posting videos and information on social media to attract fans.

Larger institutions like museums have been less affected, since oftentimes their income is supplemented by government funding. Still, they have been closed, but that has led to a new method of sharing the contents of these buildings: online tours. Visitors can now watch narrated video tours, or go through digital versions of the building themselves. Some places have expanded into using virtual reality to create a fully immersive tour.

## 5.

Even if the vaccine has been found, the crisis always exists. People still have to wear masks and keep social distance. As the research shows,

“The D614G variant first came to our attention in early April, as we had observed a strikingly repetitive pattern. All over the world, even when local epidemics had many cases of the original form circulating, soon after the D614G variant was introduced into a region it became the prevalent form.” DOE/Los Alamos National Laboratory. Newer variant of COVID-19-causing virus dominates global infections. Science daily. <https://www.sciencedaily.com/releases/2020/07/200702144054.htm>. July 2, 2020.

We can see that even if the vaccine is made, we still cannot control the virus to mutation. For our safety we still have to keep 2 metres away from other people or a group of people. We can have parties but it has security risk, so we will control the time and the frequency. People have to wear masks when they are outside and wear gloves when they touch things.

One of the policy changes is that the government in the United States is that the congress is going to be virtual. Because at this special time, we still need congress to continue work through the crisis. As a result of keeping two meters from others, the room can only sit for 10 people a time or less, and also two of the people in the congress tested positive so it is impossible to sit outside and talk about one topic. If they go back to their own districts and

work, when there is a vote, they can get closer to the voter and will be sensitive to the local perspectives and issues. If we start this virtualized congress, then it might help us tackle one big problem.

“The contemporary House of Representatives has not grown meaning fully meaning fully in size since 1920s, which means that a representative, on average, speaks for 770,000 constituents, rather than the 30,000 the Founding Fathers mandated. If we demonstrate that a virtual Congress can do its job as well or better using 21st-century technologies, rather than 18th-century ones, perhaps we could return the house to the 30,000:1 ratio George Washington prescribed.” Politico Magazine. Coronavirus Will Change the World Permanently. Here’s How. POLITICO.

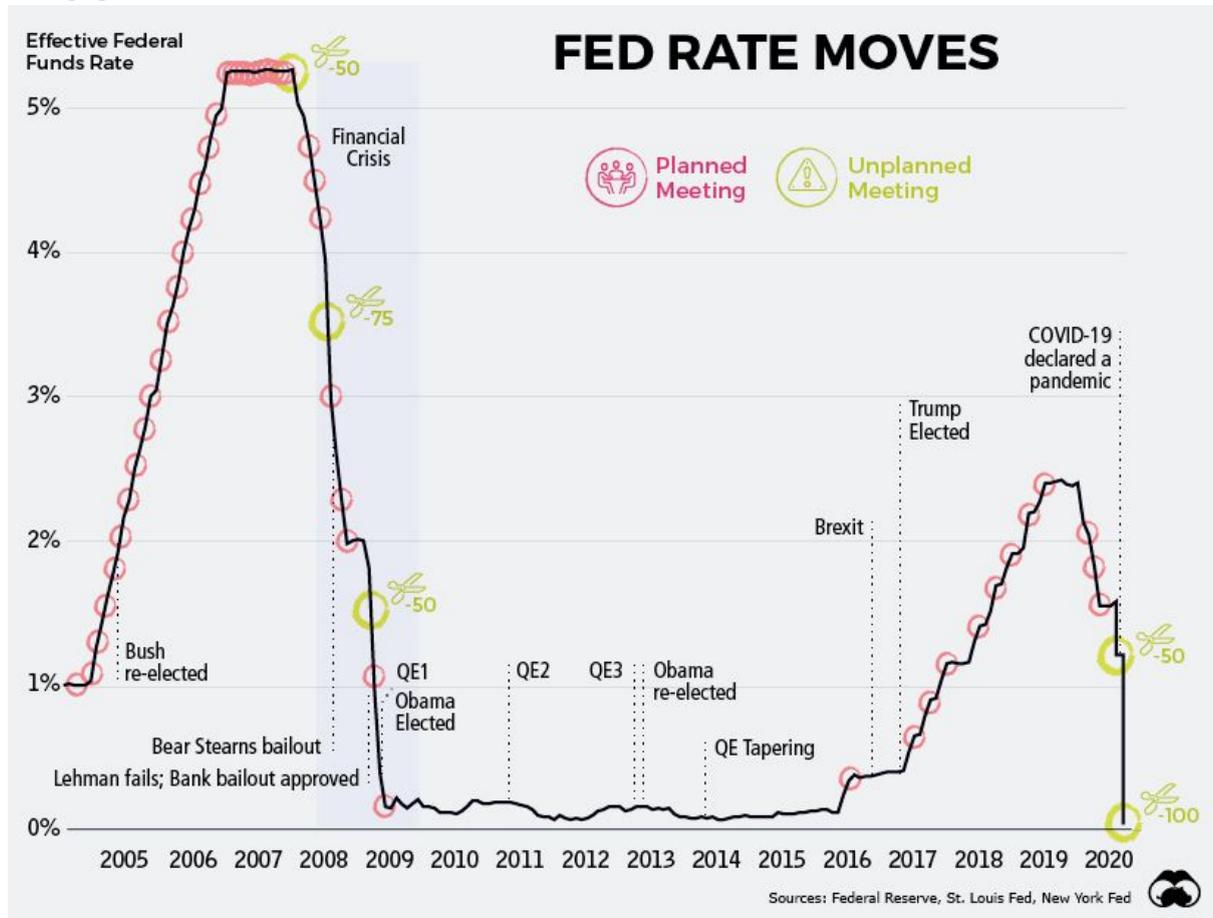
<https://www.politico.com/news/magazine/2020/03/19/coronavirus-effect-economy-life-society-analysis-covid-135579#gov>. 03/19/2020 07:30 PM EDT

During this very special time, the government supports individuals, businesses, sectors, and organizations helping Canadians. Because countries are helping businesses stay afloat, supporting households and helping preserve employment. Like Canada, they gave money to the Canadian. Each Canadian will get money from the government and some are now choosing not to go to work. If the virus is gone, many people will not be willing to go back to work and still want to get money from the government. As I said at the beginning, the crisis always exists, that means it is still not safe when people are around. So we have to control the number of the people in the office, and that still causes problems. If one of the workers in the office got COVID-19, the whole office has risk and people still can’t go to work, this will form like a bad cycle.

From these COVID-19 events, I found that countries might increase risk awareness. The first cases were found in China in December, 2019. Even though China was careful and told this thing to the world, other countries didn’t even care. When other countries successively found that some of their people got it, they didn’t protect or strengthen management. This is a bad thing because countries don’t know how hard it was. Even if there are some cases and increasing tenths and thousandths a day, most of the people don’t wear masks. I found a very interesting fact. In March and April, nearly no people wear masks when they go out, and that is the time when coronavirus increases faster and faster. But now when we kind of control the virus, many people wear masks at malls and public places. If similar things happen lately in the world, each country has to be alert and do something to avoid things happening like this.

The impact of the 2008-2009 financial crisis. The 2008-2009 financial crisis is a huge financial event in the world. Even if the central banks of many countries have injected huge amounts of funds into the financial market many times, they will not be able to prevent the outbreak of this financial crisis. During this time several bank failures, some companies go bankrupt, house prices burst, and some kind of affect our own life. And also Economies worldwide slowed during this period since credit tightened and international trade declined. But this financial crisis basically only affected those ordinary credits that have nothing to do with real estate, and those large financial institutions that are not directly related to

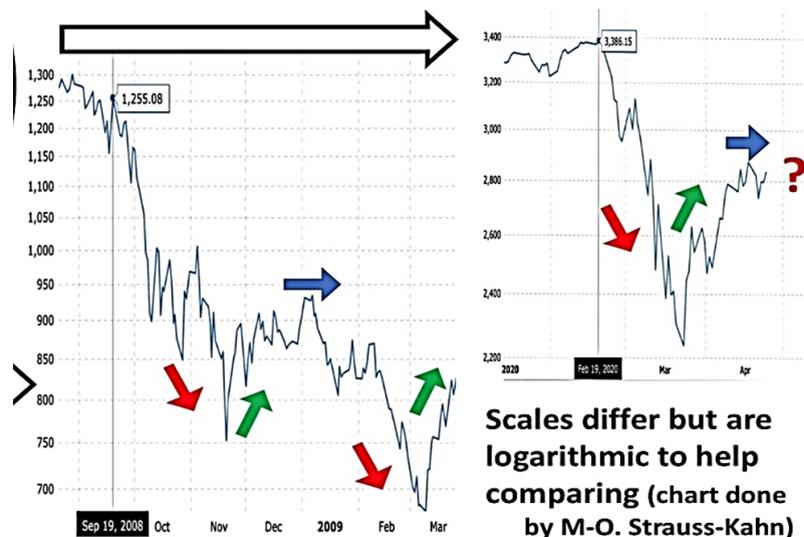
mortgages.



This chart shows us the funds rate during this 25 years, including the 2008 financial crisis and this coronavirus pandemic. The fed funds rate is the interest rate banks charge each other to lend Federal Reserve funds overnight. But it's also a benchmark for interest rates on credit cards, mortgages, and bank loans, and the main tool the nation's central bank uses to influence the U.S. economy. We know that the financial crisis is a bad time in the United States and this chart shows that the rate of this pandemic is lower than that time. As the chart shows, we use nearly 10 years to let the economy go back to what it was like in the year of 2005, that is 25 years before. We must use longer time to let the rate go up and up.

(US Stock Exchange 2008-2020 with 2 Focus just after Sept. 2008 & Feb. 2020)

Both of the financial crises have something similar. First of all, uncertainty. Both of the events happened unexpectedly. For example, this pandemic. We don't expect this to happen and we cannot really guess if there is a

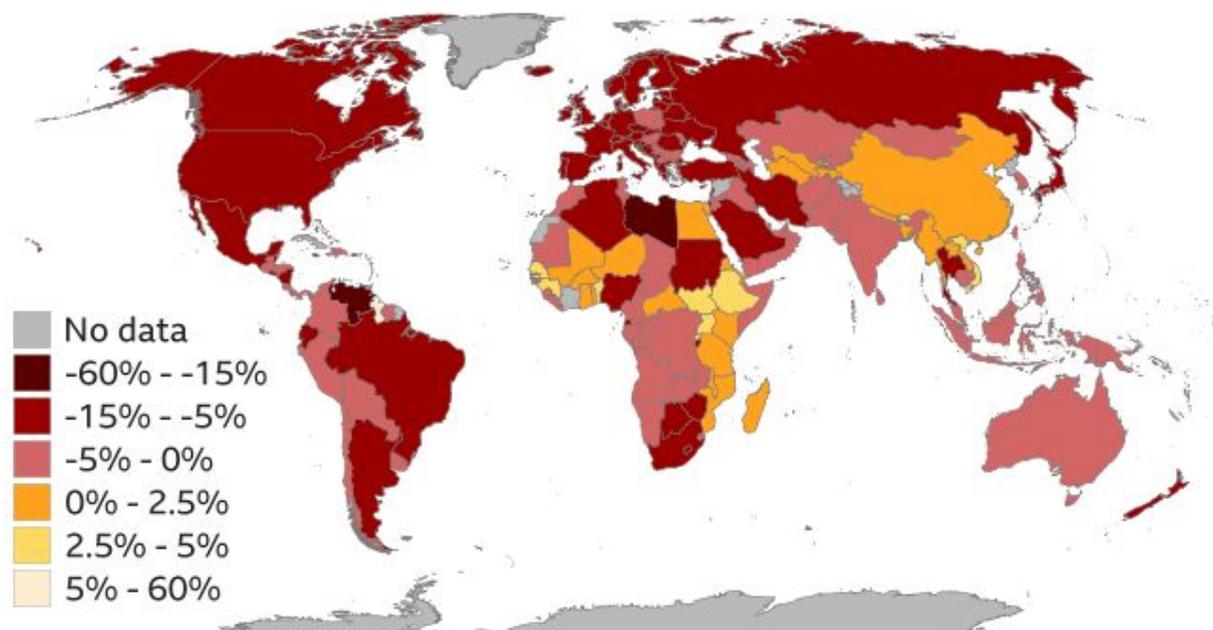


pandemic happening this year or not. It happened fast and made a big impact. Second, the picture below is a chart showing what the scale was like during these two crises. We can see that in 2008 to 2009 the economy went down and up and kept for a time but like the question mark shows there. We don't know what will happen next, will it go down for the second time or what else will it happen?

Rather than the similar points between these two crises, there is something different between them. The Great Recession of 2008 was systemic and first appeared in the financial system. The whole reason why the economy goes back is just because the financial problems don't have other reasons like the weather, people and so on. But the 2020 pandemic is a cyclical crisis, people stop working for several months and factories are closed, things are not produced. This financial problem has a really important part in the virus. Many things changed because of the virus, so people have to do something. We can say that in 2008 the speed of recovery depended on the time they fix on the system they had before, but this 2020 crisis needs to fix the virus. We have to fight against the virus first and then to fix the financial problems.

## Majority of countries on the brink of recession

Real GDP growth, Q1 2020



Source: International Monetary Fund

BBC

The meaning of Gross Domestic Product is Gross Domestic Product, abbreviated as GDP, is the total value of goods and services produced in a country. GDP in economics: GDP is measured over specific time frames, such as a quarter or a year. GDP as an economic indicator is used worldwide to show the economic health of a country. I found a picture that shows how GDP changed during this pandemic, as what the information shows in this picture, we can see that most of the countries lost their GDP. For example, Venezuela and Libya. These are the countries who lost 15% to 60% during this pandemic. And also North America and Europe, countries in these two continents lost 5% to 15% or 0% to 5%. But some countries like China increase their GDP by 0% to 2.5% and some other countries increase by 2.5% to 5%, and only one country increases 5% to 60%.

Back to this coronavirus, we see that more and more people are seeking work, they lost their jobs or seen their incomes. As what Trump said on Facebook, he said that If the Dow Jones ever falls more than 1000 points in a Single Day the sitting president should be “loaded” into a very big cannon and Shot into the sun at TREMENDOUS SPEED! No excuses! We see that this virus has a very big effect on every country. Restaurants are closed, factors are closed. If we cannot control the virus and make the vaccine faster and faster, then it will increase harm to the global economy. Also trading has been affected during this time,

“According to a data report jointly released by the United Nations Conference on Trade and Development and 36 international organizations today, global trade volume fell by 3% in the first quarter of this year due to the impact of the new crown epidemic. The decline in the second quarter is expected to intensify, compared with the same period last year. Or reduce it by 27%. In addition, due to the sharp drop in international oil prices, commodity prices also fell by a record 20% in March.” UN News. United Nations: New crown epidemic triggered a 3% drop in global trade, commodity prices fell by 20%. <https://news.un.org/zh/story/2020/05/1057282>. May 13, 2020.

But some of the technology companies have gained a good reputation during this virus. For example, flims, games, social media.

Films: Because of this virus, most of the people cannot go to the cinema or other places to watch the newest film. This time Disney and Netflix increased 16 million new subscribers. In addition to movies and TV, the music streaming media Spotify has already reached 130 million paid subscribers during the lockdown period, but the advertising revenue to maintain part of the funding source for free subscribers has dropped significantly.

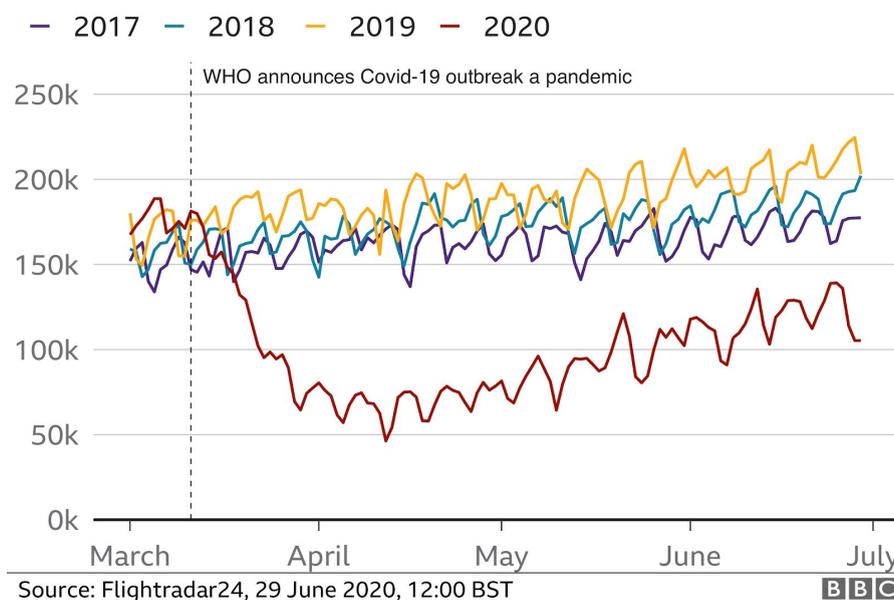
Online games: Analysts estimate that online game sales will grow by 35% and game console sales by 63%, but the good times may not last long, and the development of new game consoles may be delayed, affecting next year's performance. People are bored at home except watching films, they choose to play games. So games can be called a winner during this time.

Also, there are some losers during this time too. Like transport and tourism. The transportation industry was hit hard by not going out to prevent the epidemic at home. British car sales have experienced their lowest level since 1946. Similarly, uber has also laid off office workers. Uber drivers are self-employed and not employees of Uber, but drivers are also struggling to make a living under the epidemic. For travelling, Airbnb is familiar to us, it is popular and when I go to some place for travel rather than the hotel I will choose Airbnb. But it relied on the business opportunities of traveling out of town, and its business went to zero under the new crown epidemic, and 1,900 people were unemployed. After restaurants and bars closed, Yelp, a consumer-sharing review site, also cut a third of its staff.

Rather than the social media, films, apps like airbnb and Yelp, some technology companies have been impacted during this time. For example, Apple. Because of this virus, many factories are closed so Apple experienced shortages on its supplies. And that will directly impact the iPhone shipments in the first quarter. Apple analyst Ming-Chi Kuo cited that this figure can be reduced by up to 10%. The "Made in China" program has already led many governments to invest billions of dollars in advanced manufacturing fields such as telecommunications equipment and semiconductors. And now Apple is developing emergency plans, but the rapid spread of the coronavirus worldwide makes Apple nearly no

way to find a place which can replace China. And because of the economic downturn, most of the people choose not to buy unneeded things. If they have a phone even if it is the old size, they will not choose to buy a new one until it is dead and this makes sales decline, this is a huge loss for Apple.

Thinking for their own health and their workers' health, many employers choose to let their workers work from home. So during this pandemic Microsoft Teams, Google Hangouts, and Zoom, these online working tools' utilization rate is rising rapidly. Before the outbreak of the new crown virus, the highest number of users of Zoom remote meeting software in a single day was only 10 million. Thanks to this epidemic, the highest number of users in a single day has exceeded 200 million. Although there were some security vulnerabilities in the beginning, which caused many users' doubts, Zoom's stock price has doubled compared with last December. The number of users of Microsoft's Microsoft Teams has also seen a breakthrough growth. In March, Microsoft Teams said that the number of users increased by 40% within a week to 44 million. Others such as the remote control software Teamviewer and the instant messaging software Slack have also seen large-scale growth during the new crown epidemic.



During this pandemic most of the flights are cancelled. This is a table showing us how this pandemic affects the flights. We can see that during the month of April and May, there are only 50k flights per day. Many countries were closed and did not welcome visitors to come to their places. This is a bad thing for all of

us and this may be affecting the relationship between countries. These days some international students cannot go back to their own country and have to stay abroad by themselves and some students cannot go abroad to study.

### Conclusion:

COVID-19's effects have taught the world of its dependence on globalization. As the shutdown has prolonged, countries have hunkered down, in an attempt to protect themselves from outside threats. During all this, or despite it, people from across the globe have come together, working to protect their communities from the virus and its many effects.

## Bibliography

<https://www.investopedia.com/terms/f/financial-market.asp>  
[https://en.wikipedia.org/wiki/2020\\_stock\\_market\\_crash](https://en.wikipedia.org/wiki/2020_stock_market_crash)  
<https://www.nasdaq.com/market-activity/index/ixic>  
<http://www.oecd.org/investment/COVID19-and-global-capital-flows-OECD-Report-G20.pdf>  
<https://www.imf.org/en/News/Podcasts/All-Podcasts/2017/11/11/the-limits-of-economics>  
<https://www.rfi.fr/en/contenu/20200408-2019冠状病毒疫情对实体经济和金融市场造成的冲击>  
<https://www.pwc.com/us/en/library/covid-19/coronavirus-impacts-retail-banking.html>  
<https://www.mckinsey.com/industries/financial-services/our-insights/banking-system-resilience-in-the-time-of-covid-19#>  
<https://www.spglobal.com/ratings/en/research/articles/200422-how-covid-19-is-affecting-bank-ratings-11446652>  
<https://www.icis.com/explore/resources/news/2020/03/12/10481846/europe-crude-petchems-prices-extend-losses-as-stocks-suffer-black-thursday>  
<https://www.sciencedaily.com/releases/2020/07/200702144054.htm>  
<https://www.politico.com/news/magazine/2020/03/19/coronavirus-effect-economy-life-society-analysis-covid-135579#gov>  
<https://news.un.org/zh/story/2020/05/1057282>  
<http://www.oecd.org/coronavirus/en/>  
<https://unctad.org/en/Pages/statistics.aspx>  
[https://www.ilo.org/global/topics/coronavirus/impacts-and-responses/WCMS\\_749399/lang--en/index.htm](https://www.ilo.org/global/topics/coronavirus/impacts-and-responses/WCMS_749399/lang--en/index.htm)

Bailey, J., Burkell, J., Regan, P., & Steeves, V. (2020, September 04). Children's privacy is at risk with rapid shifts to online schooling under coronavirus. Retrieved August 7, 2020, from <https://theconversation.com/childrens-privacy-is-at-risk-with-rapid-shifts-to-online-schooling-under-coronavirus-135787>

Beech, M. (2020, March 26). COVID-19 Pushes Up Internet Use 70% And Streaming More Than 12%, First Figures Reveal. Retrieved September 04, 2020, from <https://www.forbes.com/sites/markbeech/2020/03/25/covid-19-pushes-up-internet-use-70-streaming-more-than-12-first-figures-reveal/>

Brelie, H. V. (2020, May 31). Coronavirus blues: The musicians struggling to make ends meet under lockdown. Retrieved August 6, 2020, from <https://www.euronews.com/2020/05/29/coronavirus-blues-the-performers-struggling-to-make-ends-meet-under-lockdown>

Bureau, U. (2016, December 30). New Census Data Show Differences Between Urban and Rural Populations. Retrieved August 7, 2020, from <https://www.census.gov/newsroom/press-releases/2016/cb16-210.html>

Clement, J. (2019, March 12). Topic: E-commerce worldwide. Retrieved August 05, 2020, from <https://www.statista.com/topics/871/online-shopping/>

Complimentary Report Q120. (n.d.). Retrieved July 27, 2020, from <https://openvault.com/complimentary-report-Q120/>

Impey, C. (2020, September 02). Massive online open courses see exponential growth during COVID-19 pandemic. Retrieved July 29, 2020, from <https://theconversation.com/massive-online-open-courses-see-exponential-growth-during-covid-19-pandemic-141859>

Koeze, E., & Popper, N. (2020, April 07). The Virus Changed the Way We Internet. Retrieved September 04, 2020, from <https://www.nytimes.com/interactive/2020/04/07/technology/coronavirus-internet-use.html>

Kristensen Emil is the CMO and co-founder of Sleeknote. When he's not busy with writing awesome content and building the Sleeknote brand, E. (2020, April 15). 15 Eye-Opening Online Shopping Statistics for 2020. Retrieved August 17, 2020, from <https://sleeknote.com/blog/online-shopping-statistics>

Li, C. (2020, April 29). The COVID-19 pandemic has changed education forever. This is how. Retrieved July 9, 2020, from <https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning/>

Lienert, P. (2020, May 18). Automated delivery cashes in on pandemic-driven demand. Retrieved July 13, 2020, from <https://www.reuters.com/article/us-health-coronavirus-delivery-robots-fo/automated-delivery-cashes-in-on-pandemic-driven-demand-idUSKBN22U1F8>

McArdle, E. (2019). The Middle of Somewhere. Retrieved August 10, 2020, from <https://www.gse.harvard.edu/news/ed/19/05/middle-somewhere>

N. (2020, April 29). Online Tours. Retrieved August 10, 2020, from <https://www.louvre.fr/en/visites-en-ligne>

N. (2020, July 07). Distance learning solutions. Retrieved August 21, 2020, from <https://en.unesco.org/covid19/educationresponse/solutions>

N. (2020, July 07). National learning platforms and tools. Retrieved August 10, 2020, from <https://en.unesco.org/covid19/educationresponse/nationalresponses>

N. (2020, July 24). Culture & COVID-19: Impact and Response Tracker. Retrieved August 10, 2020, from <https://en.unesco.org/news/culture-covid-19-impact-and-response-tracker>

N. (2020, June 18). COVID-19 Could Lead to Permanent Loss in Learning and Trillions of Dollars in Lost Earnings. Retrieved August 15, 2020, from <https://www.worldbank.org/en/news/press-release/2020/06/18/covid-19-could-lead-to-permanent-loss-in-learning-and-trillions-of-dollars-in-lost-earnings>

N. (2020, March 19). US Small Business Owners Face Great Uncertainty; Over Half Say They Cannot Operate Beyond Three Months. Retrieved August 05, 2020, from <https://www.goldmansachs.com/citizenship/10000-small-businesses/US/no-time-to-waste/index.html>

N. (2020, May 13). Adverse consequences of school closures. Retrieved August 10, 2020, from <https://en.unesco.org/covid19/educationresponse/consequences>

Written by Yan Xiao, P. (2020, April 27). 10 tech trends getting us through the COVID-19 pandemic. Retrieved August 13, 2020, from <https://www.weforum.org/agenda/2020/04/10-technology-trends-coronavirus-covid19-pandemic-robotics-telehealth/>