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Biden's economic agenda risks mid-term elections: An analysis of Biden's economic agenda and its effects on the American economy

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Biden's economic agenda risks mid-term elections

An analysis of Biden's economic agenda and its effects on the American economy

Gero Kunath / Jürgen Matthes / Thomas Obst

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Executive summary

President Joe Biden faces some political and economic headwinds in the upcoming U.S. midterm elections this year. Current economic challenges include historically high inflation rates and signs of an impending recession. Besides issues such as climate change, gun control, abortion, or immigration the number one issue for U.S. voters appears to be inflation. In this context, polls show that most Americans disapprove of Biden's handling of the economy because of the cost-of-living crisis that developed in 2022. The Biden administration has initiated a comprehensive economic agenda. Democrats have succeeded in gaining bipartisan support pushing through substantial legislation within the first two years. Overall, Biden's "Build Back Better" agenda, also known as Bidenomics, rests on five key pillars: (1) American Rescue Plan to deal with the effects of the Covid pandemic, (2) Infrastructure Investment and Jobs Act to strengthen the economic base, (3) Build Back Better Act which culminated in the Inflation Reduction Act to tackle climate change and strengthen social security, (4) CHIPS and Science Act to gain leverage in international competition, and (5) the Buy American regulations to protect domestic industry. In total, these fiscal policies will spend roughly \$3.8 trillion over the next decade. The first two programs have already injected substantial amounts of money into the U.S. economy. Increasing aggregate demand has led to strong economic growth in 2021, a tightening labor market with historically low unemployment rates, but also a significant increase in inflation and a subsequent reversal of the Fed's monetary policy in 2022.

This paper gives a critical overview of the political and economic environment the Democratic party is facing in the November 8 midterm elections. We analyze the economic effects of Bidenomics and quantify the effects of the vast fiscal programs on the U.S. economy discussing the issue of inflationary pressures of the expansionary fiscal policy programs. The analysis shows that while the American Rescue Plan has substantially increased aggregate demand in the U.S. economy and stimulated export demand for countries like Germany it has likely added to the current issue of high inflation rates, e.g., caused by core inflation items rather than exogenous energy shocks as in Europe. However, while programs such as the Inflation Reduction Act do not add further substantial stimulus on an annual basis all these programs contain a transformative element that possibly makes it attractive for U.S. companies to invest in new technologies, infrastructure, and green energy networks. This improves the capital stock, making positive longer-term positive effects on potential output more likely.

Biden, however, faces the risk that the economy is too strong for its own good. When the vast fiscal programs were enacted, secondary effects such as inflation were raised by some economists. It seemed that unlike the 2008 financial crisis, the U.S. government feared doing too little to help households and businesses. Since the U.S. system does not have strong automatic stabilizers, the preferred approach was to spread helicopter money to households through generous means such as pay-checks. This large-scale demand stimulus, in an environment of a severely restrained supply side and falling potential output, seems to have put a lot of pressure on the U.S. economy, putting the midterm elections for the Democrats at risk. Voters feel inflationary pressures every day and may not perceive the Built-Back agenda to be directly beneficial to them. This constitutes a significant threat for Biden, e.g., in the important Rust Belt states. Trump promised these states an economic renaissance, persuading them to vote for him. During his presidency, however, he did little for these states. Biden, in contrast, has provided extensive economic support to the region and initiated a structural transformation that has the potential to turn it into a future U.S. industrial heartland. However, the current economic turmoil could cloud voters' assessments of the Rust Belt states and cost him crucial votes.

1 Introduction

The upcoming midterm elections capture the mood of the American public, e.g., how citizens evaluate the work of the government during the first two years of Joe Biden's presidency. In this context, the current state of the U.S. economy will be a strong factor for American voters when they head to the polls this November 8. They will decide who will be in control of the House of Representatives and the Senate for the next two years. However, many other issues will also affect their voting behavior. While issues such as climate change, abortion, crime, gun control and immigration are pressing, American voters are dealing with the highest inflation rates in decades, plummeting stock markets and signs of an impending recession. Democrats face strong headwinds as they try to retain control of the House of Representatives. The president's party has typically lost seats in midterm elections in the past (The Economist, 2022). Pessimism about the economy may amplify the issue. However, since Democrats have achieved some notable legislative changes, their chances of keeping a majority in the Senate are increasing. If Democrats lose control of both chambers, Joe Biden would face substantial political gridlock over the remaining two years.

In this report we focus on the current economic situation in the U.S. Key economic issues include unemployment, wage growth, recession prospects, gasoline prices, or student loan forgiveness. However, one major issue is how the economy has been managed since the pandemic and inflation. According to a recent poll by Monmouth University (2022), economic issues tend to outweigh concerns about rights and Democratic issues in the midterm elections. When asked to consider 12 issues the federal government should address, 82 percent found inflation either extremely important or very important, making it the number one priority by a wide margin. For instance, least important issues were the Covid pandemic (32 percent) and student loan debt (31 percent). 3 in 4 independents and 8 in 10 Republicans put inflation as their number one priority the government must handle. Perceptions of President Biden's performance on these key issues are not helpful to Democrats. The only issue on which he receives a positive rating is dealing with the Covid pandemic— one of the public's lowest priority issues right now, according to the poll. Only 3 in 10 Americans approve of Biden's work on the nation's top concern – inflation – as well as other concerns that Republicans focus on – e.g., crime (32 percent) or immigration (31 percent). Although a poll is not representative of Americans' voting behavior, it does highlight the importance of economic issues and the American public's perception of President Joe Biden's handling of the pandemic and economy in general.

Consumer price inflation remains stubbornly high, and the U.S. labor market is showing signs of slowing employment growth as the Fed's policy seeks to reduce inflation by cooling down demand. Despite the Fed's aggressive approach on inflation, the U.S. labor market has so far proven to be quite resilient, with the unemployment rate continuing to hover around a historic low of 3.7 percent being supported by the fiscal policy programs since 2020. Nevertheless, if living standards fail to keep pace with inflation, Biden's targeted group of middle-class workers could change its political stance. At the beginning of the pandemic, the U.S. government implemented trillions of U.S. dollars in vast fiscal stimulus programs comprising to stabilize the economy. Some economists link the high inflation rates directly to fiscal spending during the pandemic, which forced Congress to be more fiscally responsible. While the vast expansionary fiscal policy has helped to support economic growth and led to a strong labor market performance, the secondary effects of high inflation rates put Biden's midterm elections at risk. This could prove to be an unfortunate dilemma for Democrats' fate in the midterm elections.

2 Political Environment and Economic Development

Before outlining the key pillars of President Joe Biden's economic agenda in more detail, we will give a brief overview of the U.S. political and economic environment since Biden's election in November 2020. In Section 2.1, we outline the key policy issues that have the potential to influence voters' political stance on November 8. We focus on economic issues, but also give a broader picture including further areas of considerable political impact. In Section 2.2, we give a brief overview of the current economic situation in the U.S. We outline economic developments since the beginning of the pandemic with a focus on the U.S. fiscal response and the causes of rising inflationary pressures. We also highlight developments in the labor market and discuss the likelihood of a recession.

2.1 Political Environment

The political landscape has been incredibly challenging for Joe Biden. His presidency has been overshadowed by internal political struggles, the Covid pandemic, and external crises such as the war in Ukraine. Donald Trump's presidency has deeply transformed American society and driven a wedge between conservatives and progressives. Trump's harsh rhetoric, his usage of enemy stereotypes and his declaration of inconvenient facts as 'fake news' tore apart the presumed unity of American society and pitted ethnic and political groups against each other. The controversial president's approach fueled ethnic tensions by repeatedly employing racist stereotypes, such as portraying Mexicans as drug dealers, criminals, and rapists (Gabbatt, 2015) or claiming that Haitian migrants 'all have AIDS' (Bump, 2021). Research shows that most U.S. citizens perceive intercultural relations to have worsened under Trump (Dimock and Gramlich, 2021). Trump's narrative of a corrupt political 'establishment', his continuous criticism of news outlets such as CNN for spreading what he labelled 'fake news' while spreading false facts himself as well as his dismissal of scientific expertise eroded common ground for political debate. Overall, public perception of political discourse in the U.S. took severe damage during his presidency with an overwhelming majority seeing the tone and nature of political debate in decline towards the end of his tenure, a major criticism being that political discourse became less fact-based (Pew Research Center, 2019). As a result, the 2020 U.S. presidential election campaign was marked by deep division and polarization. Republicans were united in a nearly unconditional backing of then-President Donald Trump despite past controversies and the ongoing second impeachment trial, while Democrats were united in their desire to remove Trump from office. Biden ultimately succeeded in becoming president but won only by a small margin. Trump tried to overthrow the election by repeatedly doubting the legitimacy of the election process. His efforts culminated in the Capitol riots on 6 January 2021, when a group of Trump-supporters stormed the Capitol building to protest the, in their opinion, stolen election. Against this background, Biden emphasized in his inauguration speech his desire to restore unity to American society and overcome the anger and hatred that arose under Trump (Biden, 2021).

So far, the divide between Republican and Democrat supporters appears to prevail. Research shows that Republicans and Democrats widely differ on issues such as immigration, climate change, intercultural relations not only in terms of perceived relevance (Schaeffer, 2022) but also in terms of how these issues should be dealt with (Oliphant and Cerda, 2022). Events like the murder of George Floyd or the Supreme Court overturn of the constitutional right to abortion were emblematic for this ideological divide (Tesler, 2020; Gallup, 2022). Surveys also show that large parts of Republicans still doubt the legitimacy of Biden's presidency (Cuthbert and Theodoridis, 2022) and follow the so-called "big lie" narrative implying opposition to the current democratic administration. Moreover, Republican and Democrat supporters increasingly express

negative perceptions of one another (Pew Research Center, 2022). The societal division is also mirrored in the two chambers, the House of Representatives, and the Senate. In the House of Representatives, Democrats hold 221 seats while Republicans hold 212 seats giving the former some edge over the latter. In the Senate, both parties hold exactly 50 seats. To introduce legislation, Biden hence depends on unanimous partisan support. This dependency creates strong bargaining power for critical voices within the Democrats. For instance, one of his major legislation proposals the Build Back Better Act (BBB) is the most prominent victim of this political pit. Democrat Senator Joe Manchin used his leverage by refusing to give his consent and by pushing through substantial cuts of the initially planned legislation. The de facto veto power of every Democrat Senator makes compromise inevitable and is an obstacle for the passage of more controversial legislation such as spending on social security. Even though Biden might not have succeeded uniting the shattered society left by Trump, the tone and style of debate has been much more characterized by finding common ground and by accomplishing compromise. Bipartisan passage of legislation such as the Infrastructure Investment and Jobs Act (IIJA) or the CHIPS and Science Act (CSA) give hope that compromise between Democrats and Republicans is still possible. The upcoming midterm elections will not only draw a picture of the current U.S. political landscape but will also be decisive for the future political power of President Biden and his administration.

A focal point in American politics that has already strongly influenced the 2016 and the 2020 elections and will most likely influence the midterm elections as well are the voting outcomes in the so-called Rust Belt States. These states were once the industrial heart of the United States and famous for their steel, coal, and automotive production. When these industries were prospering the respective states were unionized and predominantly democratic. However, structural change as well as technological and ecological progress have taken their toll in recent decades, leading to economic decline. Unpopular decisions such as the weakening of the traditionally strong labor unions in this region additionally broke up social and political ties and contributed to a growing sentiment of being disregarded and left behind (McQuarrie, 2016). In his 2016 election campaign, former President Trump seized the momentum of discontent with politics in these states and addressed them extensively in his campaign to turn around their Democratic past into a Republican future. He promised them an industrial renaissance and a voice for their interests in the political debate. His promises were heard, and the states surprisingly switched to voting Republican in the 2016 elections, thereby helping Trump to office. However, he translated his promises into protectionist policies and a trade war with China which was prominently featuring in the public debate but in sum did little for the Rust Belt (Chu, 2020), likely costing him some support in the 2020 election.

President Biden also acknowledged the importance of the Rust Belt. He dedicated most of his travelling in the 2020 election campaign to the so-called "Big Three" (Michigan, Wisconsin, and Pennsylvania). His efforts paid off and he was able to win back those states. For the upcoming midterm elections, it is crucial for Biden to maintain their support. Throughout his tenure, he has kept an eye on the Rust Belt and tried to fulfil what Trump has promised. The IIJA which aims to rebuild ailing roads, bridges, and rails is expected to boost the American steel industry which is central to the Rust Belt states (American Iron and Steel Institute, n. d.). Besides saving of what is left of traditional manufacturing sector through the IIJA, the recently passed Inflation Reduction Act (IRA) and the CSA aim to build the Rust Belt as a regional hub for green and innovative technology. All packages include protectionist "Buy American" provisions that require domestic procurement and production of numerous raw materials and manufactured goods traditionally sourced from Rust Belt states, serving as a supportive instrument to protect and support their industries. In sum, the legislation could lead to a reindustrialization of the U.S. economy in general (Meyer, 2022) and of the Rust Belt region. In

September 2022, Biden even declared the Rust Belt label as buried and suggested replacing it with “Silicon Heartland” while attending the ground-breaking for a new Intel semiconductor manufacturing plant (Samuels, 2022). While there is support for the potential of Bidenomics to rejuvenate American industries in the Rust Belt (Alden, 2021; Ramesh, 2022), there is a belief that it will not be sufficient to heal all wounds of the past and that the region will continue to be a battlefield of political debate and a must-win for presidency (Nirenberg, 2021).

However, the most pressing national issue ahead of the midterm election is inflation which has become a political subject (Doherty and Gómez, 2022). Prices started to soar during the Covid pandemic and have trended upward since then until recently (see Section 2.2). Price increases have been particularly pronounced for goods such as groceries, housing, medical goods and services and fuel (Sherman, 2022), which matter a lot to households. This is particularly true for low- and middle-income households which spend a larger share of their income on these essential goods. Therefore, inflation is likely to influence their voting behavior. Republicans connect high inflation rates directly to the spending packages initiated by Biden such as the American Rescue Plan (ARP), even though the Trump administration had also implemented large fiscal packages to combat the economic consequences of the pandemic. After sticking to its loose monetary policy in 2021, the Fed became more hawkish and raised interest rates decisively, most recently to around 3 percent in September 2022 (Rushe and Aratani, 2022). It also increases the cost of housing mortgages, an issue that Republicans like to point out in the upcoming midterm elections (Politi et al., 2022). First-time homebuyers are likely to be boxed out of the market as average monthly mortgage payments rise substantially. While inflation appears to be slowing, it is proving much more persistent than anticipated. Further increases in interest rates increase the risk of recession (Sherman, 2022). Inflation is becoming the most important problem for the economy and voters believe that Biden is not paying enough attention to it. Hence, they disapprove of his economic performance which could undermine his second term as president.

In addition to internal economic, societal, and political struggles, the Biden administration has not been shielded from numerous global crises. When Biden took office in January 2021, the Covid pandemic was reaching its temporary peak. Infection and death rates soared making the month of his inauguration the deadliest month of the coronavirus pandemic at that time (Holcombe and Waldrop, 2021). While his predecessor, Trump, downplayed the risks of the virus and largely refused to implement federal containment measures, he took up the fight against the pandemic immediately after taking office. The \$1.9 trillion ARP was a follow-up to the stimulus packages passed under the Trump administration. It was intended to provide immediate financial relief to Americans in the form of stimulus checks, rent and food assistance, as well as extended health care and unemployment benefits, and lay the foundation for a nationwide testing and vaccination program. Biden offered federal support to solve logistical problems in distributing and accessing tests and vaccines that were prevalent under former President Trump (Cohen and Wadman, 2021). Infection rates declined in the first months of his tenure but began to surge by the end of 2021 with the spread of the Omicron variant and peaked in early 2022. Since then, numbers have been low and measures have been lifted leading Biden to make the controversial statement in September 2022 that the pandemic was over (Sullivan et al., 2022).

While the pandemic was loosening its grip on the U.S., geopolitical conflicts were emerging. The outbreak of the war in Ukraine brought the administration into even more troubled waters. Biden warned of the looming danger of a Russian invasion into the neighboring country as initial surveillance data showed an increased deployment of military forces on the border (Dallison and McLeary, 2022). Immediately after Russian troops

set their feet on Ukrainian ground on February 23, the president condemned the invasion as an unprovoked and unjustified act of violence and called Putin the sole aggressor who must be held responsible. While Biden refrained from sending American troops to Ukraine, he announced that he would provide extensive military, financial and humanitarian aid (Biden, 2022). Biden has kept his promise, and the U.S. are currently the largest supporter of Ukraine in all three categories (IfW, 2022). His administration also repeatedly affirmed that it would support Ukraine 'for as long as it takes, so Russia cannot in fact defeat Ukraine and move beyond Ukraine' (Erlanger et al., 2022). In addition to providing direct aid, the U.S. played a pivotal role in organizing and rallying international opposition to Russia. His administration early on concentrated on uniting international allies to impose economic sanctions on the Russian regime. Moreover, the U.S. has revived its leadership position within NATO and united the alliance to set a military deterrence against Russia.

Besides the raging conflict with Russia, the looming conflict with China is also growing. What started as an economic conflict that manifested itself in a trade war is increasingly developing into a geopolitical conflict. President Trump confronted China as early as the 2016 election campaign throughout his tenure about its unfair conduct on competition and trade issues (BBC, 2016; Trump White House, 2020). He started a trade war and imposed historically high tariff rates that hurt the economy and resulted in an estimated peak loss of 245,000 U.S. jobs (Oxford Economics, 2021). In early 2020, Trump signed a trade agreement with China that promised some progress in sectors such as agriculture imports from the U.S., access of U.S. financial services providers to China and intellectual property protection in China but did not address issues such as dumping or data and cybersecurity. The effect of the agreement on the U.S. trade deficit was negligible (Oxford Economics, 2021).

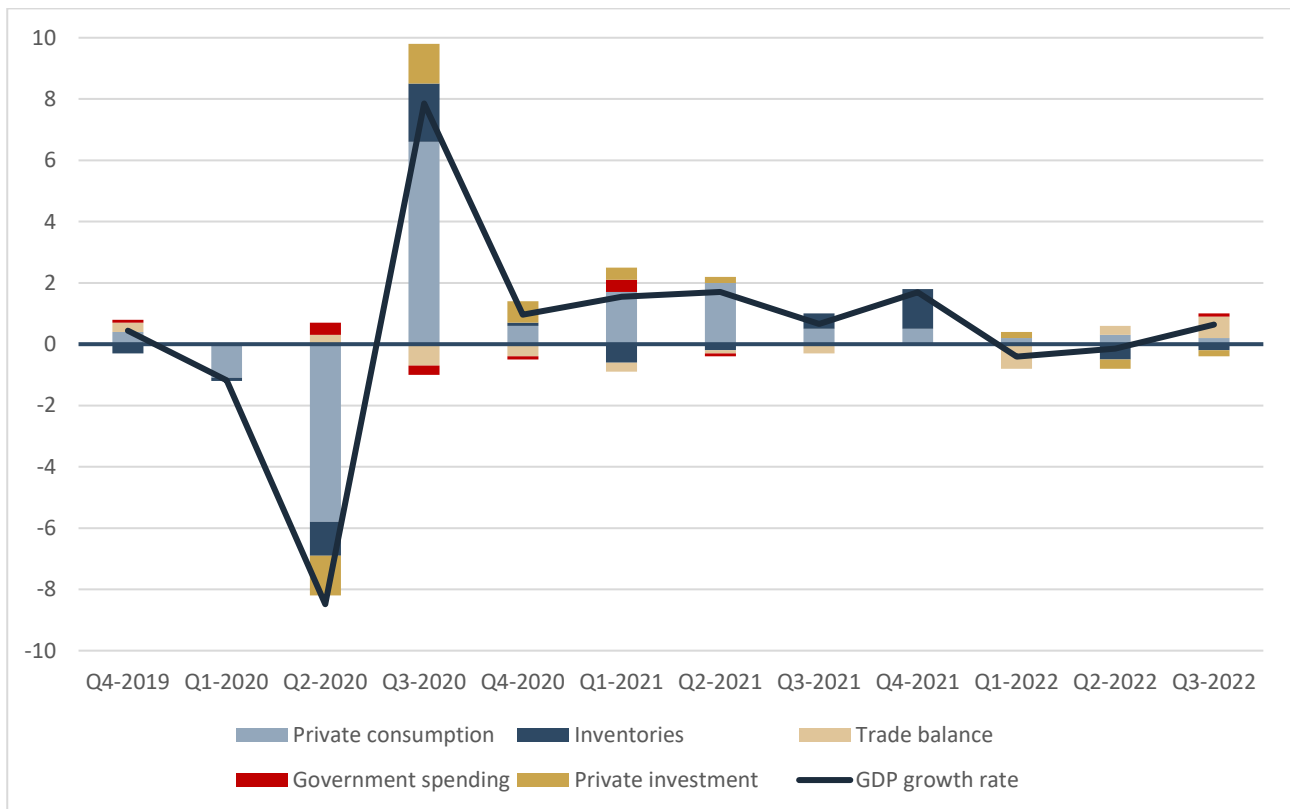
Under Biden, the tonality of the conflict has changed, but the scope and gravity have gotten worse. The economic tug of war continues, with no end in sight. Tariffs imposed under the Trump administration have been kept in place and new trade restrictions such as export controls and import bans have been implemented (China Briefing, 2022). Moreover, Democrats and Republicans passed the CSA along bipartisan lines to keep up with China on key technologies and to preserve the U.S. lead in high-end semiconductors. Further steps of decoupling to become less dependent on Chinese products are under negotiation (Bateman, 2022). In addition to the economic war, the U.S. and China are increasingly clashing on political and ideological issues. Biden accused China of committing genocide by oppressing and abusing Uighur Muslims in Xinjiang (Ponciano, 2022). The Russian invasion of Ukraine further aggravated the relations between the U.S. and China. The Biden administration repeatedly urged China to condemn Russia's attack on its neighbor and warned President Xi Jinping not to sides with Putin by him militarily or violating sanctions (Mueller, 2022). It also feared that China might take Russia's invasion as a blueprint for a military repatriation of Taiwan. In August 2022, House Speaker Nancy Pelosi made a symbolic and strategic visit to Taiwan to highlight the U.S. support for the country (Lee and Hulme, 2022). Her visit was heavily criticized by Chinese officials as an attempt to undermine the One China policy (Gang, 2022) even though former House Speakers had also visited Taiwan in the past. In September 2022, Biden renewed the support of his administration in the event of an invasion and promised U.S. troops to defend Taiwan (Mao, 2022). Both the Russian invasion and the conflict with China are unlikely to be resolved anytime soon and will continue to dictate the U.S. foreign policy agenda.

2.2 Economic Situation and Outlook

Following the outbreak of the pandemic, U.S. real GDP declined by 3.4 percent in 2020, but rebounded strongly by 5.7 percent in 2021 (BEA, 2022). The strong economic rebound in 2021 presented one of the strongest country performances among the advanced economies (Obst and Schläger, 2022). Figure 1 shows quarterly growth and includes growth contributions from different spending aggregates. It illustrates that in the first and second quarter of 2020 private consumption declined significantly due to mobility restrictions and voluntary restraint by households. GDP growth collapsed by more than 8 percent from Q1 to Q2 of which almost six percentage points were caused by an exceptional fall in private consumption. A slump in private and government spending also contributed to the negative growth rate whereas government spending and the trade balance still added slightly to economic growth. However, private consumption strongly rebounded in the third quarter of 2020 and sustained economic growth in the following quarters. Together with private investment and companies stacking up inventory stock this helped the U.S. economy in Q3 2020.

Figure 2-1: GDP growth performance in the U.S. during the pandemic

Real GDP growth rate, growth contributions of different spending aggregates in percentage points



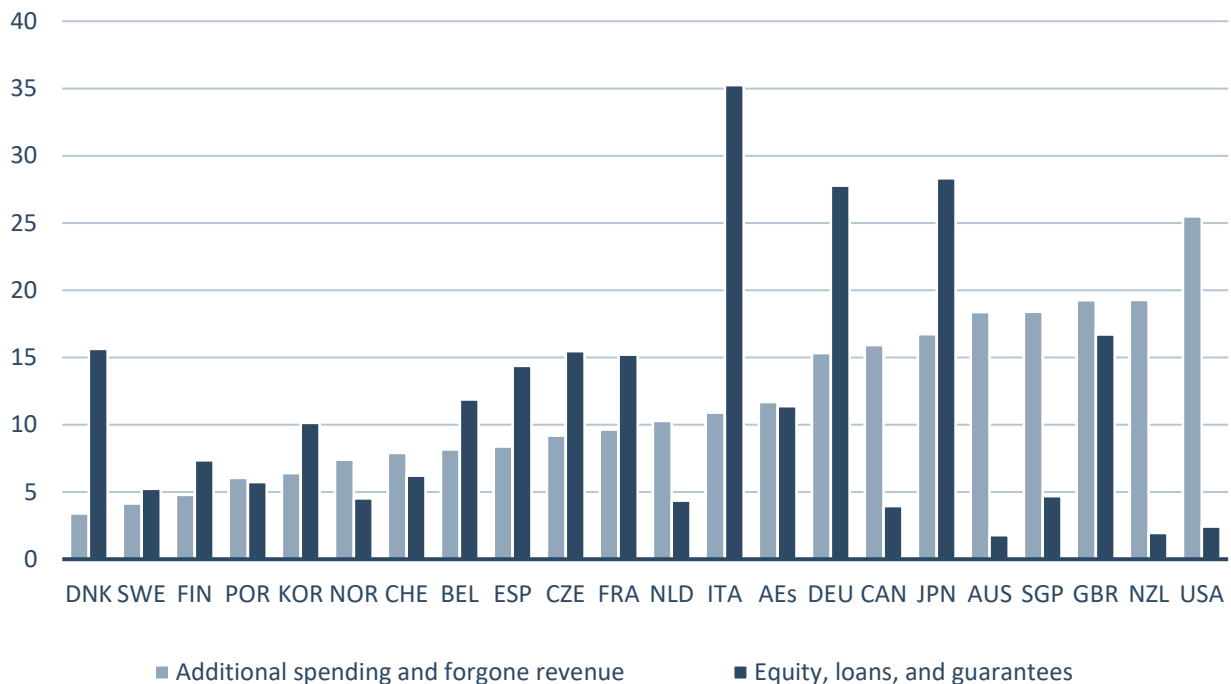
Source: OECD (2022a)

In fact, the U.S. economy was one of the first economies worldwide to reach its pre-crisis level of GDP in the second quarter of 2021. While private demand was strongly supported by expansionary fiscal policies, e.g., through giving out paychecks to households, government spending also supported economic growth in the second half of 2020 and beginning of 2021. Given the comprehensive fiscal stimulus by the U.S. government, household incomes increased by 5.5 percent between the fourth quarter in 2019 and the end of 2021 (Obst and Schläger, 2022). After strong economic growth in 2021 the U.S. economy went into a technical recession (a negative GDP growth rate for two consecutive quarters) in the first half of 2022 with quarterly GDP growth of -0.4 percent in the first quarter of 2022 and -0.15 percent in the second quarter of 2022, indicating the

post-Corona consumption boom had ended, and that restrictive monetary policy to fight inflation was weighing on private demand and investment. However, growth turned positive in Q3 2022 again, being strongly supported by a positive trade balance and slightly by government spending. We expect that despite news of an impending recession positive growth rates are likely to continue, admittedly on a slower pace, but as we will show below there are still a lot of signals of positive growth in the next quarters.

Figure 2-2: Budgetary fiscal support to people and firms across countries

Fiscal measures in response to the Covid pandemic



Source: IMF (2021)

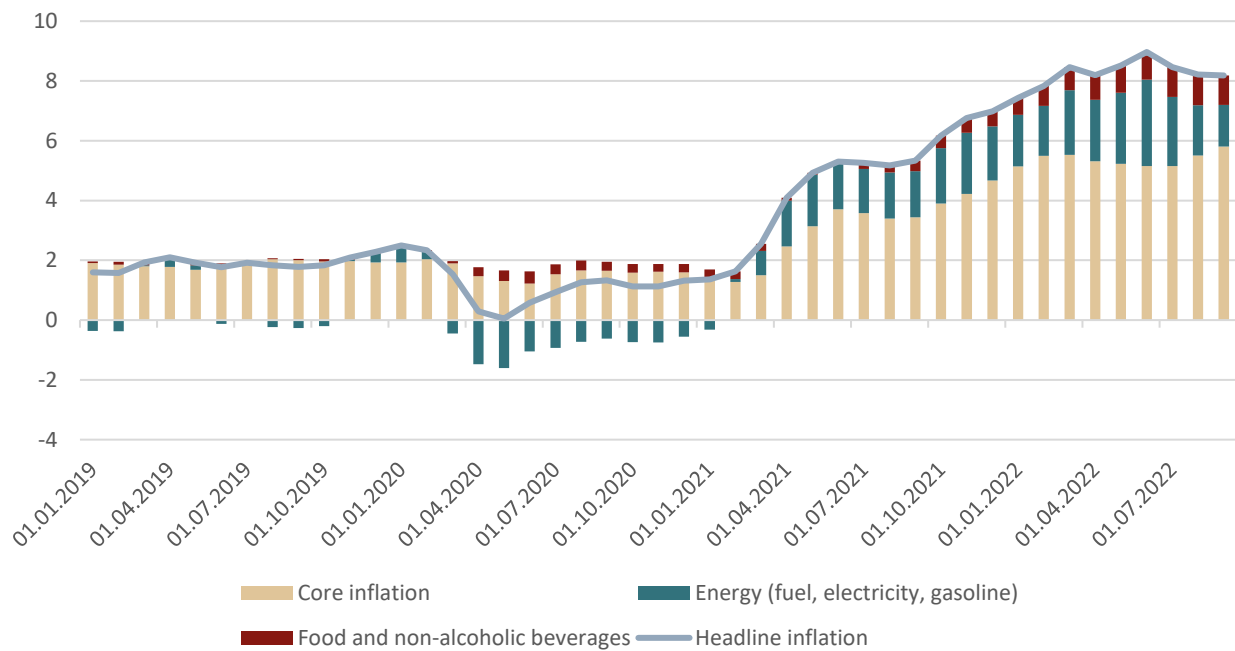
In international comparison the U.S. administration initiated one of the most comprehensive fiscal responses to the adverse effects of the pandemic (Figure 2-2). According to IMF statistics (2021) the discretionary fiscal policy response to the Covid crisis comprised more than 25 percent of U.S. GDP. This includes additional spending and foregone revenues and is about 5 percentage points higher than in the United Kingdom or New Zealand (in relation to national GDP), both of which also spent a substantial amount to stabilize the economy, more than 10 percentage points higher than in Germany or Canada, or more than 20 percentage points higher than the equivalent response in the Nordic countries. It is striking that the Covid response led to direct spending rather than providing equity support or loans and guarantees such as in Italy, Japan, or Germany. One of the reasons for this could be that countries like Italy or Germany already have a more comprehensive social safety net and made extensive use of short time work schemes to support the labor market. Moreover, monetary policy in the U.S. was very accommodative and helped to finance the \$5 trillion impetus (CFRB, 2022a) for the American economy (Cochrane, 2022). Overall, the U.S. government was a lot more aggressive than others in stimulating the economy during the Covid pandemic.

While expansionary fiscal policy prevented a stronger economic slump in 2020 and supported the economic recovery in 2021 through stimulating private demand substantially, it contributed significantly to the

immense rise of the inflation in the U.S. (Figure 2-3). Inflation had remained at a moderate level of 2 percent in 2019, and after a pandemic-related dip in 2020 started to increase rapidly from 1.4 percent to nearly 7 percent during 2021. In 2022, inflation continued to rise and is currently (September 2022) at 8.2 percent.

Figure 2-3: Drivers of U.S. inflation rates

Growth contributions U.S. consumer price index, 01/2019 until 09/2022



Source: OECD (2022b)

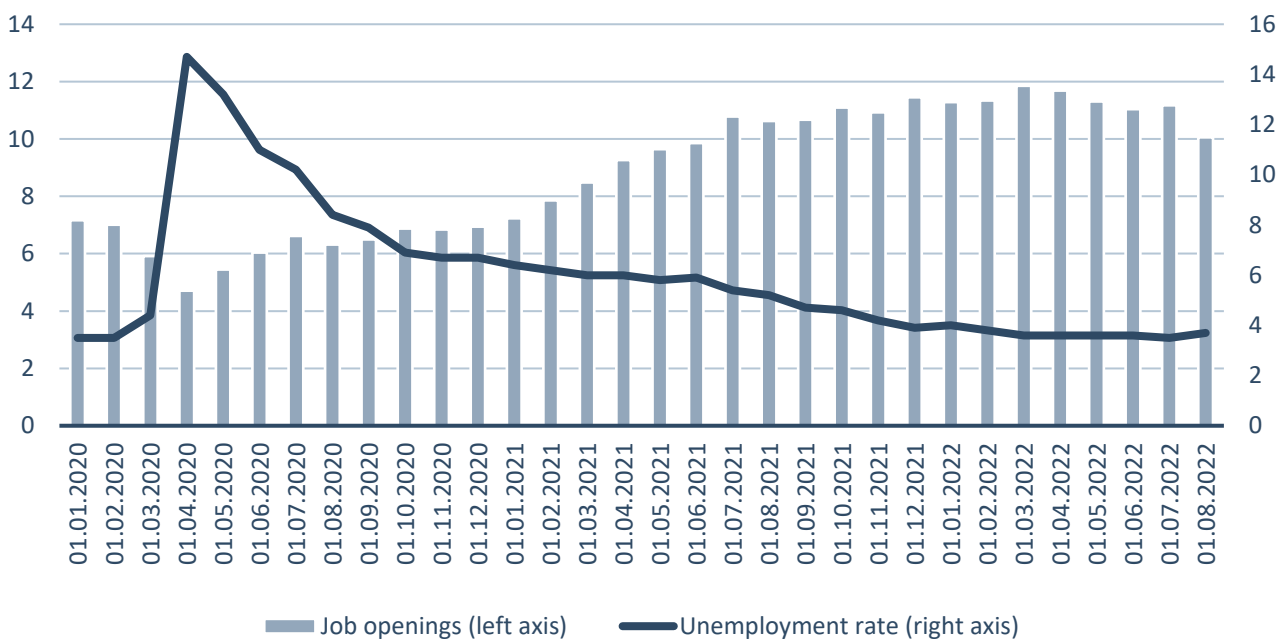
As a result of booming private consumption, inflation was mostly driven by core inflation. Into the category of core inflation fall medical care services, transportation services etc. An important item with an overall share of 3.4 percent in the consumer price index is for instance used cars (DeSilver, 2022). Between December 2020 and December 2021, prices for used cars and trucks increased by more than 37 percent. Due to supply-side disruptions, the production of new vehicles came to a halt, hence increasing demand for used automobiles substantially. The more volatile components of – mainly energy but also food and non-alcoholic beverages – also contributed to higher inflation, but in contrast to Germany, for example, the bulk of the inflation increase came from core inflation. While Figure 2-3 shows that both, energy items such as fuel and electricity as well as core inflation items drive inflation, it is a striking feature of the U.S. economy that core inflation has contributed so strongly to the consumer price index, with values well above 5 percentage points over this year. The contribution of core inflation had already more than tripled from 1.4 percent at the beginning of 2021 to 4.7 percent at the end of 2021. It further increased this year, now contributing 5.8 percentage points to an inflation rate of 8.2 percent in September 2022.

More evidence points to the relevance of the fiscal stimulus for the rise in inflation. An interesting assessment of the U.S. inflation trajectory by Cochrane (2022) is based on two different macroeconomic models. He essentially argues that expansionary monetary and fiscal policy have been a key contributor to inflation in the U.S. Accordingly, pandemic-related fiscal spending has led to an overheating of the U.S. economy and thus directly caused the current inflation dilemma. Thus, the current problems are home-made and have primarily

to do with expansionary fiscal policy rather than supply chain disruptions or rising energy costs. Besides, Cochrane asserts that monetary policy is increasingly falling into the trap of fiscal dominance, as the government and the central bank may be tempted to accept higher inflation to reduce the debt burden. However, the Fed has tightened monetary policy swiftly and strongly and is likely to continue to do so. Even though monetary policy can only indirectly influence exogenous energy price shocks and the U.S. government can do little to determine oil prices in the world market, voters are likely to consider fuel prices and other related living cost increases when they go to the ballot box. Stricter monetary policy could lead to a recession. Yet, the U.S. economy has so far been protected by a strong labor market performance. After a peak of the unemployment rate at roughly 15 percent in April 2020 it continuously declined to below 7 percent by the end of 2020. During 2021, the U.S. economy rebound led to a reduction in the unemployment rate to below 4 percent. In August 2022 it stands at 3.7 percent. Another indicator of a strong labor market are job openings. These increased from around seven million at the end of 2020 up to almost 12 million at the peak in March 2022, but currently subsiding somewhat to around 10 million vacancies.

Figure 2-4: Robust labor market in the U.S.

Unemployment rate (16 years and over, percent) and job openings (worker flows, millions, nonfarm)



Source: U.S. Bureau of Labor Statistics (2022)

The most current data on the U.S. labor market indicates that the unemployment rate has fallen even further to 3.5 percent in September 2022 and hence increasing the prospects for another Fed rate hike in November and December this year. Overall, Biden can look back on a strong labor market performance since his inauguration as president. The unemployment rate fell by about three percentage points between January 2021 and August 2022. While the degree of labor utilization is increasing the employment rate still lies roughly one percentage point below the pre-corona-level of 63 percent.

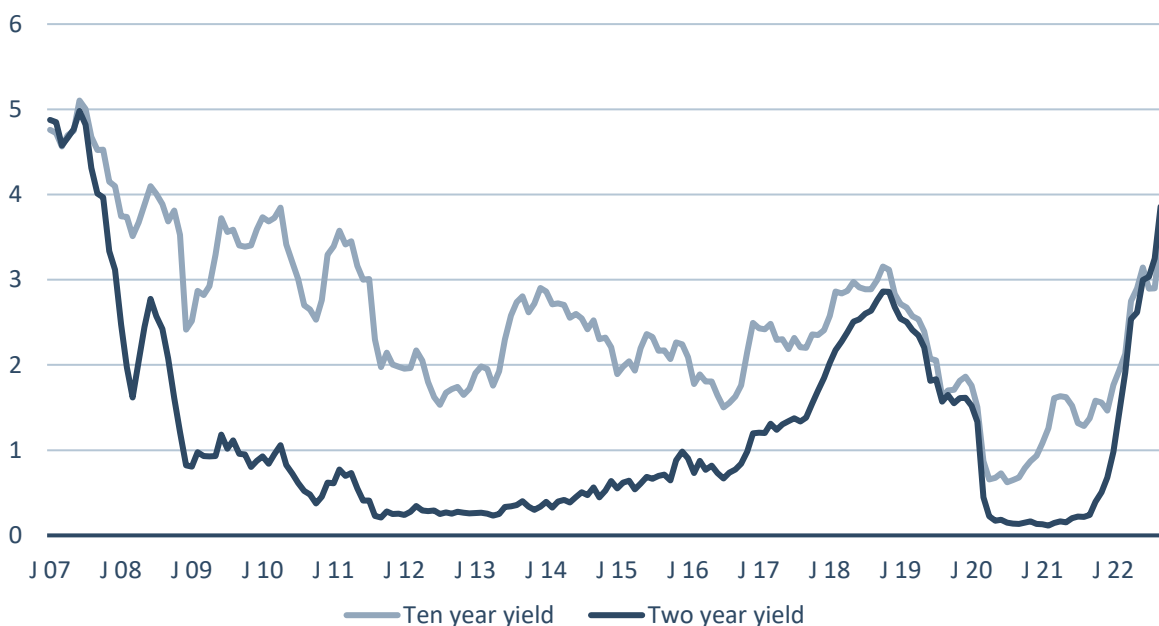
The U.S. was in a technical recession in the first half of the year. At the same time, the U.S. economy is still sending mixed signals. While the volatile component of stock inventories as well as a deterioration in the

trade balance have negatively contributed to GDP growth in the first quarter of 2022, private consumption and government spending continue to support the economy (see Figure 2-1 above). Also, a robust performance of the trade balance has led to a rebound in economic growth in Q3 2022.

However, bond markets are also giving a warning signal regarding the growth prospects of the U.S. economy. Figure 2-5 shows an inverted yield curve for U.S. treasuries, e.g., when long-term interest rates on ten-year bonds drop below short-term rates. In other words, the two-year and ten-year yields first moved closer together, and in autumn 2022 the two-year yield for the first time since the global financial crisis was higher than the ten-year yield. In September 2022, the two-year yield on American bonds is close to 3.9 percent, while the ten-year yield is 3.5 percent. In the past, this has been a reliable indicator of an upcoming economic recession in U.S. history, such as in the early 2000s when the dotcom bubble burst. Usually, a recession occurred within a year after the inversion of the two different bond yield curves. Whether this will be the case again, remains to be seen.

Figure 2-5: Inverse government bond yield curve

Government benchmarks yield, average of period, monthly, 01/2007 until 09/2022



Source: U.S. Department of Treasury (2022)

In summary, President Biden faces an economy with various challenges ahead of the mid-term elections. The major issue is inflation which is visible everywhere and directly threatens household incomes. U.S. citizens are having to pay more at the gas station, at the grocery store, for rent, or to finance their mortgage. The vast fiscal programs may have helped to overcome the pandemic-related recession and helped to spur strong job growth in the labor market. Nevertheless, it came at the price of higher government debt and increased inflationary pressures. As a result, the Fed has been forced to take a hawkish stance with its goal to bring inflation rate back down to its 2 percent target. The housing market and consumer spending have already shown signs of slowing, but the labor market remains strong. Stock market performance remains subdued amidst substantial interest rate increases. The question is whether we will see a hard landing of the U.S.

economy going into a real recession or whether inflationary pressures will ease and contribute to normalize the situation. There is usually a lag between larger shifts in monetary policy and their impact on real economic activity; so recent rate rises will have an impact on the American economy in the coming quarters. Hence, the impact of this prospect on the midterm elections may be muted. To steer beliefs in this direction, Joe Biden recently mentioned that he does not believe there will be a recession or at most a mild one (Politi, 2022). According to the most recent IMF economic forecast (2022) the U.S. will still grow 1.6 percent this year 1 percent next year.

3 Biden's Economic Agenda

Biden's economic agenda, sometimes referred to as Bidenomics, played a vital role in the 2020 election campaign. At the beginning of his presidential candidacy, Biden positioned himself mainly as a more moderate alternative to controversial then-President Trump. Fellow politicians, however, encouraged Biden to shift the focus of his campaign to presenting his economic ambitions (Cassidy, 2020). Joe Biden first presented his "Build Back Better" agenda in July 2020 at one of his campaign speeches in Pennsylvania. The agenda was established as Biden's alternative to President Donald Trump's "America First" plan. Biden purposefully contrasted his agenda with Trump's economic strategy. In his opinion, Trump's strategy was mainly designed to serve the interests of big corporations and the financial markets, rather than the interests of middle-class working families (Biden, 2020). To support workers and the middle class, Biden promised financial relief for communities, small businesses and families, investments in manufacturing and research and development to tackle climate change and to rebuild critical industries, as well as the establishment of a "Buy American" program to support and protect domestic industries. The agenda was announced to be funded by raising taxes on big corporations which previously received relief under the Trump-administration (Khalid and Sprunt, 2020). Nevertheless, the Biden administration has added roughly \$5 trillion to the U.S. deficit from 2021 to 2031, according to the Committee for a Responsible Federal Budget (CRFB, 2022a).

Biden's economic agenda manifested itself in five central pieces of legislation:

- the American Rescue Plan to deal with the effects of the Corona pandemic,
- the Infrastructure Investment and Jobs Act to strengthen the economic base of the U.S.,
- the Build Back Better Act which culminated in the Inflation Reduction Act to tackle climate change and strengthen social security,
- the CHIPS and Science Act to gain leverage in international competition, and
- the Buy American regulations to protect domestic industries.

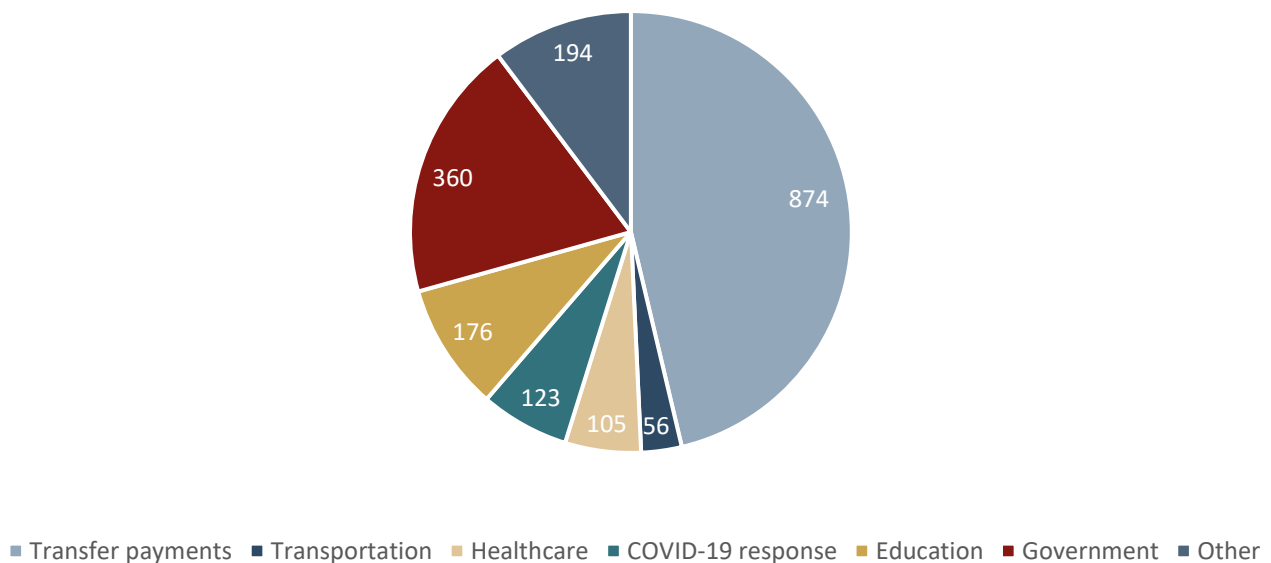
The economic ambitions Biden promoted during his election campaign foresaw huge investments, e.g., in childcare and education, healthcare, social security, climate change abatement, innovation support and infrastructure, with a total estimated price tag of around \$10 trillion. With some of the investment offset by increasing tax revenues, his ambitions would still have added around \$5.6 trillion to the U.S. deficit (CRFB, 2020). Unsurprisingly, however, the resulting legislation proposals have been scaled down in the face of such

extraordinary ambition, and further revised through the political process. We will discuss each fiscal proposal and highlight adjustments and amendments in the legislative process in the context of the political debate.

Immediately after his inauguration in January 2021, Biden proposed the ARP and signed it into law. The ARP was a \$1.9 trillion package that followed President Trump's CARES Act. It was mainly aimed at tackling the economic recession due to the coronavirus pandemic. However, compared to Europe, the bill also compensated to a large degree for the lack of social security in the U.S. Hence, it included extensive social transfers to households in the form of stimulus cheques, tax credits, unemployment aid as well as payments to small businesses. These transfer payments made up the bulk of the ARP with \$874 million. The package also included substantial funding for state and local authorities to cope with the social and economic consequences of the pandemic. Furthermore, the package funded the federal Covid response by investing into testing and vaccination capacities to contain the pandemic, it subsidized parts of the healthcare system and supported the educational sector by providing means for schools and universities to reopen and operate safely. Figure 3-1 gives an overview of the relative share of various spending categories.

Figure 3-1: American Rescue Plan

\$1.9 trillion



Source: McCarthy (2021)

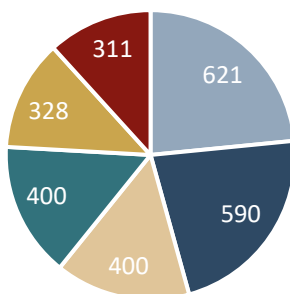
Hence, the ARP induced significant consumer spending and aimed to stabilize household incomes in the economy. It stimulated the U.S. economy quite substantially but was mostly short-term as we will show in Section 4. It caused inflation to rise substantially. However, one of the main reasons for this detrimental effect was the lack of a welfare system in the U.S. which prevented Covid-related income support via transfer payments from being targeted and channeled to those in need. Instead, broad based income support was handed out which proved overly generous in comparison to the presumed fall in incomes and consumptions which was expected to be affected by the impact of the Covid crisis.

The two following proposed fiscal packages were substantially changed in the political process. First, in March 2021, President Biden announced the \$2.65 trillion **American Jobs Plan** (AJP) as a first part of his strategic Build Back Better Agenda. The AJP intended to modernize aging U.S. infrastructure and push forward the country's green transformation while stimulating economic activity and creating new jobs. In contrast to the ARP, the measures were supposed to be funded by raising corporate taxes (Wehrman and Lesniewski, 2021). Subsequently, the AJP package was reduced to \$1.2 trillion and signed into law in November 2021 under the new label Infrastructure Investment and Jobs Act which was passed with bipartisan support. The support from Republicans is related to the Trump administration's intention to also to improve ailing U.S. infrastructure by implementing a public investment package, which never materialized.

The IJA focused the planned spending objectives on infrastructure needs (Figure 3-2) by providing \$550 billion above-baseline funds to restore the ailing transportation infrastructure such as roads, bridges, ports, and airports, to modernize electric and water grid networks as well as to expand the broadband network. Even though the new spending comprises only \$550 billion, the IJA is a quite comprehensive infrastructure program. However, the funds are distributed over ten years and are partly offset by tax increases and spending cuts in other areas. While this helps to reduce downward pressure on prices it indicates that possible growth effects on an annual basis will be limited (Section 4).

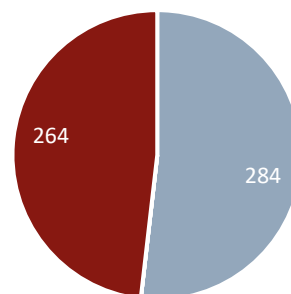
Figure 3-2: American Jobs Plan and Infrastructure Investment and Jobs Act

American Jobs Plan
\$2.65 trillion



- Transportation infrastructure
- Healthcare
- Housing

Infrastructure Investment and Jobs Act
\$548 billion



- Manufacturing and R&D investments
- Clean energy tax credits
- Broadband and other infrastructure

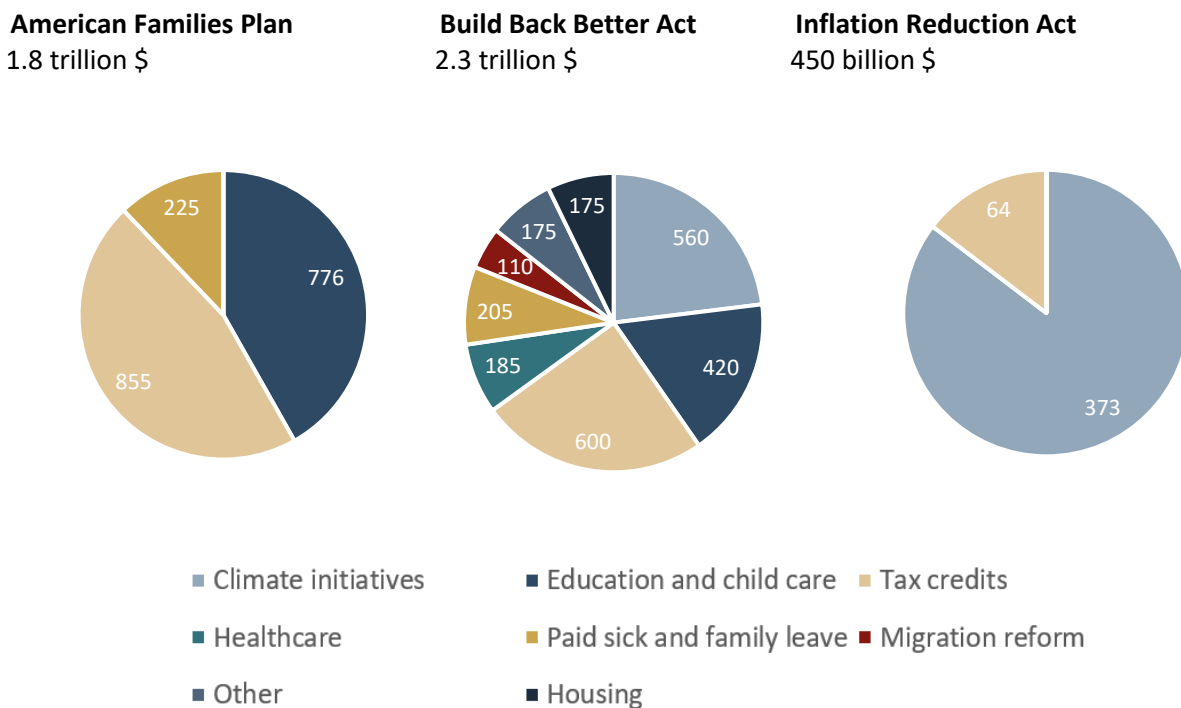
Sources: CRFB (2022b; 2022c)

Second, the **American Families Plan** (AFP) was introduced shortly after the AJP as another part of the Build Back Better agenda. The AFP included government spending of \$1.8 trillion in the social security and particularly the health care system to improve family conditions. Proposed measures included state pre-kindergarten and two-year tuition-free community college, affordable child and health care, extended child tax credits as well as paid family and sick leave for workers. The bill was supposed to be paid for by tax increases on the wealthy as well as by revenues from better tax compliance, called IRS enforcement (Lerman, 2021). The AFP aimed at strengthening the relatively scarce social security net of the U.S. with measures common

to Germany and many countries in Western and Northern Europe. However, it was harshly criticized by Republicans as an attempt to introduce socialist principles into the American society and as a threat to post-pandemic economic recovery (Committee on Ways and Means, 2021). Hence, the Democrats did not pursue the AFP any further.

Most of the planned measures, however, were included in the Budget Reconciliation Bill passed by House Democrats in August 2021. The bill took up the AFP's planned \$1.8 trillion investment, enhanced it to include extended coverage of health insurance programs Medicare and Medicaid and added investments in green technologies and infrastructure (Salam, 2021). The resulting price tag of the reconciliation bill was historically high with \$3.5 trillion (Senate Democrats, 2021) and not only alarmed Republicans, but also provoked opposition from conservative Democrats like U.S.-Senator Manchin, who refused to vote for the bill with its intended scope. Manchin feared the package would further fuel inflation and used his voting power in the Senate to push through substantial cuts. Subsequently, the proposed Build Back Better Act reduced the scope of government spending to \$2.3 trillion while keeping all (reduced) elements of the initially planned bill. Manchin again expressed concerns about inflation and rejected the proposal, after which he declared the BBB dead in February 2022 (Foran et al., 2022).

Figure 3-3: American Families Plan, Build Back Better Act and Inflation Reduction Act



Sources: CRFB (2022d), CRFB (2022e), Senate Democrats (2022)

In August of 2022, an agreement was finally reached, and the IRA was signed. In reaction to Manchin's criticism, the IRA includes spendings of only \$450 billion over ten years with a bulk going to climate initiatives such as tax credits for manufacturing of solar panels, batteries and other clean technologies, and clean energy and electric vehicle tax credits. It also provides means for the extension of the Affordable Care Act (ACA) known as Obamacare (see Figure 3-3). To reduce the deficit and to tame inflation, the IRA intends to more

than offset its costs by imposing a 15 percent minimum tax on corporations with annual profits over \$1 billion and by funding to the IRS for better enforcement of tax compliance. IRS funding has been attacked by Republicans who pointed out that about 87,000 IRS agents are on the lookout for everyday Americans to make them pay for programs such as the planned student loan forgiveness program (Ewall-Wice, 2022). The overall growth effects of the IRA seem limited. In a previous study (vbw, 2022), we estimated that a \$1.2 billion increase in government spending from a then potential BBB Act lite program discussed in April 2022 would have slightly stimulated the U.S. economy but also increased inflationary pressures (Section 4). It is unlikely that the IRA significantly reduces inflation in the current environment. However, it will also not add further upward pressure on prices.

Also in late summer 2022, Biden signed into law the \$280 billion CSA Act, which is intended to strengthen domestic semiconductor manufacturing and promote research and development of advanced technologies. Even though the bill circulated for months between the Senate and the House of Representatives under different names, it was only slightly revised and finally passed with bipartisan support. The bill, which at first glance while appears to have only economic intentions, is more geopolitical in nature and aims to reduce dependence on China in critical industries, increase supply chain resilience and secure the U.S. position as global leader in science and technology. The CHIPS Act included investments of around \$50 billion into the semiconductor industry to crowd-in further private sector investments. The remaining funds will be used mainly for research and development of key technologies and programs such as workforce training in Science Technology Engineering Mathematics (STEM) disciplines (Badlam et al., 2022). The Buy American program is a set of trade policies and provisions that are intended to support and promote domestic industry and is linked to Trump's America First strategy. During his election campaign, Biden introduced "Buy American" as an investment program for research and development and next-generation technology manufacturing, and as reform of government procurement guidelines to implement preferential treatment for American goods and services (Khalid and Sprunt, 2020). The announced investment program was not further pursued. Biden has, however, tightened the guidelines for federal procurements during his term (for a detailed analysis also regarding the impact on Germany see vbw (2022)). Numerous domestic content requirements are also incorporated in the IIJA and in the climate initiatives of the IRA, e.g., in the EV tax credits or in the incentives for clean energy investments (Bond and Picone, 2022).

More than a year and a half after Biden's inauguration in January 2021 and his subsequent declaration "to change the paradigm", four major pieces of economic legislation have been passed: the \$1.9 trillion ARP, the \$1.2 trillion IIJA, the \$450 billion IRA, and the CSA. Even though some of the original spending plans have been substantially cut, a total of around \$3.8 trillion has passed legislation process.

4 Economic Impact of Fiscal Packages

The Biden administration has initiated the above explained comprehensive fiscal programs to tackle the adverse economic and social effects of the pandemic outbreak, but also to strengthen the production capacities of the U.S. economy and thus increase competitiveness and production potential in the medium term. In this section we briefly provide information on the likely economic impact of the individual programs on the U.S. economy and, where available, on Germany (for a brief analysis of current trade relations to the U.S. see Matthes (2022)). Regarding the following explanations, it has to be born in mind that estimates of the total amount of these programs vary depending on the source applied. Reliable, but slightly varying figures can be

obtained on the pages of the U.S. government, the Committee for a Responsible Federal Budget (CFRB) and the Congressional Budget Office (CBO) which employ as our main data source.

4.1 American Rescue Plan

The ARP was the most comprehensive fiscal package Biden initiated to deal with economic downturn resulting from the pandemic. It was forged at the height of the pandemic and received widespread public support (Pelosi, 2021). First announced shortly after Biden's inauguration in January 2021, the law was signed as early as March. The broad public support was, however, not mirrored in Congress. The ARP was passed only narrowly along partisan lines in both chambers (Congress, 2022a).

We have simulated the economic effects in previous studies employing the global macro model of Oxford Economics (vbw, 2022, see also for details on the model and simulation). According to the conducted model simulations, the ARP led to a significant increase in real GDP by 6.8 percent in 2021 and again by about 1 percent in 2022 compared to the baseline scenario without ARP. As the fiscal package stabilizes household incomes, there is a significant increase in real private consumption expenditure of about 6.4 percent in 2021 (0.5 percent in 2022). Real private investment expenditure is even 13 percent higher in 2021 (2.9 percent in 2022). Real total investment (government and private) increases by a similar amount. The results seem plausible given the enormous size of the ARP. Real GDP in the U.S. increased by 5.7 percent in 2021. Without the ARP, the American economy would likely have contracted due to the Corona crisis. Another factor contributing to the large effects of the ARP was that the Fed left the key interest rate untouched in 2021, despite significantly higher inflation, thus keeping it at the zero-interest rate floor. This meant that there were no significant crowding-out effects on private investment activity in the short term. Financing conditions were still quite relaxed. The significant positive impulse in private consumption expenditure seems reasonable, as the ARP was strongly consumption oriented. Moreover, important parts of the program – one-off payments (paychecks), unemployment benefits and tax relief for low-income earners and families – mainly benefited low-income households, which tend to spend their income (and save less), i.e., have a higher propensity to consume than wealthy households.

By comparison, other fiscal policy studies have found that the ARP would boost economic activity by about 4 percent in 2021 and by another 2 percent in 2022 (Edelberg and Sheiner, 2021). However, this study also found that the positive output gap would put upward pressure on prices, which, at the beginning of 2021, was still welcome by the Fed. It provided the needed relief to help households and businesses to weather the pandemic. Nevertheless, the ARP is a short-term spending program with over 55 percent of its expenditures (\$925 billion) in 2021 (vbw, 2022), that increased aggregate demand substantially. 97 percent of the program will be spent until end of 2023. Together with loose monetary policy in 2021 this put substantial upward pressure on prices, as illustrated before. In fact, one unique feature of the U.S. compared to most European countries is the large inflation contribution coming from core inflation (see Figure 2-3). Further price pressures may have come from a reduction in potential output due to pandemic-related scaring effects in the economy (CBO, 2020; Betz, 2022). For instance, the Corona pandemic had large short-term effects on total factor productivity. Summers (2021) had argued that inflation was a likely side effect of the program. In an empirical study Ball et al. (2022) find that monthly core inflation in September 2022 would have been 4.2 percentage points lower without the ARP. On an annual basis, the difference would 1.9 percentage points.

However, the stimulus package also had large leakage effects via the import channel. In our simulations (vbw, 2022) we found that in addition to the clearly positive effects on private consumption and investment spending, real U.S. imports would also rise by around 12 percent in 2021 and by another 8.5 percent in 2022. This also gives a considerable boost to the global economy. As a result, the ARP increases German real GDP by 1.4 percent in 2021 (1.1 percent in 2022) compared to the baseline scenario – mainly because German exports increase significantly. Indeed, exports from Germany to the U.S. have increased strongly, making the country the most important customer of German products. In August, exports to the U.S. already surpassed the \$100 billion mark, which is unusually early in a year (Handelsblatt, 2022). The stimulus package simulations have also shown a substantial increase in employment of more than two million jobs in 2021 and another 178,000 in 2022, confirming the observed development in the U.S. labor market.

4.2 Infrastructure Investment and Jobs Act

After months of negotiations, the U.S. Congress passed a \$1.2 trillion infrastructure program, the Bipartisan Infrastructure Investment and Jobs Act, in November 2021. The Senate had already approved the package in early August 2021 in a bipartisan vote of 69 to 30. The bipartisan, major infrastructure investment program includes about \$550 billion in new investments over the next ten years to modernize the country's infrastructure and improve its economic outlook. Some of the money comes from funds that were already budgeted in advance, e.g., from unused Corona aid spending and unemployment benefits which were rejected by some states. However, it remained unclear for a long time whether the Biden administration would manage to pass the new package. There were various disagreements among Democrats. The left wing of the Democratic Party wanted a guarantee that the second planned trillion-dollar climate and social package, the Build Back Better Act, would be signed (see Section 4.3), while some moderate Democrats resisted this second package. With this blockade, the left-wing Democrats wanted to put pressure on them to push through what they considered as the more important bigger package. Although six Democratic House Members voted against the IJIA, the Democrats in the House of Representatives, with the support of several Republicans, were still able to get a majority for the infrastructure package. This made the package the first bipartisan package of the past year in a 228-206 vote.

The money is assigned for various infrastructure projects: Expansion of ports, airports, roads, bridges, etc. In addition to transport infrastructure, various climate projects and better broadband infrastructure are also to be financed through these funds (see Section 3). The actual new investments amount to \$550 billion, the remaining \$650 billion are investment funds already budgeted in the national budget, i.e., they are not additional investments. The larger amount of \$1.2 trillion is often referred to because it represents one of the core domestic policy projects of Biden's term in office. Bipartisan support also came about because the U.S. transport and electricity infrastructure needs repair and maintenance. Dilapidated bridges, potholes and an energy grid that is prone to breakdowns are just some of the problems. Hence, the IJIA program will invest \$109 billion in transport infrastructure, \$66 billion in rail and \$73 billion into the electricity network (Cantwell, 2021; Oxford Economics, 2021?). On top of this, the Biden administration also wants to implement important projects in climate and social policy. Around \$16 billion have been assigned for electric mobility. Grants to the states for broadband expansion are intended to create better access, especially for low-income families.

With regard to the economic impact of the IJIA, reference can again be made to our previous study (vbw, 2022), where several assumptions were relevant for the estimation, the most important of which are: Since ready-to-use investment projects will not be available immediately, it is assumed that the annual expenditure

of the IIJA will increase gradually, reach a maximum in the mid-2020s and then decrease again. Thus, more than half of the expenditure is estimated between 2024 and 2027. Based on the experience that fiscal program funds are usually only drawn down by 80 percent, only 440 billion of the 550 billion in government spending are effectively used in the simulation of the economic effects in the Oxford Economics Model (OEM), which are distributed to the central, regional, and local levels as in the ARP. Based on the estimates of Oxford Economics and Cantwell (2021), planned government spending is divided into about 70 percent public investment spending and about 30 percent government consumption spending. Our simulation also takes into account that the IIJA is not to be fully financed, but only limited spending cuts and tax increases are applied, so that the budget deficit increases significantly. In addition, the public capital stock is increased through investments in physical and digital infrastructure. This significantly strengthens the supply side and potential growth of the U.S. economy in the medium and long term. For this reason, the IIJA demand stimulus is expected to have only a limited inflationary effect in the medium term.

Based on these assumptions, the total effects on the American economy over the next ten years were simulated with the OEM (vbw, 2022). The IIJA fiscal package has a positive impact on the U.S. economy over the entire ten-year observation period, but much less than the ARP. The GDP effect of the IIJA is in the range of 0.06 percent to 0.29 percent above the baseline scenario without IIJA in the individual years of the time horizon, with the peak being in 2025. Total investment (public and private) develops dynamically compared to the other demand aggregates, as expected in a public investment program. Real total investment increases by 1.4 percent until its peak in 2025, after which growth declines again compared to the baseline scenario. As government infrastructure spending favors higher business activity, private investment is stimulated much more than private consumption. Private investment expenditure rises to 0.5 percent above the baseline level by 2023, after which the difference to the baseline level decreases again. Private consumption expenditure is only slightly influenced by the IIJA. The program is designed in such a way that it primarily promotes domestic infrastructure construction projects and thus predominantly strengthens the domestic economy. As a result of higher government and private demand, real U.S. imports increase to 1.6 percent (in 2026) above the baseline scenario. However, they then fall back again significantly due to the given expenditure structure.

Overall, it can be said: The IIJA generates positive macroeconomic growth impulses, but these are much smaller than those of the ARP. A range of factors contribute to this. The IIJA has a much smaller volume than the ARP, which are also spread over ten years. For instance, the maximum fiscal stimulus is \$72 billion in 2026. In addition, – unlike the purely deficit-financed ARP – about a quarter of the IIJA is financed by taxpayers' money. Finally, (also unlike the ARP) there are limited crowding-out effects on private demand due to the slight increase in interest rates caused by the IIJA. It is important to note that there could be positive long-term effects of the IIJA. This is because higher overall government and private investment leads to a permanent increase in the capital stock and productivity, thereby also raising the potential output of the U.S. economy, which is almost 0.3 percent higher in 2031 than in the baseline scenario. However, due to the current elevated level of inflation in the U.S., our original assumption that the Fed funds rate would increase only slightly to 1.5 percent in 2024 is no longer valid. The policy rate is currently at 2.5 percent and forecasted to go well above 3 percent by the end of 2022. This means that possible crowding-out effects might be higher than initially expected, so that the IIJA stimulus effect would be somewhat smaller.

The macroeconomic effects in Germany are slightly positive (vbw, 2022). Real GDP effects in the ten-year period under consideration vary between 0.02 percent and just under 0.1 percent above the baseline scenario. The marginal effects seem understandable, as the growth effects in the U.S. are also limited. German

real exports increase the most, peaking at about 0.4 percent above the baseline scenario. This reflects the effect of higher U.S. imports and a slight stimulation of the global economy by the IJJA. The positive export effects only increase over time due to second-round effects in the global economy. However, German exports still grow due to the U.S. fiscal package and are 0.34 percent higher than in the baseline scenario in 2031.

4.3 Build Back Better Act – Inflation Reduction Act

In our previous studies we also estimated the economic effects of an assumed BBB-lite program (vbw, 2022). At the time of writing (April 2022), a so-called BBB Act Lite scheme was the most plausible option on the table. It would have comprised \$1.2 trillion instead of the \$3.5 trillion originally planned for the full BBB Act as there was no support for the program even among Senate Democrats. Like the IJJA, the BBB Act-Lite was designed to last ten years, but unlike the IJJA, it was to be more than fully financed by increased tax revenues. A relevant part of the package was to be investment spending on climate initiatives, accounting for about 40 percent of the total expenditure. The remaining 60 percent would serve the expansion of the social system and thus be considered as government social spending in the macroeconomic model used to assess the effects of the fiscal package.

Based on these and other assumptions, we have found that the magnitude of the economic effects of the proposed BBB-lite law is relatively minor compared to the IJJA, given the long-term nature of the \$1.2 trillion in spending over ten years. It is estimated that U.S. GDP will be between 0.06 percent and 0.3 percent higher at its peak in 2023 than in a baseline scenario without the program. This result can be explained mainly by the tax increases. Even though the policy boosts government and private investment as well as private consumption in the short term, both private spending expenditure aggregates fall below the base scenario, mainly due to higher taxes. The positive impact on government investment drives the overall positive impact on GDP, which rises by 0.28 percent above the baseline scenario in 2023 and remains positive throughout the period. According to our model simulations, the overall effect on inflation would be minor and not as strong as commonly argued by U.S. Senator Manchin (Walters and Helmore, 2022). Nevertheless, due to the economic cycle of the U.S. economy at that time as well as other expansionary fiscal policy packages such as the ARP, the Fed was already concerned about rising inflation rates and started to increase the federal funds rate. This would have led to more crowding-out effects, resulting in a decline in private investment. Strict opposition to the various drafts of Senator Manchin's Build Back Better Act and fear of inflation ultimately led to the Inflation Reduction Act. The IRA cuts all investments in education, health care and social security, which made up the bulk of the BBB drafts, and keeps only funding for climate initiatives and the extension of Obamacare. It also includes offsets to overcompensate for the accost of deficit reduction with the intent to tame inflation. The last version ultimately received Manchin's support and was passed in both Senate and the House of Representatives on a bipartisan basis (Congress, 2022b).

The IRA thus represents the final passage of Biden's flagship economic legislation. The IRA law could lift growth modestly by 0.2 to 0.3 percent by the end of 2031 (Oxford Economics, 2022). Despite its name, however, it will have no measurable impact on inflation. The IRA intends to spend \$430 billion over the next decade to reduce carbon emissions and expand health insurance. More importantly, it aims to raise \$750 billion in revenue, which should lead to a \$320 billion reduction in the deficit. Some of the growth could be offset by higher taxes on wealthy individuals and large corporations through the introduction of an alternative minimum tax rate of 15 percent. However, historical analysis shows that these types of tax changes have only a small negative multiplier on business investment and private consumption. Hence, the negative

economic effects should be moderate. The IRA is likely to benefit mainly sectors dealing with mitigating climate change, e.g., electric car and renewable energy producers.

4.4 CHIPS and Science Act

The CHIPS and Science Act is intended to boost the U.S. technology sector to achieve independence from countries like China in critical industries and maintain the innovation leadership in high-end semiconductor manufacturing. It contains the \$50 billion CHIPS Act, which funds \$50 billion for the semiconductor sector and around \$230 billion for research and development. Along with the IJJA, the bill is the second part of Biden's economic agenda to receive bipartisan support. It was introduced in the Senate as the U.S. Innovation and Competition Act, passed in the House of Representatives as the America COMPETES Act, and finally passed in Congress as the CHIPS and Science Act with large bipartisan support in both chambers (NGA, 2022). According to Oxford Economics (2022) the bill provides \$79 billion for the domestic semiconductor manufacturing sector. This could lead to a 0.2 percent increase in GDP by the end of 2031. On top of this, the envisaged increased spending on general basic research and technical education and training has the potential to improve non-price competitiveness of U.S. firms on a broader basis by enhancing their technological capabilities over the longer term. How far this will be the case in detail is not sufficiently foreseeable at present. However, reshoring supply chains of critical products particularly from China (as well as other domestic content rules to foster U.S. production) will tend to worsen price competitiveness of U.S. companies.

5 Conclusion

Biden started his first term as American president with great ambitions. He not only wanted to purposefully counter Trump's economic and political agenda, but also to unify the country and restore professionalism in political discourse and international relations. He used the two-year window extensively to initiate a comprehensive legislative process that has the potential to transform the U.S. economy in this decade. Indeed, Biden was able to push through and implement central aspects of his economic vision. Crucial investments in infrastructure gained bipartisan support and are manifested in the IJJA. Efforts to modernize the U.S. economy culminated in the IRA and the CSA. All economic policy packages address vital issues such as better physical and digital infrastructure, investment in modern technologies, aid for climate friendly investments, reindustrialization, and modernization. The IRA alone includes climate-related spending of roughly \$400 billion. Biden's extraordinary ambitions were not completely met but in part scaled down somewhat in the political process. Particularly, an envisaged reform of the social security and the health care system, met with resistance not only from Republican but also from Democrats and is currently largely stalled.

One could argue that Biden's economic success is leading to an economic environment that is too strong for its own good. A major problem is the ARP's fiscal stimulus that is still working through the system. The vast expansionary fiscal programs have stimulated the American economy and increased aggregate demand more than supply has been able to keep up. In addition, businesses and households accumulated large savings, leading to excess demand that translated into high inflationary pressures. Moreover, while pent up demand further stimulated the economy lockdowns and a shrinking labor force during 2020 led to a decline in potential output and hence the output gap was narrower than expected. While Trump's stimulus was initiated while the U.S. economy was adversely affected by the Pandemic the ARP came into place when it was already on a path of a healthy economic recovery. Hence, stimulating the economy might prove a pyrrhic victory.

Economic forecasters and policymakers assumed that the price peak would be temporary. However, advanced economies like the U.S. can produce inflation; not only because they are hit by external cost shocks — they can also generate inflation domestically. The Fed cannot ignore the strength of the domestic economy and exuberant demand. With an overheated economy and a very tight labor market, it is sticking to its hawkish stance and likely raises interest rates by at least an additional percentage point by the end of the year. The rate hikes so far have already had a significant impact on the markets. American stocks have fallen for three consecutive quarters. Bond prices are also tumbling. The ratcheting up of interest rates is driving the dollar's appreciation, adding to inflationary pressures elsewhere and impelling other central banks to follow the Fed's lead. Hence, there are risks entailed in further monetary tightening. Whereas many voters may not be primarily concerned with external effects of the U.S., they are certainly feeling the impact of persistently high inflation rates every day and must also deal with an increasingly unbalanced housing market.

However, current economic turmoil overshadows potential structural achievements of Biden's economic agenda. More than its figures on paper show, the IIJA, the IRA and the CSA have the potential to transform the American economy in the coming decade (Meyer, 2022). The IIJA finally addresses the problem of outdated and ailing U.S. infrastructure and lays the foundation for an enhanced future competitiveness of the U.S. economy. Bipartisan support for the IIJA stresses the urgency for this renewal. The IRA is admittedly a much slimmed-down version of Biden's original Build Back Better Act, but it is still a landmark step towards modernizing the U.S. economy and creating significant momentum for the green transition. It sets the economic framework for climate change abatement by incentivizing sustainability mainly with subsidies rather than introducing carbon taxes. Together with the CHIPS and the Science Act, it could accelerate the invention and diffusion of innovative technologies to reduce carbon emissions and to diversify the energy mix in the U.S. economy towards renewable energies. Both packages are not investing vast amounts of money on a yearly basis, as they are planned over a longer time horizon. However, they represent a paradigm shift under Biden's which refuses supply-side top-down economics and emphasizes investment in the middle class (Ward, 2022).

The thread running through Bidenomics is a belief that a more interventionist state can shape economic outcomes. While the ambitions are praiseworthy, they contain risks and uncertainties. First, while some major investments will be taking place in rustbelt states, it is not clear whether the initiated programs can trigger a successful re-industrialization of these deprived economic areas leading to well-paid blue-collar jobs. Second, while the Build Back Better agenda aims to unleash economic growth, invest in modern technologies, and build green industries, it carries a lot of protectionist elements which makes the aims of Bidenomics harder to achieve, as preferences for higher-cost domestic production decrease the competitiveness of firms using those inputs. Moreover, while it might stimulate employment in benefitting industries it contains the risk of producing lower quality products, increasing costs also for consumers and putting a huge burden on the American taxpayer to finance programs such as the IRA. Surprisingly, while the aim of the fiscal programs such as IRA and CSA are to compete with China, they also risk that the U.S. turns inwards, hurts allies, and enables China to widen its influence in the Indo-Pacific area. It is fair to say that Biden has already left a sizeable footprint as American president, despite ongoing struggles, external crises, and the risk of losing seats in the upcoming midterm elections. The elections outcome will be decisive for Biden and will determine whether he can push his economic ambitions even further. Before the midterms most talk about the Democrats' performance will focus, understandably, on inflation. However, the effects of Bidenomics are likely to be more lasting.

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