

# Segment Bull Market Under Covid-19 Pandemic

Jingyi Liu<sup>1,†,\*</sup>, Dahong Wang<sup>2,†</sup>, Yixuan Zhu<sup>3,†</sup>

<sup>1</sup> Rotman Commerce, University of Toronto, Toronto, M5S1A1, Canada

<sup>2</sup> School of Management, University of San Francisco, San Francisco, 94110, America

<sup>3</sup> Division of Business Administration, Beijing Normal University-Hong Kong Baptist University United International College, Zhuhai, 519087, China

\*Corresponding author. Email: [jliujessie.liu@mail.utoronto.ca](mailto:jliujessie.liu@mail.utoronto.ca)

† These authors contributed equally

## ABSTRACT

The COVID-19 pandemic greatly impacted the global economy in multiple ways. This research explores the impact of the pandemic on the stock market by focusing on the segment bull market. Firstly, the factors that motivate the emergence of a segment bull market are discussed. Then, this research analyzes the healthcare and technology sectors, two industries that stand out under the pandemic because they are bullish in a bear market. Based on this analysis, this research discusses the future impact of COVID-19 on the stock market, as well as its differing impacts on firms of different sizes and the shift of investors toward these sectors.

**Keywords:** Covid-19; Structural bull market; Health care sector; Technology sector; Financial policies; Quantitative easing; Nasdaq sector.

## 1. INTRODUCTION

### 1.1. Background

Now is an era of economic globalization. When the economy has reached a certain stage of development, it will inevitably lead to differentiation. For example, K-shaped economy, population differentiation, income differentiation, industry differentiation, etc. No matter what country you are in, you are facing this kind of differentiation. And this phenomenon of differentiation, so that the stock market will not be a too comprehensive bull market, it is also very difficult to appear general upmarket. The global economy is still increasing in terms of concentration, with a high concentration of economic activity in the United States and a high degree of concentration in other developed economies. At the same time, industrial fragmentation is also emerging. The new economy is growing at a high rate, while traditional industries are growing at a low rate. With demographic changes, the traditional cyclical economy is in decline, but the new economy is also on the rise. 2020 information transmission, software and information technology services grew 16.9%. Capital markets are also diverging. For example, traditional industries, face a declining share of the stock market. However, when the stock market encounters the phenomenon of differentiation, there is a

structural bull market. And what is a structural bull market? A structural bull market refers to the rise in stock market sentiment brought about by good prospects for assets or industries in specific industries or companies.

### 1.2. Related research

Kaye and Okeagu researched about economic effects of the covid-19 on healthcare, service industry and society globally. The study employed analysis of secondary data by regression models. The research findings show that due to the lockdown, the GDP of countries like China, Brazil, and Singapore decline by between 6-11%. The study also shows that the effects of the pandemic in China and the USA also resulted in economic declines in Low-and middle-income countries in the forms of reduced remittances and low tourism. The healthcare systems of India, Brazil, Italy, and the USA were overwhelmed by Covid-19 cases leading to an increase in the cost of healthcare worldwide. The study also proposes several measures to help ease the effects of covid-19 on healthcare [1]. Alpert researched the financial policies that the US government released during the pandemic of Covid-19. The study focused on how the US government handled the outbreak of Covid-19 and the effect it brought to the US stock market. The study indicated that the Covid-19 outbreak has tremendously impacted the US and global economies and the

government has implemented several laws and financial policies to provide relief to businesses and individuals such as the actions on monetary policy, interest rates and quantitative easing [2]. Blume studied how to become a smart investor and what the characteristics of smart investors are. The study indicated that if an investor could invest in the right place and reduce the risk while increasing the reward, such investors are considered to be smart investors. Furthermore, it is also said that the money saved in the account is guaranteed to lose value so it is important that investors could make the right investment decision and get meaningful returns [3].

Xiang Mengxi studied the socio-economic impact of COVID-19 in the United States is gradually diminishing as vaccination rates rise. The Fed chairman's announcement of the Taper programme led to a series of volatility in THE US stock market. According to this signal, the market also has some influence. Finally, the author also predicts the impact of this policy on the stock market [4]. Liu Haoze researched about traditional cyclical industries have been severely affected by economic and social lockdown measures to contain the COVID-19 pandemic in the context of its global spread this year. However, new economic growth stocks represented by technology bucked the trend and led to the strong rebound of stock markets in Both China and the United States. Nasdaq and Chinext both performed significantly better than the mainboard in the first half of the year. After one stimulus after another, the S&P hit a record high on August 18th [5]. Mieszko et al. in the study on the impact of 2019 coronavirus disease on the stock market in early March 2020, it is found that the natural gas, food, health care, and software industries are growing, while the oil, real estate, entertainment, and hotel industries are declining. Some losers' stocks show asymmetric volatility (negatively correlated with stock return). Some companies respond to salary cuts and layoffs, and others respond to cash dividends and salary increases [6]. Eustance et al. researched the new Omicron variant found in South Africa in November 2021 that led to the closing of the Dow Jones index down 900 points, which was the worst day of the year. Stocks related to tourism were the most affected, and Asian markets were also affected [7].

Claudiu studied the relationship between officially announced infection rate/mortality and stock market fluctuations in three parts. The first shows the link (increased volatility). Then use S & P 500 index. Third, ordinary least squares (OLS) regression analysis [8]. MarketWatch report analyzes the size, share, and trends of the global artificial intelligence (AI) vertical market. The main purpose is to help users understand the definition, segmentation, market potential, influential trends, and challenges facing the markets in 10 significant geographies and 50 major countries. It discusses the market's growth factors, data, and information by a market participant, by region, by

type, by application [9]. Lora et al. investigated those changes in the world economy at the start of COVID-19 that have led to a rise in global unemployment. The US and Canada saw a considerable rise in unemployment, with the US unemployment rate rising to 8.9% and Canada to 9.7%. The travel industry has been hammered by low global job vacancy rates and a global recession, with airlines cutting flights, customers cancelling business trips and holidays, shoppers staying home, and the retail sector seeing unprecedented declines in traffic [10].

Parilla and Sifan Mainly studied the relief of PPP assistance to small and medium-sized enterprises that are uneven. US COVID-19 relief includes the PPP (Paycheck Protection Program). What PPP does is make it easier for small businesses to get credit. However, PPP also has some problems because enterprises lack guidance. There have so many small enterprises in the USA that do not apply. Some companies are worried they will not get a loan waiver. There are still many waiting lists, even for those who do apply [11]. Ken and Paul published on the changes and effects of Omicron after its discovery. The discovery of the new Omicron variant in November 2021 caused the Dow to drop below 1,000. It was the worst day for the Wall Street benchmark since February. As the global economy begins to slow and global markets continue to be affected by supply chain problems, there are new changes in other parts of the world (Hong Kong, Belgium, and Tel Aviv). Many stocks were quickly sold off, and even Bitcoin fell. Fearing more lockdowns and travel bans, investors shifted money to companies that had benefited from the previous wave, such as Zoom for Meeting [12].

International trade center research shows that in 2019 coronavirus disease had an unprecedented impact on all aspects of people's communication, work, production, trade, consumption, and life. International trade is chaotic, and the embargo significantly impacts small enterprises. Two-thirds of micro and small enterprises reported that the epidemic had seriously affected their business activities, while the proportion of large enterprises was about 40%, and one-fifth of small and medium-sized enterprises said they might be permanently closed within three months. SMEs are a key link between the epidemic and the broader economic recession. The government is also trying to reduce the impact of coronavirus disease to reduce the impact of small businesses on small businesses [13]. Karen summed up according to Amazon reported \$108.5 billion in sales for the first three months of 2021 compared to the previous year, with heavy orders making Amazon's operations more efficient during the pandemic. Warehouses are near full capacity. Delivery drivers are making more stops on their routes and 51 percent more workers than at the same time last year [14]. Chris and Peter's analysis of COVID-19's effect on the stock market can be divided into four parts. First, all industries saw a

sharp and rapid decline between January and March 2021. Second, after mid-March, as governments began planning to respond, specific sectors such as pharmaceuticals and biotechnology recovered by early June, while other sectors such as aerospace, aviation and tourism, banking, insurance, and oil and gas still had not recovered losses. Third, From June to October 2021, The gap between succeeding and failing sectors got wider. The last, Failing sectors, Began recovering while succeeding sectors succeeded even more in October 2021 [15].

**1.3.Objective**

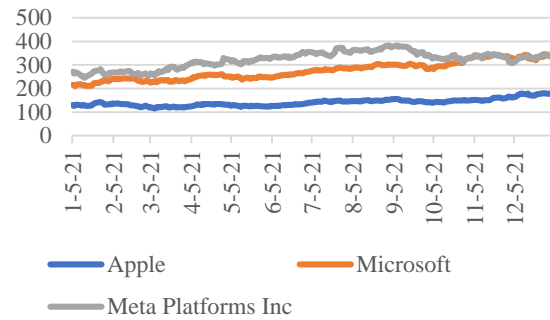
The main purpose is to explain what the meaning of the new terminology “Segment Bull Market” is and what the characteristics are. The “Segment Bull Market” is different from the old terminology “Bull Market, the most obvious difference is that the appearance of increasing trend in the stock market is because the increasing trend of the growth stocks eliminates the decreasing trend of bear stocks such that the segment bull market does not represent the economy is in a definite good condition. In this way, investigating what stocks are considered to be growing stock is important and whether the segment bull market will last longer in the future or this situation will become weaker as the influence of Covid-19 is getting smaller.

**2. THE APPEARANCE OF SEGMENT BULL MARKET**

Ever since the beginning of 2020, the appearance of Covid-19 has attacked the stock market heavily among different fields including tourism, transportation and so on, according to Kaye and Okeagu [1]. Under the pandemic of Covid-19, there is a new terminology appeared, called “segment bull market” . There used to be a bull market representing the situation of the financial market which means there is an increasing trend shown in the stock price; However, there are some similarities and differences between segment bull market and bull market. The similarity is that the stock market price of the financial market indeed sees an increase, while the difference is that the reason why an obvious increase is shown does not represent the economy is in a good condition. The fact is that the economy is in a recession or even a depression period while the stock market performs quite well. The reason for the situation mentioned above is due to the fact that the increasing stock price of growing stock covers the decreasing trend in the stock prices of bears stocks. It is also quite obvious that the rebound of the US stock market is actually the rebound of growing technology stocks since when most of the stocks in other industries all show a decreasing trend, those stocks under the technology and medical sector grow stably. In this way, it is worth investigating the reason why technology stocks, as well as medical

stocks, show a growing trend when the whole stock market does not perform well.

In order to explain the situation of the “segment bull market” in a more intuitive way, three single stocks from Nasdaq were randomly picked and the line chart composed by the stock prices as well as the time period illustrated the trend of stock price change of these single stocks. It shows that all these three stocks under Nasdaq showed an increasing trend over the past year (Figure1).



**Figure1** The trend of the stock price of Apple, Microsoft and Meta Platforms Inc which are the stocks under the Nasdaq sector.

In addition, due to the attack of Covid-19, the Federal Government of the United States has issued a lot of financial policies to ease the pandemic brought by the outbreak of Covid-19 according to Alpert [2]. For example, the easing money policy includes cutting the federal fund rate. The main idea for this action is to support spending or another saying is to lower the cost of borrowing for households and individual businesses. In addition, the government also applied quantitative easing (QE) by purchasing a large number of debt securities to support the economy under Covid-19 since this action could effectively lower the interest rate and encourage more investment activities.

Ever since the beginning of 2021, the outbreak of Covid-19 has affected the stock market worldwide while the US stock indexes still stand out in the market in general. However, this doe does not represent an increasing trend in all the stocks and investors need to look for and invest in the growth stocks themselves. The investors in the stock market can also be grouped into two categories. One group is called the smart investors that are those who are sensitive to the market and could make adjustments as soon as there is new change appears in the financial market according to Blume and the other group is called the naïve investors who know little knowledge about the market and are always affected by the behavioural basis [3]. For example, Warren Edward Buffett is one of the smartest stock investors in the world, and during the Covid-19 pandemic his located more weight to the technology stocks as well as some stocks from medical companies.

### 3. INDUSTRY THAT STANDS OUT UNDER THE PANDEMIC

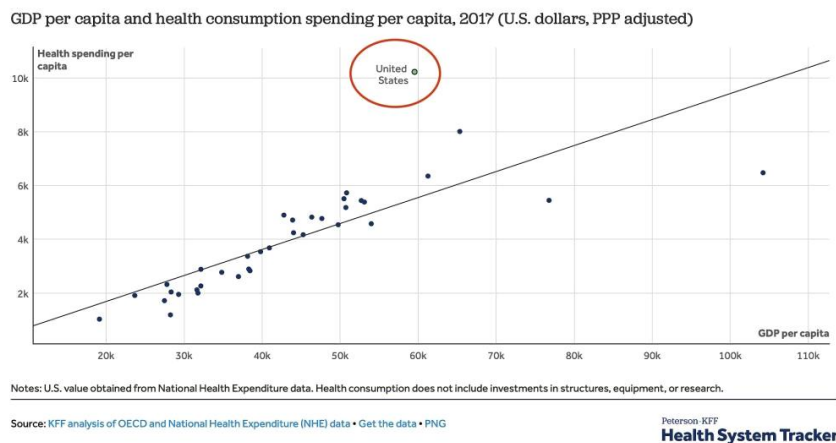
The technology sector has been the leader of U.S. stocks. From a macro perspective, the development of technology stocks cannot be separated from the government's policy support. For nearly 40 years, successive U.S. governments have attached great importance to science and technology innovation and corporate R&D. It has supported corporate innovation in all aspects through tax incentives, R&D funding support, etc., effectively promoting the development of technology-based industries. First of all, the impression of technology stocks may be semiconductors and chips. In fact, technology stocks are a large category. This includes 5G, cloud services information structure class institutions, also includes computer hardware companies, Internet companies and so on. Before and after the epidemic, growth stocks represented by technology stocks have always led the broader market of U.S. stocks.

The socioeconomic impact of the New Crown outbreak on the U.S. is waning as the New Crown vaccination rate rises. 2021 In early November, the market welcomes the Federal Reserve's heaviest interest rate meeting of the year. Xiang Mengxi said that Federal Reserve Chairman Jerome Powell announced that he would launch a tapered bond purchase program (Taper) in November, reducing the size of monthly asset purchases by \$15 billion. Monthly Treasury and mortgage-backed bond (MBS) purchases will be adjusted

to \$70 billion and \$35 billion, respectively. [4] With the announcement of the policy, the three major U.S. stocks closed up across the board, with technology stocks leading the broader market, Apple, Google, Amazon, Microsoft, etc. are up. The recent U.S. stock market has gradually digested the news that the Federal Reserve may accelerate the tightening of monetary policy and raise interest rates ahead of schedule, and it is expected that the Fed's future monetary policy will be centred on curbing inflation. Technology stocks are still big. In Liu Zehao's view, the technology sector will remain a hot topic, during the coming period. [5]

In the health care sector, the same bullish trend has been seen. Americans spend roughly \$3.6 trillion a year, or 17% of GDP, on healthcare. When the spending out was averaged, one person spends \$11,000 a year. If we compare this spending side-by-side, Americans spend twice as much on health care as the vast majority of developed countries. As shown in Figure 2 below, as a country's GDP gets higher, the relative health care spending gets higher. But the U.S. health care index is an outlier in this regression analysis, so it can be seen that Americans are quite serious about the health care segment. On the government side, the U.S. government has always aspired to improve its health care policies. Its growing economic strength has given it the ability to provide more adequate health care coverage for its citizens. And during the epidemic, the government has increased its support for medical care. This includes testing and ventilators. These were necessary expenses during the epidemic, which allowed these companies to flourish.

**Relative to the size of its wealth, the U.S. spends a disproportionate amount on health care**



**Figure 2** Relationship between GDP and healthcare spending.

And in this health care sector, it is not as much momentum as in the technology sector. 2020, the health care sector is part of the upward momentum, but with the big bull market in 2021 for the S&P 500 and others, it has been hit in various ways. U.S. stocks are in a big bull

market this year for the S&P 500, and the NASDAQ, with returns of more than 20%. While the biopharmaceutical sector in US stocks is entering a bear market with an index return of -25% this year. The biomedical sector is bullish. This is not unrelated to the

development of technology, as there have been tremendous breakthroughs in recent research on medical diseases. The medium to long-term growth prospects for bio-pharmaceuticals remains positive.

#### **4. PREDICTION ON THE FUTURE OF THE STOCK MARKETS BECAUSE OF COVID-19**

COVID-19 has made markets very unpredictable. For example, it caused the stock market to collapse in February and March 2020, costing investors billions [6]. The Dow Jones Industrial Average experienced a drop of more than 900 points at the end of November 2021 when the first variant of the omicron virus was detected in South Africa [7]. Because of this, investors tend to sell short rather than buy new stocks. As COVID-19 continues to mutate into different variants, it will continue to influence the stock market, especially when investors sell their shares. "Two-thirds of the Small enterprises with 300 or fewer employees micro-enterprises with 100 or fewer employees reported that the epidemic had seriously affected their business activities, while the proportion of large enterprises was about 40%. One in five small and medium-sized enterprises said they could be permanently closed within three months. In Africa, two out of every three companies said they were seriously affected by covid-19, most of which involved a 75% reduction in sales or difficulty in obtaining 54% of production inputs" [8]. However, there are some companies that may receive future benefits from the impact of COVID-19, especially the industries of AI and healthcare [9].

##### ***4.1. The Future Impact Due to Size of The Firm***

The World Bank predicts that some companies, especially those in the service industry, will not return to performing at full capacity until the end of 2025, assuming that COVID-19 will be contained by then through vaccinations [10]. This means that some investors may act bearish by buying shares at low present prices to sell when they rise after 2025. However, the market will continue to be impacted by new strains such as omicron.

In response to COVID-19, the central banks of many nations have enacted policies to reduce the lending rates to stimulate economic activities [10]. However, the impacts of these policies have so far not been felt in stock markets. For example, in the United States, the government created the Paycheck Protection Program (PPP) to make loans more accessible and flexible for the nation's struggling small business sector [11]. However, there are still many small enterprises that have not applied. They lack guidance and are worried that their loans cannot be exempted. There are many enterprises

that have applied, but many have been waiting for a long time [11].

##### ***4.2. The Shift to Industries with More Returns***

COVID-19 has had different impacts depending on the size of the company.

Large companies are more flexible, so they could fund their cash shortfalls through loans and other forms of borrowing [12]. This means that they can withstand the financial shocks of the pandemic. Compared to the share prices of smaller companies, those of larger companies have had a 26% smaller decline [12]. Globally, two-thirds of small businesses reported that the epidemic had seriously affected their business activities, compared with only about 40% of large companies [13].

Therefore, for large companies, COVID-19 has meant that investors tend to take short positions, but for small companies, investors tend to avoid trading their shares.

##### ***4.3. Long Term Impact***

Not only has COVID-19 had different impacts on different-sized companies, but it has also impacted different industries differently. For example, AI and healthcare are both industries that have seen positive impacts from COVID-19. Online retailers like Amazon and Walmart have been using AI as part of their packaging process. COVID-19 forced physical shops to close. For example, many brick-and-mortar retailers, Macy's and J.C. Penney have been battered by the COVID-19. Many of America's national and regional retail chains have liquidated as century-old stores close and shed jobs. As a result, people turned to online retailers as both consumers as well as those who participated in third-party seller services to supplement their incomes. Amazon's profit rose by 220% during the beginning of the pandemic [14]. Therefore, the share prices of these online retailers have risen, causing investors to shift to these industries with higher returns. These investors buy shares and hold onto them while speculating that their prices will continue to hike. This has made the market sector of AI and robotics somewhat bearish. In addition to the AI sector, the healthcare sector has taken the lion's share of the income from the stock markets.

However, other sectors, like defence or energy have been affected greatly by COVID-19, causing their investors to sell their shares in these kinds of companies to minimize their losses and invest their money in industries with higher returns [15]. Therefore, more investors are taking a more bullish approach toward investing in these sectors.

## 5. CONCLUSION

This research mainly focused on investigating the reason why segmented bull markets appeared in the US stock market during the Covid-19 pandemic and the characteristics of this market type. It also aimed to indicate the difference of segment bull market compared to the previous bull market that happened. In addition, this research also studied the two fields that most growth stocks appear which are the technology sector and the medical sector. The prediction of the world economy and whether most industries will be back to normal in the future is covered in the study.

The study describes how the technology and healthcare sectors are in a bullish situation in the structural bull market. It also analyzes the reasons why these two sectors are in a bull market through a macro perspective. The COVID-19 has made markets unpredictable, which has also impacted the policymaking of the government and the decision-making of investors. Its impact has had differing impacts on firms of different sizes, resulting in investors shifting their investments to sectors that have more predictable returns.

## REFERENCES

- [1] A.D. Kaye, et al., Economic Impact of Covid-19 Pandemic on Healthcare Facilities and Systems: International Perspectives, Best Practice & Research. *Clinical Anaesthesiology*, 2020, pp. 293-306. DOI:10.1016/j.bpa.2020.11.009
- [2] G. Alpert, U.S. Government COVID-19 Economic Stimulus and Relief Measures, Investopedia, 2021, [www.investopedia.com/government-stimulus-efforts-to-fight-the-covid-19-crisis-4799723](http://www.investopedia.com/government-stimulus-efforts-to-fight-the-covid-19-crisis-4799723).
- [3] Blume, Matthew. "Making Smart Investments: A Beginner's Guide." *Harvard Business Review*, 11 Oct. 2021, <https://hbr.org/2021/08/how-to-make-smart-investments-a-beginners-guide>.
- [4] Mengxi Xiang. (2021, November 5). The bull market in U.S. stocks is unlikely to last long. *Financial Times*, 008. DOI:10.28460/n.cnki.njrbs.2021.005788
- [5] Zehao Liu.(2020).The United States is still A technology unique A - share style to balance. *Analysis of Stock Market dynamics(17)*,29-30
- [6] M. Mazur, M. Dang, M. Vega, COVID-19 and the march 2020 stock market crash: Evidence from S&P1500, *Finance Research Letters*, vol. 38, 2021, page 101690. doi: 10.1016/j.frl.2020.101690
- [7] Huang, Eustance, Jessie Pound, and Elisha Fieldstadt. "Dow Closes Down 900 Points as New Covid Variant Sparks Market Sell-Off." *CBNC News*, 26 Nov. 2021, <https://www.nbcnews.com/business/business-news/dow-drops-900-points-new-covid-variant-sparks-market-sell-rcna6794>. Accessed 12 Jan. 2022
- [8] C. T. Albuiescu, COVID-19 and the United States financial markets' volatility, *Finance Research Letters*, vol. 38, 2021, page 101699. doi: <https://doi.org/10.1016/j.frl.2020.101699>
- [9] "Global Artificial Intelligence (AI) VerticalsMarket COVID-19 Impact Analysis and Updates 2022-2027." *MarketWatch*, 18 Oct. 2021, <https://www.marketwatch.com/press-release/global-artificial-intelligence-ai-verticalsmarket-covid-19-impact-analysis-and-updates-2022-2027-2021-10-18>. Accessed 12 Jan. 2022.
- [10] Jones, Lora, Daniele Palumbo, and David Brown. "Coronavirus: How the Pandemic Has Changed the World Economy." *BBC News*, 24 Jan. 2021, <https://www.bbc.com/news/business-51706225>. Accessed 12 Jan. 2022.
- [11] Liu, Sifan, Joseph Parilla. "Small Businesses Have Received Uneven Relief from COVID-19 Federal Aid." *BOOKINGS*, 29 May. 2020, <https://www.brookings.edu/blog/the-avenue/2020/05/29/how-the-paycheck-protection-program-is-coming-to-ground-in-the-nations-large-metro-areas/>. Accessed 12 Jan. 2022.
- [12] Sweet, Ken and Paul Wiseman. "Stocks Sink, With the Dow Briefly Down 1,000 Points, as a New COVID Variant Raises Fears of More Economic Disruption." *USA Today*, 26 Nov. 2021, <https://www.usatoday.com/story/money/2021/11/26/dow-drops-905-points-new-covid-variant-concerns-markets-down-2/8767488002/>. Accessed 12 Jan. 2022.
- [13] "COVID-19 the Great Blockade and Its Impact on Small Enterprises." *International Trade Centra*, 27 June.2020,[https://www.intracen.org/uploadedFiles/intracenorg/Content/Publications/ITC\\_SMECO-2020ExSummary\\_Chinese.pdf](https://www.intracen.org/uploadedFiles/intracenorg/Content/Publications/ITC_SMECO-2020ExSummary_Chinese.pdf). Accessed 12 Jan. 2022.
- [14] Weiss, Karen. "Amazon's Profit Soars 220 Percent as Pandemic Drives Shopping Online." *New York Times*, 29 April 2021, <https://www.nytimes.com/2021/04/29/technology/amazons-profits-triple.html>. Accessed 12 Jan. 2022
- [15] Bradley, Chris and Peter Stumpner. "The impact of COVID-19 on capital markets, one year in." *McKinsey*,10 March 2021, <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/the-impact-of-covid-19-on-capital-markets-one-year-in>. Accessed 12 Jan 2022.