Navn:	Christian Alsgren							
Fødselsdato:	160103							
Skole:	Roskilde Handelsskole							
Fag:	Studieområdet og studieområdeprojektet,							
Samlet vurd. (6680Gym bekend)								
Dato for prøveaflæggelse:	08-04-2022							

STUDIEOMRÅDEPROJEKT
HHX 2021/22

NAVN:*	
	Christian Alsgren
KLASSE:*	3W
Studieretnings- A-fag:*	IØ A
2. fag A, B, C-niveau:*	Finansiering C
OMRÅDE:*	
	Fiscal and Monetary Policy in the USA During the Pandemic
OPGAVEFORMUL	ERING:*
	Covid19 has hit the United States' economy hard. Does the USA conduct the correct economic policies to reduce the effects of the pandemic and to rectify the economy again? Account for the present economic situation as well as for economic initiatives taken by the administration during the economic crisis Analyze which effects these initiatives are expected to have on the US economy, including on the financial markets
	Given the present economic situation, discuss which policies may be required in the near future (15-20 pages)
VEJLEDERE:*	
	1 Ole Seymour Sidenius 2 Britt Børner Andersen
	E-mail: oss@rhs.dk E-mail: ban@rhs.dk

AFLEVERINGS-DATO:*

> Besvarelsen uploades via Netprøver.dk – deadline er fredag d. 8. april 2022 inden kl. 12:00 – HUSK deadline da Netprøver.dk lukker for aflevering præcis kl. 12:00!

OPGAVEFORMULERING TILGÆNGELIG KL. 12:00 FREDAG D. 25. MARTS 2022

Underskrift: Christian Alsgren

SOP Fiscal and Monetary Policy in the USA during the Corona Pandemic

CHRISTIAN ALSGREN 3. W INTERNATIONAL ECONOMICS A - OLE SEYMOUR SIDENIUS FINANCING C - BRITT BØRNER ANDERSEN

ROSKILDE HANDELSSKOLE

Abstract

The United States has been hit hard economically due to the COVID-19 pandemic. The United States has taken various measures to combat and prevent it from damaging the economy. This report investigates and researches the initiatives taken by the United States and discusses if the actions taken were the most efficient in rectifying the economic setbacks due to the COVID-19 pandemic. To answer the question of the report I used information from government testimonies created to inform about the initiatives taken. This information has allowed for a deeper understanding of the initiatives and their effects on the economy. My research demonstrates that the programs and initiatives taken by the governing body of the USA have mostly conducted the correct economic policies aligned with modern theory of how to combat complicated economic situations. However, the initiatives that rectified the problems that the COVID-19 pandemic imposed have now created a new problem in inflation. Nonetheless, the most recent initiatives are taken to overcome the issue of inflation. In the short-term future inflation plays a significant role in the economy of the US. It must be reduced, most neatly done by rising interest rates.

Table of Contents

Abstractii							
Introduction							
Problem thesis							
Method Considerations							
1. Account: USA Economic Situation and Initiatives							
1.1. Economic Situation							
1.1.1. Gross Domestic Product							
1.1.2. Inflation							
1.1.3. Interest Rate							
1.1.4. Unemployment							
1.1.5. Current Account Balance							
1.1.6. Public Finances							
1.2. Initiatives							
1.2.1. The CARES Act							
1.2.2. American Rescue Plan Act of 2021							
1.2.3. Build Back Better							
2. Analysis: Effects of Initiatives7							
2.1. Fiscal Policy Initiatives7							
2.2. Monetary policies initiatives							
2.3. Impact on financial markets11							
3. Discussion: Future Economic Policies							
3.1. Contractionary Monetary Policy							
3.2. Contractionary Fiscal Policy							
Conclusion							
Bibliographyv							

Appendices viii
Appendix 1 viii
Appendix 2ix
Appendix 3ix
Appendix 4x
Appendix 5x
Appendix 6xi
Appendix 7xi
Appendix 8xii
Appendix 9xii
Appendix 10 xiii
Appendix 11 xiii

Introduction

The entire world was struck by the COVID-19 pandemic back in the first quarter of 2020. Most countries shut down almost their entire economy by closing stores, to reduce the number of COVID-19 cases. If stores were closed, there would be fewer possibilities to infect others with COVID-19. For obvious reasons, this had a major effect on the entire economy. Almost all stores were closed and thus did not create any value for the entire shutdown period. Stores were closed and consumers could not spend money, and this led to an economic downturn where money was being saved and not spent. As consumers could not spend money, the businesses had no way of making money. If the businesses cannot make money, they can't pay their workers and the government would earn less in income taxes. If the government has fewer resources to spend, the people in need would be left without help. It was a downwards spiral that the government and the FED (Federal Reserve) set out to reduce and rectify as fast as possible. The government set in motion numerous programs to kickstart the economy again by spending more than usual. The FED decreased the interest rate to record lows to promote spending in the economy. The programs and initiatives which were set in motion are what I would like to study in this report. Did the government and FED conduct the correct policies to reduce the strains of this economic crisis?

Problem thesis

COVID-19 has hit the United States' economy hard. The question I want to research is; does the USA conduct the correct economic policies to reduce the effects of the pandemic and to rectify the economy again? To answer this question, I would like to first account for the present economic situation as well as for economic initiatives taken by the government administration during the economic crisis. Thereafter I will be analyzing which effects these initiatives are expected to have on the US economy, including on the financial markets. At last, I will be considering my answers to the accounting question and the analysis part about the economy, to discuss which economic policies may be required in the near future.

Method Considerations

To answer and account for the current economic situation in the USA I will be looking to find data on key indicators from a national perspective. I will be putting into work a macroeconomic picture of the economy. This model from international economics will help create an overview of the entire US economy. The overview and model will be useful as it can be helpful in showing where the current limitations of the economy are and where there is being made progress to a more prosperous economy. The data for this economic model I will be taking from the internet where I can get the most up-to-date and accurate picture of the economy. The data will be taken from large trustworthy international economic organizations like OECD.org. This will eliminate most of the risk of misinformation in the data as it is an organization that has built up trust over many years. It is important to pay attention to the fact that this will only show a snapshot of the current and past economy. It cannot be used to predict the future and thus this has limitations in that sense.

Thereafter I will be looking into the different initiatives which the government has been conducting. I will be trying to get an overview of what has been done and what the initiatives include. This information will help me understand and later analyze why the economy currently looks the way it does. I will be using data from various government pages as these should be able to describe exactly what these programs conclude and to whom they manage to serve. I will include the most substantial parts of the most substantial acts. I will use summaries of the acts found on governmental websites. The government internet addresses will be some of the most trustworthy of them all, yet it should be considered that of course, every government is interested in having a good image from the public. I will not be trying to compare the Trump administration and the Biden administration as it should be assumed that both parties have only the best intentions for their country.

After the accounting, I will set out to analyze the effects which I have just accounted for in the part before. This will now be a lot easier as I at this point will know what the programs and initiatives include and how many resources there were allocated. I will be splitting this task up into three parts which all will be answering the question. I will be looking at the fiscal policies which have been conducted and the effects of those, secondly, the monetary policies which have been conducted, and lastly, I will look at the effects of these policies on the financial markets. For the parts about the fiscal and monetary policies, I will be analyzing the effects with emphasis on the theory about total supply and demand. In the part with the financial markets, I will be analyzing how the initiatives and macroeconomic situation effects it. This ensures that I use my knowledge and theory from both international economics and financing. By splitting up the task into sections I make the task more manageable and I can jump between the tasks if I get stuck in one.

At last, I will be discussing possible economic policies which can be conducted in the shortterm future. At this point, I will have enough knowledge about the current economic situation in the US for me to discuss policies which could be conducted. I will be deciphering the suggestions which I propose and mention some of the advantages and disadvantages that the policy might encounter. By doing this I will understand possible futures in which the US can form into economically. This will be useful in concluding if the US is conducting the correct policies. The most recent initiatives will be discussed and then I will mention future policies which can be useful given the current economic situation.

In the end, I will conclude on my findings considering the current economic situation, the initiatives taken, and especially the most recent ones which could be compared to the discussion of future economic policies. This way I include my previous answer in my conclusion which give my conclusion more validity while the previous parts are being used to answer.

1. Account: USA Economic Situation and Initiatives

1.1. Economic Situation

1.1.1. Gross Domestic Product (GDP)

To account for the economic situation, I will be looking at different national economic benchmarks which will give me an overview of the current economic situation. To get the broadest overview of the economic situation it would be a great start to look at the GDP and the growth of GDP in the US. The data for the total GDP for the US only goes till the end of 2020 which means that there is no available data to be trusted for 2021. The total GDP for the US was in 2020 20.89 USD trillion (Appendix 1). By looking at the growth of the GDP quarter by quarter we can see how the GDP growth behaved during the COVID-19 crisis up until the fourth quarter of 2021. (Appendix 2) The GDP growth was stable at around 2% per year from 2017 up until the first quarter of 2020. Here it decreased to only grow by 0.6% year over year. The real devastation of the GDP growth came the next quarter when the GDP

decreased by 9.1% year over year. Since then, it has been increasing steadily again. Keep in mind that these figures are year over year and thus the 12.2% change in Q2 of 2021 is in comparison to the 9.1% decrease in Q2 of 2020, therefore it is not as significant as first might be thought.

1.1.2. Inflation

Next, it would be smart to look at the inflation levels as it also influences the GDP. The inflation levels have also been stable over the past many years and as seen in the graph it was stable all up until April 2020. (Appendix 3) Here it dropped to almost 0% which is exceptionally low and less than the aim of around 2-3% per year. After the drop to 0%, inflation began to rise to prominent levels fast. By the latest data, the inflation levels are at 7.87% annual growth. This means that the average American can expect to pay 7.87% more for anything they buy in the US economy compared to last year same time. This is way more than the 2-3% which is the aim and is currently a massive problem. The current level of inflation is almost four times more than the annual goal. This inflation level means that only a GDP increase of above 7.87% will increase real GDP which is GDP adjusted and rinsed for inflation. If inflation rises more than GDP it means, there would be less economic prosperity as the buying power of the USD is less than before.

1.1.3. Interest Rate

The interest rate in the US was from 2018 to the beginning of 2020 around 2%-2.5%. Between March and May 2020, the interest rate dropped dramatically to 0.17% (Appendix 4). Since that drop, the interest rate has been stable at 0.10%-0.20% up until February 2022 when the interest for the first time during the COVID-19 crisis crossed over 0.20%. It is expected for the interest rates to increase even more in the short-term future as we will look at later in the report.

1.1.4. Unemployment

The unemployment level is measured by the percentage of people of working age who are available for work while actively looking for a job. This means that students that are studying or people on pensions do not count in the statistics. The general aim for unemployment levels is around 3%-4%. This area of unemployment is called full employment. This is because there will always be some workers that are in the process of changing jobs and in a period are therefore not employed (Kureer, 2022). In the US, the current unemployment level is at 3.8% which is within the area of full employment and therefore there is a need for more workers or

a larger working force to increase production which is possible. (Appendix 5) This is a massively different number of unemployed than back in April of 2020. The COVID-19 crisis had just begun, and businesses fired a lot of people. This led to the spike in unemployment which hit 14.7% which is extremely high. Thereafter it only took 2 years to hit the target of full employment again.

1.1.5. Current Account Balance

The current account balance is a statistic that shows the trades and transactions between a country and the rest of the world. It is measured as a percentage of the total GDP in a country. This means that when the US has a deficit of 3.63% in Q4 of 2021 it imported more than it exported to other countries (Appendix 6). The amount which is imported more than exported amounts to 3.63% of the total US GDP. We see that the 8 years before the COVID-19 crisis the current account balance was at a deficit each year of around 1.8% to 2.4% of its total GDP. When the COVID-19 crisis hit, we see the deficit increase to a larger deficit of 3.79% in Q3 of 2021. This indicates that the US imported even more during the pandemic compared to before.

1.1.6. Public Finances

The public finances are calculated as a percent of the total GDP. The government's total debt is decreasing when this indicator is above 0% and the total debt is increasing when this indicator falls below 0%. It can be seen on the graph that for the past many years the government has had a deficit every year (Appendix 7). In economic crises, the government usually increases its spending to reduce the effects of the crisis. Note that the deficit was significantly increased first during the great financial crisis around 2007-2009 whereafter it decreased steadily to around 5.8% a year in 2013. From there it was stable at around 5% for the years up until the next economic crisis in 2020. In 2020 the government had a deficit of 15.3% of the total GDP. Debt This is an even larger deficit in percentage than in the great financial crisis. It is important to know that a deficit is not always bad. If a country's GDP (the total production) increases by more than the government deficit does then the burden of the deficit also decreases, as it would be easier to pay it off.

1.2. Initiatives

1.2.1. The CARES Act

There are three main initiatives that the US has conducted during the COVID-19 pandemic to help the economy. The first one is the CARES (Coronavirus Aid, Relief, and Economic Securities Act) Act which was signed into law by previous President Donald Trump on the 27th of March 2020. The CARES Act covers economic relief of about \$2.2 Trillion. It contained an additional unemployment benefit of \$600 per week on top of what the state gives. (US Congress, 2020, p. 38). The act included a one-time direct payment of up to \$1,200 to any individual that had paid that amount in taxes within the past 5 years. On top of this was another bonus of \$500 per child. (US Congress, 2020, p. 55). In addition, it also includes \$350 Billion for small businesses with 500 or fewer employees to help pay salaries to reduce unemployment. (US Congress, 2020, p. 6). For large businesses, it included \$500 Billion which went to loans with low-interest rates from the government. (US Congress, 2020, p. 190) (LaBreque, 2020). Right around the time of the CARES act, the FED also decreased the FEDs funds rate. This is the interest rate which the FED charges public banks.

1.2.2. American Rescue Plan Act of 2021 (ARPA)

The American Rescue Plan Act of 2021 was an act signed by President Joe Biden on March 11th, 2021. The allocation for this act was \$1.9 Trillion. (Investopedia American Rescue Plan). Again, the American people see money going into their bank accounts, this time it is a one-time direct payment of \$1,400. This was handed to 85% of the American people. The act extended the unemployment benefits which came with the CARES Act until September 6th, 2021, but this time with \$300 a week. It increased the Child Tax Credit from \$2,000 to \$3,000 per child and this time including children of the age of 17 years old. ARPA gave extra tax credit for childcare of up to \$4,000 per child. At last, it reduced the cost of insurance of healthcare by up to \$200 per month for families with an income of less than \$90,000 per year. (The White House, 2021)

1.2.3. Build Back Better

The most recent of the major acts is the Build Back Better Act which was passed by the house on November 19th, 2021. The \$2.3 Trillion bill is being called the social infrastructure bill due to its allocation towards healthcare, education, and childcare. It will extend the Child Tax Credit which is supposed to ensure that low-income households will continue to get benefits and cut the child-poverty rate down in the US. Workers without a job will get more

possibilities to get training and post-education which should help get more workers in a job again. It lowers prices on some prescription drugs and creates a limit on how much seniors are allowed to pay for Medicare of \$2,000 a year. \$550 Billion will be going to reduce the climate crisis strains and to reduce Co^2 output. Some of this will be going to accelerating the transition to clean energy alongside major investments in new clean energy research. It will finance this bill partly by increasing the taxes on extremely high-income individuals. (DeFazio, 2022) (Probasco, 2022) (The White House, 2022)

2. Analysis: Effects of Initiatives

2.1. Fiscal Policy Initiatives

I will be analyzing the fiscal policies by their effects on the total supply and demand by the expenditure method. This method calculates the total spending in an economy by measuring and summing up the spending in each sector of the economy. GDP is often defined by this method of measuring economic activity. It can be expressed with the formula; GDP = C + CI + G + (X - M). The formula is with other words written (Aggregate Supply = Aggregate Demand) (Appendix 8). In this formula (C) is the spending done by households (Personal Consumption Expenditures). (I) Is the spending that the businesses in the country conduct also known as investments (Gross private domestic investment). (G) is the government spending (Government consumption expenditure and gross investment). (X) is the total exports while the (M) is the total imports. Exports minus imports are also known as net exports (Net exports of goods and services). Imports are deducted because imports are not an economic activity that happens in the given country but in another country in the world. (Joycelyn Blink, 2020, p. 212). I will be using data from the Bureau of Economic Analysis. It shows each of these metrics for each quarter from before the COVID-19 crisis till today. It also shows the percentage change from the same quarter the year prior. All the data is adjusted and rinsed for inflation. (Karl Rorher, 2022)

The entire US economy was by April 7th, 2020, in a situation of work-from-home where social distancing had become the norm. The first state to conduct this kind of policy was California on March 17th, 2020, and the last was South Carolina on April 7th, 2020. (Time And Date Team, 2020). This had major implications for the total supply and demand. All nonessential businesses closed their physical stores. This meant that households had fewer

possibilities to spend their money and thus household consumption went down. There was also fear which led to less consumer confidence. In fact, in Q2 of 2020 household consumption went down by 10.4% compared to Q2 of 2019. As household consumption is the largest part of the US economy this large fall had major implications on the GDP which fell 9.4% in the same quarter. The investments by businesses went down by 19.2% compared to the same quarter the prior year. Nominally this was a smaller effect on GDP, compared to the smaller decrease of 10.4% from households. This is because business investment is a smaller part of the entire economy than household spending.

As noted previously in the CARES Act, we saw a \$1,200 check being sent out to any taxpayer. This is an expansionary fiscal policy that the US government conducted under the administration of Donald Trump. This act saw the Americans getting \$1,200 back in taxes which by that would mean a reduction in taxes. This was supposed to increase the amount of disposable income of every American. When the Americans have more disposable income, the effect should be that the aggregate demand would increase, as they would want to spend the money. In the formula given the aggregate demand is equal to the aggregate supply which means that when the government tries to increase aggregate demand, it will also increase the aggregate supply (GDP) by doing this. Most states in 2020 demanded that workers stay home until the end of May and the start of June (BallotPedia, 2021). In the data of macroeconomic indicators, we can see that Q2 of 2020 was the worst quarter when it comes to economic losses. The fact that the first stimulus check was signed into law on March 27th, 2020, it would be expected that the money would also have been spent in Q2 of 2020. The problem was that most of the states were all in a lockdown situation when the first stimulus check was issued which meant that the money had nowhere to be spent extraordinarily. The money which was sent to unemployment relief was in the same situation. This meant that most money would be spent in Q3 of 2020. This is also visible in the data from BEA, in Q3 of 2020 household consumption only fell by 3% compared to Q3 of 2019. From the end of December 2020 till mid-January 2021 the second round of stimulus checks was sent out which again created a higher disposable income for Americans and was aimed at getting the economy up and going again. In Q1 of 2021, the households almost spent as much as Q3 of 2019 right before the COVID-19 crisis. In March 2021 yet another, and so far, the last round, of stimulus checks were sent out. As expected, we see a substantial increase in household spending in Q2 of 2021, especially when compared to Q2 of the year prior. It is clear to see from these numbers that the stimulus checks are working. The people are spending more

which sees the aggregate total demand go up and thus the aggregate supply. The GDP is in the most recent full quarter larger than back before the COVID-19 pandemic. The measures which the government has taken by investing, serving stimulus checks, and giving low-interest rate loans to businesses, see the household consumption, business investments, and government spending increase compared to Q4 of 2019. The net import decreased even more than before and therefore had an overall negative effect on the progress since Q4 2019.

The government also granted all small businesses with loans which were supposed to help finance employees' paycheck and keep the business from shutting down. As the corporations were closed and had no business activity, it may fire workers as they create no value and is a financial burden for the business. The government did this to ensure that the unemployment level would not get to extreme levels. By giving the opportunity to take cheap loans for businesses it ensured that more people kept their jobs while in lockdown, even without any activity. This was practiced by the government so that when the country opened again, the unemployment level would be reduced while there would be immediate activity in the economy again. If workers had been fired and then the economy would have opened again, businesses would not have enough workers to obtain the level of activity needed. Therefore, corporations would need to first hire more people, a lengthy process, all while the demand would be there to supply. Looking solely at the unemployment levels it cannot be seen if this worked, but it must be expected that it would have looked worse if nothing had been done. (Appendix 5). Luckily, the government also included extra money for the unemployed in this period. This made sure that even the workers that lost their jobs during the first lockdown would have more money than usual to spend when the economy opened. The next lockdown wouldn't be as bad on unemployment levels as this time corporations knew what it was about and had a better understanding of how to go about it.

2.2. Monetary policies initiatives

The monetary policy in the USA is controlled and managed by the FED. This in terms means that the FED is the bank for all the banks. It is the top standing bank which no regular American can use, but the public banks of America have the FED as their bank. The FED is in control of setting and managing the national interest rate (FEDs funds rate) at which it will be held for the public banks of America. This means that the public banks will place their interest rates at a rate around the one which it gets from the FED. This is one of the tools by which the FED must control the monetary policies in the US. The two primary goals of the FED are to maintain stable prices, to keep inflation at reasonable levels of around 2% a year

that is, and to obtain full employment in the US. The measures which the FED takes to obtain its goals do not have a direct effect on the aggregate supply or aggregate demand, it does it indirectly. When the FED increases the interest rates, this doesn't directly change the buying behavior of consumers and businesses. It does not immediately give these actors in the economy more money that can be spent. Instead, it changes the consensus and mindset of saving and spending. When the FED increases the short-term interest rate it promotes more saving and less spending as it is possible to earn money in a savings account by not spending it and letting it sit there. Contrary it also has the opposite effect when the FED decreases the short-term interest rate. The gain of saving money is now lower and thus it promotes spending right now. While obtaining economic growth is not part of their job, it will help the government to maintain a stable economic activity. It will do that by indirectly influencing spending behavior via short-term interest rates. "In March, we quickly lowered our policy interest rate to near zero, reflecting the effects of COVID-19 on economic activity, employment, and inflation, and the heightened risks to the outlook." (Federal Reserve, 2020). Here we see how Jerome Powell, the FED Chairman, lowered the short-term interest rates to 0.15% which was supposed to promote spending. For a household, this would be a massive driver for going out to spend the money right now. If they did not, it would mean the money would just sit in the bank account and be consumed by the inflation levels which would reduce the buying power of the money. It also meant that it was cheaper for businesses to invest and expand more. This also increases the aggregate demand. This was done back at the beginning of the COVID-19 crisis when there was a need for higher consumption.

Just recently FED has changed the interest rate. "the Committee decided to raise the target range for the federal funds rate to 1/4 to 1/2 percent and anticipates that ongoing increases" (Federal Reserve, 2022). This will be an increase of 0.25% on either end which would see the FED trying to maintain an interest rate of 0.40% with leeway on either end. This contractionary monetary policy is supposed to reduce the spending in the economy. This is because there is an elevated level of inflation in the economy right now. Increasing the interest rates is supposed to reduce economic activity. Due to the substantial increase in aggregate demand in the USA, there has been created more demand-inflation. We see this increase because of the fiscal policies which saw the Americans get more money. Businesses have been able to increase prices due to this increase in demand. This increase in prices which the businesses conduct is inflation (Increases in consumer prices). The low unemployment level means that it will not be possible to employ more workers to increase

the supply and that way decrease the price increases. Therefore, interest rates are the current and most effective answer to inflation. The FED expects that the FED funds rate keeps increasing more at rate hikes of 0.25% in 2022. (Federal Reserve, 2022)

The FED has also been conducting policies called quantitative easing (QE). QE is the introduction and injection of new money into the economy. It is an expansionary monetary policy which sees the amount of USD increase. The central banks go out in the open market and buy government bonds and other securities. The money is simply credited by the FED and is not exactly printed anymore, it is created as electronic money. Now there is more money floating around in the economy. This increases the aggregate demand of consumers and businesses which sees themselves have more money. It is most effective when the interest rates are already low. (Joycelyn Blink, 2020, pp. 262-263). Since the great financial crisis, the FED has conducted this kind of policy, but in the COVID-19 pandemic, the FED printed a lot more than usual to promote spending (Appendix 9). Almost 1/3rd of the M2 money supply is created since January 2020. "M2 is a calculation of the money supply that includes all elements of M1 as well as "near money." M1 includes cash and checking deposits, while near money refers to savings deposits, money market securities, and other time deposits" (The Investopedia Team, 2022). The sheer amount of money supply in the economy is expected to increase inflation. When there is more money in the economy, businesses will also try to increase the prices to reflect the extra money floating around. The problem with this kind of expansion in money supply is that it can't be undone easily. The money is now in circulation and creates inflation. To undo this, the FED will have to sell the government bonds and securities which it bought and discount the money towards the credits given previously.

2.3. Impact on financial markets

The US stock market was hit almost worse than the economy as a whole back in March of 2020. The largest and most well-known stock index in the US is the S&P 500 which is an index consisting of the 500 largest publicly traded companies in the USA. The index tracks how the 500 companies do daily (Appendix 10). This broad index is usually used when talking about how the stock market is doing and what is happening in a broader sense. Back in February of 2020 the S&P 500 was at an all-time high at \$3,397.50 but it took only a month and three days to fall by 36% to the low of \$2,174. For perspective, back in the great financial crisis, it took the S&P 500 almost 1 year to fall by 36%. The lowest point was hit on March 23rd. Only a couple of days later Donald Trump signed the CARES Act which

included the first stimulus check. The timing of the CARES Act stimulus check was not ideal. As mentioned earlier, most of the economy was shut down. This meant that the first month after receiving the stimulus check, there was nowhere the money could be spent. This meant that a lot of the money, which was sent out as a stimulus for the economy, went into the stock market. According to a survey from Betterment on 1500 investors, about 9% of the people that got the check spent part of the money on investments. Much of it went towards paying down debt, paying bills, and creating an emergency fund. The same survey conducted a year later after the American Rescue Plan Act was set in motion showed quite different results. 91% of the people got the stimulus check. Of that 91% who got the stimulus check, 46% invested some part of it. More interestingly, of that 46% that invested part of their stimulus check, 70% of them invested at least half of the total stimulus check. These are massive amounts of money that went into the stock market instead of the economy. This had a part in why the S&P 500 increased significantly in the months after each of the stimulus checks.

On top of this, the FED had reduced the FEDs funds rate to 0.15, approximately zero. (Federal Reserve, 2020). This was meant to increase spending in the economy, which it did. But it also has side effects on the stock market. It has two major effects depending on how you see it. It influences the economy of the private investor, but also the outlook of businesses. For the private investor, the 0% interest rate meant that there was no longer any gain at all by having money in the bank. It was earning no interest and it was being eaten away by inflation, which was reducing the buying power of the money. When there was no gain by having money in the bank, investors wanted to find other ways of letting the money earn more money by itself, or at least keep up with inflation. The easiest way to combat inflation was by investing. For this reason, the money went into buying stocks on the stock market, which drove the prices even higher. On top of this effect on the individual private investors, it also meant something for the businesses which was bought. The low-interest-rate meant that there were more possibilities to expand. The interest rates were as low as ever and thus businesses could invest in expanding their activities with incredibly low costs. The loans which were offered were unbelievably cheap. This meant that businesses and their stocks would be more attractive to invest in. Investors could imagine a greater growth rate due to the cheap loans which were offered to businesses. While the interest rate was at 0% this would be of bigger benefit for growth stocks. Companies that were growing rapidly and more than average benefited by being able to borrow and grow at a cheaper rate. This is all while value

stocks would also grow, but at a slower rate as it does not seek to grow at such rapid rates, but at more steady levels. For this reason, the lower interest rate benefitted growth companies which can be seen in Appendix 11. As mentioned earlier, the FEDs funds rate just got increased by 0.25%. This is intended to combat inflation, but it also affects the stock market. The higher interest rate means that it is more attractive to invest in bonds than before. As it is going to keep increasing, we see the investment in bonds become increasingly more attractive. Like Benjamin Graham said in his book "The Intelligent Investor": "When interest rates are high, the amount of money you need to set aside today to reach a given value in the future is lower-since those high-interest rates will enable it to grow at a more rapid rate. Thus a rise in interest rates today makes a future stream of earnings or dividends less valuable- since the alternative of investing in bonds has become relatively more attractive" (Graham, 1973 (Revised 2003)). Therefore, when it was first announced back in the last part of 2021 that as soon as the FED felt comfortable with the employment levels, it would begin its programs to combat inflation, the stock market began its decline. In this same decline, we also saw a reallocation of money in the stock market. The value stocks began outgrowing the growth stocks or falling less than the growth stocks (Appendix 11). In the future, this will probably continue as the interest keeps going higher and the alternative of bonds becomes more attractive with lower levels of risk.

3. Discussion: Future Economic Policies

Looking at the economy from the outside the USA has a major problem with inflation. It is running wild and has increased almost every single month since May 2020. The GDP growth has been great, and the USA is currently at a point of theoretical full employment with unemployment being at 3.8%. The current level of 7.87% inflation is not sustainable in the long run. This should be the biggest concern for the government and the FED. Inflation is an animal that must be dealt with soon as possible. If inflation is high, households will demand a wage which is at least inflation levels higher than their current wage. If this happens workers will suddenly have more disposable money. Businesses will then increase their prices to earn more money to offset the increase in wages it must pay. This means prices increase which creates more inflation, and then it repeats. It's a vicious cycle. Overall, inflation creates inflation if not careful. There are a couple of ways to combat inflation, but they all have drawbacks which of course must be weighed up against the cause of decreasing inflation. We

are currently looking at demand-pull inflation which is caused by an increase in demand. The economy is going well, and the Americans have never been this wealthy with so many at work. The USA is also seeing cost-push inflation as the price of production is increasing. This will push prices up to make sure businesses earn money. (Joycelyn Blink, 2020, pp. 298-299) This inflation is due to global problems with the supply chains causing items to be late, out of stock, and just not being produced anymore. (Isidore, 2022). The global problems with supply chains are not something the US government can do much about and thus it must seek to improve where it has power to do so. On top of this, there is also inflation which has been created by quantitative easing, the supply of money is much larger today (Appendix 9).

3.1. Contractionary Monetary Policy

One of the best ways to create disinflation (The deceleration of inflation) is with some of the monetary policies provided. The goal is to reach inflation of about 2% again. This can be done by increasing the interest rate. On one side the rising interest rates will decrease the aggregate demand. This will increase the cost of borrowing and should lead to a reduction in consumption and investments. It would no longer be as attractive to spend borrowed money. The purchase of houses will go down due to the increased price of borrowing. It would also be less desirable for businesses to invest and expand as it is more expensive now. On the other side, this will decrease the GDP due to the decrease in aggregate demand. It will also mean that unemployment will increase. When there is less demand in the economy which means that less production is needed this means there is less need for workers and thus unemployment will increase. This will hit economic growth negatively. That is why the FED waited till March before it increased the interest rates. It was waiting till the US had hit full employment so that there was some leeway that could be used now when interest rates are getting increased (Federal Reserve, 2022).

There are some other general advantages of monetary policy in this form. First of it is extremely fast to introduce and put into action. Interest rates can be increased from one day to the other, presenting an immediate change in interest rate. The FED can also change the current FEDs funds rate by exceedingly small increments at a time. This can help the FED make sure that whatever increase or decrease that is being conducted can be controlled and maneuvered carefully. The FED is an independent unit from the state, it can conduct whichever policy it wants without considering what the people think of them. This is politically good since the FED can conduct the necessary policy without being voted out next election. Nevertheless, when the FED conducts contractionary monetary policies, it might be a change from one day to the other, but it can take a long time before the actual change affects the aggregate demand. Before then, changes to the economic situation might have changed and thus creating a need for other economic policies. (Joycelyn Blink, 2020, pp. 258-259) At the current rate of inflation though, there would have to be a massive unpredictable change that has a major impact on the economy, if the increase in interest rates should turn out to be wrong.

The FED may increase the interest rates in larger and faster intervals as this would accelerate the effects which have been discussed above. Due to the dangers to an economy with elevated levels of inflation, it must be managed with great care. If it increased at faster rates the possibility of overdoing the contractionary monetary policy will increase. This would mean that inflation could end up becoming deflation which is also bad for the economy. If overdone, the economy could enter a situation where it is no longer growing its total output. The interest rates being increased too much could lead to a much higher level of unemployment and a lower output. The absolute worst-case scenario is that increasing the interest rates too much and too fast could cause another recession. The recession would be created by too low employment and too high-interest rates which sparks no interest in investing and spending. At this point, it would have to decrease the interest rates again and possibly see the inflation rise again, and so the spiral continues. It is a game of fine arts and science.

3.2. Contractionary Fiscal Policy.

Another way to combat inflation is by reducing the aggregate demand in the economy via contractionary fiscal policy. This would mean either spending less on big initiatives and projects or increasing the taxes on the citizens or the businesses. If the government spends less money on its own projects this would decrease the public services and it would decrease the money which is sent out into the economy. Doing this would decrease the aggregate demand in the economy. Increasing for example income taxes would reduce the disposable income of workers which is going to decrease the demand because there is less money for wants. If the government increases corporate taxes this will decrease the earnings. The decrease in earnings means that there are fewer possibilities to invest and expand, reducing the demand in the economy. (Joycelyn Blink, 2020, pp. 248-249)

Just recently contrary to the typical ways of combating inflation outlined above, the government under the Biden administration is conducting a combination of expansionary and

contractionary fiscal policies. On one side it will be spending and investing in school for children, but only for families making less than \$300,000 a year. This will increase the aggregate demand in the economy which would increase inflation. On the other side, all the expansionary policy parts of the Build Back Better Act are financed via contractionary policy on the other half of the income distribution. The highest income households in the US would be financing the program, via increased taxes. The act also included an agreement with over 100 countries to have a minimum of 15% in corporate taxes which should see less fraud in sending money away from the US. Overall, it is more of a reallocation of money in the economy (The White House, 2022). This might though still increase inflation. The fact that corporations can invest less will lead to a decrease in total demand. But the way this is financed will on one side decrease the earnings of very high-income people, but the people with such high incomes will still be able to buy almost everything in desire. They might not decrease their spending just because of this increase in taxes. This could end up not influencing the aggregate demand. All while the people with lower incomes will get more money at hand. This will increase the aggregate demand. What might decrease the demand is the increase in taxes for large corporations which will be investing less as they now must pay more taxes on average.

This could see the government having to commit to more contractionary policies in the future that decrease the aggregate demand even more. It might have to decrease the disposable income of the middle class even more than before the act. The government could increase the income tax on middle class workers. This would decrease the disposable income and thus decrease the demand for goods and services. The advantage of doing this is that it will be decreasing inflation, but there are more negatives. On the other side, it will decrease the economic growth in the US as less money is being spent and thus less is being outputted in total. It will also increase the unemployment levels as higher taxes will make it less attractive to have a job at all. Contractionary fiscal policy is awfully hard to conduct and is rarely being conducted due to political pressure. The political pressure of being re-elected next election is so massively high at any given time that governments might neglect to conduct contractionary fiscal policies to protect their reputation. Another problem with fiscal policy to combat inflation is the fact that such reforms and tax increases take a long time to conduct and get accepted. It has many political processes which each takes time to complete. This means it takes a longer time to conduct than the contractionary monetary policy and it will

also take months before the effects will be felt. This is one of the main reasons contractionary fiscal policies can be less useful than contractionary monetary policies.

Conclusion

The COVID-19 pandemic did indeed hit the economy hard. It was a disease which was so drastically different than ever seen before which meant that governments had to take drastically different measures to combat it. It was the lockdown of almost the entire economy which set in motion the speedy recession which we have seen. The economic growth declined, and unemployment spiked. Initiatives were taken quickly to reduce the FEDs funds rate which should see the economy increase spending in a period of fear and uncertainty. Initiatives from the government were designed to give Americans more disposable income and make sure businesses had help covering employment costs. This influenced how hard the economy was hit. Lower interest rates, higher disposable income, and help to businesses were all initiatives to reduce the effects of the pandemic. The governing body of USA quickly saw the economic problems and situation and took action to rectify them. As seen today the economy is doing better than ever and the GDP is even higher than before the COVID-19 pandemic and the unemployment levels are just as low as before. The problem is that these initiatives taken by the FED and the government have created a new problem. Inflation is massively high which is not good. Now the US is in almost the opposite situation than when the COVID-19 pandemic hit, today it is conducting contractionary economic policies. It solved the immediate problem with the COVID-19 pandemic but created a new one that might be just as bad overall. Now it must reduce inflation and just recently the FED has been acting on the matter of inflation. It could be discussed if this is a little too late since already back in December the GDP was higher than before the COVID-19 pandemic while the US had achieved full employment. This could have given the initiatives 3 more months to be effective. It is currently conducting the correct monetary policies, the question is if they are aggressive enough, only time will tell. The initiatives created by the government, in the beginning, were useful and helped the economy recover again. Yet the most recent initiative taken is more questionable concerning the current economic situation. The government going out and reducing costs on medications and childcare will lead low-income workers to have more disposable money which means demand is increased and thus the prices. It may be financed by contractionary policies on the other end, but it could be the case of not being effective at reducing inflation. Currently, it might be the case that the government is creating

more inflation which could be a problem, but again only the future can determine that. Until this point, it was correct to conduct the policies which it did. The timing of the Build Back Better plan could be questioned.

Bibliography

- BallotPedia. (2021, January 5). States that issued lockdown and stay-at-home orders in response to the coronavirus (COVID-19) pandemic, 2020. Retrieved March 29, 2022, from Ballot Pedia Web Site:
 https://ballotpedia.org/States_that_issued_lockdown_and_stay-at-home_orders_in_response_to_the_coronavirus_(COVID-19)_pandemic, 2020
- DeFazio, P. (2022). *The Build Back Better Act*. Retrieved March 29, 2022, from United States Congressman Peter Defazio: https://defazio.house.gov/BBB
- Federal Reserve. (2020). Semiannual Monetary Policy Report to the Congress. Washington, DC: Federal Reserve. Retrieved March 30, 2022, from https://www.federalreserve.gov/newsevents/testimony/powell20200616a.htm
- Federal Reserve. (2022). Federal Reserve Press Release March 2022. Washington, DC: Federal Reserve. Retrieved April 3, 2022, from https://www.federalreserve.gov/monetarypolicy/files/monetary20220316a1.pdf
- FRED. (2022, February). M2. Retrieved April 1, 2022, from Federal Reserve Economic Data: https://fred.stlouisfed.org/series/M2NS#0
- Graham, B. (1973 (Revised 2003)). The Intelligent Investor. New York: Harper Collins Publishers. Retrieved April 3, 2022
- Isidore, C. (2022, March 30). Why the global supply chain mess is getting so much worse. Retrieved April 5, 2022, from CNN Business: https://edition.cnn.com/2022/03/30/business/global-supply-chain/index.html
- Joycelyn Blink, I. D. (2020). *Economics*. Oxford: Oxford University Press. Retrieved March 31, 2022
- Karl Rorher, K. P. (2022, March 30). US Economy at a Glance. Retrieved March 29, 2022, from Bureau of Economic Analysis: https://www.bea.gov/news/2022/gross-domesticproduct-third-estimate-corporate-profits-and-gdp-industry-fourth-quarter
- Kureer, H. (2022). *International Økonomi A*. Aarhus C: Systime. Retrieved March 29, 2022, from https://io-a.systime.dk/?id=71&L=1
- LaBreque, L. (2020, March 29). *The Cares Act Has Passed: Here Are The Highlights*. Retrieved March 29, 2022, from Forbes:

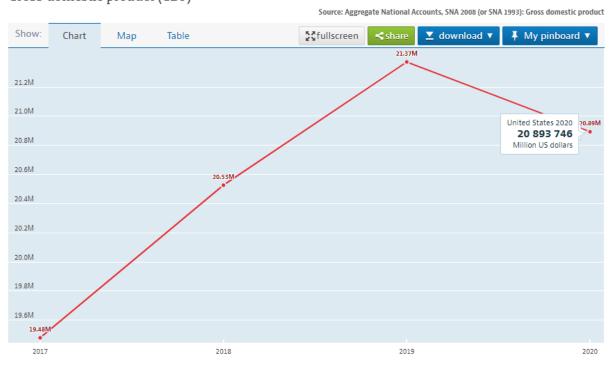
https://www.forbes.com/sites/leonlabrecque/2020/03/29/the-cares-act-has-passedhere-are-the-highlights/?sh=6f29c3d68cd2

- OECD. (2020). *General government deficit*. Retrieved March 29, 2022, from OECD: https://data.oecd.org/gga/general-government-deficit.htm
- OECD. (2020, December). *Gross domestic product (GDP)*. Retrieved March 29, 2022, from OECD: https://data.oecd.org/gdp/gross-domestic-product-gdp.htm
- OECD. (2021, December). *Current account balance*. Retrieved March 29, 2022, from OECD: https://data.oecd.org/trade/current-account-balance.htm
- OECD. (2021, December). *Quarterly GDP*. Retrieved March 29, 2022, from OECD: https://data.oecd.org/gdp/quarterly-gdp.htm
- OECD. (2022, February). *Inflation (CPI)*. Retrieved March 29, 2022, from OECD: https://data.oecd.org/price/inflation-cpi.htm
- OECD. (2022, February). *Short-term interest rates*. Retrieved March 29, 2022, from OECD: https://data.oecd.org/interest/short-term-interest-rates.htm
- OECD. (2022, February 20). Unemployment Rate. Retrieved March 29, 2022, from OECD: https://data.oecd.org/unemp/unemployment-rate.htm
- Probasco, J. (2022, February 23). Understanding Infrastructure Legislation. Retrieved March 29, 2022, from Investopedia: https://www.investopedia.com/here-s-what-s-in-theusd1-trillion-infrastructure-bill-passed-by-the-senate-5196817#toc-whats-inand-notinthe-23-trillion-scaled-down-democratic-proposal
- The Investopedia Team. (2022, January 10). *M2*. Retrieved March 31, 2022, from Investopedia: https://www.investopedia.com/terms/m/m2.asp
- The White House. (2021). *American Rescue Plan*. Retrieved March 29, 2022, from The White House: https://www.whitehouse.gov/american-rescue-plan/
- The White House. (2022). *The Build Back Better Framework*. Retrieved March 30, 2022, from The White House: https://www.whitehouse.gov/build-back-better/
- Time And Date Team. (2020). *First Day of Stay at Home Order in the United States*. Retrieved March 30, 2022, from Time And Date Web Site: https://www.timeanddate.com/holidays/us/lockdown-day-1

- US Congress. (2020, March 27). 116th Congress (Cares Act). *Public Law 116-136 Mar. 27, 2020*. Washington, DC, Washington, DC, United States of America: US Congress. Retrieved from https://www.congress.gov/bill/116th-congress/house-bill/748
- Yardeni Research. (2022, March 31). *Daily Overview*. Retrieved from Yardeni Research: https://www.yardeni.com/

Appendices

Appendix 1



Gross domestic product (GDP) Total, Million US dollars, 2017 - 2020

Appendix 1 From OECD.org (OECD, 2020)



Quarterly GDP Total, Percentage change, same period previous year, Q1 2017 - Q4 2021 Source: Quarterly National Accounts

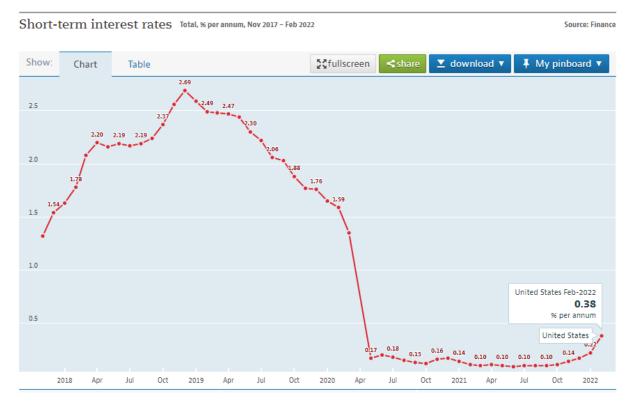
Appendix 3



Inflation (CPI) Total, Annual growth rate (%), Sep 2017 - Feb 2022 Source: Prices: Consumer prices

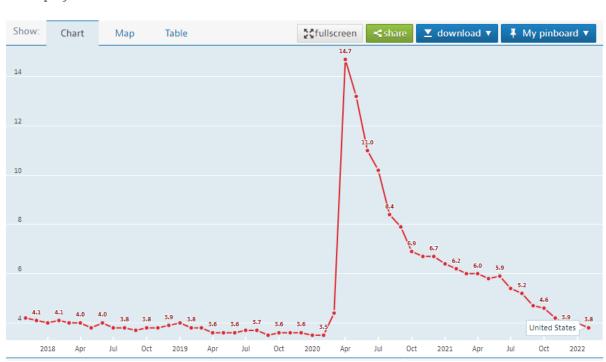
Appendix 2 From OECD.org (OECD, 2021)

Appendix 3 From OECD.org (OECD, 2022)



Appendix 4 From OECD.org (OECD, 2022)

Appendix 5



Unemployment rate Total, % of labour force, Nov 2017 - Feb 2022 Source: Labour: Labour market statistics

Appendix 5 From OECD.org (OECD, 2022)





Source: Balance of payments BPM6

Appendix 7



General government deficit Total, % of GDP, 2007 - 2020 Source: National Accounts at a Glance

Appendix 6 From OECD.org (OECD, 2021)

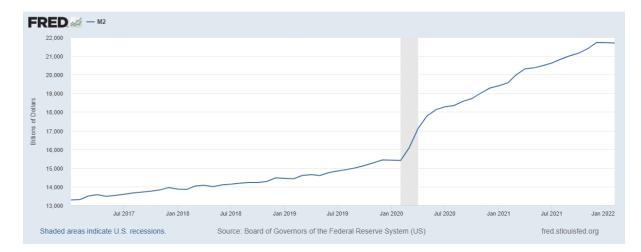
Appendix 7 From OECD.org (OECD, 2020)

Excel Sheet: USA Macroeconomic Indicators Q4 2020.xlsx

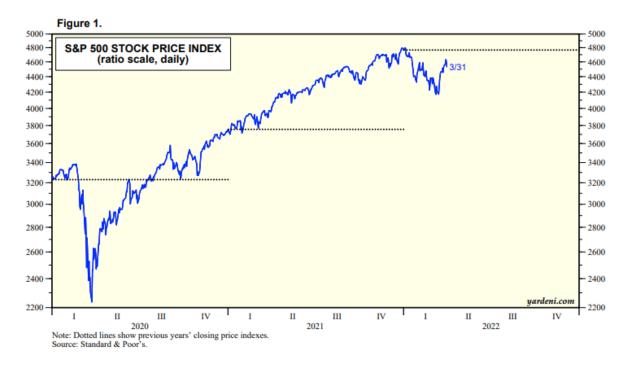
		Appendix Table B. Not Seasonally Adjusted Real Gross Domestic Product: Level and Percent Change from Quarter One Year Ago																						
	1			Billions of chained (2012) dollars at guarterly rates										Percent change from quarter one year ago										
Lir	ne		2019	2019		2020		2020		2021				2020				2021						
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4 ^r	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4 ^r			
1	1	Gross domestic product (GDP)	4.796,8	4.900,9	4.615,6	4.302,0	4.660,4	4.806,7	4.631,3	4.842,2	4.881,1	5.064,9	2,7	0,7	-9,4	-2,8	-1,9	0,3	12,6	4,7	5,4			
2	2	Personal consumption expenditures	3.288,8	3.414,9	3.164,5	2.932,4	3.191,3	3.341,8	3.226,6	3.411,7	3.421,7	3.566,0	2,5	0,4	-10,4	-3,0	-2,1	2,0	16,3	7,2	6,7			
3	3	Gross private domestic investment	922,1	858,0	827,9	713,7	891,5	883,2	832,5	869,8	940,7	971,8	-0,1	-2,2	-19,2	-3,3	2,9	0,6	21,9	5,5	10,0			
4	4	Net exports of goods and services	-253,6	-211,0	-190,2	-194,6	-273,6	-284,3	-272,1	-310,9	-351,3	-336,6												
5	5	Exports	637,2	653,4	600,2	483,4	535,8	588,1	556,3	575,0	562,4	615,4	0,6	-3,5	-24,7	-15,9	-10,0	-7,3	18,9	5,0	4,6			
6	6	Imports	890,8	864,4	790,4	678,1	809,4	872,4	828,4	885,8	913,7	952,0	-2,1	-4,2	-22,8	-9,1	0,9	4,8	30,6	12,9	9,1			
7	7	Government consumption expenditures and gross investment	830,2	837,9	815,3	850,8	841,2	852,8	832,3	855,4	850,7	846,1	3,7	3,6	3,2	1,3	1,8	2,1	0,5	1,1	-0,8			
	1	ddenda:																						
		Current dollar measures: (Billions of dollars)																						
8	8	GDP	5.398,2	5.512,8	5.224,5	4.876,9	5.302,3	5.490,1	5.367,8	5.711,8	5.822,8	6.121,4	4,4	2,1	-8,8	-1,8	-0,4	2,7	17,1	9,8	11,5			
9	9	Gross domestic income	5.321,6	5.529,5	5.493,0	4.806,8	5.133,4	5.631,1	5.692,0	5.766,6	5.942,3	6.206,8	3,6	2,9	-8,5	-3,5	1,8	3,6	20,0	15,8	10,2			
r	Rev	ised																						
s	Sour	e: U.S. Bureau of Economic Analysis																						

Source: U.S. Bureau of Economic Analysis

Appendix 9



Appendix 8 From Fred.org (FRED, 2022)



Appendix 10 From Yardeni.com (Yardeni Research, 2022)





Appendix 11 From Yardeni.com (Yardeni Research, 2022)