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Recessionary Woes: Examining Economic Policies and Their Impact on Student Loan Debt and Housing Stability in the United States

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RECESSIONARY WOES:
EXAMINING ECONOMIC POLICIES AND THEIR IMPACT ON STUDENT LOAN DEBT AND HOUSING STABILITY IN THE UNITED STATES

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[ABSTRACT]

Recessionary periods can seldom be avoided, but our modern public infrastructure has designed mechanisms to respond to these downturns. Economic policy has rapidly changed over the last 50 years, and the types of tools policymakers use have evolved with it. When looking at the Great Recession (2007-2009) and the COVID-19 recession (2020), a federal response structure was vital for the health of the macroeconomy. These recessionary periods serve as case studies for a review of economic policymaking activity in the United States since 2000. To examine the efficacy of the federal government's fiscal and monetary infrastructure, policies focused on supporting student loan borrowers along with policies aimed at homeowners and renters have been identified and reviewed. Government policies supporting student loan borrowers after the Great Recession expired too soon following their implementation. This front-loaded support only worsened the economic position of borrowers during the 2010s. A more thorough policy response during the pandemic has provided relief to student loan borrowers for the duration of the crisis. The housing sector suffered considerably in both recessions. The policy response to the pandemic was considerably well-tailored to meet the needs of homeowners but was less successful in meeting the needs of renters. Still, most households had a more difficult time after the Great Recession because policies were not sufficiently implemented to disburse stimulus in the appropriate timeframe. Policymakers actively avoid missteps from the Great Recession response, enhancing the overall policy results of fiscal and monetary measures enacted during the pandemic.

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[INTRODUCTION]

In May 2007, Federal Reserve Chairman Ben Bernanke gave a speech at the Federal Reserve Bank of Chicago's 43rd Annual Conference on Bank Structure and Competition. In this speech, Bernanke assured regulators, "we do not expect significant spillovers from the subprime market to the rest of the economy or the financial system."[1] It became clear in the following months that the collapse of the housing market would have far wider impacts on our day-to-day lives than Bernanke may have originally foreseen. By the end of 2007, the United States had entered a recession. The global financial crisis of 2008, often referred to as the *Great Recession*, is widely recognized as one of the most consequential events of the 21st century. It is also where we begin our discussion in this paper.

American capitalism has valued free market institutions for their ability to self-correct and operate under minimal government regulations to generate economic growth. The American political environment has generally discouraged large government interventions to regulate the economy. However, the past several decades have been characterized by increasing inequality across the household distribution. Because of this, aggressive policy interventions may be required to uplift American families who have been given the short end of the stick for too long. By mapping business cycle trends, we find that the types of policy measures implemented during different recessionary periods have evolved throughout the latter half of the 20th century. Given these changes, research can address what level of authority policy actors should exert to quell the effects of a recession. This information will help develop a better understanding of the long-term economic consequences that are experienced by varying demographics across the United States in response to these short-term decisions.

[1] Ben S. Bernanke, "The Subprime Mortgage Market," Board of Governors of the Federal Reserve System, May 17, 2007, https://www.federalreserve.gov/newsevents/speech/bernanke20070517a.htm.

The United States has experienced three recessionary periods since the beginning of the century. The first of these three began in 2001. Often coined the "dot-com" recession, this specific downturn was initiated by the rapid growth of technology firms during the latter half of the 1990s. During this late-90s period, a stock market bubble formed as popular usage of the Internet began to grow. Investors on Wall Street wanted to expand ventures in this market, and many of them offered large sums of capital to invest in these start-ups. By the end of 2000, many of these stock market gains had dried up. Firms were being offered investment funds without sufficient plans to expand their business in the long run. Most of these companies went public and quickly faltered. By October 2002, the Nasdaq Composite had fallen by 75%. With a loss of roughly $5 billion for investors, all the major stock market gains realized during this technology boom had been erased.[2]

The 2001 "dot-com" crash is relevant to the wider discussion, but the two recessions that followed have far greater long-term implications for the American public. The first of these events took shape between 2007 and 2009. The Great Recession provides a unique case study on the role of financial institutions within our free market economy. During the mid-2000s, banks and financial institutions capitalized on rising home prices while also easing the lending requirements necessary to purchase a home. Banks offered new types of mortgage loans with options including interest-only, adjustable-rate, zero down payment options, along with stated income loans. These stated income loans eventually became known as "liar loans" because of how easy it was to secure a mortgage through these channels. New loan options made it possible for almost any American to buy a home, and many would often agree to terms of a mortgage payment they were otherwise ill-equipped to finance in the long-term.

[2] "Dotcom Bubble - Overview, Characteristics, Causes," Corporate Finance Institute, December 7, 2022, https://corporatefinanceinstitute.com/resources/equities/dotcom-bubble/.

Despite these headwinds, the homebuying bonanza ran its course, producing larger profit margins for the financial sector while also providing home security for a growing number of Americans. But these good times did not last. Trends began to reverse in 2006. By August 2007, foreclosures were up over 1000%.[3] It was at this time that the "housing bubble" began to pop. Once desirable mortgage options became a debilitating expense for American families. Housing prices began to fall, and homeowners were unable to refinance their mortgages to cover the cost of their rising interest payments. As borrowers began defaulting on their loans, the stability of these financial institutions came into question. This domino effect helped induce a high degree of market volatility. Bear Stearns, a powerhouse in the financial sector, collapsed by March 2008. JP Morgan Chase acquired the firm for $10/share when the company had been trading north of $160 just a year prior.[4] By September 2008, Lehman Brothers filed for Chapter 11 bankruptcy, and the firm bottomed out. Stock options worsened before the discussion of a government bailout began taking shape.

The Great Recession left the economy in an extremely fragile state. The 2010s were characterized by a slow, lengthy recovery. This drawn-out recovery process was not evenly distributed. Opportunities and access to support were not provided to the American public uniformly, and these decisions will eventually inform us as to why the 2010s recovery period is so pivotal to our discussion on economic inequality in the United States. The U.S. economy was faced with a new crisis when the World Health Organization (WHO) declared coronavirus (SARS-CoV-2) to be a global pandemic on March 11th, 2020.[5] With this announcement,

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[3] *Panic: The Untold Story of the 2008 Financial Crisis | Full VICE Special Report | HBO* (YouTube, 2019), https://www.youtube.com/watch?v=QozGSS7QY_U.
[4] *Panic*.
[5] Domenico Cucinotta and Maurizio Vanelli, "WHO Declares COVID-19 a Pandemic," *Acta Bio Medica : Atenei Parmensis* 91, no. 1 (March 19, 2020): 157–60, https://doi.org/10.23750/abm.v91i1.9397.

recessionary conditions that were already taking shape by early-2020 would accelerate. There were a host of unique conditions that characterized the economy in the early months of the pandemic. Unlike prior recessions, which have mainly been the result of deficiencies in our economic institutions, the recession in 2020 was induced by a global health crisis.

Following the announcement from WHO – countries began imposing various restrictions to protect the health of the population. These restrictions included stay-at-home orders and social distancing policies. Policymakers were forced to make a difficult choice. Actors could impose restrictions that limited the economy’s capacity to engage in market and business activities. They could have also decided to keep the economy running. But keeping the economy open was an impossible task given just how quickly Americans were contracting and dying from the virus. Policymakers recognized the economic downturn that would result from imposing regulations. Still, actors recognized the overwhelming need to prioritize American lives above all else. When the government began imposing restrictions, people could not engage in traditional day-to-day activities and unemployment rose sharply as businesses closed. The recession was exacerbated by a disconnect between supply and demand in the aggregate. Demand for different goods rose as panic over the crisis spread, but lockdowns and private sector restrictions limited the economy’s capacity to keep supply available. Unlike the Great Recession, the “official” recession period was much shorter in 2020. While the post-Great Recession era is marked by a drawn-out recovery, the pandemic recession has been categorized as a “V-shaped” recession.

Where does this leave us? Why have I decided to dedicate the first few pages of this paper developing this timeline? The Great Recession and the COVID-19 recession operate in this project as two primary case studies for analytical review. Each recession was induced by a unique set of forces, and the implications of both highlight the shortcomings of the American economic system. In this research, we will be examining the policy decisions made by actors and institutions during both the Great Recession and the COVID-19 recession, along with a review of the measures taken during the subsequent recovery periods.

Policy actors responsible for economic-related issues are generally split into two categories. First, the government has the power to craft *fiscal policy* measures aimed at providing direct stimulus to the population. This policy type is generally administered by Congress, with legislators passing recession-related laws that aim to promote economic stability for American households. The second set of measures centers around *monetary policy*. The Federal Reserve System is responsible for managing monetary interventions to control the money supply and federal funds rate (interest rate) in the macroeconomy. Both fiscal and monetary policies have been utilized to varying degrees based on the specific characteristics of an economic downturn. However, given the nature of these most recent recessions, it became necessary for institutional forces to take extensive action to correct the deficiencies in U.S. economic performance.

To measure the success of these decisions, fiscal and monetary interventions implemented during each crisis will be evaluated in two primary ways. The first indicator will evaluate how policy decisions influenced the burden of student debt for borrowers in the United States. Specifically, this research will examine how the size and composition of student loan borrowers has changed since 2000. The second indicator will evaluate the success of recession-era policies in supporting homeowner and renters across the country. How have modern economic downturns influenced the ability of American families to access sufficient, stable housing units? Each of these examples will be used to review the efficacy of economic policy in the modern era. Does public policy addressing recessionary economic conditions support or impede the future mobility of the American population? Our discussion that follows will develop the foundation needed to answer this question.

[CHAPTER ONE]

Dynamics in Economic Policymaking

To provide a thorough review of the policy decisions made during the two most recent recessionary periods, our research must first outline important practical *and* theoretical information. After outlining a conceptual background, this paper will be able to assess the efficacy of these interventions and their implications for American households. The introduction section briefly outlined the major components of how policy actors can implement fiscal and monetary measures. However, economic policymaking in the United States is not straightforward enough to be explained in just a few sentences. The first portion of this chapter will be dedicated to describing the process of fiscal and monetary policymaking in greater detail. The remainder of the chapter will develop a timeline of scholarly opinions on the use of different policy tools and their responsiveness to changing economic conditions. Our research will find that support for implementing different fiscal and monetary interventions has waxed and waned over the past half century.

[Section 1.1]

Fiscal Policy

Let's first begin with *fiscal policy,* one of the primary tools available for the federal government to influence the state of the economy.[6] How does fiscal policy work? In its most basic form, fiscal policy is how the government decides to tax or spend in response to changes in economic conditions.[7] Congress is the primary institution responsible for implementing these measures. The president will submit its budget to Congress on the first Monday in February each year. After this, Congress will pass an appropriations bill based on recommendations from the

[6] This research focuses on fiscal policymaking at the federal level, although state and local governments are also involved in the distribution of fiscal stimulus.
[7] Jeffrey M Stupak, "Fiscal Policy: Economic Effects," *Congressional Research Service,* May 16, 2019, https://crsreports.congress.gov/product/pdf/R/R45723/1.

executive branch along with Congressional priorities.[8] During an economic downturn, Congress can influence Americans' spending habits by changing the tax rate.[9] If the government decides to raise the rates, people will be dedicating a higher portion of their income to taxes and will have less income available for consumption spending. Conversely, if the government decides to lower the rates, people will be dedicating a smaller portion of their income to taxes. In response, Americans will have more disposable income, and consumption may increase as a result. Changing the tax rate is just one strategy available to the federal government to influence the total level of consumption spending in the economy.

The government can also influence economic conditions through direct government spending.[10] This is known as *discretionary government spending* because it is at the "discretion" of Congress and the President.[11] These spending-related measures include public goods such as highways, bridges, disaster relief, national defense, and education. When the government decides to increase spending, greater economic activity will be generated. If spending declines, a lack of fiscal stimulus will lead to reductions in economic activity, all other things being equal. Any adjustments made to government spending will have an influence on the broader economy.

Taxes and government spending are the two primary components driving fiscal-related policymaking in the American economy. It is important to consider how these tools are utilized when the economy is experiencing a recession. When a recession forms, economic activity contracts, and unemployment in the labor market rises. Spending among firms and consumers will not be high enough to support full employment in the economy. As a result, a gap will form

[8] "Budget," United States Senate, accessed April 10, 2023, https://www.senate.gov/reference/reference_index_subjects/Budget_vrd.htm.
[9] Stupak, "Fiscal Policy: Economic Effects."
[10] Stupak.
[11] "Fiscal Policy - The Economic Lowdown Podcast Series," Federal Reserve Bank of St. Louis, accessed December 18, 2022, https://www.stlouisfed.org/education/economic-lowdown-podcast-series/episode-21-fiscal-policy.

between the total spending level in the economy and the spending level required to support full employment. To respond to this gap, the federal government can implement *expansionary fiscal policy* to encourage economic growth as a means of counteracting the effects of a recession.[12]

The first option would be to lower the tax rates.[13] By doing so, people will keep more of their income. Policymakers hope this will encourage more consumption spending. When people increase their consumption, firms will increase production. Firms may also decide to make investments and hire additional employees. With more people being hired, the unemployment rate will fall, and these new employees will be motivated to consume, creating a ripple effect that will accelerate economic expansion through what is known as the *multiplier effect.*[14] This is a critical concept in economic theory that refers to the change in national income that is the result of an initial change in government spending or taxes. Keynesian theory argues the net effect of an initial injection of government spending into the economy or a reduction in tax rates for the population will have a much larger effect on the broader economy.[15] In this case, policy actors hope that lowering the tax rate will lead to higher levels of consumption and investment.

Congress can also stimulate economic activity through a boost in government expenditures.[16] If the government decides to increase spending (e.g., through a stimulus package), these programs can deliver direct support to households through increased wages and profits. Under these conditions, spending will directly affect aggregate expenditures on goods and services. However, a reduction in taxes can only work to indirectly influence economic activity through an increase in household disposable income. Higher government spending will

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[12] "Fiscal Policy - The Economic Lowdown Podcast Series."
[13] Stupak, "Fiscal Policy: Economic Effects."
[14] "Fiscal Policy - The Economic Lowdown Podcast Series."
[15] Sarwat Jahan, Ahmed Saber Mahmud, and Chris Papageorgiou, "What Is Keynesian Economics?," *Finance & Development* 51, no. 3 (September 2014), https://www.imf.org/external/pubs/ft/fandd/2014/09/basics.htm.
[16] Stupak, "Fiscal Policy: Economic Effects."

produce “waves of income” through the *multiplier effect.*[17] Households with access to a higher level of disposable income will be able to spend more, which will support income growth for other households in the economy.

Economists have identified many of the benefits associated with fiscal interventions that are expansionary enough to improve conditions in the economy. However, concerns arise when stimulus measures become overbearing and eventually worsen market conditions. When spending grows faster than expected, inflation rates may increase. Inflation can be defined as “a general, sustained upward movement of prices for goods and services in an economy.”[18] Economists may observe growing inflation when there is too much available money to be spent on too few available goods. This is a concern when the economy is operating near full employment; otherwise, inflationary pressures may be quite mild because there is a sufficient amount of excess capacity in the economy and firms can expand production without an increase in the general price level. However, when the economy is operating near full employment and a fiscal measure stimulates aggregate demand, *demand-pull* inflation may develop. For reference, there is also *cost-push* inflation, which is typically caused by a decline in aggregate supply due to rising production costs in an economy. Congress can utilize *contractionary fiscal policy* to reduce inflationary pressures.[19] The federal government may decide to lower spending to reduce the upward pressure on prices (i.e., if the economy is overheating as it approaches or surpasses full employment or potential output level). Congress may also decide to raise taxes. With less disposable income available, people may consume less, which will support downward pressure on aggregate spending and demand for goods and services.[20] Although these options are

[17] “Fiscal Policy - The Economic Lowdown Podcast Series.”
[18] “Fiscal Policy - The Economic Lowdown Podcast Series.”
[19] “Fiscal Policy - The Economic Lowdown Podcast Series.”
[20] “Fiscal Policy - The Economic Lowdown Podcast Series.”

available to lawmakers, economists often prefer contractionary efforts to be implemented through monetary interventions by the Federal Reserve. The next section of this chapter will review these ideas in greater detail.

There are additional concerns surrounding the policy lags often associated with passing legislation. Even when policy is implemented, stimulus from these programs takes time to reach American households. Economists offer *automatic stabilizers* as a policy solution that can limit these time lags from impeding the efficacy of fiscal interventions.[21] Programs of this type can offset fluctuations in U.S. economic activity without any direct intervention from policymakers.[22] Whether the economy expands or contracts, automatic stabilizers adjust tax and spending levels without any need for new legislation.

The progressive income tax is a primary example of an automatic stabilizer. Under the progressive system, higher income earners pay a larger fraction of their annual earnings on taxes compared to lower income earners.[23] When the economy is expanding, more taxes will be collected as Americans experience income gains. When the economy enters a recession, Americans will experience reductions in their income. There will be fewer taxes collected as a result. A recessionary period will often also lead to higher unemployment. Fewer people working in the economy will lead to fewer people paying taxes. This variable will also reduce the total amount of taxes collected by the federal government.

In addition to the tax structure, several social service programs have been implemented to exhibit the primary features of an automatic stabilizer. One example is the Unemployment

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[21] "What Are Automatic Stabilizers and How Do They Work?," Tax Policy Center, May 2020, https://www.taxpolicycenter.org/briefing-book/what-are-automatic-stabilizers-and-how-do-they-work.
[22] "What Are Automatic Stabilizers and How Do They Work?"
[23] "What Is a Progressive Tax?," *Tax Foundation* (blog), accessed December 18, 2022, https://taxfoundation.org/tax-basics/progressive-tax/.

Insurance (UI) program, which provides income to workers who lose their job through no fault of their own.[24] The program's benefits are offered to individuals who qualify for a set duration of time. During a recession, government expenditures automatically increase for the UI program. The basic components of the UI program are expansionary, providing extra income to support people during difficult economic conditions. When the economy is expanding, fewer Americans will be unemployed. With a less widespread need for these programs' benefits, funding for UI will contract. Spending for the UI program will automatically expand, or contract based on changes in economic conditions. No action is required by lawmakers to implement changes.

Fiscal policy is vital for macroeconomic stabilization. In the short run, fiscal policy often reflects the priorities of the business cycle. In the long run, fiscal policy provides tools for promoting sustainable economic growth or reducing poverty through supply-side actions like improvements to infrastructure and widening access to quality education.[25] The *expenditure approach* is the primary method for economists to derive the Gross Domestic Product (GDP) of an economy. The following equation for national income measures the total (nominal) level of output an economy produces annually.[26]

$$[\mathbf{GDP = C + I + G + NX}]$$

Where:
GDP = Value of all final goods and services an economy produces (nominal)
C = Private consumption spending
I = Gross Private domestic investment in capital goods & inventories
G = Total government expenditures
NX = Net exports (exports *minus* imports)

[24] Chad Stone and William Chen, "Introduction to Unemployment Insurance," Center on Budget and Policy Priorities, July 30, 2014, https://www.cbpp.org/research/introduction-to-unemployment-insurance.
[25] Mark Horton and Asmaa El-Ganainy, "Fiscal Policy: Taking and Giving Away," International Monetary Fund, accessed December 18, 2022, https://www.imf.org/en/Publications/fandd/issues/Series/Back-to-Basics/Fiscal-Policy.
[26] Horton and El-Ganainy.

Fluctuations of the individual variables on the right will influence the final value of GDP *(total output)* on the left. The resulting calculation from this equation expresses *nominal* GDP. In order to derive *real* GDP, which reports an inflation-adjusted measurement, we must perform an additional calculation. The derivation for *real* GDP is as follows:

$$\boldsymbol{Real\ GDP = \frac{Nominal\ GDP}{R}}$$

Where:
Nominal GDP = C + I + G + NX
R = GDP deflator

The variable "R," or the GDP deflator is used to measure the change in prices for all goods and services in the economy.[27] The U.S. Bureau of Economic Analysis (BEA) provides this deflator on a quarterly basis.[28] The figure derived from the expenditure approach equation (i.e., *nominal* GDP) is then divided by the GDP deflator (R) to determine *real* GDP in the economy. These calculations are a primary concern for lawmakers who are responsible for adjusting these variables when responding to changes in economic conditions. With a robust understanding of fiscal policy firmly established, this paper will now direct its commentary to describe the process of monetary policy implementation in the United States.

[Section 1.2]

Monetary Policy

Monetary policy differs from fiscal policy in a variety of important ways. Monetary policy is conducted by a nation's central bank with the aim of achieving the macroeconomic objectives of price stability, full employment, and stable economic growth.[29] In the United

[27] "GDP Price Deflator," U.S. Bureau of Economic Analysis, March 30, 2023, https://www.bea.gov/data/prices-inflation/gdp-price-deflator.
[28] "GDP Price Deflator."
[29] "What Is the Difference between Monetary Policy and Fiscal Policy, and How Are They Related?," Board of Governors of the Federal Reserve System, August 9, 2017, https://www.federalreserve.gov/faqs/money_12855.htm.

States, monetary policy decisions are coordinated by the Federal Reserve System, which functions as the nation's central bank. Congress established the Federal Reserve in 1913 with a dual mandate: (1) achieve maximum employment, and (2) maintain price stability.[30] Congress passed the Federal Reserve Act of 1913 to ensure the monetary body would be free from political influence. The Federal Reserve was established as an independent agency and its actions should reflect the priorities of the American public, not the priorities of politicians in government. This was an important component in establishing the legitimacy of the Federal Reserve System.[31]

The Federal Reserve System highlights five primary functions that enable it to support a sustainable economy. These functions are outlined in greater detail in Table 1.1.

Table 1.1 – Outline of the Federal Reserve System's Primary Functions

Conducting the nation's monetary policy	Promoting the stability of financial institutions	Promoting the safety and soundness of individual financial institutions	Fostering safe and efficient payment and settlement systems	Promoting consumer protections and community development
○ Promote maximum employment ○ Promote stable prices ○ Promote moderation of long-term interest rates	○ Minimize and contain systemic risks through active monitoring and engagement in the U.S. and abroad	○ Monitor their impacts on the entire financial system ○ Supervise and regulate financial institutions to foster a stable financial system	○ Provide services to the banking industry and the federal govt. ○ Facilitate U.S. dollar transactions	○ Consumer-focused supervision and examination ○ Research on emerging consumer trends ○ Community development programs

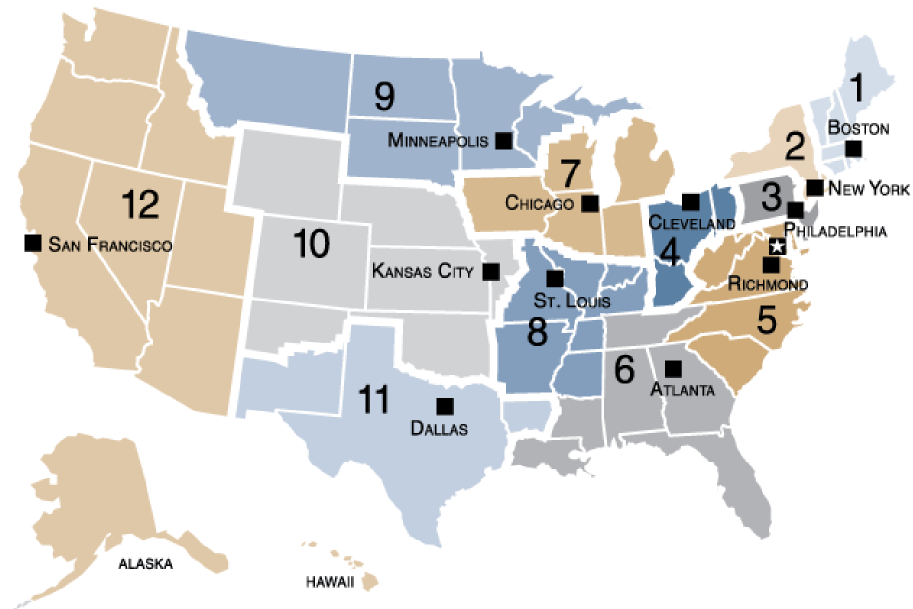
Source: Board of Governors of the Federal Reserve System (2022)[32]

The Federal Reserve System is divided geographically into 12 Districts. The Board of the Federal Reserve System is located in Washington, D.C. Each district has its own incorporated

[30] "What Is the Difference between Monetary Policy and Fiscal Policy, and How Are They Related?"
[31] For more information regarding the inception of the Federal Reserve as an independent entity, please refer to the following analysis from the Project On Government Oversight here: https://www.pogo.org/analysis/2019/10/independence-of-the-federal-reserve
[32] "Structure of the Federal Reserve System," Board of Governors of the Federal Reserve System, August 24, 2022, https://www.federalreserve.gov/aboutthefed/structure-federal-reserve-system.htm.

Reserve Bank, which coordinates policy objectives directly with the Federal Reserve Board. The boundary for each district remains as they originally were in 1913 based on primary trade regions prevalent during the early-20th century.[33]

Figure 1.1 – Map of the Federal Reserve System



Source: Board of Governors of the Federal Reserve System (2011)[34]

The composition of the 12 individual Reserve Banks made the Federal Reserve System particularly decentralized. However, as the U.S. economy advanced, effective monetary policy required a higher degree of collaboration. The Federal Reserve Act was updated in 1933 and 1935 to reflect these changes and with it established the Federal Open Market Committee (FOMC).[35] The FOMC functions as the monetary policymaking body of the Federal Reserve. The board schedules eight annual meetings where members review economic and financial developments to determine the appropriate stances the Fed should take on different monetary

[33] "Structure of the Federal Reserve System."
[34] "Appendix E: Maps of the Federal Reserve System: Budget Review 2011," Board of Governors of the Federal Reserve System, July 13, 2011, https://www.federalreserve.gov/publications/budget-review/2011-appendix-e-maps.htm.
[35] "Structure of the Federal Reserve System."

issues.[36] Fiscal stimulus can have an indirect influence on monetary decision-making in the aggregate economy. The FOMC primarily evaluates the effects of different fiscal measures on key macroeconomic variables such as GDP, employment, and inflation.[37] The Fed may review how changes to tax policy or spending programs will influence full employment and price stability. The Fed then considers these assessments when the necessary monetary adjustments are outlined and implemented.

The Federal Reserve System functions under three main entities. This includes (1) the Federal Reserve Board of Governors, (2) the Federal Open Market Committee, and (3) the Federal Reserve Banks.[38] Congress established the Federal Reserve System, but it cannot interfere with Fed policy. The President is responsible for nominating the Fed Chairperson and Congress is required to vote on this nomination.[39] The Board of Governors operates independently of the federal bureaucracy. The FOMC consists of members of the Board of Governors and Federal Reserve Bank presidents, with the Chair of the Board holding the title of FOMC Chair. While there are typically eight scheduled FOMC meetings each year, board members can and do meet more than eight times a year when economic conditions require them to do so. Finally, the Federal Reserve Banks function as the operating arms of the system in achieving their dual mandate with direct oversight from the Board of Governors. The FOMC issues directives to the Open Market Trading Desk and the New York Fed Desk which are then tasked with implementing the Committee's policy objectives.[40] District 2 has been known to hold an extensive amount of authority in influencing national monetary policy. Given its position as

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[36] "What Is the Difference between Monetary Policy and Fiscal Policy, and How Are They Related?"
[37] "What Is the Difference between Monetary Policy and Fiscal Policy, and How Are They Related?"
[38] "Structure of the Federal Reserve System."
[39] David Wessel, "Who Has to Leave the Federal Reserve Next?," *Brookings* (blog), March 22, 2023, https://www.brookings.edu/opinions/who-has-to-leave-the-federal-reserve-next/.
[40] "Monetary Policy Implementation," Federal Reserve Bank of New York, accessed December 18, 2022, https://www.newyorkfed.org/markets/domestic-market-operations/monetary-policy-implementation.

the Federal Reserve Bank of New York, District 2 is responsible for regulating the major financial institutions on Wall Street to ensure the nation's financial system remains stable.

The Federal Reserve has been provided with a variety of tools to achieve its macroeconomic objectives. The primary tool at its disposal is targeting the federal funds rate, the interest rate banks charge one another for short-term loans.[41] By controlling the federal funds rate, the Fed can influence the general level of short-term market interest rates. The level the Fed decides to set this rate at will influence the spending decisions firms and consumers will make.[42] The Fed can also adjust the short-term rate to respond to changing economic conditions both in the United States and globally. These actions can influence long-term rates as well as asset prices, including stocks and bonds. The Fed may also influence the exchange rate of the U.S. dollar against foreign currencies.[43] Intervention strategies such as these have been specifically designed for the Federal Reserve System to promote full employment and price stability.

For the federal funds rate to settle within the Fed's target range, the Federal Reserve establishes two key *administered rates*. These are interest rates set directly by the Fed rather than being guided by the market.[44] The first is the Interest on Reserve Balances (IORB) and the second is the rate on the Overnight Reverse Repo Facility (ON RRP).[45] These rates work to ensure short-term funding markets function smoothly. The *overnight interest rate* is the general rate large banks use when they lend or borrow to one another in the overnight market.[46] Each rate

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[41] "What Is the Difference between Monetary Policy and Fiscal Policy, and How Are They Related?"
[42] Brian O'Connell and Benjamin Curry, "What Happens When The Fed Cuts Interest Rates?," Forbes Advisor, June 23, 2021, https://www.forbes.com/advisor/investing/fed-cuts-interest-rates/.
[43] "Monetary Policy Implementation."
[44] Jane E. Ihrig and Scott A. Wolla, "How Does the Fed Influence Interest Rates Using Its New Tools?," Federal Reserve Bank of St. Louis, August 5, 2020, https://www.stlouisfed.org/open-vault/2020/august/how-does-fed-influence-interest-rates-using-new-tools.
[45] "Monetary Policy Implementation."
[46] "Overnight Bank Funding Rate," Federal Reserve Bank of New York, accessed December 18, 2022, https://www.newyorkfed.org/markets/reference-rates/obfr.

works in tandem to establish a floor where banks and money market participants are not allowed to lend below. The Fed can utilize alternative tools such as liquidity backstops, asset purchases, and balance sheet reductions.[47] These instruments provide additional support to the Fed in achieving its macroeconomic objectives.

The Federal Reserve must decide whether to take a monetary stance that is *accommodative* or *restrictive*.[48] Higher inflation can be a conditional byproduct of fiscal stimulus programs if they are applied too aggressively by Congress.[49] Still, higher inflation has many roots (e.g., in the current period the main factors are on the supply-side of the economy and not due to fiscal stimulus enacted in response to the COVID-19 pandemic).[50] When inflationary pressures rise, the Fed can impose restrictive measures by implementing interest rate hikes and setting limits on the amount of outstanding money supply available in the economy.[51] The Fed's actions will support a reduction in inflation. With higher interest rates, investments in the private market will become more expensive, and business development will slow.[52] The Fed may alternatively decide to cut interest rates when a recession forms. Interest rate reductions represent accommodative monetary interventions that are implemented when Federal Reserve regulators feel the economy is not functioning at full or near full employment or when prices are unstable.[53] The Fed will cut the short-term rates to a low enough level to encourage businesses to make investments by lowering the cost of investment. Still, a variety of factors influence business

[47] "Monetary Policy Implementation."
[48] "Monetary Policy Implementation."
[49] Stupak, "Fiscal Policy: Economic Effects."
[50] Julian di Giovanni, "How Much Did Supply Constraints Boost U.S. Inflation?," Federal Reserve Bank of New York, August 24, 2022, https://libertystreeteconomics.newyorkfed.org/2022/08/how-much-did-supply-constraints-boost-u-s-inflation/.
[51] Rachel Siegel, "Why Does the Fed Raise Interest Rates?," *Washington Post*, September 21, 2022, https://www.washingtonpost.com/business/2022/09/20/fed-interest-rate-hike-inflation/.
[52] Siegel.
[53] O'Connell and Curry, "What Happens When The Fed Cuts Interest Rates?"

confidence beyond just interest rates set by the Fed. Consumers with access to less expensive credit will spur economic growth when they purchase more goods or services.[54] These monetary decisions aim to motivate firms and consumers to counteract a recession's effects.

Where will this information take us next? It is important to flesh out the practical details of each policy type for a theoretical discussion to be more easily understood. In the past century, economic modernization has provided industrialized nations with fiscal and monetary tools to respond to fluctuations in the macroeconomy. However, economists and social science scholars have debated the benefits and drawbacks of each policy type for several decades. Scholarly thinking has often motivated policymakers and regulators to prefer one policy type over the other. These preference changes have influenced the way our government responds to economic crises. The final section of this chapter will review the critical literature discussing the strengths and deficiencies of fiscal *and* monetary policy. This information will allow us to develop a timeline outlining the major headwinds that have motivated a rethinking of the type of intervention strategies offered by policy actors over the past half century.

[Section 1.3]

The Great Balancing Act:

A Timeline of Scholarly Opinions on the Use of Fiscal and Monetary Interventions

By the mid-20th century, the United States had developed a variety of fiscal and monetary tools to respond to the modern recession. John Maynard Keynes published his famous 1936 work *The General Theory of Employment, Interest, and Money*, and scholars frequently refer to him as the founder of modern macroeconomics. Keynes' new ideas were revolutionary in legitimizing the study of economics and providing the federal government and President Roosevelt with tools

[54] O'Connell and Curry.

to lift the United States out of the deep trough of the Great Depression (1929-1939).[55] Prior to the ideas introduced by Keynes, economic theory had not been able to explain the factors causing the crisis, why it was so severe and persistent, and the policy interventions that would best counteract the current conditions. Keynesian thinking provided policy actors with a toolkit of fiscal measures that would popularize these strategies for much of the mid-20th century. These new ideas also ensured that the government would continue to take a larger role in stabilizing economic conditions in the United States.

The prevailing ideas prior to Keynes emphasized a *laissez faire* economic system that supported free market capitalism and rejected government intervention in the private market. This was driven by support for Say's law, or the belief that production of a product can create demand for other products. Economists assumed the markets were self-correcting and that the economy was always operating at full employment except for short-term adjustments. Under these conditions, the government should support rather than control market activity. Keynes made *aggregate demand* a priority to support the economy.[56] Individual markets that may be under-utilized and under-employed require support even if the macroeconomy is operating efficiently. Keynesian economic theory argued that because prices are (somewhat) rigid, changes in different components of spending (consumption, investment, government expenditures) can lead to a change in output.[57] These output increases would lead to economic growth if say, government expenditures were to increase through a stimulus effort. Keynes emphasized that private markets would not self-correct in an unregulated environment. Rather, government

[55] Jahan, Mahmud, and Papageorgiou, "What Is Keynesian Economics?"
[56] Jahan, Mahmud, and Papageorgiou.
[57] Jahan, Mahmud, and Papageorgiou.

interventions (in the form of fiscal measures) must respond to market conditions when the economy is not operating at full employment.

Alongside fiscal advancements, institutional changes coordinating monetary measures have welcomed the modern economic advancements of the mid-20th century. The Federal Reserve System has utilized *nominal anchors* to achieve low, stable inflation conditions in the economy. Nominal anchors are a variable (e.g., the price of a specific good, exchange rates, or the money supply) that holds a stable relationship with price levels (inflation rate) over time.[58] When the Federal Reserve System was established in 1913, the gold standard was used as the nominal anchor for not only the United States but many nations around the world. Under this standard, the amount of money in an economy is only as much as the amount of gold in the vault of a country's central bank.[59] The issue that became apparent with this anchor was that price stability could only be achieved if gold-currency convertibility was maintained. This rigid system made it increasingly difficult for a nation's central bank to ensure low, stable inflation conditions in its markets.

Eventually, the Federal Reserve Act was amended in 1933 and 1935 which allowed for the system to consolidate power. After these changes were made, implementing monetary policy became much more efficient for regulators. With these revisions also came the development of the Federal Open Market Committee (FOMC). Today, the FOMC's inflation objectives operate as the nation's nominal anchor, which has been targeted at a 2% annual rate in the long run.[60] Unlike prior nominal anchors that have often been rigid (such as the gold standard), the FOMC is able to amend its objectives with much greater ease. The FOMC has been able to operate within

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[58] "Historical Approaches to Monetary Policy," Board of Governors of the Federal Reserve System, March 8, 2018, https://www.federalreserve.gov/monetarypolicy/historical-approaches-to-monetary-policy.htm.
[59] "Historical Approaches to Monetary Policy."
[60] "Historical Approaches to Monetary Policy."

the Federal Reserve System as a tool for responding to changes in market conditions with timely monetary intervention strategies.

The two primary forms of economic policymaking have adapted to the changes in our modern economic landscape. With these developments, economists have emphasized many of the accomplishments that have been achieved thanks to fiscal- or monetary-related policy choices. However, economists have often differed in their opinions on many policy issues in our macroeconomy. Economic thinking has branched off into many independent schools of thought, each with its own priorities. Because of this, economists in recent decades have taken to academic journals to voice their support for certain policy solutions while identifying their concerns with alternative suggestions. This begs the question, is there a quantifiable difference in the results from fiscal policies in comparison to monetary policies? My research has allowed me to pinpoint a divergence in the scholarly opinions among economists beginning primarily in the early-1970s. What we will find is that in different periods of economic policymaking, unique political and economic conditions influenced the types of intervention strategies policy actors utilize to generate strong, stable economic growth.

There are several reasons why fiscal policy may be viewed as more effective under a certain set of conditions, whereas monetary policy may be more effective in an alternative environment. Krugman (2005) examines how certain choices have been made by policy actors based on changing political and economic environments since the late-1940s.[61] For several years after Keynes published his *General Theory*, a "Keynesian Revolution" swept across the country. Conventional thinking among economists during this time emphasized the way Keynes approached macroeconomics. These ideas moved policy actors in favor of applying fiscal policy

[61] Paul Krugman, "Is Fiscal Policy Poised for a Comeback?," *Oxford Review of Economic Policy* 21, no. 4 (December 1, 2005): 515–23, https://doi.org/10.1093/oxrep/gri029.

measures more aggressively. Many economists, lawmakers, and scholars had previously observed how Keynes' approach to government interventions was able to support the private market and lift the country out of the Great Depression. There was a type of private-public complementary – Keynes viewed government interventions as a way to support capitalism rather than replace it. As a result of this historical precedent, policy actors viewed fiscal interventions as the most successful approach to quell the conditions of a recession.

American economist Paul Samuelson published his 1948 textbook *Economics* at a time when monetary policy looked very different than it does today. Samuelson drew upon many of the central tenants of Keynesian economics. His textbook outlines several quantitative strategies to explain how government interventions can provide the economy with full employment.[62] Samuelson emphasized the role of increasing government expenditures or providing tax cuts to offset lower investment returns and achieve macroeconomic stability. *Economics* also explains how the Federal Reserve would have been ill-equipped in utilizing monetary tools to respond to the Great Depression effectively. Many experts believed that the Federal Reserve would have had a near-impossible time lowering interest rates. In the event they were successful, Samuelson and other Keynesian economists feared monetary action would have lowered interest rates too much. Krugman (2005) quotes Samuelson here:

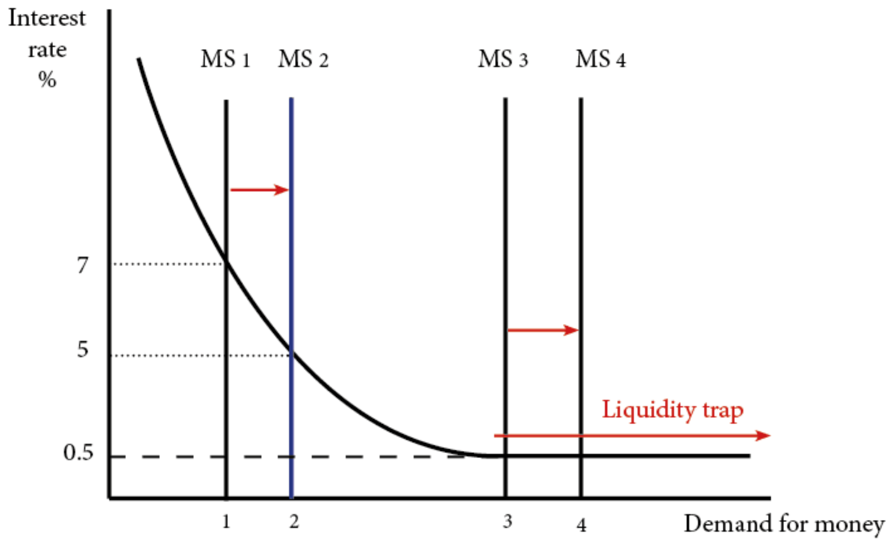
> "Even if the authorities should succeed in forcing down short-term interest rates, they may find it impossible to convince investors that long-term rates will stay low … [A]*n expansionary monetary policy may not lower effective interest rates very much but may simply spend itself in making everyone more liquid* [Samuelson's emphasis]."[63]

Samuelson highlights the *liquidity trap*, a conundrum that developed during the Keynesian Revolution. This is the idea that at a near-zero nominal interest rate, individuals' liquidity

[62] Krugman.
[63] Krugman.

preferences become absolute, and the demand for holding money in cash rather than investing becomes perfectly elastic. In simple terms, firms and individuals will prefer to hold their cash rather than make investments when interest rates reach or hover near zero.[64]

<u>Figure 1.2 – The Liquidity Trap</u>



Source: Lecture in Macroeconomics, Trinity College[65]

Increases in the money supply between Ms_1 and Ms_2 will drive the interest rate down. The liquidity preference curve *(demand for money, M_d)* becomes perfectly elastic at a near-zero nominal rate and the curve will bend into a horizontal line between Ms_3 and Ms_4. At r = 0.5, the interest rate has reached a level where increasing the money supply will not be enough to boost demand. The Federal Reserve's actions will not have been sufficient in motivating investment activity because firms and individuals will continue to prefer saving their cash reserves.

The fiscal-driven response patterns that became the standard in the mid-20th century would soon begin to shift. Feldstein (2009) argued these Depression-era advancements supported a "rise" in fiscal activism. However, fiscal activism would experience a "fall" beginning in the

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[64] Maria A. Arias and Yi Wen, "The Liquidity Trap: A Reason for Today's Low Inflation," Federal Reserve Bank of St. Louis, April 1, 2014, https://www.stlouisfed.org/publications/regional-economist/april-2014/the-liquidity-trap-an-alternative-explanation-for-todays-low-inflation.
[65] Diane Zannoni, "Macroeconomic Theory" (Lecture, Trinity College, Hartford, CT, Spring 2021).

1950s.[66] At this time, economists and policy actors began noticing several deficiencies in the approaches to economic policymaking that had been driven by the ideas of Keynes and his contemporaries. Empirical studies revealed that the Keynesian multiplier may have been smaller than previous estimates suggested. These conditions were influenced primarily by demand leakages from imports and its effect on exchange rates due to growing fiscal expansion.[67] While econometric models were increasingly effective at describing different economic conditions, they were still unable to adequately assess changes in the business cycle. Time lags in fiscal implementation led to growing inflation and rising unemployment during the 1960s.[68] Many economists began withdrawing from the conversation on fiscal policy and moved to vocalize their support for monetary interventions. Many policy actors began to feel that fiscal instruments were no longer viable tools to induce sufficient, stable economic activity, and the policy preferences of economists and scholars began to adjust accordingly.

During the 1970s, many economists emphasized the role of the Federal Reserve in adjusting interest rates to motivate a change in aggregate demand. Policy actors had subscribed to the ideals of "monetary optimism," highlighting how policy choices made by the Federal Reserve were not subject to the same time lags that made fiscal stimulus increasingly inefficient.[69] By the 1980s, support for monetary tools was cemented, and it was now fiscal policy that had fallen "out of fashion." Many of the opinions developed during the time of Keynes and Samuelson had been generated in the wake of the Great Depression when fiscal tools were the key to supporting full employment in the economy. In the decades following this crisis,

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[66] Martin S. Feldstein, "Rethinking the Role of Fiscal Policy," Working Paper, Working Paper Series (National Bureau of Economic Research, January 2009), https://doi.org/10.3386/w14684.
[67] Feldstein.
[68] Feldstein.
[69] Feldstein.

economists were being taught that increases in the money supply were the key to boosting aggregate demand.[70] Discussions in Keynes' *General Theory* and Samuelson's *Economics* emphasizing fiscal tools were offset by writings like *A Monetary History of the United States* by Anna Schwartz and Milton Friedman that examined how monetary tools were best suited to respond to changes in economic conditions. This literature argued that the Great Depression was in part induced by a decline in the money supply. Because of this, the authors argued that the Federal Reserve, not Congress, would have been most effective in responding to the crisis with the appropriate action.[71]

During these decades, scholars emphasized two primary arguments to ensure monetary policymaking became the standard. The first argument stressed that the Federal Reserve was in a unique position in which it had the tools to generate recessions and recoveries at will. Krugman (2005) highlights the 1981-1982 recession and the decisions made by then-Federal Reserve Chair Paul Volcker (term: 1979-1987). Volcker assumed the chairship in August 1979 to fight mounting inflation levels that famously characterized the economic conditions of the U.S. economy in the 1970s. In response, Volcker prioritized tightening the money supply over stabilizing the federal funds rate.[72] Estimates suggest that Volcker allowed the federal funds rate to rise to 20%. The decision to combat inflation first and foremost induced the recession of 1981-82. High nominal rates discouraged business investments and unemployment grew to a peak of 10%. The decision to induce a recession eventually paid off when inflation levels fell to 5% and long run interest rates began to decline by October 1982.[73] The Fed was able to induce a quick

[70] Krugman, "Is Fiscal Policy Poised for a Comeback?"
[71] Krugman.
[72] "Recession of 1981–82," Federal Reserve History, November 22, 2013, https://www.federalreservehistory.org/essays/recession-of-1981-82.
[73] "Recession of 1981–82."

recovery, moving the federal fund rate back down to around 9%.[74] With inflation under control and interest rates at a more appropriate level, the Fed's monetary strategies supported lower unemployment and motivated firms to make investments in the wake of the recession. Some fiscal measures were also developed to respond to the 1981-82 recession. While President Reagan campaigned on a "small government" platform, his administration often operated under a "big government" mindset. Reagan made several moves to increase military spending and lower tax rates. Reagan convinced Congress to implement a three-year tax cut, with most benefits going to large corporations and the wealthy as a means of stimulating "supply side" activity in the economy.[75] Even still, Reagan nor Congress made any attempt at implementing fiscal measures that would have boosted consumption through additional government spending (e.g., extended unemployment benefits).[76]

Many scholars did not only comment on the strengths of monetary tools, but also suggested that fiscal stimulus may be harmful to economic activity. Economists viewed the logistical concerns surrounding the passage of a stimulus measure through Congress as a task that was far too time consuming to provide adequate support during a recession. The main issue with fiscal stimulus was the "long and variable lags" that were not associated with monetary instruments.[77] Economists argued that by the time lawmakers recognize the economy is entering a recessionary period and actors go through the extensive process of drafting, debating, and passing a stimulus measure, the primary effects of the recession may have already made their way through the economy. Because of this, fiscal stimulus may have the effect of inducing an

74 "Recession of 1981–82."
75 "Supply-side" economics argues that economic growth is most effective under conditions of lower taxes, reduced regulation, and free trade.
76 Michael A. Meeropol, "A Tale of Two Tax Cuts: What Recent History Teaches about Recessions and Economic Policy," Economic Policy Institute, May 1, 2001, https://www.epi.org/publication/issuebriefs_ib157/.
77 Krugman, "Is Fiscal Policy Poised for a Comeback?"

economic boom rather than responding to the recession directly.[78] Economists at this time were also taught to distrust the motives of politicians. Conventional wisdom supported the idea that regulators at the Fed, not lawmakers in Congress, had the most thorough understanding of economic variables to make informed policy decisions. Scholars used models to evaluate the level of irresponsibility exhibited by politicians when crafting fiscal stimulus packages. In response, economists emphasized the need for a central bank, operating independently, to make the appropriate choices.[79]

For the remainder of the century, policy actors consistently prioritized monetary interventions. Fiscal policy as a stabilization tool in the macroeconomy became an option of last resort. Support for Fed policy and distrust in fiscal measures motivated these policymaking activities throughout the 1980s and 1990s. However, a boom in scholarly literature during the early-2000s pinpoints a possible revival of fiscal policymaking in the 21st century economy. Krugman (2005) argues that monetary tools may have had more glaring deficiencies than conventional thinking would suggest. When the United States entered the "dot-com" recession in 2001, the Federal Reserve engineered a recovery by lowering the federal funds rate from 6.5% in December 2000 to as low as 1.25% in November 2002.[80] While the Fed was successful in lowering short-term rates to a sufficient level to induce a recovery, Krugman's paper raises the important question: What if the 1.25% rate had not been low enough? Some scholars have suggested that a housing boom was the factor most successful in lifting the economy out of the recession, not the Fed's decisions to lower the interest rate.

[78] Krugman.
[79] Krugman.
[80] Krugman.

While Krugman and other scholars were not fully aware of these concerns at the time their literature was being published, this housing boom would serve as the crux that induced the Great Recession. Further analysis suggests that "Because of the housing boom/bubble, monetary policy was more effective from 2002 to 2005 than it 'should' have been, or more to the point, more effective than we can count on it being in the future."[81] While the Federal Reserve was able to engineer a recovery during this early-2000s recession in a similar manner as the 1981-82 recession, Krugman is wary that a consistent overreliance on monetary tools may be harmful to the economy. His paper goes on to explain that many fiscal expansion measures, including increases to government expenditures and tax cuts at this time, supported the Fed in inducing a recovery. It is quite possible that a fiscal revival for policymaking involves developing a diverse set of intervention strategies that can support one another toward a common goal: achieving full employment and price stability.

Krugman, among others, worried that lawmakers would inadequately respond to crises where fiscal stimulus may have been appropriate because of a narrow-minded view that only the Fed could respond to these issues. Solow (2005) discusses the theoretical factors that contributed to a fiscal decline in the latter half of the 20th century. *Modern mainstream macroeconomic theory* assumes the economy is self-stabilizing around a satisfactory equilibrium path.[82] In addition, *growth theory* lends support to the idea that aggregate supply develops smoothly due to the long run standards of demography, physical and human capital investment, and technological innovation.[83] Aggregate demand is said to move towards equality with aggregate supply when there is a disruption. Under these conditions, the economy will naturally move toward

[81] Krugman.
[82] Robert M. Solow, "Rethinking Fiscal Policy," *Oxford Review of Economic Policy* 21, no. 4 (December 1, 2005): 509–14, https://doi.org/10.1093/oxrep/gri028.
[83] Solow.

equilibrium. These theoretical assumptions would then suggest that discretionary fiscal measures will only generate disequilibrium.[84]

Despite these theoretical assumptions, Solow (2005) also describes some of the growing sentiments around a fiscal revival that would only become more popular in the late-2000s and early-2010s. Economists have suggested developing a “Fiscal Policy Board” that acts in a similar manner as the Federal Reserve Board. The group’s design would be insulated from political influences and would consist of members with the necessary technical understanding to develop effective fiscal packages.[85] However, such a board has never been officially created because many policy experts argue that expenditure and tax programs are highly distributive and allocative processes and Congress cannot be removed from its duty to redress these concerns. Solow (2005) argues that strengthening existing automatic stabilizer programs may be the most optimal means of supporting a fiscal revival. Policymakers could redesign the tax code to include “formula flexibility” where changes in the tax rate are automatically triggered by economic conditions.[86] It may also be possible that a fiscal revival comes in the form of higher coordination between monetary and fiscal institutions. Economists may be persuaded to support a formal exchange of knowledge and policy recommendations between the major authorities given the efficiency gains that may be generated in the policy implementation process.

Gains from the housing boom reach their peak in early 2006. By the end of 2006 and into 2007, the housing bubble finally burst. Policymakers were tasked with responding to the economic conditions that had developed at the onset of the Great Recession (2007-2009). Lessons from the crisis have lent support for a continuation, and perhaps even a strengthening, of

[84] Solow.
[85] Solow.
[86] Solow.

a fiscal revival into the early-2010s. Romer (2011) documents four primary lessons for policy actors when enacting fiscal measures in the wake of the Great Recession. The main takeaways from this crisis will lend support to better fiscal implementation in the future. Romer explains, "In the advanced economies, we should have more aggressive use of creative monetary policy, more short-run fiscal stimulus, and the enactment of measures to address the long-run fiscal problems."[87] Romer (2011) emphasizes support for developing efficient fiscal and monetary instruments that target both short run and long run stabilization in the economy. Many of the post-recession opinions from scholars have emphasized a policy structure that can incorporate both methods to achieve macroeconomic stability in the United States.

Table 1.2 – Fiscal and Monetary Policy Lessons from the Great Recession

The U.S. requires fiscal instruments to support short run stabilization	**Evidence of a fiscal revival is only stronger after the Great Recession**	**Fiscal space is highly valuable in the 21st century**	**Economic policy should always take into consideration factors in the political economy**
○ Overreliance on the Fed's ability to adjust nominal interest rates ○ Strategies are needed to motivate private investment when the interest rate falls near zero ○ The central bank often does not use monetary tools other than adjusting the nominal interest rate ○ Discretionary fiscal instruments are necessary for short run stabilization	○ Conventional fiscal stimulus may become more compelling (broad-based tax cuts, higher govt. expenditures and transfers) ○ Great Recession has sparked research on the short run effects of fiscal policy ○ New evidence suggests that fiscal policy is effective in responding to a crisis when monetary policy is *not* aggressively implemented	○ Fiscal situations should be healthy and responsive to changing market conditions ○ Fiscal instruments should be well-equipped to respond to collapses in demand ○ Lack of fiscal space can mute the effect of a stimulus ○ Expanding fiscal space should be achieved to ensure a stable support system is in place to respond to future crises	○ Crisis proved to be worse than economists expected ○ Scholars argue that stimulus was cut too short ○ Economists must do a better job of making basic economic-related information more digestible to a general audience ○ Provide people with information about what a govt. deficit means when private demand falls

Source: Romer (2011)[88]

[87] David Romer, "What Have We Learned about Fiscal Policy from the Crisis?" (IMF Conference on Macro and Growth Policies in the Wake of the Crisis, University of California, Berkeley, 2011), https://www.imf.org/external/np/seminars/eng/2011/res/pdf/DR3presentation.pdf.
[88] Romer.

When a recession is particularly deep, as in the case of the Great Recession, fiscal policy supports a *crowding-in* effect. The idea of "crowding-in" is an economic phenomenon that suggests an increase in public spending can support private investments that stimulate economic activity.[89] Support for fiscal policy during the early-2000s and 2010s was strengthened in part due to the economic benefits this crowding-in effect has when the economy is below full capacity. When economic activity is at low levels, reductions to the federal funds rate may not always be the best option. A combination of factors, including low business confidence and low-capacity utilization rates, make it difficult for regulators at the Fed to respond with the appropriate solutions. However, crowding-in will help increase government demand for goods and services, which may boost business confidence to expand private investments. Unlike the *crowding-out* effect, when increases to public spending reduce private investment due to upward pressure on interest rates, crowding-in serves a complementary role.[90]

It has become apparent that fiscal expansion has waxed and waned since the mid-20th century. The Keynes-driven support for government interventions evaporated by the 1980s. Monetary optimism replaced fiscal expansion, and for decades monetary tools were the default option in achieving full employment and price stability. However, there has been a growing resurgence in support for the use of discretionary fiscal measures. The work of Romer (2011) reveals that the policy response to the Great Recession may have contributed to support for this fiscal revival. Auerbach, Gale, and Harris (2010) highlight additional findings on the role of *activist fiscal policy* in the United States during this critical period. The authors explain, "The prevalence of fiscal policy interventions in this period reflects both the severity of the recession

[89] "Crowding in Effect," Economics Help, accessed April 10, 2023, https://www.economicshelp.org/blog/glossary/crowding-in-effect/.
[90] "Crowding in Effect."

and a revealed optimism with regard to the potential effectiveness of activist fiscal policy."[91] After decades of policy actors prioritizing monetary tools, fiscal instruments may have made a comeback in part due to the response efforts by lawmakers amid the Great Recession. The literature indicates that these measures should be evaluated in preparation for the next crisis.

The role of fiscal expansion likely continued to influence the policymaking environments throughout the 2010s and into the 2020s. This leads my research to a new question: How has the relationship between fiscal and monetary policymaking played a role in the economic and political landscapes of *both* the Great Recession and the COVID-19 recession? The next chapters will explore specific intervention strategies crafted during the two recessions under review. Our research will outline a detailed framework of the major policy decisions made by institutional actors. The success of these programs will be tested by looking at their effect in two specific ways. First, how recessionary policy influenced the burden of student loan debt for borrowers. Second, how these policies affected housing access for owners and renters across the country.

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[91] Alan J. Auerbach, William G. Gale, and Benjamin H. Harris, "Activist Fiscal Policy," *Journal of Economic Perspectives* 24, no. 4 (Fall 2010): 141–64, https://doi.org/10.1257/jep.24.4.141.

[CHAPTER TWO]

Policy Interventions During the Great Recession

Each of the major 21st century economic downturns developed under unique and specific circumstances. The Great Recession, characterized as the worst economic downturn in the post-WWII period, originated from the collapse of the housing market that was driven by the risky behavior of the banking and financial sectors. The COVID-19 recession was triggered by a once-in-a-century pandemic, sending shockwaves across the global economy. When downturns in the business cycle arise, specific institutional actors are expected to step in and manage the response. The framework of these response measures is essential in determining the duration of a recessionary period. In the wake of a recession, institutional choices influence the characteristics of the recovery and subsequent expansion periods. The types of fiscal and monetary policy decisions play a critical role in the day-to-day economic activities of American households. In short, policies have consequences. Given the unique conditions of each recession, steps taken by the Federal Reserve and Congress reflect the individual needs of the American economy during their respective periods. Still, many policy decisions enacted during both periods reflect similar economic goals. Where policy converges and where policy diverges will reveal important insights into the relative success of each policy framework.

[Section 2.1]

The Lead Up to Recession

The Great Recession is often characterized as a once-in-a-lifetime economic downturn, a crisis so large that only the Great Depression can compare to its deep-seated effects that were felt across the entire economy. A once-in-a-lifetime recession must be triggered by a once-in-a-lifetime environment, correct? Indeed – the conditions that would trigger the ensuing financial crisis can be observed as early as 1992. Congress passed the Federal Housing Enterprises

Financial Safety and Soundness Act of 1992, which required government-sponsored mortgage companies to devote a percentage of their lending capacity to meet the affordable housing needs of low- and very low-income households.[92] The bill entrusted the Department of Housing and Urban Development (HUD) to establish goals that would support low-income, minority, and underserved households. In 1996, HUD required 42% of the mortgage financing by Fannie Mae and Freddie Mac to go to borrowers below the median income in their area. These requirements would only rise, reaching 52% in 2005.[93]

The establishment of this threshold, naturally, led to more government-sponsored mortgage offerings in the housing market. Financial markets took advantage of this. There was a spike in the number of loans being pooled and securitized or sold as financial instruments to investors spiked after the 1992 legislation passed.[94] In 1994, JPMorgan introduced the first credit default swap (CDS). A CDS is a financial derivative/contract that can act as insurance against defaults for investors, allowing them to "swap" the risk with another party.[95] To give an example, if a lender is worried about a borrower defaulting on their loan, they can purchase a CDS from an outside investor. If the borrower does default, the lender is reimbursed by the investor. Riskier investment activities allowed financial institutions to utilize these credit derivatives in the housing market, shielding them from risk. In order words, CDS allowed investors to bet against a growing number of households that would be at risk of default.

In 1995, Congress modified the Community Reinvestment Act (CRA), allowing mortgage lenders to buy so-called "subprime" securities to fulfill their affordable-housing

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[92] Russel Roberts, "How Government Stoked the Mania," *Wall Street Journal*, October 3, 2008, https://www.wsj.com/articles/SB122298982558700341.
[93] Roberts.
[94] "The U.S. Financial Crisis," Council on Foreign Relations, accessed March 21, 2023, https://www.cfr.org/timeline/us-financial-crisis.
[95] "What Is a Credit Default Swap (CDS), and How Does It Work?," Investopedia, March 15, 2023, https://www.investopedia.com/terms/c/creditdefaultswap.asp.

lending obligations.[96] Subprime mortgages are offered to individuals with low credit scores who are unable to qualify for a conventional mortgage. The subprime lending industry mushroomed. Following a September 1999 announcement from Fannie Mae easing credit requirements to encourage banks to extend loans to individuals with low credit, the industry continued to expand.[97] There was a growing connectedness between the financial sector, housing market, and mortgage-issuing industry that was taking shape at the turn of the century. In November 1999, President Clinton signed the Gramm-Leach-Bliley Act, which served largely as a repeal of many Depression-era regulations established under the Glass-Stegall Act of 1933.[98] The major change from this policy: the requirement preventing traditional banks from operating other financial businesses such as insurance and investment brokerages was removed. The changes also ensured that credit default swaps would be free from federal oversight.[99]

The beginning of the 2000s also prompted the century's first recession. The "dot-com" recession that formed in the first two years of the century required federal interventions. Responding to the crisis, the Federal Reserve (led by Alan Greenspan) lowered the benchmark interest rate a total of 11 times.[100] The effective federal funds rate in July 2000 was 6.54%, the highest it had been in over a decade.[101] Following this peak, the Fed kept the rate relatively stable for the remainder of the year. In 2001, the Fed began lowering its effective rate, arriving at

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[96] Roberts, "How Government Stoked the Mania."
[97] Steven A. Holmes, "Fannie Mae Eases Credit To Aid Mortgage Lending," *The New York Times,* September 30, 1999, sec. Business, https://www.nytimes.com/1999/09/30/business/fannie-mae-eases-credit-to-aid-mortgage-lending.html.
[98] "Financial Services Modernization Act of 1999, Commonly Called Gramm-Leach-Bliley," Federal Reserve History, November 12, 1999, https://www.federalreservehistory.org/essays/gramm-leach-bliley-act.
[99] Melissa Block and Michael Hirsh, "2000 Commodities Act Paved Way For Problems," *NPR*, March 20, 2009, sec. Politics, https://www.npr.org/templates/story/story.php?storyId=102185942.
[100] David Henderson, "Did Alan Greenspan's Federal Reserve Cause the Housing Bubble?," *Wall Street Journal*, March 27, 2009, sec. Opinion, https://www.wsj.com/articles/SB123811225716453243.
[101] Board of Governors of the Federal Reserve System (US), "Federal Funds Effective Rate," FRED, Federal Reserve Bank of St. Louis (FRED, Federal Reserve Bank of St. Louis), accessed March 21, 2023, https://fred.stlouisfed.org/series/FEDFUNDS.

1.82% by December 2001.[102] Lowering the interest rate proved to be a successful monetary intervention, allowing the Fed to achieve its agency goals of maximum employment and price stability in the aftermath of the downturn. A reduction in the federal funds rate created an easy-credit environment, and the financial sector took advantage.

The early- to mid-2000 years in the lead up to the crisis provided an economic and financial environment that rewarded riskier and riskier betting strategies. In an era where credit was cheap and regulations were few and far between, investors and banks could make virtually any decision they desired, and the market often rewarded them. Requirements that were in place to regulate the activities of large financial firms were often gutted. In April 2004, the Securities and Exchange Commission (SEC) loosened the net capital rule that previously limited the financial sector to leverage a specific debt-to-equity ratio.[103] The SEC changes allowed firms with greater than $5 billion in assets to build up their leverage, and that is exactly what the major banks did. Qualifying firms included the powerhouses of the era: Bear Stearns, Lehman Brothers, Merrill Lynch, Goldman Sachs, and Morgan Stanley. Firms dramatically increased their debt-to-equity ratios, building up their investments in mortgage-backed securities, credit derivatives, and other instruments.[104] Up until this point, the Fed had also continued to lower its effective interest rate. The effective rate was at its lowest point of near 1% at the time of the SEC announcement.[105] Monetary conditions for large firms continued to support a cheap credit environment that made investments easily accessible. The SEC's decision to strip these

[102] Board of Governors of the Federal Reserve System (US).
[103] Stephen Labaton, "Agency's '04 Rule Let Banks Pile Up New Debt," *The New York Times*, October 3, 2008, sec. Business, https://www.nytimes.com/2008/10/03/business/03sec.html.
[104] Labaton.
[105] Board of Governors of the Federal Reserve System (US), "FEDFUNDS."

regulatory requirements gave firms even more confidence to engage in risky betting activities, but the housing market was not in a position to cooperate with investors for much longer.

Just two years after the SEC announcement, the boom in U.S. housing prices suddenly began to reverse trend. 2006 would mark a turning point in the history of the financial sector, the housing market, and the broader U.S. economy. The housing boom was drying up, and the realities of financial mismanagement among the nation's largest firms were beginning to come to light. In 2007, housing price declines accelerated, producing the largest single-year drop in U.S. home sales in over 20 years.[106] The subprime mortgage industry was in complete collapse, producing the earliest signs of unequal burdens imposed on Americans as a consequence of the financial crisis. Between February and March 2007, more than 25 subprime lending firms declared bankruptcy.[107] The collapse of the subprime market widened concerns for the future of the broader financial sector, given the heavy investments and securitization of debt that had been made by firms over the past decade and a half. The stock market was also attuned to these new developments, and the Dow Jones Industrial Average was falling. On February 27, 2007 – the Dow fell by 416 points, the biggest one-day loss since 9/11.[108]

[Section 2.2]

<u>The Monetary Policy Response</u>

The Great Recession, lasting from December 2007 through June 2009 (based on data measures from the National Bureau of Economic Research), was the longest economic downturn experienced by the United States since World War Two. The effects from this recession were already being felt well before December 2007, and they would continue to linger well after its

[106] Michael M. Grynbaum, "Home Prices Fell in '07 for First Time in Decades," *The New York Times*, January 24, 2008, sec. Business, https://www.nytimes.com/2008/01/24/business/24cnd-home.html.
[107] "The U.S. Financial Crisis."
[108] "The U.S. Financial Crisis."

official end in the summer of 2009. Nearly every statistical indicator used to evaluate the health of the nation's economy experienced massive fluctuations. When the economy hit its peak in the business cycle in 2007Q4 and its trough in 2009Q2, real gross domestic product (GDP) in the United States fell by 4.3%.[109] In December 2007, the nation's unemployment rate stood at 5%. By June 2009, the unemployment rate rose to 9.5%. Still, the unemployment rate would continue to rise until hitting a peak of 10% in October 2009, four months after the Great Recession had officially ended.[110] Between their mid-2006 peak and mid-2009, home prices in the United States fell, on average, by 30%.[111] The S&P 500, an equity index made up of 500 of the largest companies traded on the NYSE, Nasdaq, and Cboe, fell by 57% from its peak in October 2008 to its trough in March 2009.[112] The net worth of US households and nonprofit organizations saw declines from a peak of $69 trillion in 2007 to a trough of $55 trillion in 2009. Within two years, American households and nonprofits saw $14 trillion in net worth erased. [113]

It became especially clear as the crisis unfolded that an expansive government policy response would be required to support the economy. As discussed in Chapter One, support for fiscal expansion had waxed and waned in the history of modern macroeconomics, but the tide had been shifting in favor of fiscal interventions since the start of the new century. The widespread economic losses experienced in the United States as a result of the financial crisis made the environment ripe for fiscal expansion. But first, the Federal Reserve tried to step in and stabilize the markets through monetary interventions. Following its decision to reduce the effective interest rate in response to the "dot-com" recession, the Federal Reserve eventually

[109] "The Great Recession," Federal Reserve History, November 22, 2013, https://www.federalreservehistory.org/essays/great-recession-of-200709.
[110] "The Great Recession."
[111] "The Great Recession."
[112] "The Great Recession."
[113] "The Great Recession."

began increasing the rate in the years leading up to the crisis. With the rate at its low of 1% in the Spring of 2004, the Fed began raising interest rates over the next two years. By July 2006, the effective rate was 5.24%.[114] The Fed would maintain this rate between the summer of 2006 and 2007 as the realities of financial hardship began to take shape. By the close of summer in 2007, the Fed had begun slashing rates. The effective rate was reduced to 4.25% by December 2007, the month in which the Great Recession officially began.[115] Over the course of 2008, the Fed continued to slash its effective rate, eventually landing near the zero lower bound at 0.16% by December 2008.[116] Deficiencies in the housing market soon became apparent. The Federal Reserve quickly stepped in, acting swiftly to utilize its primary monetary instrument to encourage economic stability in the wake of these volatile conditions.

Changing the federal funds rate is the most "traditional" form of monetary intervention implemented by the Federal Reserve as a means of ensuring full employment and price stability. But the Great Recession was not a "traditional" recession in any sense of the word. And so, the Federal Reserve required nontraditional intervention strategies to support the nation's financial system at the close of the century's first decade. As the Fed drove down the effective rate, the Federal Open Market Committee (FOMC), began issuing policy statements known as "forward guidance" on changes being made to the federal funds rate. In a statement from December 16, 2008 – the FOMC's language assured that the rates would remain exceptionally low "for some time."[117] Again, in a statement from March 18, 2009 – the FOMC made clear that rates would

[114] Board of Governors of the Federal Reserve System (US), "FEDFUNDS."
[115] Board of Governors of the Federal Reserve System (US).
[116] Board of Governors of the Federal Reserve System (US).
[117] "FRB: Press Release--FOMC Statement," Board of Governors of the Federal Reserve System, December 16, 2008, https://web.archive.org/web/20170727224117/https://www.federalreserve.gov/newsevents/press/monetary/20081216b.htm.

remain near the effective lower bound "for an extended period."[118] Fed policy kept interest rates low in order to prevent aggregate demand from collapsing. These forward guidance statements provided context on the economic conditions to investors, policymakers, and other actors. Given the length of the Great Recession and its ensuing recovery, these forward guidance statements provided important insight into the current environment of the markets and the future economic conditions the nation would face. The Federal reserve itself described their forward guidance "as an extension of the Federal Reserve's traditional policy of affecting the current and future path of the funds rate."[119] In effect, forward guidance operated as pseudo-traditional policy in the Fed's monetary efforts to quell the recession's severity.

There were other ways Fed policy could influence the monetary environment of the financial crisis. The first was the Fed's credit easing programs, which sought to facilitate credit flows and reduce the cost of credit in the market.[120] The second was the large-scale asset purchase (LSAP) programs, which was implemented to reduce longer-term public and private borrowing rates. This process is known as quantitative easing (QE). In November 2008, the Fed announced its first quantitative easing measure (QE1) with the purchase of $1.25 trillion in U.S. agency mortgage-backed securities along with $175 billion in debt from housing-related government agencies including Fannie Mae, Freddie Mac, and the Federal Home Loan banks.[121] This measure would be in effect from December 2008 through March 2010. The Fed would go on to implement additional easing measures even after the recession officially ended. QE2, in effect from November 2010 to June 2011, led to the purchase of $600 billion in long-maturity

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[118] "FRB: Press Release--FOMC Statement," Board of Governors of the Federal Reserve System, March 18, 2009, https://web.archive.org/web/20170728130838/https://www.federalreserve.gov/newsevents/press/monetary/20090318a.htm.
[119] "The Great Recession."
[120] "The Great Recession."
[121] "Large-Scale Asset Purchases," Federal Reserve Bank of New York, accessed March 21, 2023, https://www.newyorkfed.org/markets/programs-archive/large-scale-asset-purchases.

Treasury securities.[122] A third measure, QE3, between September 2012 and October 2014, led to the purchase of $40 billion per month for mortgage-backed securities and $45 billion per month for long-maturity Treasury securities.[123] Let's also recognize that both QE2 and QE3 were implemented by the Fed after the National Bureau of Economic Research officially declared the Great Recession was over. This in and of itself speaks to the sheer size and scope of the crisis, requiring the Fed to continue its monetary intervention strategies for several years into the 2010s.

Beginning in September 2008, roughly $12 billion of short-term agency debt was purchased to provide the markets with liquidity.[124] The assets chosen for purchase by the Fed were aimed at reducing costs and widening credit availability for purchases in the housing market. As the epicenter of the crisis, the Fed designed its monetary policy response to specifically uplift the housing market. By supporting the housing market, the Fed hoped that the broader financial conditions in the economy would also improve. The Fed implemented several programs that were designed to support liquidity among banks and other financial institutions. This included the Term Auction Facility (TAF), Primary Dealer Credit Facility (PDCF), and Term Securities Lending Facility (TSLF).[125] Beyond this, the Fed implemented additional programs to provide liquidity to key credit markets directly. This was initiated through the Commercial Paper Funding Facility (CPFF), Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF), and Money Market Investor Funding Facility (MMIFF).[126] These facilities were vital tools implemented by the Fed to ensure stable liquidity and credit options were available to investors with the hope of churning economic activity.

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122 "Large-Scale Asset Purchases."
123 "Large-Scale Asset Purchases."
124 "The Great Recession."
125 "Credit and Liquidity Programs and the Balance Sheet," Board of Governors of the Federal Reserve System, May 10, 2021, https://www.federalreserve.gov/monetarypolicy/bst_crisisresponse.htm.
126 "Credit and Liquidity Programs and the Balance Sheet."

[Section 2.3]

The Fiscal Policy Response

The Federal Reserve made major strides in its efforts to quell the effects of the Great Recession using specific monetary tools. Still, the calamity of this economic downturn required more than just monetary interventions to stabilize the economy. As the events of the financial crisis unfolded, it became clear to policy actors that a robust fiscal response would be required. Given the nature of the crisis, a simply one-off stimulus measure would not be enough to get the economy back on track. As a result, a massive fiscal infrastructure was developed spanning two presidential administrations. Table 2.1 provides a simplified breakdown of the federal government's fiscal response structure between 2008 and 2012.

Table 2.1 – Breakdown of Fiscal Stimulus in Response to the Great Recession

Date	Fiscal Package	Total Funding Capacity
February 13, 2008	Economic Stimulus Act of 2008	$152 billion
September 6, 2008	Nationalization of Fannie Mae and Freddie Mac	$187 billion
October 3, 2008	The Emergency Economic Stabilization Act of 2008 *[The Troubled Assets Relief Program (TARP)]*	$700 billion ↓ $475 billion[127]
February 17, 2009	American Recovery and Reinvestment Act of 2009	$831 billion
December 17, 2010	2010 Payroll Tax Holiday & other measures	$858 billion
February 12, 2012	2012 Payroll Tax Holiday Extension	$143 billion
2008 – 2012	Miscellaneous measures	$322 billion

Source: Committee for a Responsible Federal Budget (2020)[128]

The legislative response to the Great Recession aimed at accomplishing two goals. The first and primary goal of government policy was to stabilize the economy and support American households, especially individuals that experienced the most harm from the collapse of the housing market. The second goal – reform Wall Street. There was a recurring theme in the

[127] Reduced amount reflected as a result of provisions from the Dodd-Frank Wall Street Reform and Consumer Protection Act passed in July 2010.

[128] "How Does COVID Relief Compare to Great Recession Stimulus?," Committee for a Responsible Federal Budget, July 1, 2020, https://www.crfb.org/blogs/how-does-covid-relief-compare-great-recession-stimulus.

federal government's messaging in the aftermath of the crisis: protect Main Street and regulate Wall Street. Many of the major legislative accomplishments from this era aimed at accomplishing these goals in tandem. In a report from the U.S. Department of the Treasury evaluating the policy response to the Great Recession five years later, there were six major categories that a combination of the policies aimed at uplifting. These categories include: (1) small business, (2) autos, (3) financial markets, (4) consumers, (5) retirement, and (6) housing.[129] As we move into evaluating each of the major policy initiatives passed during the Great Recession era, it will be important to keep this frame of reference in mind.

On February 13, 2008, the first fiscal measure, the Economic Stimulus Act of 2008, was passed in response to the Great Recession.[130] The provisions provide tax rebates to low- and middle-income Americans and tax incentives aimed at spurring business investments. In addition, the law allowed for an increase in the limits imposed on mortgages that were eligible for purchase by Fannie Mae and Freddie Mac. The tax rebates created by the law were provided to American taxpayers in the 2008 fiscal year. Americans who fell below the income limit received at least $300/person and $600 for married couples who file jointly.[131] Households were also provided with $300 for every dependent child under the age of 17.[132] This specific stimulus, in the form of tax rebates and targeted business incentives, was aimed at increasing spending among businesses and consumers to combat the economic downturn that had already taken shape by 2008. The government also hoped that increasing limits for eligible mortgages would alleviate the subprime mortgage crisis and the credit crunch that had taken shape by late-2007. The tax

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[129] "The Financial Crisis Five Years Later Response, Reform, and Progress," Yale Program on Financial Stability, September 2013, https://ypfs.som.yale.edu/node/3786.
[130] "H.R.5140 - 110th Congress (2007-2008): Economic Stimulus Act of 2008," February 13, 2008, 02/13/2008, http://www.congress.gov/.
[131] "H.R.5140 - 110th Congress (2007-2008)."
[132] "H.R.5140 - 110th Congress (2007-2008)."

rebates from this fiscal measure were temporary, making it difficult for these changes to support American households to a substantial degree.

On October 3, 2008, Congress passed the Emergency Economic Stabilization Act of 2008.[133] Perhaps the most controversial of the fiscal measures passed in response to the Great Recession, the EESA established TARP, or the Troubled Assets Relief Program. When pundits talk about the "bank bailout," they are referring to this program. Under TARP, $700 billion (later reduced, as we will come to see) in federal dollars were authorized for use by the U.S. Treasury Department with the intent of purchasing troubled assets and restoring liquidity to financial markets.[134] TARP was the brainchild of then-Treasury Secretary Henry Paulson, who before his time in government was the chairman and CEO of Goldman Sachs.

The passage of the EESA came in response to a string of financial collapses and instability in the financial markets. In March 2008, Bear Stearns announced it was facing serious liquidity issues with the onset of the housing crash. The New York Federal Reserve Bank granted a 28-day emergency loan to the firm, but this was not enough.[135] Eventually, the government brokered a deal where JPMorgan Chase would purchase Bear Stearns for $10/share in addition to $30 billion in federal financing.[136] By September 2008, the federal government seized control of the federal mortgage insurers Fannie Mae and Freddie Mac.[137] Both firms held mortgage defaults, and federal regulators feared that the collapse of these government-sponsored enterprises would leave the economy in danger of systemic collapse. The Treasury Department

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[133] "Emergency Economic Stabilization Act of 2008," Pub. L. No. H.R. 1424, 2 U.S.C. 661a (2008), https://www.govinfo.gov/app/details/BILLS-110hr1424enr.
[134] Emergency Economic Stabilization Act of 2008.
[135] "Bernanke Defends Bear Stearns Bailout," CBS News, April 3, 2008, https://www.cbsnews.com/news/bernanke-defends-bear-stearns-bailout/.
[136] "The U.S. Financial Crisis."
[137] Ashley Seager and Phillip Inman, "US Housing Crisis: Freddie and Fannie Are Nationalised," *The Guardian*, September 7, 2008, sec. Business, https://www.theguardian.com/business/2008/sep/08/freddiemacandfanniemae.subprimecrisis.

initially agreed to purchase up to $100 billion in preferred stock, but that figure eventually rose to $187 billion. $116 billion was allocated to Fannie and $71 billion to Freddie.[138] Under the terms of the bailout, both firms were required to enter into a conservatorship with the Federal Housing Finance Agency (FHFA). Days later, Lehman Brothers filed for the largest bankruptcy in history.[139] The federal government refused to bail out the firm, and so, it faltered.

However, on the following day, the Fed rescued American International Group (AIG) with a $85 billion loan. This initial bailout amount eventually ballooned to $182 billion according to an analysis from the Treasury Department.[140] AIG was the largest insurer in the United States. The government argued that bailing out Lehman Brothers would create a "moral hazard" in the banking industry. The moral hazard argument contends that banks were under the assumption that no matter how risky their investment activities were, the government would bail them out if they were near default.[141] Unlike Lehman, the government saw AIG as "too big to fail" and its collapse would have had irreversible ramifications on both the domestic and global financial systems. These events signaled change was on the horizon. By the end of September, Goldman Sachs and Morgan Stanley announced they would be converting their operations to bank holding companies.[142] While this decision exposed the firms to additional government

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[138] Diana Olick, "Decade after Housing Crash, Fannie Mae and Freddie Mac Are Uncle Sam's Cash Cows," CNBC, September 5, 2018, https://www.cnbc.com/2018/09/05/fannie-mae-freddie-mac-are-uncle-sams-cash-cows-a-decade-after-crash.html.
[139] Andrew Ross Sorkin, "Lehman Files for Bankruptcy; Merrill Is Sold," *The New York Times*, September 14, 2008, sec. Business, https://www.nytimes.com/2008/09/15/business/15lehman.html.
[140] "AIG Program Status," U.S. Department of the Treasury, March 17, 2023, https://home.treasury.gov/data/troubled-assets-relief-program/aig/status.
[141] James Surowiecki, "Moral Hazard and the Crisis," *The New Yorker*, January 14, 2010, https://www.newyorker.com/business/james-surowiecki/moral-hazard-and-the-crisis.
[142] Michael de la Merced, Vikas Bajaj, and Andrew Ross Sorkin, "As Goldman and Morgan Shift, a Wall St. Era Ends," The New York Times, September 21, 2008, https://dealbook.nytimes.com/2008/09/21/goldman-morgan-to-become-bank-holding-companies/.

regulations, it also gave them access to additional loans from the Federal Reserve. This effectively marked an end to the period of independent investment banking in the United States.

TARP was the government's attempt to stabilize a volatile situation that threatened systemic economic collapse. This was driven by the financial sector's role in the overall economy through the purchase of mortgage-backed securities and bank stock. By increasing liquidity of the money markets and secondary mortgage markets, the goal of TARP was aimed at reducing the potential losses among institutions tied to these toxic securities. The federal government purchased preferred stock from eight banks including: Bank of America/Merrill Lynch, Bank of New York Mellon, Citigroup, Goldman Sachs, J.P. Morgan, Morgan Stanley, State Street, and Wells Fargo. Each of these banks were required to provide the government with a 5% dividend that would increase to 9% in 2013, encouraging the banks to repurchase this stock five years out.[143] Under the provisions of the EESA, the deadline for extending funds was October 3, 2010. Over the course of the program's life, $245 billion was used to stabilize banks, $27 billion were funneled to programs that increased credit availability, $80 billion was used to bail out the U.S. auto industry (General Motors and Chrysler specifically), $68 billion went towards stabilizing AIG, and $46 billion was used for foreclosure-prevention programs. In total, $466 billion in federal financing was dispersed under TARP.[144] While the EESA initially allocated $700 billion for the program, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 limited the authorization amount to $475 billion.[145] Dodd-Frank's primary objective was centered around reforming Wall Street and protecting Main Street as policy actors worked to identify the primary contributors that left the economy in such disrepair.

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143 Emergency Economic Stabilization Act of 2008.
144 Emergency Economic Stabilization Act of 2008.
145 "H.R.4173 - 111th Congress (2009-2010): Dodd-Frank Wall Street Reform and Consumer Protection Act," July 21, 2010, 07/21/2010, http://www.congress.gov/.

Although the government bailed out both Wall Street and Main Street, they were much more demanding on the latter. The financial sector was bailed out with a "no strings attached" mentality that placed little accountability on top executives from the big banks. Economists have criticized the government for allowing financial institutions to take on such high levels of risk.

While extensive interventions were required to response to a crisis of this size, TARP was unpopular for several reasons. Activists on the right- and left-wings criticized the government for what they viewed as efforts to prop up the banking industry at the expense of everyday Americans. The Tea Party Movement was a right-wing group that formed in response to the government's policies throughout this crisis. These activists criticized the regulatory structure of an ever-growing government and supported lower taxes.[146] Tea Party activists viewed the state's response as an encroachment on their personal freedoms.[147] The Occupy Wall Street Movement was a left-wing group critical of the government's response to the banking collapse and the housing crisis. Occupy Wall Street activists focused on growing social and economic inequality along with downward mobility in the United States.[148] These individuals viewed the state response as likely to have poor redistributive effects in the long run.[149]

In an analysis on America's public attitudes toward policy measures during the Great Recession era, Brooks and Manza (2013) found opinions on government responsibility among partisan groups experienced strong divergence between 2008 and 2010.[150] Their analysis

[146] Troy Brownfield, "How the Great Recession Forced Us to Political Extremes," The Saturday Evening Post, January 22, 2019, https://www.saturdayeveningpost.com/2019/01/how-the-great-recession-forced-us-to-political-extremes/.
[147] Brownfield.
[148] Josh Bivens and Lawrence Mishel, "Occupy Wall Streeters Are Right about Skewed Economic Rewards in the United States," Economic Policy Institute, October 26, 2011, https://www.epi.org/publication/bp331-occupy-wall-street/.
[149] Brownfield, "How the Great Recession Forced Us to Political Extremes."
[150] Clem Brooks and Jeff Manza, "A Broken Public? Americans' Responses to the Great Recession," *American Sociological Review* 78, no. 5 (October 1, 2013): 727–48, https://doi.org/10.1177/0003122413498255.

indicates that Democratic identifiers experienced higher support of government responsibility while Republican identified experienced higher disapproval.[151] They note that aggregate public responsiveness moved away from support for government responsibility during this 2008-10 period. Republican identifiers held stronger views against state action in comparison to stronger support from Democratic identifiers.[152] Growing polarization across the country can be reflected in Congress. These dynamics can make it difficult for legislation to get passed within the proper policy window. Diverging attitudes have created a hollowing of those in the middle of the political spectrum, which makes it more difficult for policymakers to reach compromises.[153]

It was clear by the end of 2008 that the government's fiscal response was not going to be enough to get the economy back on track. President George W. Bush presided over the financial crisis in its early years and worked with a variety of policy actors to implement the legislation we have just discussed from 2008. His successor, President Barrack Obama, who assumed office on January 20, 2009, recognized that he would be the one to oversee the nation through its recovery. But a nationwide recovery could not start without additional fiscal stimulus. So, on February 17, 2009, the American Recovery and Reinvestment Act of 2009 (ARRA) was signed into law.[154] Up until this point, no fiscal stimulus measure had ever been this robust. It was initially estimated that the bill would cost a total of $787 billion between 2009-19. That figure was later amended by the Congressional Budget Office (CBO) to $831 billion.[155] The primary function of the ARRA was to support American households and consumers while also spurring investment among firms of all sizes. With the bill's original total of $787 billion, $288 billion was allocated

[151] Brooks and Manza.
[152] Brooks and Manza.
[153] Brownfield, "How the Great Recession Forced Us to Political Extremes."
[154] "H.R.1 - 111th Congress (2009-2010): American Recovery and Reinvestment Act of 2009," February 17, 2009, 02/17/2009, http://www.congress.gov/.
[155] "CBO's Estimates of ARRA's Economic Impact | Congressional Budget Office," Congressional Budget Office, February 22, 2012, https://www.cbo.gov/publication/43014.

for tax incentives (individuals and businesses), $144 billion for state and local relief, and $357 billion for federal spending programs.[156] Table 2.2 provides a detailed breakdown of the specific programs and the total amount of funding received under this stimulus measure.

Table 2.2 – Breakdown of Major Provisions included in the American Recovery and Reinvestment Act (2009)

Category	Program	Cost
Tax incentives	Tax incentives for individuals	$237 billion
Tax incentives	Tax incentives for companies	$51 billion
Federal Spending	Healthcare	$155.1 billion
Federal Spending	Education	$100 billion
Federal Spending	Low-income, unemployed, and retiree support	$82.2 billion
Federal Spending	Infrastructure	$105.3 billion
Federal Spending	Transportation	$48.1 billion
Federal Spending	Water, sewage, environment, and public lands	$18 billion
Federal Spending	Government buildings and facilities	$7.2 billion
Federal Spending	Communications, information, and security technologies	$10.5 billion
Federal Spending	Energy infrastructure	$21.5 billion
Federal Spending	Energy efficiency and renewable energy research	$27.2 billion
Federal Spending	Housing	$14.7 billion
Federal Spending	Scientific Research	$7.6 billion
Federal Spending	Miscellaneous programs	$10.6 billion
State and Local	Fiscal relief for states and municipalities	$144 billion

Source: Public Law No: 111-5 (2009)[157]

The American Recovery and Reinvestment Act was highly controversial, and political tensions ran high as the economy continued to worsen. Democrats in both the House of Representative and the Senate proposed economic recovery plans that were higher than the bill's final version (Senate - $827 billion; House - $820 billion).[158] The House passed the bill in its final version 246-183 without a single Republican vote.[159] The Senate passed the bill's final

[156] "H.R.1 - 111th Congress (2009-2010)."
[157] "H.R.1 - 111th Congress (2009-2010)."
[158] "Stimulus Bill Far from Perfect, Obama Says," NBC News, February 6, 2009, https://www.nbcnews.com/id/wbna29050187.
[159] "Final Vote Results for Roll Call 70," February 13, 2009, https://clerk.house.gov/evs/2009/roll070.xml.

version 60-38, with only three Republican votes of support.[160] Ultimately, the law produced a stimulus package that was smaller than Democrats had originally intended it to be. This fiscal stimulus was highly controversial as political polarization across the population continued to grow.[161] Compromises with Republicans to reduce the bill's size and composition were made, but only a handful of Senate Republicans voted for the bill.

Economists were split on both the efficacy and necessity of a stimulus bill of this size but there was a general consensus that the bill was needed. The weight of expert opinion was in favor even if there was dissent. Several economists, including National Economic Council Director Larry Summers and Nobel Memorial Prize in Economic Sciences winners Joseph Stiglitz and Paul Krugman supported the ARRA for its Keynesian-driven approach to resolving the nation's economic concerns. Remember that Keynesian economics prioritizes government interventions in the form of increased spending or tax cuts to stimulate activity in the macroeconomy. However, Krugman criticized the bill's final version – not for being too "activist" but just the opposite, arguing that it was too small in scope and size to effectively deal with the nation's economic troubles. Krugman provides thoughtful insight on the political nature of the bill's final product,

> "And it's widely believed that political considerations led to a plan that was weaker and contains more tax cuts than it should have – that Mr. Obama compromised in advance in hope of gaining broader bipartisan support."[162]

Prior to the bill's passage, a full-page advertisement was placed in both *The New York Times* and *The Wall Street Journal* with roughly 200 economists opposing the President's stimulus package.

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[160] "U.S. Senate Roll Call Votes 111th Congress - 1st Session," United States Senate, February 13, 2009, https://www.senate.gov/legislative/LIS/roll_call_votes/vote1111/vote_111_1_00064.htm#top.
[161] Brooks and Manza, "A Broken Public?"
[162] Paul Krugman, "Failure to Rise," *The New York Times*, February 13, 2009, sec. Opinion, https://www.nytimes.com/2009/02/13/opinion/13krugman.html.

Those in opposition argued the ARRA's federal spending was too robust and would do more to hamper economic growth than support a strong recovery. But this was not where the weight of expert opinion lay. In response, a group of economists signed an open letter to Congress showing support for the ARRA. In this letter, they argued that the President's stimulus included important investments that would support the nation through a sustainable long-term-growth path.

The Great Recession's sustained economic impact on businesses and households required the government to roll out additional stimulus support even after the recession officially ended in June 2009. On December 17, 2010, President Obama signed the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010.[163] The law included important provisions that extended the income tax reprieve from the Economic Growth and Tax Relief Reconciliation Act of 2001 and the Jobs and Growth Tax Relief Reconciliation Act of 2003. These laws are often referred to as the "Bush tax cuts" implemented at the beginning of the 2000s.[164] In addition – the law reworked the alternative minimum tax in an effort to prevent 21 million American households from facing tax increases.[165] The payroll tax holiday measures ensured that income tax rates would not return to Clinton-era levels amid an economic downturn. These measures alone ensured millions of American households would not face an annual tax increase of more than $2,000, which would have happened had the provisions been allowed to sunset.[166] The law included additional tax-related provisions with the intent of stimulating economic activity. The tax measures included a 13-month extension of unemployment benefits

[163] "H.R.4853 - 111th Congress (2009-2010): Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010," December 17, 2010, 12/17/2010, http://www.congress.gov/.
[164] "President Bush Helped Americans Through Tax Relief," White House Archives, accessed March 21, 2023, https://georgewbush-whitehouse.archives.gov/infocus/bushrecord/factsheets/taxrelief.html.
[165] "Fact Sheet on the Framework Agreement on Middle Class Tax Cuts and Unemployment Insurance," White House Archives, December 7, 2010, https://obamawhitehouse.archives.gov/the-press-office/2010/12/07/fact-sheet-framework-agreement-middle-class-tax-cuts-and-unemployment-in.
[166] "Fact Sheet on the Framework Agreement on Middle Class Tax Cuts and Unemployment Insurance."

along with a one-year reduction in the Federal Insurance Contributions Act (FICA) payroll tax. The FICA payroll tax rate of 6.2% was reduced to 4.2% for normal employees and the self-employed rate of 12.4% was reduced to 10.4%.[167] Additionally, the law extended the refundability threshold of the Child Tax Credit along with an extension of ARRA's provisions for the Earned Income Tax Credit and the American Opportunity Tax Credit for an additional two years. These tax credit extensions allocated roughly $40 billion in tax relief for students and families hit hardest by the recession.[168] Additionally, the law's provisions included adjustments to the estate tax along with an extension of a "bonus depreciation" allowance included in the Small Business Jobs and Credit Act of 2010 to support business activity in the wake of the crisis. The estimated monetary impact of the bill upon passage was set at $858 billion.[169]

In December 2011, the Temporary Payroll Tax Cut Continuation Act of 2011 was signed into law. The bill ensured that the 2% reduction of the Social Security tax rate would not expire at the end of 2011. The law's provision extended the 4.2% tax rate through February 2012.[170] When the provision was set to expire once again, Congress passed the Middle Class Tax Relief and Job Creation Act of 2012 which was signed into law on February 22, 2012.[171] The law's provisions once again extended the reduced Social Security payroll tax rate – this time for an additional year. The law also extended unemployment benefits and extended benefits for the Temporary Assistance for Needy Families (TANF) along with job incentives for small businesses. The law's provisions extended an additional $143 billion in federal spending

[167] "H.R.4853 - 111th Congress (2009-2010)."
[168] "Fact Sheet on the Framework Agreement on Middle Class Tax Cuts and Unemployment Insurance."
[169] "Obama Signs Tax Deal into Law," CNN, December 17, 2010, http://www.cnn.com/2010/POLITICS/12/17/tax.deal/index.html.
[170] "H.R.3765 - 112th Congress (2011-2012): Temporary Payroll Tax Cut Continuation Act of 2011," December 23, 2011, 12/23/2011, http://www.congress.gov/.
[171] "H.R.3630 - 112th Congress (2011-2012): Middle Class Tax Relief and Job Creation Act of 2012," February 22, 2012, 02/22/2012, http://www.congress.gov/.

stimulus to support American households and businesses through the recovery era in the wake of the Great Recession. Following several extensions, the payroll tax holiday expired in January 2013. As a result – the contributory rate for traditional employees returned to 6.2% and the rate for self-employed individuals returned to 12.4%. By this time, lawmakers and policy actors were looking ahead at the nation's potential for recovery and economic expansion.

Following a trough in the business cycle in June 2009, the economy entered a period of expansion. That expansion continued for 128 months, the longest economic expansion on record, before the economy hit a peak in the business cycle in February 2020.[172] The post-Great Recession expansion period was long but gains in the average annual growth rate of the economy and in typical worker's earnings were modest at best. Economic growth average 2.3% annually between mid-2009 and 2019, but the pattern of quarterly growth was uneven.[173] Based on U.S. real GDP growth data by quarter between 2009Q3 and 2019Q4, there were several quarters where real GDP growth was 3.5% or greater (2009Q4, 2010Q2, 2011Q4, 2013Q1, 2014Q2, 2014Q3, 2017Q4, 2019Q3) there were also several quarters of less than 1% growth (2012Q3, 2012Q4, 2013Q2, 2015Q4, 2018Q4) along with three quarters of negative growth (2011Q1, 2011Q3, 2014Q1).[174] The long but uneven expansion period following the Great Recession was abruptly halted with the onset of the COVID-19 pandemic. The early months of 2020 quickly reversed the course of economic activity in the United States and globally. Suddenly, the United States was once again grappling with a severe economic downturn, and policy actors would be forced to step in and act.

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[172] "Chart Book: Tracking the Post-Great Recession Economy," May 22, 2022, https://www.cbpp.org/research/economy/tracking-the-post-great-recession-economy.
[173] "Chart Book."
[174] U.S. Bureau of Economic Analysis, "Real Gross Domestic Product," FRED, Federal Reserve Bank of St. Louis (FRED, Federal Reserve Bank of St. Louis), accessed March 21, 2023, https://fred.stlouisfed.org/series/A191RL1Q225SBEA.

[CHAPTER THREE]

Policy Interventions During the Pandemic Recession

[Section 3.1]

The Lead Up to Recession

A long recovery period during the 2010s followed what felt like a once-in-a-lifetime economic crisis. During this expansion period, researchers began to theorize when the next economic downturn would arise – and whether the United States was ready to combat a new crisis. Twelve years after the Great Recession officially began, the domestic and global markets were once again burdened by an economic slowdown. No one would have expected this crisis to arise from a once-in-a-century pandemic. On December 8, 2019, the first patient in Wuhan City, China reported symptoms similar to a coronavirus infection.[175] On December 31, 2019, the World Health Organization (WHO) was informed by Chinese officials about a cluster of pneumonia cases that began to spread in Wuhan, Hubei Province with little understanding of where these illnesses were coming from.[176] It was initially believed that the disease emerged from the Huanan seafood market – although the validity of this theory has recently come into question. Investigations reveal that the virus may not have spread from animal to human, but rather, that the virus's release was the result of a lab leak in Wuhan City. Most of the international community, including WHO, contend that the animal-human spread of the virus is the most plausible explanation for the outbreak.[177] However, the primary concern with the debate over the virus's origins is due to the lack of transparency from the Chinese government.

[175] "Key Milestones in the Spread of the Coronavirus Pandemic," World Economic Forum, April 22, 2020, https://www.weforum.org/agenda/2020/04/coronavirus-spread-covid19-pandemic-timeline-milestones/.
[176] "Key Milestones in the Spread of the Coronavirus Pandemic."
[177] David Klepper, "COVID-19 Conspiracies Soar after New Classified Report on Virus Origins," PBS NewsHour, March 1, 2023, https://www.pbs.org/newshour/nation/covid-19-conspiracies-soar-after-new-classified-report-on-virus-origins.

On New Year's Day 2020 – WHO began an emergency inquiry to determine the type of response needed for this health crisis. The Huanan seafood market was shut down in response to its connection to the outbreak. On January 4, 2020, WHO sent out a message on Twitter informing the public of the pneumonia cases that were reported to them in Wuhan. Three days later, Chinese authorities identified the outbreak as a new type of coronavirus – novel coronavirus (nCoV). On January 11, 2020, the first death in connection to the new coronavirus was reported by Chinese state media. The first cases reported outside China came from Thailand on January 13, 2020. The following day, WHO announced that limited human-to-human transmission of the virus had been identified and the risk of a wider outbreak was increasing.[178] On January 20, 2020, the first case of COVID-19 was confirmed in the United States by a man in his 30s who had recently returned from a trip to Wuhan. The WHO proceeded to convene its Emergency Committee and Director-General Tedros Adhanom Ghebreyesus declared a Public Health Emergency of International Concern.[179] By the end of January, the Trump Administration suspended entry by any foreign national into the United States who had traveled to China within the past 14 days. On February 29, 2020, the first COVID-19 death was recorded in the United States, ushering in a wave of travel restrictions. On March 11, 2020, WHO declared COVID-19 a global pandemic.[180] After the disease began to rapidly spread across China and the surrounding countries in Asia, COVID-19 cases surged in Europe, and especially Italy. By March the virus had spread to the United States.

[178] "Key Milestones in the Spread of the Coronavirus Pandemic."
[179] "Key Milestones in the Spread of the Coronavirus Pandemic."
[180] "Key Milestones in the Spread of the Coronavirus Pandemic."

On March 13, 2020, the Trump Administration declared the COVID-19 outbreak a nationwide emergency.[181] The Trump administration implemented travel bans for most visitors from 26 European countries due to the rapid spread of the virus across the continent. Soon after on March 15, 2020, states across the country began implementing shutdown orders in hopes of containing the spread of the virus. The White House also began implementing social distancing measures as an additional barrier to human-to-human virus transmission. On March 28, 2020, signaling that virus transmission had continued to worsen, the Center for Disease Control and Prevention (CDC) issued a domestic travel advisory for New York, New Jersey, and Connecticut. The CDC identified high community transmission of the virus and urged residents to refrain from all non-essential domestic travel for a minimum of 14 days.[182] By the beginning of April, the CDC announced mask wearing guidelines and recommended that all people wear a mask when outside of their home. On April 10, 2020, the United States surpasses Italy as the global hot spot for COVID-19. In under four months, the United States had reported 18,600 confirmed deaths and more than half a million confirmed cases of the virus.[183] Within just a few months the new novel coronavirus (SARS-CoV-2) had upended normal life across the globe, and policy actors were uncertain of the future.

The COVID-19 pandemic quickly became one of the most critical public health emergencies in the United States, and the months ahead would be bleak. The combination of virus panic, quarantine orders, social distancing protocols, and business closures resulted in severe economic losses for the United States. In the fourth quarter of 2019, just prior to the onset

[181] "CDC Museum COVID-19 Timeline," Centers for Disease Control and Prevention, March 15, 2023, https://www.cdc.gov/museum/timeline/covid19.html.
[182] "CDC Museum COVID-19 Timeline."
[183] "CDC Museum COVID-19 Timeline."

of the COVID-19 pandemic, real GDP growth in the United States was 1.8%.[184] Modest growth in the final quarter before the onset of the pandemic recession led to a decline in real GDP growth of 4.6% in the first quarter of 2020. Real GDP growth in the U.S. further contracted by 29.9% in the second quarter of 2020.[185]

Despite these drastic declines, assessments from the National Bureau of Economic Research (NBER) define the parameters of the pandemic recession to include the months of March and April 2020, making it the shortest recessionary period on record. The NBER determines the length of a recession as consistent with severe declines in economic activity across different sectors for consecutive months. The Business Cycle Dating Committee at the NBER evaluates declines in economic activity based on three criteria – depth, infusion, and duration.[186] The NBER committee concluded that the business cycle reached its peak in February 2020, marking an end to the post-Great Recession expansion. Economic activity in the United States contracted until hitting a trough in April 2020. The subsequent expansion period began in May 2020.[187] Despite a technically short recession, the economy contracted considerably, and its economic consequences would take much longer to correct.

Given that the recession was induced by a health crisis that required stay-at-home orders and business closures across the nation, unemployment skyrocketed. In the fourth quarter of 2019 the unemployment rate for all persons aged 15-64 stood at 3.6%. By the second quarter of

[184] U.S. Bureau of Economic Analysis, "A191RL1Q225SBEA."
[185] U.S. Bureau of Economic Analysis.
[186] "Business Cycle Dating Procedure: Frequently Asked Questions," National Bureau of Economic Research, August 15, 2022, https://www.nber.org/research/business-cycle-dating/business-cycle-dating-procedure-frequently-asked-questions.
[187] "Business Cycle Dating Committee Announcement July 19, 2021," National Bureau of Economic Research, July 19, 2021, https://www.nber.org/news/business-cycle-dating-committee-announcement-july-19-2021.

2020 that figure jumped to 13.2%.[188] Although many individuals who lost their jobs during the onset of the COVID-19 pandemic were eventually able to find work, the unemployment rate was still 7% in the fourth quarter of 2020.[189] Unemployment was not the only concern for lawmakers during the COVID-19 pandemic. The implications of this crisis were severe and far-reaching. Robust fiscal and monetary strategies would be needed to be put in place to support the health of the economy, and of the American people. There are several similarities between the response structure to the pandemic and the response to the financial crisis. However, we find that many of the policies enacted during the pandemic were designed to avoid missteps from the past decade.

[Section 3.2]

The Monetary Policy Response

The pandemic-induced recession created deep uncertainty regarding the future of market activity. A "dash for cash" led Americans to hold onto their deposits and only the most liquid assets available to them.[190] This disrupted financial markets and would likely cause an even worse economic trajectory for the nation. In an effort to quell the recession through monetary action the Federal Reserve implemented a multitude of policy initiatives to keep the flow of credit stable and limit the economic consequences to the best of their ability. In April 2020, Chair of the Federal Reserve Board of Governors Jerome Powell stated:

> "We are deploying these lending powers to an unprecedent extent [and] … will continue to use these powers forcefully, proactively, and aggressively until we are confident that we are solidly on the road to recovery."[191]

[188] Organization for Economic Co-operation and Development, "Unemployment Rate: Aged 15-64: All Persons for the United States," FRED, Federal Reserve Bank of St. Louis (FRED, Federal Reserve Bank of St. Louis), accessed March 21, 2023, https://fred.stlouisfed.org/series/LRUN64TTUSQ156S.
[189] Organization for Economic Co-operation and Development.
[190] Eric Milstein and David Wessel, "What Did the Fed Do in Response to the COVID-19 Crisis?," *Brookings* (blog), December 17, 2021, https://www.brookings.edu/research/fed-response-to-covid19/.
[191] "Webinar: Federal Reserve Chair Jerome Powell on COVID-19 and the Economy," *Brookings* (blog), April 6, 2020, https://www.brookings.edu/events/webinar-federal-reserve-chair-jerome-powell-on-covid-19-and-the-economy/.

The Federal Reserve implemented many of the same policies that were enacted to combat the effects of the Great Recession. During the post-Great Recession expansion, the Fed kept the federal funds effective rate near the zero lower bound until the end of 2015. The effective rate was 0.24% in December 2015, at which point the Fed began to make systematic increases.[192] The rate reached its highwater mark in April 2019 of 2.42% before the Fed began gradually reducing the rate for the remainder of the year until landing at 1.55% in December 2019.[193] With the onset of the pandemic-induced recession, the effective rate stood at 1.58% in February 2020.[194] In response to the crisis, the Fed once again returned the rate near the zero lower bound, reducing the rate to 0.65% in March 2020, and then a further reduction to 0.05% by April 2020.[195] The Fed continued to set the federal funds effective rate near the zero lower bound for the remainder of the year and continued to sustain a low rate through 2021.

Employing another Great Recession era monetary tool, the Fed utilized forward guidance on the future path of interest rates. At the start of the pandemic crisis, Federal Reserve official said they planned on keeping the rate near the zero lower bound until confidence in the market began to grow. In a September 2020 statement, the Fed said it would keep the rates low

> "[…] until labor market conditions have reached levels consistent with the Committee's assessment of maximum employment and inflation has risen to 2 percent and is on track to moderately exceed 2 percent for some time."[196]

This strategy was employed through the end of 2021, when inflation levels in the economy were well over 2% and the Fed was nearing its "maximum employment" target. The Fed began raising rates in the early months of 2022. While there was a considerable amount of growth in the post-

[192] Board of Governors of the Federal Reserve System (US), "FEDFUNDS."
[193] Board of Governors of the Federal Reserve System (US).
[194] Board of Governors of the Federal Reserve System (US).
[195] Board of Governors of the Federal Reserve System (US).
[196] "Federal Reserve Issues FOMC Statement," Board of Governors of the Federal Reserve System, September 16, 2020, https://www.federalreserve.gov/newsevents/pressreleases/monetary20200916a.htm.

pandemic recession, excess inflation became an issue during 2022, and the Fed is continuing to combat growing inflation through 2023.

The Fed once again employed quantitative easing (QE) measures to respond to the pandemic recession to purchase a massive amount of debt securities. On March 15, 2020, the Fed committed to purchasing at least $500 billion in treasury securities and $200 billion in mortgage-backed securities over the next several months.[197] On March 23, 2020, the Fed made a promise to purchase securities, "in the amounts needed to support smooth market functioning and effective transmission of monetary policy to broader financial conditions."[198] In June 2020, the Fed set a rate of purchases on these securities to be at least $80 billion/month in treasuries and $40 billion/month in residential and commercial mortgage-backed securities.[199] By December 2020, the Fed indicated that it would slow the rate of security purchases when the economy progressed towards reaching the agency's dual mandate. In November 2021, the Fed reduced the rate of monthly asset purchases by $10 billion in treasuries and $5 billion in mortgage-backed securities.[200] In December 2021, that rate was further reduced by $20 billion in treasuries and $10 for billion in mortgage-backed securities, signaling that the Fed was satisfied with its QE measures during the height of the economic downturn.[201]

The Fed utilized additional tools to stabilize financial markets at the onset of the pandemic recession. The Primary dealer credit facility (PDCF) was reinstated to offer low

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[197] "Federal Reserve Issues FOMC Statement," Board of Governors of the Federal Reserve System, March 15, 2020, https://www.federalreserve.gov/newsevents/pressreleases/monetary20200315a.htm.
[198] "Federal Reserve Issues FOMC Statement," Board of Governors of the Federal Reserve System, March 23, 2020, https://www.federalreserve.gov/newsevents/pressreleases/monetary20200323a.htm.
[199] "Statement Regarding Treasury Securities, Agency Mortgage-Backed Securities, and Agency Commercial Mortgage-Backed Securities Operations," Federal Reserve Bank of New York, June 10, 2020, https://www.newyorkfed.org/markets/opolicy/operating_policy_200610.
[200] "Federal Reserve Issues FOMC Statement," Board of Governors of the Federal Reserve System, November 3, 2021, https://www.federalreserve.gov/newsevents/pressreleases/monetary20211103a.htm.
[201] "Federal Reserve Issues FOMC Statement," Board of Governors of the Federal Reserve System, December 15, 2021, https://www.federalreserve.gov/newsevents/pressreleases/monetary20211215a.htm.

interest rates on loans up to 90 days for 24 of the largest financial institutions.[202] The goal of this policy initiative was to keep credit markets functioning. The Fed obtained approval from the Treasury Department to invoke emergency lending for the PDCF under Section 13(3) of the Federal Reserve Act. This operation expired at the end of March 2021. The Fed also re-launched the Money Market Mutual Fund Liquidity Facility (MMLF) which assisted money market funds to meet redemption demands by households and investors in an attempt to strengthen general market functionality.[203] The Fed once again invoked Section 13(3), and the Treasury Department provided $10 billion from its Exchange Stabilization fund to cover potential losses from this operation. The MMLF expired at the end of March 2021 as well.

In addition, the Fed implemented several programs to encourage bank lending. The Fed lowered the discount window rate it charged banks for loans by two percentage points (pp) from 2.25% to 0.25%, a lower percentage than was employed during the Great Recession.[204] The additional cash supported bank functionality, but many of these financial institutions were reluctant to borrow from the discount window given market perception concerns. Ultimately, eight of the big banks (JPMorgan Chase, Bank of America, Wells Fargo, Citigroup, Goldman Sachs, Morgan Stanley, Bank of New York Mellon, State Street) organized together and agreed to borrow directly from the Fed in March 2020.[205] The Fed also temporarily relaxed regulatory requirements, encouraging both large and community banks to consume regulatory capital and

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[202] "Federal Reserve Board Announces Establishment of a Primary Dealer Credit Facility (PDCF) to Support the Credit Needs of Households and Businesses," Board of Governors of the Federal Reserve System, March 17, 2020, https://www.federalreserve.gov/newsevents/pressreleases/monetary20200317b.htm.
[203] "Federal Reserve Board Broadens Program of Support for the Flow of Credit to Households and Businesses by Establishing a Money Market Mutual Fund Liquidity Facility (MMLF)," Board of Governors of the Federal Reserve System, March 18, 2020, https://www.federalreserve.gov/newsevents/pressreleases/monetary20200318a.htm.
[204] Milstein and Wessel, "What Did the Fed Do in Response to the COVID-19 Crisis?"
[205] Liz Hoffman and David Benoit, "Shedding 2008 Stigma, Biggest U.S. Banks Borrow Straight From the Fed," *Wall Street Journal*, March 17, 2020, sec. Markets, https://www.wsj.com/articles/shedding-2008-stigma-biggest-u-s-banks-borrow-straight-from-the-fed-11584412394.

liquidity buffers to increase their lending capacity. In a post-Great Recession reform, the Fed required banks to hold additional loss-absorbing capital to prevent another bank bailout. In an effort to preserve capital, the nation's largest banks suspended share buybacks, and the Fed restricted these firms from reinstituting them through the end of June 2021.[206]

The Fed also supported non-financial corporations during the onset of the crisis. On March 23, 2020, regulators implemented the Primary Market Corporate Credit Facility (PMCCF) and the Second Market Corporate Credit Facility (SMCCF) to support credit flows to U.S. companies. The PMCCF allowed the Fed to lend directly to companies by purchasing new bond issues and providing loans. The SMCCF allowed the Fed to purchase existing corporate bonds along with exchange-traded funds investing. On April 9, 2020, the Fed agreed to backstop up to $750 billion in corporate debt using these facilities.[207] The Fed utilized the Commercial Paper Funding Facility (CPFF) to issue unsecured short-term debt to allow firms to finance day-to-day lending activity. The CPFF lent directly to firms for up to three months at a rate one to two percentage points (pp) higher than the overnight rate.[208]

The Fed supported small- and mid-sized businesses through the Main Street Lending Program, which was announced on April 9, 2020. The program implemented three additional facilities – the New Loans Facility, the Expanded Loans Facility, and the Priority Loans Facility.[209] Businesses with up to 15,000 employees or up to $5 billion in annual revenue could participate. The Fed was prepared to utilize these facilities to fund up to $600 billion to firms in

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[206] Milstein and Wessel, "What Did the Fed Do in Response to the COVID-19 Crisis?"
[207] Milstein and Wessel.
[208] "Federal Reserve Board Announces Establishment of a Commercial Paper Funding Facility (CPFF) to Support the Flow of Credit to Households and Businesses," Board of Governors of the Federal Reserve System, March 17, 2020, https://www.federalreserve.gov/newsevents/pressreleases/monetary20200317a.htm.
[209] "Main Street Lending Program," Board of Governors of the Federal Reserve System, March 13, 2023, https://www.federalreserve.gov/monetarypolicy/mainstreetlending.htm.

five-year loans.[210] The Fed also introduced the Paycheck Protection Program Liquidity Facility, which facilitated loans made under the Paycheck Protection Program (PPP), a fiscal policy initiative that will be explained in greater detail in the following section.[211] In July 2020, the Fed expanded its Main Street Lending Program to include non-profits such as hospitals, schools, and social services organizations that were financially stable prior to the onset of the pandemic. This extension applied to organizations with at least 10 employees and no more than $3 billion in annual revenue. The Fed issued five-year loans with principal payments deferred for the first two years of the loan's life.[212]

The Fed supported households and consumers through the Term Asset-Backed Securities Loan Facility (TALF), which was reestablished on March 23, 2020. The TALF aimed to supporting households, consumers, and small businesses by lending to holders of asset-backed securities collateralized through student loans, auto loans, credit card loans, and loans guaranteed by the Small Business Administration (SBA). The program supported up to $100 billion in new credit and the Treasury Department allocated $10 billion from its Exchange Stabilization Fund to support the program.[213] This program expired at the end of December 2020. The Fed also lent directly to state and municipal governments – a move that the Fed refused to take during the onset of the Great Recession. The Municipal Liquidity Facility was established on April 9, 2020,

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[210] Milstein and Wessel, "What Did the Fed Do in Response to the COVID-19 Crisis?"

[211] "Paycheck Protection Program Liquidity Facility (PPPLF)," Board of Governors of the Federal Reserve System, March 13, 2023, https://www.federalreserve.gov/monetarypolicy/ppplf.htm.

[212] "Federal Reserve Board Modifies Main Street Lending Program to Provide Greater Access to Credit for Nonprofit Organizations Such as Educational Institutions, Hospitals, and Social Service Organizations," Board of Governors of the Federal Reserve System, July 17, 2020, https://www.federalreserve.gov/newsevents/pressreleases/monetary20200717a.htm.

[213] Milstein and Wessel, "What Did the Fed Do in Response to the COVID-19 Crisis?"

to support this lending. The Fed made $500 billion in investment-grade credit ratings available to government entities, with the program also expiring at the end of December 2020.[214]

The severity of the COVID-19 pandemic made targeting markets an insufficient monetary strategy considering the extensive disruptions to credit flows across financial markets. The Fed's decisions to directly intervene in the markets for corporate and municipal debt ensured economic actors could raise funds to pay their employees and avoid solvency issues that may have led to firm bankruptcy. The Fed's monetary strategy ensured that businesses would survive through the crisis and encouraged firms to begin hiring and production operations when the pandemic subsided. The liquidity supply offered by the Fed to financial institutions additionally ensured that these firms would be able to issue loans to struggling businesses and households. These monetary strategies were vital, but fiscal measures were equally important.

[Section 3.3]

The Fiscal Policy Response

With the onset of the COVID-19 pandemic, a rapid contraction in U.S. economic activity required more than a monetary response from the Fed to support American families and businesses. Several major fiscal stimulus packages were passed during 2020 and early-2021 under both the Trump and Biden Administrations. The first fiscal measures were small – responding to a developing public health crisis that was minimally understood at the start of 2020. With a better understanding of the virus' health and economic-related consequences, subsequent fiscal packages grew in size and scope. Table 3.1 outlines the major fiscal measures passed by Congress to respond to the COVID-19 pandemic.

[214] "Municipal Liquidity Facility," Board of Governors of the Federal Reserve System, March 13, 2023, https://www.federalreserve.gov/monetarypolicy/muni.htm.

Table 3.1 – Breakdown of Fiscal Stimulus in Response to the COVID-19 Pandemic

Date	Fiscal Package	Total Funding Capacity
March 6, 2020	Coronavirus Preparedness and Response Supplemental Appropriations Act, 2020	$8.3 billion
March 18, 2020	Families First Coronavirus Response Act	$192 billion
March 27, 2020	Coronavirus Aid, Relief, and Economic Security "CARES" Act	$2.3 trillion
April 24, 2020	Paycheck Protection Program and Health Care Enhancement Act	$483 billion
December 28, 2020	Consolidated Appropriations Act of 2021	$868 billion
March 11, 2021	American Rescue Plan	$1.9 trillion

Source: International Monetary Fund (2021)[215]

The first effort to respond to the pandemic crisis came on March 6, 2020, with the Coronavirus Preparedness and Response Supplemental Appropriations Act.[216] In an early effort to combat the pandemic, $8.3 billion was appropriated to support the economy. $7.8 billion was designated for discretionary spending with an additional $500 million in mandatory spending. This small designation of federal support provided $3 billion for the research and development of a COVID-19 vaccine, and $2.2 billion was allocated for public health funding for prevention, preparedness, and response measures to the pandemic.[217] Additionally, nearly $1 billion of the total allocation supported medical supplies and health-care preparedness for Community Health Centers while $1.25 billion was used to fight the spread of COVID-19 across the globe.[218]

Just a few weeks later, the Families First Coronavirus Response Act (FFCRA) was signed into law on March 18, 2020.[219] The FFCRA allocated a much larger $192 billion in federal

[215] "Policy Responses to COVID19," International Monetary Fund, June 3, 2021, https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19.
[216] "H.R.6074 - 116th Congress (2019-2020): Coronavirus Preparedness and Response Supplemental Appropriations Act, 2020," March 6, 2020, 03/06/2020, http://www.congress.gov/.
[217] "H.R.6074 - 116th Congress (2019-2020)."
[218] "H.R.6074 - 116th Congress (2019-2020)."
[219] "H.R.6201 - 116th Congress (2019-2020): Families First Coronavirus Response Act," March 18, 2020, 03/18/2020, http://www.congress.gov/.

funding to support the economy and combat the spread of COVID-19. The law's major provisions included funding for virus testing, transfers to states for Medicaid funding, development for vaccines and research diagnostics, along with funding support for the Center for Disease Control and Prevention (CDC) response measures. The FFCRA provided emergency two weeks paid sick leave for employees along with paid family medical leave. The leave support included up to three months of emergency leave at two-thirds the designated pay for any given employee.[220] The law's provisions included funding for food assistance given disruptions in supply chains that developed as the virus began to spread. The law additionally included transfers to states in an effort to fund an expanded Unemployment Insurance (UI) program, expanded loan subsides for the Small Business Administration (SBA), and the suspension of federal student loan obligations for 60 days.[221] While these early appropriations were designed to support businesses and households as lockdowns went into effect, it soon became clear that additional support would be increasingly necessary.

On March 27, 2020, President Trump signed into law the largest fiscal appropriations measure in American history. With a funding capacity of $2.3 trillion, the Coronavirus Aid, Relief, and Economic Security "CARES" Act was an ambitious fiscal response measure.[222] The CARES Act targeted several important categories including individuals, small businesses, big businesses, public health, social safety nets, state and local government supports along with education and miscellaneous funding. The CARES Act can be broken down into several major provisions, as Table 3.2 does on the following page.

[220] "H.R.6201 - 116th Congress (2019-2020)."
[221] "H.R.6201 - 116th Congress (2019-2020)."
[222] "H.R.748 - 116th Congress (2019-2020): CARES Act," March 27, 2020, 03/27/2020, http://www.congress.gov/.

Table 3.2 – Breakdown of Major Provisions included in the Coronavirus Aid, Relief, and Economic Security "CARES" Act (2020)

Category	Program	Cost
Tax incentives	One-time tax rebates to individual	$293 billion
Federal Spending	Expanded unemployment benefits	$268 billion
Federal Spending	Food safety net to the neediest	$25 billion
Federal Spending	Corporate bankruptcy prevention[223]	$510 billion
Federal Spending	Forgivable Small Business Administration (SBA) loans and guarantees[224]	$350 billion
Federal Spending	Emergency grants for small businesses	$10 billion
Federal Spending	Existing SBA loan support	$17 billion
Federal Spending	Hospitals	$100 billion
Federal Spending	International assistance	$49.9 billion
State and Local	State and municipal COVID-19 response efforts	$274 billion
State and Local	Transfers to state and municipal governments	$150 billion

Source: Public Law No: 116-136 (2020)[225]

Nearly $300 billion in federal dollars were allocated for one-time cash payments to American taxpayers. Individuals earning less than $75,000/year received tax rebates totaling $1,200. Married couples earning less than $150,000 that file their taxes jointly each received $1,200, along with an additional $500 per child in their household.[226] The CARES Act bolstered unemployment benefits and implemented substantial changes to the Unemployment Insurance (UI) program to expand individual eligibility. Individuals would receive an additional $600/week from the federal government on top of the amount workers would receive from state governments.[227] The provisions extended the UI program for an additional 13 weeks of benefits. The bill also designated a temporary Pandemic Unemployment Assistance program for gig and freelance workers who had not previously qualified for UI benefits.

[223] $454 billion of the total amount appropriated in the CARES Act was dispersed through the Federal Reserve's various lending programs. The government utilized section 13(3) of the Federal Reserve Act, which extends the Fed powers to secure the liquidity of firms by expanding access to loans and guarantees.
[224] Also known as the Paycheck Protection Program.
[225] "H.R.748 - 116th Congress (2019-2020)."
[226] "H.R.748 - 116th Congress (2019-2020)."
[227] "H.R.748 - 116th Congress (2019-2020)."

The CARES Act supported small businesses primarily through emergency grants and a forgivable loan program. $10 billion in grants up to $10,000 were allocated to support emergency funding for small businesses to cover operating costs in the short run.[228] $350 billion was allocated to the SBA for the development of the Paycheck Protection Program (PPP). Under the PPP, the SBA could provide loans of up to $10 million per business. These allocated funds would be forgiven if firms utilized the additional funding capacity to maintain payroll, keep workers employed or pay rent. The PPP stipulated that firms receiving this SBA funding must keep their workers employed at the firm through the end of June 2020.[229] An additional $17 billion was provided to cover payments on existing loans already issued by the SBA for six months. For big businesses, over $500 billion was allocated in loans and other funding supports. Any firm receiving a loan under this provision was banned from making stock buybacks for the term of the loan plus one year.[230] The funding support also established reporting requirements along with special oversight for pandemic recovery. To bolster public health in the wake of the pandemic, the bill's provisions included $100 billion for hospitals to respond to the COVID-19 outbreak. Community health centers received $1.32 billion for immediate support, along with $11 billion in funding for diagnostics, treatment, and vaccine research and development.[231] $80 million was allocated to the FDA to expedite COVID-related drug approvals. The CDC received $4.3 billion to support its response effort to the pandemic, $20 billion was set aside for veteran's health care, and $16 billion was provided to the Strategic National Stockpile to ensure protective equipment was available to keep individuals and health care professionals safe.[232]

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228 "H.R.748 - 116th Congress (2019-2020)."
229 "H.R.748 - 116th Congress (2019-2020)."
230 "H.R.748 - 116th Congress (2019-2020)."
231 "H.R.748 - 116th Congress (2019-2020)."
232 "H.R.748 - 116th Congress (2019-2020)."

The CARES Act allocated additional funds to support social safety nets. $8.8 billion was allocated for child nutrition to provide schools with more flexible meal options for students. $15.5 billion was provided to the Supplemental Nutrition Assistance Program (SNAP).[233] This funding was designed to support the SNAP program understanding that the pandemic's economic consequences would lead new households to apply for nutrition assistance benefits. On top of this, $450 million in federal dollars were funneled to food banks and other community distribution programs to ensure American families would not go hungry as unemployment rose and incomes declined.[234] The CARES Act also deferred all student loan and interest payments through the end of September 2020.[235] Unused work-study funds were transferred to support supplemental grants and to continue to pay these wages while colleges were shut down. Provisions were also included to allocate nearly $340 billion in programs to support state and local governments.[236] $274 billion was designated for the specific use of COVID-19 response efforts by states and municipalities. $150 billion was provided in direct aid to state and local governments that were running low on cash in an effort to balance state budgets in the wake of the pandemic. These state and local provisions included $5 billion for Community Development Block Grants, $13 billion for K-12 schools, $14 billion for higher educations, along with $5.3 billion for programs to assist children and families.[237]

The CARES Act provided sweeping fiscal stimulus for households and programs heavily impacted by the pandemic. But additional fiscal efforts were necessary. On April 24, 2020, the Paycheck Protection Program and Health Care Enhancement Act was signed into law, allocating

[233] "H.R.748 - 116th Congress (2019-2020)."
[234] "H.R.748 - 116th Congress (2019-2020)."
[235] "H.R.748 - 116th Congress (2019-2020)."
[236] "H.R.748 - 116th Congress (2019-2020)."
[237] "H.R.748 - 116th Congress (2019-2020)."

$483 billion in additional funding.[238] The law was designed to “enhance” state funding to support programs from previous stimulus efforts. The Paycheck Protection Program (PPP) received an additional $320 billion to support the forgivable loans and guarantees designated under the SBA. The allocated funding requires $60 billion be designated for PPP loans made by small banks, credit unions, and other community financial firms.[239] $10 billion was given to the emergency Economic Injury Disaster Loans, expanding eligibility for these loans to farms and agricultural businesses. The SBA received $50 billion to fund disaster loans.[240] $75 billion was designated for hospitals through the Public Health and Social Services Emergency Fund along with an additional $25 billion for the research and development of COVID-19 testing.[241]

On December 27, 2020, President Trump signed into law the Consolidated Appropriations Act of 2021.[242] In additional to $1.4 trillion in omnibus spending for the 2021 fiscal year, $868 billion in federal dollars were allocated for COVID-19 relief and government stimulus funding.[243] This COVID-related stimulus was designated as the Coronavirus Response and Relief Supplemental Appropriations Act, 2021 (CRRSAA). An additional $284 billion in forgivable loans for small businesses was included in the Paycheck Protection Program (PPP), along with $20 billion for businesses in low-income communities.[244] $166 billion was allocated for $600 stimulus checks to be received by individual taxpayers ($1,200 for married couples filing jointly) earning less than $75,000 in annual income ($150,000 for married couples filing

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[238] “H.R.266 - 116th Congress (2019-2020): Paycheck Protection Program and Health Care Enhancement Act,” April 24, 2020, 04/24/2020, http://www.congress.gov/.
[239] “H.R.266 - 116th Congress (2019-2020).”
[240] “H.R.266 - 116th Congress (2019-2020).”
[241] “H.R.266 - 116th Congress (2019-2020).”
[242] “H.R.133 - 116th Congress (2019-2020): Consolidated Appropriations Act, 2021,” December 27, 2020, 12/27/2020, http://www.congress.gov/.
[243] “H.R.133 - 116th Congress (2019-2020).”
[244] “H.R.133 - 116th Congress (2019-2020).”

jointly).[245] $120 billion was appropriated to extend unemployment benefits of $300/week until March 14th, 2021.[246] K-12 schools received $54 billion, colleges and universities received $23 billion, along with $4 billion to a Governors Emergency Education Relief Fund. $69 billion was appropriated for vaccines, testing, and supports for health care providers. An additional $25 billion was given to state and local governments to support rental assistance programs. $13 billion was allotted for SNAP to increase benefits by 15% through June 30th, 2021.[247] The farming industry was also provided with $13 billion in direct payments, along with an additional $10 billion for childcare support. The law's provisions included an extension of the CDC-imposed eviction moratorium through the end of January 2021.[248]

It is important to note the highly contentious political differences that often made it difficult for stimulus efforts to be passed efficiently and robustly. The CRSSAA was approved eight months after political stalemating made it difficult for additional fiscal projects to be passed by Congress. Questions about how to address the economic and health-related issues of the pandemic led to polarizing debates in Congress. Political theatrics would often get in the way of substantive discussions about the size and composition of different fiscal provisions. This was especially true for the CARES Act. With a $2.3 trillion price tag – the sheer size of the CARES Act in its final version instigated pushback.

In the weeks prior, leadership in the House and the Senate began drafting their own versions of a COVID-related stimulus package. Congress was divided – with Republicans holding a thin majority in the Senate and Democrats controlling the House. Senate Republican's

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[245] "H.R.133 - 116th Congress (2019-2020)."
[246] "H.R.133 - 116th Congress (2019-2020)."
[247] "H.R.133 - 116th Congress (2019-2020)."
[248] "H.R.133 - 116th Congress (2019-2020)."

offered their version of a COVID-19 relief package with $1 billion in fiscal support.[249] This draft focused on providing $1,200 direct cash payments to taxpayers, guaranteed loans, tax cuts to large firms, and a small business grant program (similar to the PPP). An array of criticisms came from liberals across the aisle who took issue with a GOP provision that included a $500 billion bailout fund for large corporations facing economic hardship. The provision of this bailout fund included very few regulatory requirements. Democrats took issue with the lack of federal oversight and were looking to avoid the consequences from another Wall Street Bailout.[250]

Democrats in the House offered a $2.5 trillion proposal that received harsh criticisms from Republicans in both chambers. Conservatives took issue with what they saw as policies to push a progressive agenda unrelated to the immediate crisis at hand. Congressional Democrats drew a hard line on ensuring that an expansion to unemployment insurance would be included in the final version of the stimulus bill. Republicans focused on including substantial tax cuts along with limiting the scope of UI benefits. While calls for a bipartisan resolution were strong, Democrats were not willing to budge on these expanded UI benefits. Leadership also wanted to provide additional aid to hospitals and allocating funds to state and local governments.[251]

Despite political stalemating and debate – the final version of the stimulus package was closer in size to the Democratic version than the Republican version. When the CARES Act was voted on and eventually signed into law, it replaced the American Recovery and Reinvestment Act (ARRA) as the largest fiscal stimulus measure in American history. The more than $800 billion dispersed from the ARRA was unprecedent for its time, but research has found that

[249] Carl Hulse and Emily Cochrane, "As Coronavirus Spread, Largest Stimulus in History United a Polarized Senate," *The New York Times*, March 26, 2020, sec. U.S., https://www.nytimes.com/2020/03/26/us/coronavirus-senate-stimulus-package.html.
[250] Hulse and Cochrane.
[251] Hulse and Cochrane.

reductions in public investment spending during the 2010s made recovering from the financial crisis especially difficult.[252] Many liberal members of Congress pursued Keynesian-driven policy with the CARES Act to ensure stimulus effects would be delivered to American households in the proper timeframe. Republicans continued to criticize the size of the stimulus, but legislators did not want to be seen denying aid to their constituents. The final version of the bill passed the Senate with a vote of 96-0, and the House agreed to these Senate amendments with a voice call vote before it was signed by President Trump.[253]

Most pandemic-related stimulus measures were passed during President Trump's tenure. Following a contentious Presidential election in 2020, Joe Biden became President on January 20, 2021. President Biden promised to deliver additional stimulus to speed up the nation's recovery. The American Rescue Plan Act of 2021 (ARPA), which was signed into law on March 11, 2021, builds upon the nation's response infrastructure from the CARES Act and the Consolidated Appropriation Act of 2021.[254] The ARPA designed particular provisions to address employment, taxation, state and local aid, education, housing, transportation, and healthcare, allocating $1.9 trillion in federal stimulus spending to support these categories.[255]

The ARPA extended the expanded unemployment benefits of $300/week in additional supplements through September 6, 2021 (a provision that was set to expire at the end of March 2021).[256] An additional $1,400 in direct stimulus payments to individuals earning less than $75,000 in annual income was also included in the package along with emergency paid leave that

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[252] "Five Years Since the American Recovery and Reinvestment Act: The Downward Spiral of Public Investment," Economic Policy Institute, February 12, 2014, https://www.epi.org/publication/years-american-recovery-reinvestment-act/.
[253] Hulse and Cochrane, "As Coronavirus Spread, Largest Stimulus in History United a Polarized Senate."
[254] "H.R.1319 - 117th Congress (2021-2022): American Rescue Plan Act of 2021," March 11, 2021, 03/11/2021, http://www.congress.gov/.
[255] "H.R.1319 - 117th Congress (2021-2022)."
[256] "H.R.1319 - 117th Congress (2021-2022)."

was extended for over 100 million Americans.[257] The 15% increase in SNAP benefits was extended through September 2021. The ARPA expanded the Child Tax Credit from $2,000 per child to $3,000 per child up to the age of 17. The Child and Dependent Care Credit was also expanded to increase the maximum benefit to $4,000 per eligible individual and $8,000 for two or more eligible individuals.[258] In addition, the Earned Income Tax Credit was expanded under the law's provisions. Moreover, in the event Congress or President Biden were to cancel student loan debt, this forgiven debt would be made tax-free.

The ARPA included three tax increases on wealthy Americans and large corporations, which together raised $60 billion in revenue for the federal government.[259] The first provision limited the ability for publicly traded companies to deduct executive compensation from corporate taxes (generating $6 billion in tax revenue). The second provision repeals a statute in the tax code that provided multinational firms additional discretion in accounting for interest expenses (generating $22 billion in tax revenue). The third provision extends "loss limitation" restriction on unincorporated businesses (generating $31 billion in tax revenue).[260] While large corporations faced higher taxes, the ARPA continued to support small business expansion. Several small business grants were included in the law's provisions, including $28.6 billion for the Restaurant Revitalization Fund, a program designed for restaurants and bars for payroll and other expenses. $15 billion was allocated to the SBA's Emergency Injury Disaster Fund for long-term, low-interest loans. An additional $7 billion was designated for the PPP which included an expansion of eligibility criteria for some non-profit organizations.[261]

[257] "H.R.1319 - 117th Congress (2021-2022)."
[258] "H.R.1319 - 117th Congress (2021-2022)."
[259] "H.R.1319 - 117th Congress (2021-2022)."
[260] "H.R.1319 - 117th Congress (2021-2022)."
[261] "H.R.1319 - 117th Congress (2021-2022)."

Additional funding support was allocated to state and local governments under the ARPA, including $350 billion in federal funding to bridge budget shortfalls as well as mitigate the effects of the fiscal shock from previous stimulus measures.[262] In an effort to get students back in the classroom, the ARPA included $122 billion for K-12 schools to support safe reopening operations. An additional $40 billion was allocated for colleges and universities, with a focus on supporting community colleges, Historically Black Colleges and Universities, Tribally Controlled Colleges and Universities, Hispanic-serving institutions, Asian American and Native American Pacific Islander-serving institutions.[263]

Housing provisions were a key component in the ARPA. Rental assistance programs were allocated $21.6 billion, and $10 billion was provisioned for the Homeowner Assistance Fund. $5 billion was allotted for the Section 8 Housing Choice Voucher Program along with $4.5 billion to support the Low-Income Home Energy Assistance Program. State and local programs that support the homeless and at-risk individuals were given $5 billion in funding to support rental assistance, housing counseling, and homelessness prevention services.[264] Transportation support was also key to the ARPA. $30.5 billion in grants were provided to public transit and commuter rail agencies to encourage increased ridership across the country. $15 billion was provided to airlines and airline contractors along with $8 billion directly to U.S. airports.[265] In addition to these measures, the ARPA allotted funding for COVID-19 and healthcare provisions to continue to combat the pandemic. This included $50 billion to the Federal Emergency Management Agency for vaccine distribution and assistance. An additional $47.8 billion was designated for COVID-19 testing, mitigation, and transmission prevention along with $13.48

[262] "H.R.1319 - 117th Congress (2021-2022)."
[263] "H.R.1319 - 117th Congress (2021-2022)."
[264] "H.R.1319 - 117th Congress (2021-2022)."
[265] "H.R.1319 - 117th Congress (2021-2022)."

billion for health programs under the Department of Veterans Affairs and $10 billion for personal protection equipment and other medical equipment under the Defense Product Act.[266]

The ARPA was generally supported by Americans in public opinion data from March 2021. A Gallup poll taken between March 15-21, 2021, found that 63% of all Americans approved of the bill.[267] Support was strongest among Democrats at 97% and weakest among Republicans at 18%.[268] Unlike the CARES Act, there was far less bipartisan political consolidation to support Biden's stimulus package. In the 2020 elections, Democrats retained control the House and the Senate was split 50-50, with Vice President Harris' vote giving Democrats control of the upper chamber. In the House, the ARPA was approved 220-211 with one Democrat joining every Republican to vote against the bill. In the Senate, the bill was approved 50-49 along party lines.[269] It is important to consider the timeframe of each fiscal package. The CARES Act was passed at the start of the pandemic when conditions across the globe were rapidly deteriorating. Republicans and Democrats alike wanted to claim any political success that could come from fiscal stimulus. A year into the crisis, growing party divergence around how to respond to the pandemic made bipartisan solutions less attainable. Democratic control of the executive and legislative branch allowed lawmakers to enact the ARPA without any Republican support.[270] Conservative leaders criticized Congress for what they say as wasteful government spending. But Democratic lawmakers and President Biden argued that additional spending was necessary to ensure economic security for the future.

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[266] "H.R.1319 - 117th Congress (2021-2022)."
[267] Saad Lydia, "COVID-19 Aid Package Both Popular and Controversial," The Gallup Organization, March 26, 2021, https://news.gallup.com/poll/342041/covid-aid-package-simultaneously-popular-controversial.aspx.
[268] Lydia.
[269] Grace Segers, "Biden Signs $1.9 Trillion American Rescue Plan into Law," CBS News, March 12, 2021, https://www.cbsnews.com/news/biden-signs-covid-relief-bill-american-rescue-plan-into-law/.
[270] Lydia, "COVID-19 Aid Package Both Popular and Controversial."

The ARPA was the last large fiscal stimulus package to be passed by Congress. In the months following its implementation, several major breakthroughs contributed to pandemic recovery. There are now four vaccines that are either approved or authorized for use in the United States. This includes vaccines from Pfizer-BioNTech, Moderna, Novavax, and Johnson & Johnson Janssen.[271] The rapid turnover from vaccine research/development to production/distribution was due in large part to funding allocation included in the government's fiscal response infrastructure. Vaccines have been made widely available to all Americans six months and older, along with booster shots for eligible Americans.[272] As of March 15, 2023, 81.2% of Americans have received at least one dose of the COVID-19 vaccine, with 69.3% of the population having completed their primary series and 16.4% having received their updated booster dose.[273] As of March 2023, there have been a total of 1,121,512 deaths due to COVID-19 and 103,801,821 cases of the virus have been reported in the United States.[274]

With these two major recessions now behind us, what did economic policy accomplish? Extensive monetary and fiscal response measures following the Great Recession and the onset of the COVID-19 pandemic were implemented to support the American economy, and policymakers were successful at reining in many of the national consequences from these economic downturns. However, what about everyday American families and individuals? How did they fare in the post-recession recovery periods? The remainder of this research looks ahead to assess the role these economic response measures played in influencing the day-to-day lives of the American people in the months and years following the official end of each recession.

[271] "COVID-19 Vaccination," Centers for Disease Control and Prevention, November 1, 2022, https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines/overview-COVID-19-vaccines.html.
[272] "COVID-19 Vaccination," Centers for Disease Control and Prevention, March 2, 2023, https://www.cdc.gov/coronavirus/2019-ncov/vaccines/stay-up-to-date.html.
[273] "COVID Data Tracker," Centers for Disease Control and Prevention, March 21, 2023, https://covid.cdc.gov/covid-data-tracker.
[274] "COVID Data Tracker."

[CHAPTER FOUR]

Recessionary Burdens on Student Loan Borrowers

Educating a population is one of the cornerstone responsibilities of any modern democratic government. For much of its history, higher education in the United States was reserved for the most privileged – often white, male, and extremely wealthy. Following WWII, Congress passed the Servicemen's Readjustment Act of 1944 (G.I. Bill). The provisions of the law included educational benefits for veterans that cover the cost of all or some of their college education, widening access to higher education for a growing share of Americans.[275] In addition, social and political upheavals during the 1960s expanded access to higher education once again, making a college education widely accessible by the second half of the 20th century. Compiling data from the U.S. Department of Education, total undergraduate enrollment in degree-granting postsecondary institutions in 1970 stood at just over 7,300,000.[276] Over the next four decades, total enrollment at institutions of higher education rose. Total enrollment in the United States peaked in 2010 at just over 18 million.[277] But in recent years, aggregate enrollment levels have gradually declined, falling to under 16 million in 2020.[278]

When higher education became more readily accessible, young Americans were motivated to attain the "college wage premium." This phenomenon accounts for the difference in earnings between college and high school graduates.[279] Median annual wages for workers with a bachelor's degree have been consistently higher than the median annual wages for workers with only a high school diploma. In 2022, the median annual wages for a worker with a high school

[275] "About GI Bill Benefits," Veterans Affairs, February 14, 2023, https://www.va.gov/education/about-gi-bill-benefits/.
[276] "Digest of Education Statistics, 2021," National Center for Education Statistics, accessed March 30, 2023, https://nces.ed.gov/programs/digest/d21/tables/dt21_303.70.asp.
[277] "Digest of Education Statistics, 2021."
[278] "Digest of Education Statistics, 2021."
[279] "College Pays Off. But by How Much Depends on Race, Gender, and Type of Degree.," New America, March 1, 2022, http://newamerica.org/education-policy/edcentral/college-pays-off/.

diploma was $34,320 while the median annual wages for a worker with a bachelor's degree was $52,000 – a difference of $17,680.[280] It is important to note that economists have observed a leveling off of growth in the college wage premium in recent years.[281] The benefits of pursuing a college degree may not outweigh the costs associated with having to take on student loans to obtain access to higher-paying positions.

College degrees are designed to provide people with access to higher-paying occupations, thus enjoying greater degrees of financial security. These opportunities enable people to secure steady employment prospects for their future. When we look at the unemployment rate for persons 25 years and older by educational attainment (seasonally adjusted), we observe several long run trends.[282] Individuals with a bachelor's degree or higher experience the lowest rates of unemployment, followed by workers with some college/associate degree, workers with only a high school diploma, and finally workers without a high school diploma.[283] Unemployment for workers with less than a high school diploma was 5.5% in 2022.[284] The unemployment rate for high school graduates was 4%, for workers with some college or associate degree it was 3.1%, and for workers with a bachelor's degree or more, it was 2%.[285]

Although higher levels of educational attainment often produce more stable economic and occupational prospects, specific economic advantages of pursuing a college degree are often

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[280] "The Labor Market for Recent College Graduates," Federal Reserve Bank of New York, February 10, 2023, https://www.newyorkfed.org/research/college-labor-market/index.

[281] Josh Bivens and Lawrence Mishel, "Identifying the Policy Levers Generating Wage Suppression and Wage Inequality," Economic Policy Institute, May 13, 2021, https://www.epi.org/unequalpower/publications/wage-suppression-inequality/.

[282] "Unemployment Rates for Persons 25 Years and Older by Educational Attainment," U.S. Bureau of Labor Statistics, accessed March 30, 2023, https://www.bls.gov/charts/employment-situation/unemployment-rates-for-persons-25-years-and-older-by-educational-attainment.htm.

[283] "Unemployment Rates for Persons 25 Years and Older by Educational Attainment."

[284] "Employment Status of the Civilian Noninstitutional Population 25 Years and over by Educational Attainment, Sex, Race, and Hispanic or Latino Ethnicity," U.S. Bureau of Labor Statistics, January 25, 2023, https://www.bls.gov/cps/cpsaat07.htm.

[285] "Employment Status of the Civilian Noninstitutional Population 25 Years and over by Educational Attainment, Sex, Race, and Hispanic or Latino Ethnicity."

much more nuanced. Racial and gender-related disparities in performance outcomes can dampen the effects of the college wage premium for non-white, non-male workers. In 2022, the unemployment rate for white workers at every level of educational attainment was lower than the unemployment rate for Black and Hispanic workers at the same education level.[286] The unemployment rate for women was also consistently higher than the unemployment rate for men at each level of educational attainment.[287] Looking specifically at disparities in race for workers with a bachelor's degree, in 2018, the average hourly wages for a White worker was $34.75, over $6 more than Latinx workers ($28.49) and over $7 more than Black workers ($27.46).[288] Also in 2018, the median annual earnings for a male worker with a bachelor's degree was $75,200 while the median annual earnings for female workers with a bachelor's degree was $56,700 – a difference of $18,500.[289]

With the prospect of an expanding higher education system, policymakers recognized a growing need for a federal loan distribution system to be available to students who could not afford the cost of a college education. In 1958, Congress passed the National Defense Education Act (NDEA) which created the National Defense Student Loan (NDSL) program. The NDSL program, now called the Federal Perkins Loan program, was the first federal loan program to support students.[290] In 1965, the first Higher Education Act (HEA) created the Guaranteed Student Loans (GSL) program: a public-private partnership with the federal government that subsidizes bank capital to provide access to higher education among low- and middle-income

[286] "Employment Status of the Civilian Noninstitutional Population 25 Years and over by Educational Attainment, Sex, Race, and Hispanic or Latino Ethnicity."
[287] "Employment Status of the Civilian Noninstitutional Population 25 Years and over by Educational Attainment, Sex, Race, and Hispanic or Latino Ethnicity."
[288] "College Pays Off. But by How Much Depends on Race, Gender, and Type of Degree."
[289] "College Pays Off. But by How Much Depends on Race, Gender, and Type of Degree."
[290] "A History of Federal Student Loan Aid," Lumina Foundation, accessed March 30, 2023, https://www.luminafoundation.org/history-of-federal-student-aid/.

students.[291] By the 1970s, federal loans grew in volume, and the cost of higher education was on the rise. This led to the development of government-sponsored enterprises such as Sallie Mae, the establishment of loan guarantee agencies, and the expansion of loan eligibility and limits.[292] Through the 1980s and into the 1990s, concerns surrounding the rise in default rates for student loans led Congress to act. Through the end of the 1990s and the start of the 2000s, a growing number of student loan borrowers began having difficulties making monthly payments on time. The onset of both the Great Recession and the COVID-19 pandemic has continued to extend these repayment difficulties.

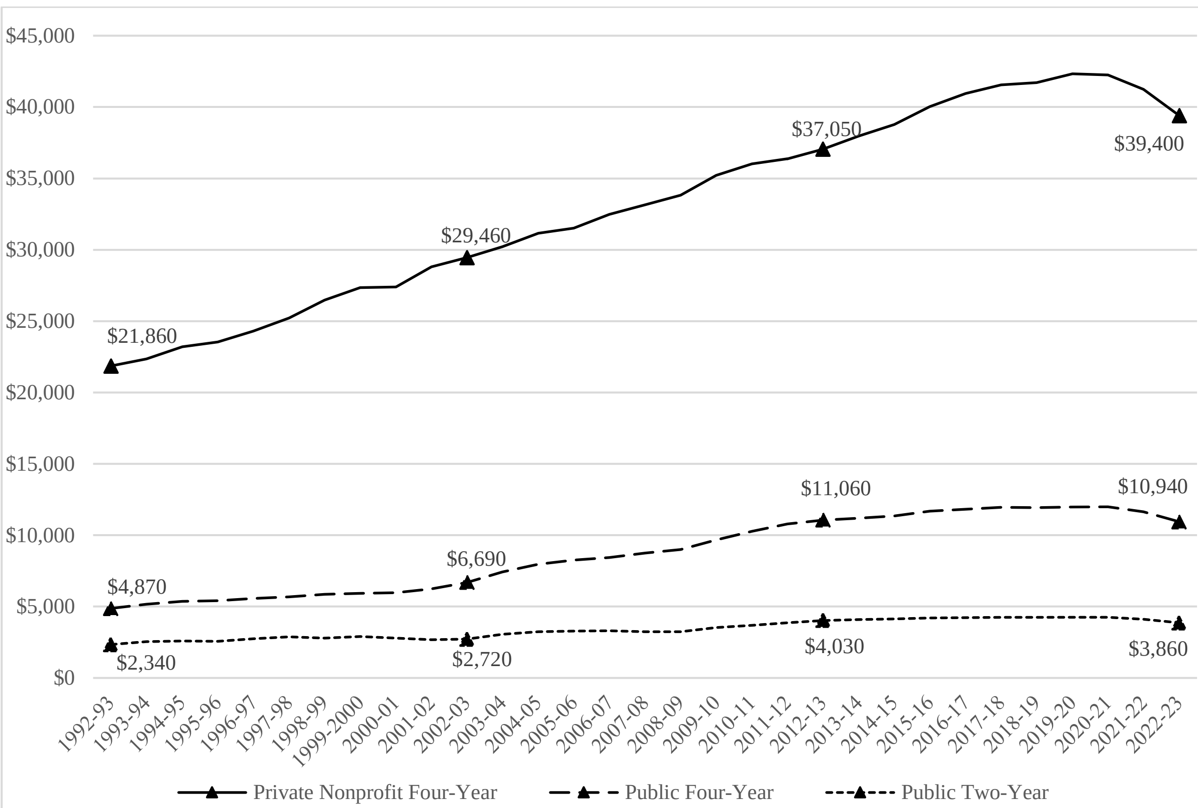
The College Board, in its annual review of trends in college pricing, presents the average published tuition and fees for different institution types over time. These include private nonprofit four-year institutions, public four-year intuitions, and public two-year institutions. In its 2022 report, data is collected from the 1992-93 academic year through the 2022-23 academic year. Figure 4.1 documents these rising costs over a 30-year period, which encompasses the academic years of both the Great Recession and the pandemic recession. Between the 1992-93 academic year and the 2022-23 academic year, average tuition and fees for private nonprofit four-year institutions grew by $17,540 (2022 dollars).[293] Tuition and fees for public four-year institutions increased by $6,070, while the increase for public two-year institutions was $1,520 (2022 dollars).[294] Although higher tuition and fees have considerable economic impacts during periods of expansion, research finds that tuition and fees for college often spike during and after

[291] "A History of Federal Student Loan Aid."
[292] Sallie Mae is a publicly traded U.S. corporation that offers private student loans. The firm was originally established as the Student Loan Marketing Association to service federal educational loans.
[293] "Trends in College Pricing and Student Aid 2022," College Board, October 2022, https://research.collegeboard.org/media/pdf/trends-in-college-pricing-student-aid-2022.pdf.
[294] "Trends in College Pricing and Student Aid 2022."

recessions.[295] These conditions may require students to take on more loans or exit from college. Both scenarios have considerable drawbacks that may dampen student's long run prospects.

For a majority of the period outlined in Figure 4.1, we can observe rising average costs beginning in the 1992-93 academic year and continuing through the 2019-20 academic year. Average tuition and fees across institution types peaked during the 2019-20 academic year, based on information collected by the College Board. In this year, average total for tuition and fees for private four-year institutions was $42,330, for public four-year institutions it was $11,980, and for public two-year institutions it was $4,250 (2022 dollars).[296]

Figure 4.1 – Average Published Tuition and Fees in 2022 Dollars by Institution Type



Source: The College Board (2022)[297]

[295] Michael Mitchell and Michael Leachman, "Years of Cuts Threaten to Put College Out of Reach for More Students," Center on Budget and Policy Priorities, May 13, 2015, https://www.cbpp.org/research/state-budget-and-tax/years-of-cuts-threaten-to-put-college-out-of-reach-for-more-students.
[296] "Trends in College Pricing and Student Aid 2022."
[297] "Trends in College Pricing and Student Aid 2022."

[Section 4.1]

The Student Debt Crisis and Composition of Borrowers

There are important distinctions between the student loan population after 2020 and student loan borrowers prior to the Great Recession. Scholars are particularly focused on trends that have developed during the 2010s – the period between the two major economic downturns. Compared with 2008, borrowers are older, carry more debt on average (in real terms), with a growing share of debt acquisition among middle- or high-income households. According to data from the Urban Institute, the number of student loan borrowers between 2008 and 2020 increased by 43%.[298] Researchers also observed an 83% increase in the average outstanding debt per borrower during this period.[299] In 2008, the average debt held was $19,300. In 2020, that figure ballooned to $35,400 (in real terms).[300] Researchers note that this growth in average holdings may be explained by increased enrollment in higher education during this period. In addition, the introduction of graduate PLUS loans in 2006 replaced private lending for graduate students pursuing professional degrees. This may also contribute to the growing number of older Americans that hold student loan debt. The share of debt holdings for individuals ages 35 to 44 grew from 15% in 2007 to 34% in 2019.[301] Parents have also become more likely to take on the burden of student debt to pay for their child's degree. The number of Parent PLUS loans has more than doubled between 2009 and 2019 and $6.6 billion in Parent PLUS loans are being distributed to public universities across the country.[302] The higher share of debt held by parents and older Americans has implications for the future financial stability of these individuals. Older

[298] Kristin Blagg and Jason Cohn, "How Student Loan Borrowers Have Changed since 2008," Urban Institute, March 7, 2022, https://www.urban.org/urban-wire/how-student-loan-borrowers-have-changed-2008.
[299] Blagg and Cohn.
[300] Blagg and Cohn.
[301] Blagg and Cohn.
[302] Meredith Kolodner, "Parent Plus Loans Are Burying Families in College Debt," NBC News, November 12, 2020, https://www.nbcnews.com/news/education/parent-plus-loans-are-burying-families-college-debt-n1125391.

Americans taking on student loan debt have been required to take from their own retirement funds. These Americans are taking on debt at a later stage in life, preventing them from acquiring sufficient savings to support their future economic stability.

Median educational installation loans for all families in the United States has been on an upward trend since 2000. In 2007, median student loan debt for all families was $14,810 (2019 dollars).[303] That figure grew to $22,000 by 2019 (2019 dollars).[304] While upward trends have been observed for all families, we must also address specific disparities in student loan borrowing. Median student loan debt for Black borrowers was $11,360 in 2007, rising to $30,000 in 2019 (2019 dollars).[305] For white borrowers, median student loan debt grew from $16,050 in 2007 to $23,000 in 2019 (2019 dollars).[306] Observing the data, white borrowers held more debt on average than Black borrowers prior to the Great Recession. During the 2010s, debt for Black borrowers grew faster than it did for white borrowers, and this continued through 2019. We also find that households between the 40th and 90th income percentile are the most likely to take on student debt. Since 2000, households in the bottom 40 percent and households in the top 10 percent are the income groups with the lowest share of student loan debt.[307] Findings from the Education Data Initiative report that 58% of all student loan borrowers are women.[308] Despite the gender wage gap, women are more likely than men to make high payments. However, one year after graduating, female borrowers have an average of 9.6% more debt than their male

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303 "Survey of Consumer Finances, 1989-2019," Board of Governors of the Federal Reserve System, November 4, 2021, https://www.federalreserve.gov/econres/scf/dataviz/scf/chart/#series:Education_Installment_Loans;demographic:racecl4;population:1,2,3,4;units:median;range:1989,2019.
304 "Survey of Consumer Finances, 1989-2019."
305 "Survey of Consumer Finances, 1989-2019."
306 "Survey of Consumer Finances, 1989-2019."
307 "Survey of Consumer Finances, 1989-2019."
308 "Student Loan Debt by Gender," Education Data Initiative, December 16, 2021, https://educationdata.org/student-loan-debt-by-gender.

counterparts.[309] When we consider these dynamics, it is important for us to recognize that many of these trends have formed, or existing trends have strengthened, as an outcome of economic downturns in the United States.

[Section 4.2]

The Great Recession and its Effects on Student Loan Borrowing

Public policy made attempts to respond to the student debt crisis and support borrowers during the economic downturn. Reviewing the economic response measures and the outcomes for student loan borrowers during the 2010s, research finds that public policy did not sufficiently support this population. The federal government did not provide state and local governments with the necessary funding stimulus after 2010 which had serious effects on public colleges and universities during the recovery period. Federal policy was also unable to properly address demographic disparities and inequalities in how the recession impacted different groups of Americans. While the federal economic response to the Great Recession implemented specific measures that aimed to support higher education in the aftermath of the crisis, the negative consequences for student loan borrowers only worsened in the years that followed.

Research from the last several years has identified negative long-run outcomes for individuals who graduate from college during a recession. Kahn (2010) notes that negative wage effects for young workers entering a poor labor market is substantial and persistent.[310] Graduating during a recession can impact an individual's long run earnings. A recession's consequences can suppress income earning potential for these individuals for 10 to even 15 years after receiving a college degree. Research has also found that college graduates entering the labor market during a recession often accept job positions at smaller firms with lower salary

[309] "Student Loan Debt by Gender."
[310] Lisa B. Kahn, "The Long-Term Labor Market Consequences of Graduating from College in a Bad Economy," *Labour Economics* 17, no. 2 (April 1, 2010): 303–16, https://doi.org/10.1016/j.labeco.2009.09.002.

potential.[311] These labor-related implications have an influence on student loan repayment. Students attend college to gain a specific skillset that prepares them for higher-earning occupations. These stronger job prospects will make it easier for borrowers to make consistent repayment on their loans. Graduating in a recession can suppress occupational opportunities, thus making it more difficult for student loan borrowers to make loan repayments.

Data from the Urban Institute identifies rising defaults among student loan borrowers at the onset of the Great Recession. A rising share of nontraditional borrowers and lower labor market prospects due to the recession heavily contributed to this trend.[312] Student loan repayment rates decreased considerably for the cohort who entered repayment after the recession began (2008-09) compared to those who entered repayment before the recession began (2006-07). Table 4.1 identifies this trend more closely. Examining rates after one year and after three years, borrowers had an increasingly difficult time making repayments in the wake of the recession. There was a 15-percentage point drop in repayment after one year from the 2006-07 cohort to the 2008-09 cohort. For repayment after three years, the decline between these two cohorts was 13-percentage points.[313] Repayment rates continued to decline into the early-2010s. For the 2012-13 cohort, the repayment rate after one year had declined to 39% and the rate after three years had fallen to 45%.[314]

[311] Philip Oreopoulos, Till von Wachter, and Andrew Heisz, "The Short- and Long-Term Career Effects of Graduating in a Recession: Hysteresis and Heterogeneity in the Market for College Graduates," Working Paper, Working Paper Series (National Bureau of Economic Research, April 2006), https://doi.org/10.3386/w12159.
[312] Kristin Blagg and Erica Blom, "Student Debt Repayment Fell during the Great Recession. Borrowers from Low-Income Backgrounds Saw the Steepest Decline," Urban Institute, May 16, 2018, https://www.urban.org/urban-wire/student-debt-repayment-fell-during-great-recession-borrowers-low-income-backgrounds-saw-steepest-decline.
[313] Blagg and Blom.
[314] Blagg and Blom.

Table 4.1 – Repayment Rates Before and After the Great Recession by Cohort

Repayment rate after one year			
Pre-Recession	Post-Recession		
FY 2006-07	FY 2008-09	FY 2010-11	FY 2012-13
63%	**48%**	**41%**	**39%**

Repayment rate after three years			
Pre-Recession	Post-Recession		
FY 2006-07	FY 2008-09	FY 2010-11	FY 2012-13
65%	**52%**	**45%**	**45%**

Source: The Urban Institute (2018)[315]

These trends highlight the aggregate impacts of the recession on student loan borrowers. When looking at the repayment rate after three years by demographic, we find that low-income families, Pell recipients, and independent students experienced the most substantial declines in repayment. On the following page, Table 4.2 identifies these demographic trends for pre- and post-recession cohorts. These figures are especially important when we consider the efficacy of the student loan program at the federal level in supporting all types of college students.

For repayment rates by income, low-income families experienced the sharpest declines from the pre-recession (2006-07) to post-recession (2008-09) cohorts of 15-percentage points.[316] High-income families experienced only an 8-percentage point drop.[317] Declines for Pell Grant recipients was 15-percentage points compared to 9-percentage points for non-recipients.[318] Independent students experienced the largest decline of any group, dropping 17-percentage points in the wake of the Great Recession. Although the repayment rate for first-generation

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[315] Blagg and Blom.
[316] Blagg and Blom.
[317] Blagg and Blom.
[318] Blagg and Blom.

students fell by 14-percentage points, this was only 2 percentage points higher than students who were not first-generation.[319] Given the labor market difficulties often experienced by different demographics of the workforce – these disparities in repayment rates are likely to compound existing economic disadvantages that limit long run opportunities for these individuals.

Table 4.2 – Three Year Student Loan Repayment Rates by Demographic

Family Income			
Pre-recession cohort (2006-07)		Post-recession cohort (2008-09)	
High-income	**83%**	High-income	**75%**
Middle-income	**74%**	Middle-income	**61%**
Low-income	**53%**	Low-income	**38%**

Pell Grant Receipt			
Pre-recession cohort (2006-07)		Post-recession cohort (2008-09)	
Non-Pell	**78%**	Non-Pell	**69%**
Pell	**56%**	Pell	**41%**

Dependency Status			
Pre-recession cohort (2006-07)		Post-recession cohort (2008-09)	
Dependent	**72%**	Dependent	**63%**
Independent	**55%**	Independent	**38%**

First-Generation Status			
Pre-recession cohort (2006-07)		Post-recession cohort (2008-09)	
Not first-generation	**68%**	Not first-generation	**56%**
First-generation	**60%**	First-generation	**46%**

Source: The Urban Institute (2018)[320]

[319] Blagg and Blom.
[320] Blagg and Blom.

Rising delinquency rates for student loan borrowers raised additional challenges. The Pew Research Center collected data to examine the impact of the Great Recession on student loan repayment and delinquency rates in the United States. Their research found that student loan delinquencies did not begin to rise until after the recession had officially ended in June 2009. The share of student loan payments that were at least 90 days late fell slightly from 8% in 2007 to 7.3% in 2009.[321] However, by 2013, the percentage of repayments that were at least 90 days late rose to 10.3%.[322] Pew notes that the observed increase in delinquencies may be partially due to the rise in college enrollment among adult students.

Pew partnered with researchers at the Research Triangle Institute to examine the differences in borrower outcomes for two cohorts. The first cohort identifies individuals who began student loan repayment before the Great Recession began (2004-2007). The second cohort identifies individuals who began repayment immediately following the Great Recession period (2008-2011). These researchers utilized the Beginning Postsecondary Students Longitudinal Survey (2004/2009 cohorts), a U.S. Department of Education dataset that tracks first-time, full-time students from when they entered higher education in 2004 through 2015.[323]

Table 4.3 – Number of Months Before Repayment Difficulties by Cohort

Median time after entering repayment until	**Cohort One (2004-2007)**	**Cohort Two (2008-2011)**
Default	37.5 months	31.3 months
Economic hardship deferment	38.8 months	12.0 months

Source: The Pew Charitable Trusts (2021)[324]

[321] Travis Plunkett et al., "Student Loan Borrowers Starting Repayment During Economic Downturns Can Face a Difficult Path," The Pew Charitable Trusts, July 22, 2021, https://pew.org/2VYg2B5.
[322] Phillip Oliff and Ilan Levin, "How Will Student Loan Borrowers Fare After the Pandemic?," The Pew Charitable Trusts, June 28, 2021, https://pew.org/35UE2Xw.
[323] Plunkett et al., "Student Loan Borrowers Starting Repayment During Economic Downturns Can Face a Difficult Path."
[324] Plunkett et al.

Borrowers who entered student loan repayment during the Great Recession experienced faster repayment issues, on average, compared with borrowers who began repayments before the recession. Borrowers in cohort two were likely to default on their repayments an average of six months before borrowers in cohort one. In an even wider gap, borrowers in cohort two were likely to request an "economic hardship deferment" nearly 27 months before borrowers from cohort one would make this request. Deferments provide student loan borrowers with the option of postponing repayment for a designated amount of time to support future repayment success.[325]

In the years following the recession, economists and social scientists spent a considerable amount of time examining macro- and micro-level consequences of the financial crisis. Researchers have developed extensive literature addressing the effects of the Great Recession and its aftermath on student loan borrowers. Pinto and Steinbaum (2022) investigated the effects of local labor markets shocks during the Great Recession on student loan-related outcomes for a panel of one million borrowers between the ages of 17 and 32 between 2009-2019. This sample population aligns with the birth cohorts between 1974-1991 who were the youngest members of Generation X and the oldest Millennials in higher education when the Great Recession began.[326] Their regression analysis indicates that the Great Recession significantly increased student indebtedness through delinquency, default, and other forms of non-repayment.[327] They find that negative consequences from the recession "amplify over time," meaning a greater tendency to fall into delinquency/default or other forms of non-repayment grew each year after 2009 (relative to the 2009 baseline loan balance).

[325] Economic hardship deferments are available to any borrower who has been issued federal student loans on or after July 1st, 1993. Additional information regarding deferments can be found here: https://www.studentloanborrowerassistance.org/wp-content/uploads/2013/05/self-help-EconomicHardshipDeferment.pdf

[326] Sergio Pinto and Marshall Steinbaum, "The Long-Run Impact of the Great Recession on Student Debt," SSRN Scholarly Paper (Rochester, NY, March 20, 2022), https://doi.org/10.2139/ssrn.3928927.

[327] Pinto and Steinbaum.

Pinto and Steinbaum (2022) also find that student loan indebtedness was most severe for people in local areas that were most adversely affected by the cyclical downturn. Their research outlines two different "commuting zone-level" maps. The first map outlines the relative degree to which local areas across the United States experienced a "Great Recession shock," which is displayed as the percentage point change in the unemployment rate by commuting zone during the Great Recession years (2007-2009). The second map shows the change in average student loan balances by commuting zone during the post-recession recovery (2009-2019).[328] Areas with the deepest shades of blue in the first map, which signify commuting zones with the greatest percentage point change in unemployment rate, generally correspond to commuting zones that had the highest average student loan balances between 2009-2019 from the second map.[329] This pattern is most clear for commuting zones in Southern states, along with areas of the Sun Belt and the West Coast.

In May 2009, the Department of Education issued a joint guidance statement with the Department of Labor. Under direction from the Obama Administration, federal agencies were tasked with addressing sector-specific issues that formed because of financial instability and rising unemployment during the late-2000s. The letter requested state unemployment agencies to inform individuals receiving unemployment benefits that they were eligible for Federal Pell Grants and other need-based student aid if they were to decide to enroll in a higher education program.[330] The Dear Colleague Letter (DCL) motivated unemployment recipients to pursue a college degree to ensure stable occupation prospects would be available in the future. Pinto and

[328] Pinto and Steinbaum.
[329] Pinto and Steinbaum.
[330] "Dear Colleague Letter to Financial Aid Administrators," Letters (Correspondence), U.S. Department of Education (US Department of Education (ED), May 8, 2009), https://www2.ed.gov/policy/gen/guid/secletter/090512.html.

Steinbaum (2022) note that higher education enrollment increases when the opportunity cost of foregoing labor force participation is low, and employers require higher education credentials for increasingly scarce positions.[331] Their research goes on to explain that workers in need of more advanced credentials will take on student debt as a means of achieving occupational stability when there is slack in the labor market. But when labor market conditions remain weak after exiting college with higher credentials, they are not always able to obtain higher-earning positions. These conditions translate into higher repayment difficulties for student loan borrowers.[332] As a result of the labor market conditions during the Great Recession, this joint guidance encouraged more Americans to pursue higher educations, but it also led to a higher share of Americans retaining student loan debt into the 2010s.

The implications for student loan borrowers during the Great Recession are twofold. First, individuals who chose to re-enroll in higher education faced continual non-repayment issues in the years after they completed their education (during the 2010s period). Examining the effect of the Great Recession shock on the change in total loan balance from 2009-2019, the total balance for individuals who chose to re-enroll increased while the balances of those who did not re-enroll remained relatively stagnant.[333] Second, reductions in state and local funding relative to increased demand for higher education added to the burden of students through higher tuition charges and less available seats in classes and programs at public institutions.[334] Funding for public institutions declined considerably between 2009-2012, fueling the constraints of lower program availability and higher tuition costs.[335] While public funding increased after 2012 and

[331] Pinto and Steinbaum, "The Long-Run Impact of the Great Recession on Student Debt."
[332] Pinto and Steinbaum.
[333] Pinto and Steinbaum.
[334] Susan Dynarski, "In a Sharp Downturn, College Can Be a Shock Absorber," *The New York Times*, January 19, 2020, sec. Business, https://www.nytimes.com/2020/01/19/business/college-downturn-absorber.html.
[335] Pinto and Steinbaum, "The Long-Run Impact of the Great Recession on Student Debt."

through 2019, immediate funding declines between 2009-2012 made it especially difficult for students who were still in school or exiting school at this time.

State and local governments are required to balance their budgets, which forces them to make funding cuts to different programs during periods of recession. The American Reinvestment and Recovery Act (ARRA) designated fiscal support to state and local governments through grant programs, tax credits, and unrestricted aid. This included $15.6 billion for Pell Grants.[336] However, state and local governments mainly received front-end support, with most aid expiring in 2010. While fiscal programs were able to initially help reduce budget shortfalls in 2009, stimulus efforts did not go far enough to support state and local governments after 2010. This likely contributed to declines in state funding for higher education in the years immediately after the Great Recession.

A lack of sufficient funding support for state and local governments in tandem with counterproductive federal guidance only exacerbated the student debt crisis during the 2010s period. The "student debt crisis" became a highly discussed topic in the arena of higher education in the years after the Great Recession. But what effect did the pandemic have on student loan borrowers, and how did policy choices influence the composition of this population and their ability to make consistent repayments during the 2020s?

[Section 4.3]

Pandemic Implications on Student Loan Borrowers

Student loan borrowers during the Great Recession did not fare that well, and the federal government did not implement proper corrective measures to support this population in the late-

[336] Aravind Boddupalli et al., "Lessons from the American Recovery and Reinvestment Act for an Inclusive Recovery from the Pandemic," Urban Institute, November 2021, https://www.urban.org/sites/default/files/publication/105113/lessons-from-arra-for-an-inclusive-recovery-from-the-pandemic.pdf.

2000s into the 2010s. As we have continued to discuss in this research, a large force motivating public policymaking during the pandemic was a fear of repeating sins from the financial crisis. Policy actors were concerned that an underwhelming federal response would prevent the economy from recovery quickly, exacerbating the economic harms for Americans. These concerns were especially true for higher education, and policymakers were focused on developing a coordinated response that could provide sustained, robust support for student loan borrowers for the duration of the crisis. The President, Congress, and the Department of Education have been successful in providing necessary stimulus support for student loan borrowers that have been consistent over the past three years. Policy has been successful during this period, but there are still concerns for student loan borrowers as we look into the future.

The COVID-19 pandemic and accompanying recession had a major impact on the higher education sphere. The virus' spread forced colleges and universities to send their students home, leaving campuses across the country empty. The nature of the pandemic recession had unique impacts on student loan borrowers that differ from the Great Recession. For the past three decades, periods of recession have typically been followed by sharp increases in borrowing. The way to measure federal student debt falls under two categories. First, researchers can assess student debt through "total annual borrowing." Total annual borrowing measures the overall scope of debt issued by the government year-to-year. The second measure is through "per-student borrowing." Per-student borrowing examines the amount of individual debt students are taking on, and the share of students borrowing for education through federal loans. Annual federal student loan lending was $20.7 billion for the 1990-91 academic year, adjusted for inflation.[337] This figure rose to $91.9 billion in annual lending for the 2019-20 academic year,

[337] "How the Pandemic Could Affect the Rise in Student Debt," The Pew Charitable Trusts, December 22, 2021, https://pew.org/3pgti0j.

adjusted for inflation.[338] During this same period, per-student borrowing ballooned from $2,110 to $6,276, adjusted for inflation.[339] The most recent borrowing surge occurred after the Great Recession period. Total annual borrowing increased by over $40 billion, up 47% between 2008 and 2011.[340] However, data from the College Board indicates that the borrowing response to the COVID-19 recession was different. Between the 2020 and 2021 academic years, total annual borrowing fell by $7 billion, constituting an 8% decline. Per-student borrowing fell by 5%, a roughly $324 decline.[341]

Tuition and fees for colleges and universities often spike during and after recessions. This pattern made it difficult for borrowers during the Great Recession, especially when we consider state and local funding cuts to public institutions.[342] Referring to Figure 4.1 at the beginning of this chapter, we outline the average published tuition and fees in 2022 dollars by institution type.[343] There is a steady rise in average tuition and fees for all three institution types between 1992-93 and 2019-20.[344] These figures have fallen between the 2020-21 and 2022-23 academic years.[345] Private nonprofit four-year institutions saw a decline of $2,860 in tuition and fees over the past two years (2022 dollars). Public four-year institutions' tuition and fees fell by $1,050 during the same period, with public two-year institutions seeing a $390 reduction (2022 dollars).[346] If these trends persist in the coming years, student loan borrowers may have an easier time making monthly payments on their loan balances after they exit higher education. The cost

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[338] "How the Pandemic Could Affect the Rise in Student Debt."
[339] "How the Pandemic Could Affect the Rise in Student Debt."
[340] "How the Pandemic Could Affect the Rise in Student Debt."
[341] "How the Pandemic Could Affect the Rise in Student Debt."
[342] Mitchell and Leachman, "Years of Cuts Threaten to Put College Out of Reach for More Students."
[343] Figure 4.1 can be referenced on page 88
[344] These institution types include (1) private nonprofit four-year, (2) public four-year, (3) public two-year
[345] "Trends in College Pricing and Student Aid 2022."
[346] "Trends in College Pricing and Student Aid 2022."

of college remains a primary concern for student loan borrowers, and it will be important for researchers to examine how these trends change for the remainder of the decade.

In March 2020, the federal government began organizing a policy response to the COVID-19 pandemic and the federal bureaucracy developed specific strategies to uplift different sectors of the economy. This process was especially important for education, with the Trump Administration coordinating with the Department of Education to design a tailored policy response for primary and secondary education along with higher education. When it came to the pandemic response for colleges and universities, concerns surrounding the student debt crisis were a priority. Preliminary policy announcements from the Trump Administration and the Department of Education revealed a focus by the federal government to use the conditions of the pandemic to specifically support student loan borrowers.

A newsletter released on March 20, 2020, by the U.S. Department of Education outlined major administrative measures that would take effect following President Trump's national emergency proclamation on March 13, 2020. Education Secretary Betsy DeVos announced measures for the Office of Federal Student Aid (FSA) to provide student loan relief to borrowers as the economic concerns of COVID-19 grew. All borrowers with federal student loans would automatically be given a zero percent interest rate on their loans for at least 60 days.[347] The March 2020 newsletter also directs federal student loan services to grant administrative forbearance to these borrowers for a minimum of 60 days beginning March 13, 2020.[348] "Forbearance" refers to the ability of a borrower to temporarily end payments on their loan balances. The combination of these measures would allow borrowers to pause payments without

[347] "ED Review: March 20, 2020," U.S. Department of Education, March 20, 2020, https://www2.ed.gov/news/newsletters/edreview/2020/0320.html#1.
[348] "ED Review: March 20, 2020."

accruing additional interest on their loan balances.[349] To support struggling borrowers, the DOE policy automatically suspended payment for borrowers more than 31 days delinquent as of March 13, 2020, along with borrowers who would become more than 31 days delinquent. The policy did not outline any specific support for borrowers seeking Public Student Loan Forgiveness (PSLF), which makes student loan balances forgivable for certain public employees who have made 120 consecutive one-time payments on their Direct loans.[350] A payment pause would make it more difficult for these borrowers to achieve loan forgiveness. However, the policy does state that borrowers who continued to make payments would have the full amount applied to their principal once all interest accrued prior to March 13, 2020, was paid.[351]

The federal government used the Higher Education Relief Opportunities for Students (HEROES) Act of 2003 to justify the DOE payment pause. The HEROES Act authorizes the Secretary of Education to waive or suspend the statutory or regulatory requirements related to the federal student loan program under Title IV of the Higher Education Act of 1965.[352] Under the provisions of the HEROES Act, the federal government would go on to extend the payment pause several times. The first was directed under the CARES Act, which extended the interest waiver and suspended payments on student loans through September 30, 2020.[353] On August 8, 2020, the Trump Administration announced the payment pause would continue through the end of the year. On December 24, 2020, the DOE announced an additional extension through the end of January 2021. On Biden’s first day as President on January 20, 2021, his administration extended forbearance without an official end date. In August, Biden announced that the payment

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349 “ED Review: March 20, 2020.”
350 “Public Service Loan Forgiveness,” Federal Student Aid, accessed April 14, 2023, https://studentaid.gov/manage-loans/forgiveness-cancellation/public-service.
351 “ED Review: March 20, 2020.”
352 “H.R.1412 - 108th Congress (2003-2004): Higher Education Relief Opportunities for Students Act of 2003,” legislation, August 18, 2003, 08/18/2003, http://www.congress.gov/.
353 “H.R.748 - 116th Congress (2019-2020).”

pause would continue through the end of January 2022, saying this would be the last extension of the relief program.[354] However, a December 2021 announcement extended the payment pause once again through May 1, 2022, with an additional announcement in April 2022 extending the pause through the end of August 2022. The April 2022 policy also stated that the federal government would restore all default borrowers to good standing.[355]

The payment pause policy became the status quo for much of the pandemic, and it proved successful in supporting student loan borrowers during the economic downturn. The federal government made additional efforts during this period as well. On August 16, 2022, the DOE announced its "Fresh Start" initiative. The program allows borrowers in default to reenter into their current repayment status, federal benefits and protections are restored to provide these borrowers with long run repayment success.[356] The August 2022 announcement discusses the federal government's decision to eliminate the negative effects for borrowers in default in April 2022. This decision enabled roughly 7.5 million borrowers in default to return to their repayment without any past due balance. Borrowers in default are disproportionately first-generation college students, Federal Pell Grant recipients, and those who qualify for low monthly payments under income-drive repayment plants (IDR).[357] Going even further, the "Fresh Start" initiative restores access to repayment options for these borrowers. The program also restores eligibility to receive federal aid (Federal Pell Grants), protects borrowers from involuntary collection efforts, restores future rehabilitation eligibility, and provides these borrowers with credit reporting features.

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354 Bradley D. Custer and Ella Azoulay, "Timeline: Federal Student Loans During the COVID-19 Pandemic," Center for American Progress, August 9, 2022, https://www.americanprogress.org/article/timeline-federal-student-loans-during-the-covid-19-pandemic/.
355 Custer and Azoulay.
356 "A Fresh Start for Federal Student Loan Borrowers in Default," Federal Student Aid, accessed April 12, 2023, https://studentaid.gov/announcements-events/default-fresh-start.
357 "A Fresh Start for Federal Student Loan Borrowers in Default."

These tools were designed for borrowers with the most repayments difficulties to receive safety net support that enable their future economic success.

On August 24, 2022, President Biden announced a policy that liberal lawmakers and activists had been calling on the government to do for years. The Biden Administration and the Department of Education announced a student loan forgiveness plan in a move that would prove highly controversial. The policy factsheet issued by the White House highlights a three-part plan by the government to institute a student loan forgiveness program. This included targeted debt relief, a comprehensive effort to address rising college costs, and making the student loan system more manageable for working families.[358] The plan would forgive up to $20,000 in student loan debt to Federal Pell Grant recipients with loans held by the Department of Education. The plan would also forgive up to $10,000 for non-Federal Pell Grant recipients.[359] The Biden Administration emphasizes that this forgiveness program will not be available to high-income households. Individual incomes of less than $125,000 ($250,000 for married couples) will be eligible for student loan forgiveness under the policy's provisions.[360]

In addition to establishing the loan forgiveness program, the August 2022 policy announced an additional extension to administrative forbearance through the end of the year. But in November 2022, the DOE once again extended the payment pause on student loans. However, the government was a bit more ambiguous about the end date of this extension. By this time, legal challenges were mounting against Biden's loan forgiveness program, and the policy's future was in limbo. Under the DOE directive, administrative forbearance would be extended for

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[358] "FACT SHEET: President Biden Announces Student Loan Relief for Borrowers Who Need It Most," The White House, August 24, 2022, https://www.whitehouse.gov/briefing-room/statements-releases/2022/08/24/fact-sheet-president-biden-announces-student-loan-relief-for-borrowers-who-need-it-most/.
[359] "FACT SHEET."
[360] "FACT SHEET."

60 days after the legality of the forgiveness program had been determined or 60 days after June 30, 2023, whichever came first. The federal government has made no plans to announce an additional extension on the payment pause policy, and the Office of Federal Student Aid lists the aforementioned directive notice at the top of its website.[361]

Following the August 2022 announcement, 26 million borrowers submitted applications for debt relief and 16 million were approved for relief.[362] However, two federal courts have blocked the program from going into effect. These legal challenges have made their way to the Supreme Court, with oral arguments in *Biden v. Nebraska* being heard on February 28, 2023. The question at the heart of the case is whether the 2003 HEROES Act gives the president and his secretary of education the power to authorize federal student loan forgiveness. There will be consequences from the Court's decision, with the largest effects being felt by borrowers with lower incomes. Republicans have used conservative federal courts to block Biden Administration policy, and student loan forgiveness is no different. But states that have challenged Biden's actions must show that its citizens have been harmed in a concrete way by the policy.[363] In a Missouri lawsuit, the state claims that Biden's forgiveness program will deprive the state of essential revenue from MOHELA, the Missouri Higher Education Loan Authority which is one of the ten largest student loan servicers in the nation.[364] With challenges mounting, the Supreme Court will decide if this policy has caused any specific harm, and the answer to this question will determine if Biden's student loan forgiveness program goes into effect.

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[361] "COVID-19 Emergency Relief and Federal Student Aid," Federal Student Aid, accessed April 12, 2023, https://studentaid.gov/announcements-events/covid-19.
[362] Adam S. Minsky, "What Biden's Latest Covid Move Means For Student Loan Programs, Including Loan Forgiveness," Forbes, January 31, 2023, https://www.forbes.com/sites/adamminsky/2023/01/31/what-bidens-latest-covid-move-means-for-student-loan-programs-including-loan-forgiveness/?sh=64793b7c306a.
[363] Nina Totenberg, "Biden's Student Loan Relief Faces Its Biggest Test yet at the Supreme Court," *NPR*, February 28, 2023, sec. Law, https://www.npr.org/2023/02/28/1159606491/student-loan-forgiveness-supreme-court.
[364] Totenberg.

Under current conditions, student loan borrowers wait, retaining their loan balances that continue to hamper their economic prospects until they are debt free. Administrative forbearance and the zero percent interest rate policy remains in effect and will continue through the end of June 2023 (or earlier if a legal decision on student loan forgiveness is decided prior to this date). Student loan borrowers have come to rely on these policies throughout the duration of the pandemic, and this relief will remain available to borrowers for a little while longer. Although the Biden Administration announced May 11, 2023, as the end of the COVID-related national emergency status, the federal government has assured borrowers that this will not change DOE priorities. The government has not changed its position on the use of the HEROES Act to institute a payment pause or loan forgiveness program, and there is no plan to change these conditions once the national emergency is lifted. It will be important for future research to address the effects of the Supreme Court decision upon release, and how the legacy of student loan forgiveness may influence the economic prospects of borrowers in the coming years. In this papers' conclusion, we will address additional contextual comparisons between these two recessionary periods. This will be essential for the success of future analytical review of economic policy. We now turn our attention to the consequences of the Great Recession and the COVID-19 recession for the housing sector and how government policy has influenced the availability of stable, sufficient housing access in the United States over the last two decades.

[CHAPTER FIVE]

Recessionary Burdens Influencing the Housing Sector

Housing security is a cornerstone achievement of any American citizen and a sign of a healthy, advanced economy that can provide shelter for all. Access to stable, sufficient housing units is the second indicator that will be used to evaluate the impacts of recessionary policy on the American people. There has been growing uncertainty for homeowners and renters across the country, especially among those in the lower- to middle-income groups. These concerns have motivated economists and policymakers to better understand issues in the housing sector that have recently taken shape. Opportunities for households to move into better neighborhoods have been limited in recent decades, dampening their economic prospects.[365] In the past several years, literature has evaluated the degree to which the Great Recession and the COVID-19 recession have worsened these conditions. As with policy for student loan borrowers, the federal response to these two recessionary periods had varying results for households in the respective recovery periods. This final chapter will examine the unique conditions present under each recession and how the federal response was crafted to support the housing sector. With this understanding established, we will move on to evaluating the specific response measures and their influence on the composition of households (both homeowners and renters) in the United States.

[Section 5.1]

A Bubble Bursts: Housing Conditions Under the Great Recession

For several years, scholars have pointed to insecurity in the housing sector during the mid-2000s as one of the central headwinds inducing the Great Recession. A proper understanding of the crisis cannot be acquired without connecting financial sector activities to housing market outcomes. In the pre-recession period, large financial firms developed different

[365] Carol Clark, “Senior Seminar in Economics” (Lecture, Trinity College, Hartford, CT, Fall 2022).

credit derivatives, such as credit default swaps and collateralized debt obligations, to issue more home mortgages to American borrowers. Nonconventional loans heavily contributed to this trend, and interest-only, “choose-your-own-payment” plans and balloon payment plans are some of the major examples. Borrowers with FICO scores at or below 620 were often able to obtain loans that required little to no down payment or no documentation.[366] The terms of the mortgage for these no-document loans were sometimes upwards of 125% of home value.[367] The practices of the financial sector became riskier and risker, and as the subprime housing market grew, instability formed. A growing share of Americans were defaulting on their loans, and housing prices began to decline by late-2006.[368]

The magnitude of the financial crisis was hard to grasp initially, but its economic consequences would have major implications for the American public. The Great Recession revealed many failures within both the public and private sectors. Wall Street had failed consumers, but Washington had failed their constituents. Large financial firms developed creative tools to increase profits in the housing market, but by doing so they found themselves overextended and ultimately in need of a government bailout to stay afloat. Moreover, the regulatory infrastructure overseeing the financial sector was outdated and highly decentralized, making access to credit in this environment increasingly simplistic. Analysis from the Federal Reserve Bank of St. Louis estimates that as many as 10 million mortgage borrowers lost their homes during the Great Recession and a loss of $16 trillion in net worth among homeowners.[369]

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[366] Fannie Mae and Freddie Mac were lending to borrowers with scores of 620-640 between 2004-06. The FHA was approving loans to borrowers with scores in the mid-500s. By 2012, average approved scores rose to 760 or above.
[367] Michele Lerner, “10 Years Later: How the Housing Market Has Changed since the Crash,” The Washington Post, October 4, 2018, https://www.washingtonpost.com/news/business/wp/2018/10/04/feature/10-years-later-how-the-housing-market-has-changed-since-the-crash/.
[368] Ingrid Gould Ellen and Samuel Dastrup, “Housing and the Great Recession,” Furman Center for Real Estate and Urban Policy, October 2012, https://furmancenter.org/research/publication/housing-and-the-great-recession.
[369] William R. Emmons, “The End Is in Sight for the U.S. Foreclosure Crisis,” Federal Reserve Bank of St. Louis, December 2, 2016, https://www.stlouisfed.org/on-the-economy/2016/december/end-sight-us-foreclosure-crisis.

Section 5.1(a)

Direct Impacts on Homeowners and Renters

What were the tangible consequences for homeowners and renters as recessionary conditions formed? Research from the Brookings Institution evaluated housing and rental market data for six different metro areas across the country. These areas included (1) Los Angeles, California, (2) Riverside, California, (3) Las Vegas, Nevada, (4) Phoenix, Arizona, (5) Orlando, Florida, and (6) New Orleans, Louisiana. The housing crisis resulted in homeownership rates declining in all six of these areas through the late-2000s period.[370] Their findings indicate that housing prices and homeownership rates worsened after the recession officially ended, following similar trends observed in the share of student debt borrowers during this period. The homeownership rates in these areas did not hit their trough until around 2014.[371] These rates have rebounded somewhat since the mid-2010s, but many metro areas did not see homeownership rates return to pre-recession levels by the end of 2019. Housing prices and homeownership rates followed similar patterns throughout the Great Recession. Housing prices gradually declined when the recession ended in 2009 through 2013. A noticeable recovery began in 2013 and persisted through the end of 2019.[372]

The housing and rental markets experienced opposite realities in this period. Between 2007 and 2011, the of renters in the United States who were cost burdened rose considerably. The United States Department of Housing and Urban Development (HUD) recommends individuals spend no more than 30% of their income on housing.[373] Households that are cost

[370] Sarah Crump and Jenny Scheutz, "What the Great Recession Can Teach Us about the Post-Pandemic Housing Market," *Brookings* (blog), March 29, 2021, https://www.brookings.edu/research/what-the-great-recession-can-teach-us-about-the-post-pandemic-housing-market/.
[371] Crump and Scheutz.
[372] Crump and Scheutz.
[373] "Defining Housing Affordability," HUD User, August 14, 2017, https://www.huduser.gov/portal/pdredge/pdr-edge-featd-article-081417.html.

burdened spent more than 30% of their income on housing. Researchers also evaluated the rent-to-owner cost burden ratios in the six metro areas. Between 2007 and 2011, every metro area except for New Orleans had a cost burden ratio below 1.0, meaning renting was relatively less expensive than owning. By 2013 and through the rest of the decade, every area except Los Angeles had ratios above 1.0, with renting being more expensive relative to owning.[374] There was a surge in the number of distressed homeowners that entered foreclosure. As a result, many of these households transitioned into the rental market, putting upward pressure on rental prices.[375]

Section 5.1(b)

Household Experiences During the 2000s and 2010s

The initial shock on the housing market was substantial, and the first few years of the economic recovery led to slow or negative growth. It was not until the second half of the 2010s that the housing sector made progress in returning to pre-recession levels. As this paper has highlighted more than once, insufficient federal stimulus immediately following the crisis prevented the macroeconomy from enjoying strong, steady growth in the post-recession years. Because of this, some of the effects of the Great Recession continued to linger in the housing market. Additional data from the Federal Reserve Bank of St. Louis found that in 2005, residential investment constituted 6.7% of U.S. GDP. By the end of 2018, it was only 3.8% of U.S. GDP.[376] Authors cite declining affordability, higher mortgage rates, higher construction costs, exclusionary zoning, and declines in equity prices as primary contributors to this trend.

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[374] Crump and Scheutz, "What the Great Recession Can Teach Us about the Post-Pandemic Housing Market."
[375] "The Rental Housing Crisis Is a Supply Problem That Needs Supply Solutions," *Center for American Progress* (blog), August 22, 2022, https://www.americanprogress.org/article/the-rental-housing-crisis-is-a-supply-problem-that-needs-supply-solutions/.
[376] Asha Bharadwaj and Charles S. Gascon, "Slowing U.S. Housing Sector Still Shaped by Great Recession," Federal Reserve Bank of St. Louis, April 8, 2019, https://www.stlouisfed.org/publications/regional-economist/first-quarter-2019/slowing-us-housing-sector.

Many of the housing market shortfalls resulting from the Great Recession continued to effect households into the 2010s. The national home price index peaked in April 2006, reaching a trough in March 2011 before returning to its pre-recession peak in October 2017.[377] Home prices did not bottom out until over a year after the Great Recession, and they did not return to pre-recession levels until nearly eight years after the recession had ended.

Aggregate data provides an understanding of housing insecurities at the national level. We can also observe data across states to evaluate the regional consequences of these trends. There are considerable differences in the size of housing market effects at the state level when examining peak-to-trough drops in the home price index. Table 5.1 outlines the ten states with the largest and smallest declines between April 2006 (peak) and March 2011 (trough).

Table 5.1 – States with the Largest and Smallest Peak-to-Trough Drops

Largest Drops		**Smallest Drops**	
Nevada	*(-60%)*	**North Dakota**	*(-2%)*
Arizona	*(-51%)*	**Nebraska**	*(-5%)*
Florida	*(-50%)*	**Iowa**	*(-5%)*
Michigan	*(-43%)*	**Oklahoma**	*(-6%)*
California	*(-42%)*	**South Dakota**	*(-7%)*
Idaho	*(-41%)*	**Arkansas**	*(-8%)*
Rhode Island	*(-34%)*	**Alaska**	*(-9%)*
Illinois	*(-33%)*	**Louisiana**	*(-9%)*
Utah	*(-32%)*	**Kentucky**	*(-9%)*
Maryland	*(-31%)*	**Vermont**	*(-9%)*

Source: The Washington Post (2018)[378]

States that experienced larger home price declines took more time to reach pre-recession levels during the 2010s. There was an uneven distribution of economic harms experienced by

[377] Lerner, "10 Years Later."
[378] Lerner.

households, contributing to regional divergence during the recovery. Risk aversion among builders reinforced this trend. Policy decisions to tighten the credit market after the Great Recession (especially community bank policies) had negative consequences for builders. Scholars note that labor shortages in construction and rising costs for resources (e.g., lumber) stifled the development of new housing units.[379] This is reinforced by the reduction in housing starts during and after the Great Recession. Data from the Census Bureau indicates that housing starts were steadily growing after 2000, reaching a peak of 2,068,300 units in 2005.[380] Annual housing starts began to decline in the years after, bottoming out at 554,000 units in 2009. Housing starts remained depressed for several years, and it took until 2014 for annual housing starts to surpass 1,000,000 in the post-recession period.[381] These figures would remain below pre-recession levels through 2019, just prior to the COVID-19 pandemic.

Although the post-recession recovery was long; lawmakers and regulators designed a variety of policy measures to support American households for the duration of the crisis. Policy actors recognized that the crisis began in the housing market and was exacerbated by the financial sector. A federal response would need to accomplish two tasks. First, state interventions were necessary to prevent mortgage foreclosure rates from continuing to worsen, leaving a larger number of American households uncertain about their future housing prospects. Second, the federal government needed to design a regulatory infrastructure for the financial sector that would ensure a crisis like this one would never happen again.

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[379] Lerner.

[380] "New Residential Construction," US Census Bureau, accessed April 17, 2023, https://www.census.gov/construction/nrc/historical_data/index.html.

[381] "New Residential Construction."

Section 5.1(c)

State Interventions Addressing Housing Conditions

The American Recovery and Reinvestment Act (2009) allocated $13.6 billion to the Department of Housing and Urban Development (HUD) for projects and programs primarily through formula grants. By September 2011, $11 billion in funds had already been disbursed.[382] HUD's annual financial report for 2011 cites ARRA funding for use to build nearly 20,000 new homes and renovate nearly 500,000 housing units.[383] The ARRA provided $1.5 billion for the Homeless Prevention Rapid Re-Housing Program (HPRP), which was designed to provide homelessness assistance to the most vulnerable Americans.[384] Under the HPRP, funding was categorized, including allocations for direct financial assistance (e.g., rental assistance), along with housing relocation and stabilization services. The HPRP allowed individuals and families to use targeted payments to cover rent/supportive services that could help keep housing access available.[385] By June 2011, HPRP was able to support 1,058,587 people across the country.[386]

The government also encouraged local and regional competition to spur economic growth during the Great Recession. The Neighborhood Stabilization Program distributed $2 billion across the nation through a competition system, ensuring regions with the highest foreclosure rates and plans to respond to these conditions would receive priority funding.[387] This program was able to build positive partnerships among Federal agencies, nonprofit organizations, and financial institutions in response to community recovery. HUD also worked with the National Community Stabilization Trust, a non-profit organization that organizes transfers of

[382] "Agency Financial Report Fiscal Year 2011" (U.S. Department of Housing and Urban Development, November 15, 2011), https://www.hud.gov/program_offices/cfo/afr/section1/recovery_act.
[383] "Agency Financial Report Fiscal Year 2011."
[384] "Program-Level Plan Homelessness Prevention and Rapid Re-Housing Program," U.S. Department of Housing and Urban Development, February 2009, https://www.hudexchange.info/programs/hprp.
[385] "Agency Financial Report Fiscal Year 2011."
[386] "Agency Financial Report Fiscal Year 2011."
[387] "Agency Financial Report Fiscal Year 2011."

foreclosed/abandoned properties from financial institutions to local housing organizations. Their partnership provided 188 communities with access to Real Estate Owned (REO) properties in 2010 at a discounted rate of roughly 13%.[388] The government extended these efforts in 2011 and 2012 to strategically targeted the hardest hit communities.

The Federal Housing Administration (FHA) and the Government-Sponsored Enterprises (GSEs) eventually stepped in to support the housing market when foreclosure rates began to rise. The FHA and GSEs ensured that a supply of mortgage funding would be available to prospective homebuyers during a time when the large financial institutions could not back these loans. In an early administrative move, President Obama established the Home Affordable Refinance Program (HARP) in 2009 under the purview of the FHA and the Treasury Department. HARP provided a larger number of borrowers with the opportunity to refinance their mortgages at a lower interest rate.[389] In a 2013 Treasury Department review of the government's response to the Great Recession, they note that HARP was able help more than 2.7 million families refinance their mortgages.[390] Also in 2009, the federal government introduced the Home Affordable Modification Program (HAMP) to help struggling homeowners avoid foreclosure. HAMP allowed homeowners to reduce their mortgage principle and/or interest rate, temporarily postpone payments, or receive loan extensions.[391] These agency programs were designed to uplift homebuyers in the post-recession period, but policymakers were also concerned with putting safeguards in place to ensure a financial collapse of this size would never happen again.

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[388] "Agency Financial Report Fiscal Year 2011."
[389] "Fact Sheet: Home Affordable Refinance Program (HARP)," Federal Housing Finance Agency, November 24, 2011, https://www.fhfa.gov/Media/PublicAffairs/Pages/Home-Affordable-Refinance-Program-(HARP).aspx.
[390] "The Financial Crisis Five Years Later Response, Reform, and Progress."
[391] "Home Affordable Modification Program (HAMP)," U.S. Department of the Treasury, accessed April 18, 2023, https://home.treasury.gov/data/troubled-assets-relief-program/housing/mha/hamp.

Section 5.1(d)

State Interventions Regulating the Financial Sector

The magnitude of the crisis motivated policy actors to pursue regulatory action, specifically for the financial sector. These policies have implications for the housing market during the 2010s. Reforms were primarily introduced through the Dodd-Frank Wall Street Reform and Consumer Protection Act (2010). Prior to the recession, the federal government oversaw traditional banks, with little supervision of nonbank financial institutions.[392] Dodd-Frank was designed to change this. The law established the Financial Stability Oversight Council (FSOC) which became the central forum for senior government officials to oversee the financial services industry. The FSOC is chaired by the Treasury Secretary, with nine additional members including the Federal Reserve and the Securities and Exchange Commission (SEC).[393] The council was given the authority to break up big banks that were considered "too big to fail," or posing large systemic risk to the macroeconomy.[394] The FSOC and the newly formed Federal Insurance Office (FIO), were also responsible for monitoring insurance companies in similar positions as these financial firms. This was done primarily to prevent a future AIG-style collapse from affecting the insurance market.

The Consumer Financial Protection Bureau (CFPB) was also established to assess future risks in the financial sector. In addition to supervising financial firms, the CFPB was designed to help make consumer financial products easier to understand, along with supporting potential homebuyers in determining which mortgage was right for them.[395] The CFPB also establishes stricter standards for mortgage approvals, requiring lenders to ensure that potential buyers are

[392] "The Financial Crisis Five Years Later Response, Reform, and Progress."
[393] Koba.
[394] Mark Koba, "Dodd-Frank Act: CNBC Explains," CNBC, May 11, 2012, https://www.cnbc.com/2012/05/11/doddfrank-act-cnbc-explains.html.
[395] "The Financial Crisis Five Years Later Response, Reform, and Progress."

able to make consistent payments on their mortgage. Borrowers must provide financial information that can be verified, hold sufficient assets/income to pay back the loan, and teaser rates can no longer be used to manipulate the actual cost of a mortgage.[396] The CFPB is given oversight capacity to protect borrowers against risky lending practices, including no excess upfront points/fees, no toxic loan features, and a cap on the amount of income used to pay debt.[397] Measures were put in place to keep mortgage servicers accountable, requiring them to provide borrowers with clear monthly statements, early warnings when interest rates are adjusted, and informing struggling borrowers about mortgage modifications/foreclosure alternatives that they may be eligible for.[398]

Dodd-Frank also established the Volcker Rule, restricting the ways banks can invest, along with limiting speculative trading and eliminating proprietary trading. This provision prohibits banks from owning, investing, or sponsoring hedge funds, private equity funds, and proprietary training operations for the profit of the firm.[399] Dodd-Frank's provisions included tightening regulations for financial derivatives, such as credit default swaps. Centralized exchanges for swaps trading were set up and required greater transparency of information in the market.[400] The riskiest derivatives were regulated by the SEC or the Commodity Futures Trading Commission (CFTC). The Volcker Rule continues the government narrative that "too big to fail" financial institutions cause instability in the macroeconomy, and many of these policies were generally seen as a move in the direction of Glass-Steagall era regulations.[401]

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[396] "The Financial Crisis Five Years Later Response, Reform, and Progress."
[397] "The Financial Crisis Five Years Later Response, Reform, and Progress."
[398] "The Financial Crisis Five Years Later Response, Reform, and Progress."
[399] Koba, "Dodd-Frank Act."
[400] "H.R.4173 - 111th Congress (2009-2010)."
[401] Baird Webel et al., "The Dodd-Frank Wall Street Reform and Consumer Protection Act: Background and Summary" (Congressional Research Service, April 21, 2017).

Dodd-Frank also revised the credit rating systems at agencies like Moody's and Standard & Poor's with oversight from the SEC Office of Credit Rating. Retrospective analysis has criticized these agency rating firms for over-rating derivatives and mortgage-backed securities in the lead up to recession. The SEC can now require agencies to submit their rating systems for review, and the SEC can now de-certify agency ratings that may be misleading to potential borrowers.[402] In addition, an existing whistleblower program established in 2002 was expanded under Dodd-Frank. A mandatory bounty program makes it possible for the whistleblower to receive 10% to 30% of the awards from litigation. The provisions also extended the statute of limitations for whistleblowers to bring forth claims from 90 to 180 days along with broadening the scope of the types of employees covered under the program.[403]

Dodd-Frank was not passed without controversies or criticisms. Proponents of the bill argued that Dodd-Frank was necessary to prevent a situation as severe as the financial crisis from happening again, and this would be accomplished by instituting a wide range of consumer protections and financial sector regulations. Opponents of the law argued that its over-complicated regulatory framework would stifle competitiveness of U.S. firms in the global market. Some argued that Dodd-Frank was an overreaction to the Great Recession by lawmakers in Washington. Many detractors contend these new regulators would push investors to the sidelines, harming the economic recovery of the United States during the 2010s.[404] While many policy actors have generally advocated for safeguard protections in the financial sector, some contend that the regulatory framework of Dodd-Frank makes the market more illiquid overall.[405]

[402] Koba, "Dodd-Frank Act."
[403] "H.R.4173 - 111th Congress (2009-2010)."
[404] Ron Ashkenas, "Is Dodd-Frank Too Complex to Work?," HuffPost, March 15, 2012, https://www.huffpost.com/entry/finance-regulation_b_1344686.
[405] Emily Glazer, "Jamie Dimon Pushes for Simpler, More Coordinated Bank Regulations," *Wall Street Journal*, April 4, 2017, sec. Markets, https://www.wsj.com/articles/jamie-dimon-pushes-for-simpler-more-coordinated-bank-regulations-1491326079.

Section 5.1(e)

Housing Conditions Prior to the Pandemic

Dodd-Frank held strong for several years after it became law in July 2010. President Obama was reelected President in 2012, and thus provisions were safeguarded for the period between 2010 and 2016. President Trump's election victory in 2016 would put the security of Dodd-Frank in jeopardy. Particularly in his 2016 presidential campaign, Donald Trump took a grassroots, populist messaging approach against big government and in favor of "draining the swamp." Many of these "drain the swamp" narratives included attacks on government against regulations and a reduction in federal bureaucratic oversight. During his 2016 campaign, then-candidate Trump pledged to repeal Dodd-Frank if he was elected. He made true on this pledge in May 2018, when Congress passed the Economic Growth, Regulatory Relief, and Consumer Protection Act. In the government's first measure addressing regulatory reform in nearly a decade, the act rolls back major portions of Dodd-Frank. The original $50 billion threshold used to categorize banks as "too big to fail" was raised to $250 billion.[406] Asset threshold increases for stress test requirements eased regulations for small and regional banks. Among the most consequential outcomes was the rollback made to the Volcker Rule. Requirements restricting the financial activities of firms were eliminated for small banks.[407] In the 2019 final rule notice issued by the Office of the Comptroller of the Currency, community banks with total consolidated assets of $10 billion or less and total trading assets/liabilities equal to 5% or less of total consolidated assets were made exempt from the requirements of the Volcker Rule.[408]

[406] Jacob Pramuk, "Trump Signs the Biggest Rollback of Bank Rules since the Financial Crisis," CNBC, May 24, 2018, https://www.cnbc.com/2018/05/24/trump-signs-bank-bill-rolling-back-some-dodd-frank-regulations.html.
[407] "S.2155 - 115th Congress (2017-2018): Economic Growth, Regulatory Relief, and Consumer Protection Act," May 24, 2018, https://www.congress.gov/bill/115th-congress/senate-bill/2155.
[408] "Volcker Rule: Final Rule," Office of the Comptroller of Currency, November 14, 2019, https://www.occ.treas.gov/news-issuances/bulletins/2019/bulletin-2019-56.html.

The House passed the bill by a vote of 258-159, with 33 Democrats joining all but one Republican lawmaker in support. In the Senate, the bill passed by a 67-31 vote, with 17 Democrats joining all Republicans in support. While there was bipartisan support for the Dodd-Frank rollbacks, considerable criticisms were levied by progressive policymakers who fought to prevent the rollbacks from being put in place. Some Democrats lawmakers, like Senator Sherrod Brown (D-OH), criticized the bill as an attempt for banking lobbyists to influence policymaking and ease restrictions that depress the profit-making potential of these firms.[409] Moderate Democrats and Republicans were able to agree on the rollbacks, deregulating the financial industry a decade after the financial crisis. These bipartisan voices wanted legislation to remove community and small banks from unnecessary regulatory overload.[410] Progressives in the House and the Senate continued to criticize the bill for the systemic risks that would be associated with future banking failures if the proper federal oversight is not administered.

How were households able to fare by the end of the post-recession recovery period as a result of these policy choices? A report published by HUD just prior to the pandemic examined housing market conditions at the end of the 2019 (quarter four). The report outlines trends in housing sector data since 2000, including construction starts, monthly supply of homes for sales, national home sales, and mortgage delinquency rates, among others. By the end of 2019, the housing market had recovered considerably in the aftermath of the financial crisis. The overall mortgage delinquency rate fell to a 40-year low by the fourth quarter of 2019.[411] Single-family and multifamily housing starts began to rise around 2010/2011 after experiencing steady declines

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[409] Sylvan Lane, "Senate Passes Bipartisan Bill to Roll Back Dodd-Frank," Text, *The Hill* (blog), March 14, 2018, https://thehill.com/policy/finance/378491-senate-passes-bipartisan-bill-to-rollback-dodd-frank/.
[410] Sylvan Lane, "Democrats Clash on Dodd-Frank Rollback Bill," Text, *The Hill* (blog), March 6, 2018, https://thehill.com/regulation/finance/376874-democrats-clash-on-dodd-frank-rollback-bill/.
[411] "National Housing Market Summary" (U.S. Department of Housing and Urban Development, March 2020), https://www.huduser.gov/portal/sites/default/files/pdf/NationalSummary_4Q19.pdf.

between 2006-2010.[412] Net privately owned housing starts stood at 1,290,000 units in 2019. This is 736,000 units higher than the low of 554,000 units in 2009, but still about 778,300 units below the peak from 2006.[413] Supply of new homes for sale had risen, but supply for existing homes had fallen. In addition, sales increased for both new and existing homes during the recovery after substantial declines were observed during the late-2000s. While the housing market continued to experience lingering effects from the Great Recession, substantial progress had been made to support the economic health of Americans. But housing market consequences induced by the pandemic would again pose concerns for households across the United States by 2020. Policymakers were called upon to respond, this time managing an economic crisis that was not induced by financial recklessness, but a public health emergency.

[Section 5.2]

Divergent Experiences: Housing Stability and the COVID-19 Pandemic

In 2019 there were 123 million occupied housing units. Among them, 44 million were rented and 79 million were owner-occupied (two-thirds of them with a mortgage).[414] Households were generally in a better financial situation than they were prior to the Great Recession. Homeowners had more equity in their homes, and they benefited from the steady rise in home prices during the duration of the pandemic.[415] The financial situation for renters was less secure just before the pandemic hit, and thus they experienced harsher economic consequences as a result. Housing market during the pandemic are exemplified through the divergence experiences among homeowners and renters. To illustrate some differences between these two groups just prior to the pandemic, reference Table 5.2 on the following page.

[412] "National Housing Market Summary."
[413] "New Residential Construction."
[414] Wendy Edelberg, Louise Sheiner, and David Wessel, "Recession Remedies," *Brookings* (blog), April 27, 2022, https://www.brookings.edu/essay/recession-remedies/.
[415] Edelberg, Sheiner, and Wessel.

Table 5.2 – Comparison of Homeowners and Renters, 2019

Category	Homeowners	Renters
Percent in the five most vulnerable industries[416]	30.3%	37.9%
Median income	$81,000 overall[417]	$42,000
Median wealth	$255,000	$6,300
Total number	78,791,325	44,011,579
Percent cost-burdened[418]	21%	46%
Percent severely cost-burdened[419]	9%	24%

Source: Brookings (2022)[420]

The homeowner/renter comparison highlights many of the divergent financial conditions that households experienced just prior to the pandemic. The percentage of each population that was cost-burdened or severely-cost burdened by the end of 2019 highlights this trend. The number of cost-burdened renters was 46% compared to homeowners at 21% (25 percentage points higher). Only 9% of homeowners were severely cost-burdened whereas the number of renters stood at 24% (almost three times as high).[421] Renters were in a more precarious position prior to the pandemic, but consequences associated with the recession were felt by homeowners and renters alike. In the early months of 2020, policymakers needed to design a tailored response that was appropriate for both populations. But many of the issues experienced by households were dependent upon homeownership or rental status. As such, specific policy initiatives were crafted to support both populations.

[416] In terms of health-related concerns for COVID-19, which included food/accommodation, construction, entertainment, retail, and other services.
[417] $96,000 with a mortgage, $58,100 without a mortgage
[418] Households characterized as spending more than 30% of their income on housing costs.
[419] Households characterized as spending more than 50% of their income on housing costs.
[420] Edelberg, Sheiner, and Wessel, "Recession Remedies."
[421] Edelberg, Sheiner, and Wessel.

State interventions for homeowners fall under three primary programs, two of which are fiscal and one of which is monetary. The two fiscal policies were provisioned in the March 2020 CARES Act, including national mortgage forbearance (allowing borrowers to postpone payments) and income supports in the form of enhanced Unemployment Insurance (UI) benefits and Economic Impact Payments (EIPs). The Federal Reserve implemented monetary support through its purchase of Treasury securities and mortgage-backed securities (MBS). The use of these policy tools successfully supported homeowners throughout the pandemic, and this research now turns to examining each of them in greater detail.

Section 5.2(a)

Policies and Consequences for Homeowners

Health-related lockdown measures early in the pandemic led to significant labor market volatility. After a peak of 10% in October 2009, unemployment was on the decline, falling to 3.5% by February 2020. Unemployment rose sharply to 15% by April 2020.[422] At the same time the national delinquency rate had risen from 3.06% to 6.45% between March and April 2020.[423] This figure can be partially explained by the government's decision to implement a nationwide mortgage forbearance. The CARES Act informed lenders that borrowers would be allowed to postpone payments for up to 12 months, later extended to 18 months, without penalty.[424] Congress made the process simple; no documentation was needed for the process and enrollees only needed to attest to the financial hardships they were experiencing as a result of the pandemic.[425] While the policy only applied to federally backed mortgages, servicers of privately securitized mortgages often granted forbearance to their borrowers. In 2020, 62% of all loans in

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[422] Organization for Economic Co-operation and Development, "LRUN64TTUSQ156S."
[423] Kathy Orton, "Homeowners Stopped Paying Mortgages in Record Numbers in April," *Washington Post*, May 22, 2020, https://www.washingtonpost.com/business/2020/05/22/mortgage-delinquencies-april/.
[424] "H.R.748 - 116th Congress (2019-2020)."
[425] "H.R.748 - 116th Congress (2019-2020)."

the housing market were federally backed, emphasizing the role the federal government could play in supporting homeowners at this time.[426]

Since the April 2020 peak in national delinquencies, rates have trended downward. A Brookings study examined the effects of these policies among a sample of homeowners from released administrative data. Over 80% of borrowers in their sample who missed a mortgage payment between April and June 2020 had enrolled in forbearance.[427] Research finds that the national forbearance policy was highly utilized among borrowers who were experiencing economic distress because of the pandemic. Borrowers who were in the most financial distress were often already in an unstable position prior to the crisis.[428] In addition, researchers at Brookings observed a third of borrowers who entered forbearance remained current on their payments. For many, the policy operated as a type of pandemic insurance intended to shield homeowners from substantial economic harm.[429] CARES also stipulated that borrowers entering forbearance (due to COVID-19) would not face changes to their credit score, and lenders were not allowed to report borrowers in forbearance as delinquent.[430]

Retrospective analysis suggests that the benefits of forbearance were front loaded, playing a much less important role in the conditions of the housing market by the spring of 2021. Still, the policy was effective, especially for its timeliness and ease with which borrowers were able to take advantage of the program's benefits. The policy is described as "incentive compatible," meaning it was most attractive to individuals that needed it the most.[431] Forbearance was able to offset the effects from pandemic-related changes in unemployment and

[426] Edelberg, Sheiner, and Wessel, "Recession Remedies."
[427] Edelberg, Sheiner, and Wessel.
[428] Edelberg, Sheiner, and Wessel.
[429] Edelberg, Sheiner, and Wessel.
[430] "H.R.748 - 116th Congress (2019-2020)."
[431] Edelberg, Sheiner, and Wessel, "Recession Remedies."

declines in new for-sale listings, but there are certain drawbacks to consider. Forbearance does not come without a cost, and lenders were extending interest free loans to borrowers that would need to be paid back when the crisis subsided. There were concerns that lags between missed payments and insurance payments from the government would cause liquidity squeezes, but researchers suggest these conditions have not formed during the pandemic.[432] Scholars also suggest that the relative success of the policy was in part thanks to conditions right before and during the crisis. The housing market before the pandemic was generally strong, and there was strong price growth for homes that increased the wealth of these borrowers. Labor market concerns that had spillover effects in the housing market were less of a concern when employment began to recover by early summer 2020, limiting the amount of time borrowers needed this support.

The CARES Act included income support provisions designed to offset COVID-related income losses. Enhanced Unemployment Insurance (UI) extended $600 in weekly benefits alongside an additional 13 weeks of benefits to eligible workers. The CARES Act included a Pandemic Unemployment Assistance (PUA) program that extended benefits to workers who had not previously qualified for relief.[433] A report by the Center on Budget and Policy Priorities in June 2020 found that 10.7 million Americans had taken advantage of PUA benefits.[434] The UI benefits were also issued in a timely manner, with $48 billion in benefits being paid in April 2020 and $94 billion by the end of May 2020.[435] Income support also included Economic Impact Payments (EIPs) that were delivered through three rounds during 2020 and 2021. In March 2020,

[432] Edelberg, Sheiner, and Wessel.
[433] "H.R.748 - 116th Congress (2019-2020)."
[434] Chad Stone, "CARES Act Measures Strengthening Unemployment Insurance Should Continue While Need Remains," Center on Budget and Policy Priorities, June 9, 2020, https://www.cbpp.org/research/federal-budget/cares-act-measures-strengthening-unemployment-insurance-should-continue.
[435] Stone.

the CARES Act provided direct payments of $1,200 per adult and $500 per dependent child to American taxpayers.[436] The Coronavirus Response and Relief Supplemental Appropriations Act of 2021 extended a second round of payments, this time $600 per adult.[437] A final round of EIPs was provisioned under Biden's American Rescue Plan Act from March 2021, which included $1,400 in direct payments.[438]

Income support policies were effective because their broad-based mechanisms supported homeowners and renters in tandem. We will investigate these conditions for renters in the coming pages, but this information is important to highlight. Still, income support was costlier than mortgage forbearance. The researchers at Brookings suggest incentives existed for people to remain unemployed that did not exist for mortgage forbearance. The generous income support from UI and EIPs did not have to be repaid, but a backlog of missed mortgage payments did have to be repaid.[439] Americans may have found it in their best interest to continue to receive UI without looking for a new job, thus making these benefits more susceptible to fiscal waste. Conversely, mortgage forbearance only allowed for a temporary reprieve on the monthly repayment requirements for homeowners, with the expectation that missed payments would be made current after benefits expired. While EIPs and enhancements in UI benefits provided necessary relief to households during the pandemic, the potential waste from these policies was higher than the nationwide forbearance. Despite a concern for potential misuse, fiscal support measures were generally successful in mitigating the labor concerns and income losses associated with the pandemic recession.

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436 "H.R.748 - 116th Congress (2019-2020)."
437 "H.R.133 - 116th Congress (2019-2020)."
438 "H.R.1319 - 117th Congress (2021-2022)."
439 Edelberg, Sheiner, and Wessel, "Recession Remedies."

The Federal Reserve played an essential role in the crisis management of the pandemic, especially in the early days and weeks. This is exemplified in the Fed's decisions to move the federal funds rate near the zero lower bound by April 2020.[440] Regulators at the Fed issued an FOMC statement in March 2020, announcing a large-scale asset purchases program to support monetary conditions during the crisis. The Fed committed to purchasing $500 billion in Treasury securities and $200 billion in mortgage-backed securities (MBS).[441] These purchases were designed to improve market functionality and support the flow of credit for the broader economy.[442] In response to these measures, mortgage rates, Treasury rates, and MBS yields fell, with mortgage rates having the strongest declines. The Freddie Mac Primary Mortgage Market Survey (PMMS) observed the 30-year fixed-rate mortgage rate falling to 3.29% in March 2020.[443] These low interest rates led to a wave of refinancing in the months after. When mortgage rates reached historic lows, the Mortgage Bankers Association found the refinance index increased to the highest level in more than a decade.[444]

This dual pattern reduced the financial distress of homeowners during this period. The benefits of lower interest rates took six quarters to gradually go into effect. There are several administrative explanations for this lag. First, lenders have a limited capacity to process refinancing. Second, refinancing can take more than 45 days in normal times. Higher rates of refinancing were not being done in normal times, and the volume of applicants in combination with COVID-related constraints made wait times long. Although refinancing was on the rise during this period, researchers identified disparities among homebuyers' behavior. Borrowers

[440] Board of Governors of the Federal Reserve System (US), "FEDFUNDS."
[441] "Federal Reserve Issues FOMC Statement," Board of Governors of the Federal Reserve System, March 15, 2020, https://www.federalreserve.gov/newsevents/pressreleases/monetary20200315a.htm.
[442] Milstein and Wessel, "What Did the Fed Do in Response to the COVID-19 Crisis?"
[443] Edelberg, Sheiner, and Wessel, "Recession Remedies."
[444] Edelberg, Sheiner, and Wessel.

experiencing pandemic-related financial distress were less likely to refinance.[445] To this effect, refinancing may have been used to enhance the positions of prosperous homeowners more often than providing safety nets to struggling homeowners.

Section 5.2(b)

Policies and Consequences for Renters

Homeowners experienced relatively positive effects from federal recession response policy during this period. The conditions of households before the pandemic had a sizeable influence on their economic positions during the pandemic, and researchers repeatedly note that distressed homeowners were in more precarious positions even after accounting for these policies. Renters in the United States were in less financially stable positions before the pandemic, thus exacerbating the negative economic conditions associated with the recession. To combat the crisis, policymakers responded through three primary measures. Like homeowners, renters were extended important income support through enhanced UI benefits and EIPs. The federal government also implemented an eviction moratorium for renters, operating in a similar fashion to the nationwide forbearance for homeowners. The positions of renters were particularly difficult during the pandemic, resulting in an Emergency Rental Assistance (ERA) program designed to support financial stability for these households.

Financial distress for these households had been growing in the years leading up to COVID-19. Among the 46.3% of renters in 2019 who were cost burdened, 50% of them spent more than half of their incomes on rent.[446] Among renters with annual household incomes of less than $25,000, 81.9% of them were cost burdened in 2019.[447] Nearly half of all renters and a significant majority of low-income renters were already struggling with housing payments

[445] Edelberg, Sheiner, and Wessel.
[446] Edelberg, Sheiner, and Wessel.
[447] Edelberg, Sheiner, and Wessel.

during a period of economic expansion. A 2020 report from the Harvard Joint Center for Housing Studies found that higher-income renters have accounted for a growing share of demand in the market since 2010. Housing units have been developed to meet the needs of these households, reducing supply that is accessible for moderate- to low-income renters.[448] Researchers found that rising rental costs made it harder for households to save towards a down payment. Renting was also more common during this period among traditional homebuying populations, including people ages 35-64 and married couples with children.[449] When the virus spread in 2020, renters were hit especially hard. Researchers at Brookings estimate 6.9 million households were behind on rent by August 2021, owing $21 billion as a group with the average delinquent renter owing $1,477.[450] This figure is twice the size it was prior to the pandemic.

Like homeowners, provisions under the CARES Act issued Economic Impact Payments (EIPs) to renters of $1,200 per adult ($500 per dependent child), with an additional combined $2,000 in direct payments through the Coronavirus Response and Relief Supplemental Appropriations Act, 2021 and the American Rescue Plan Act (2021). Likewise, enhanced UI benefits were also extended to renters under the provisions of the CARES Act. Between mid-February and mid-April 2020, 8.9 million, or 20% of all renters lost their job.[451] The combined implementation of these cash payments was able to cushion the impact of employment and income losses for renters. Trends in the unemployment rate and renter delinquency have not shown signs of correlation, with researchers suggesting renter distress was not especially pronounced among those who lost their jobs.[452] However, researchers once again note that renter

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[448] "New Report Shows America's Rental Affordability Crisis Climbing the Income Ladder," Joint Center for Housing Studies of Harvard University, January 31, 2020, https://www.jchs.harvard.edu/press-releases/new-report-shows-americas-rental-affordability-crisis-climbing-income-ladder.
[449] "New Report Shows America's Rental Affordability Crisis Climbing the Income Ladder."
[450] Edelberg, Sheiner, and Wessel, "Recession Remedies."
[451] Edelberg, Sheiner, and Wessel.
[452] Edelberg, Sheiner, and Wessel.

distress was highest among groups that were struggling prior to the pandemic. As such, EIPs and UI benefits may have been enough to support moderate- to high-income renters, but additional support was necessary for low-income renters.

To extend support, the CARES Act put in place a 120-day eviction moratorium for renters through July 24, 2020.[453] The moratorium was intended to prevent landlords from evicting tenants even if they could not make their monthly rent payments. Renters in Federal Housing Assistance programs or properties with a federally backed mortgage were eligible. When the program expired at the end of July 2020, federal subsidies had been able to support between 12.3 million and 19.9 million households (28.1% to 45.6% of renter households).[454] The CDC established an eviction moratorium on September 4, 2020 that lasted through the end of the year.[455] The CDC reissued the moratorium several times during 2021 before the Supreme Court struck down the policy, arguing the CDC was exceeding its authority by issuing the eviction pause.[456] When the eviction moratorium was in place, households in distress redirected resources to consumption on food spending and necessities. However, the moratorium did not eliminate payments outright, and tenants were still responsible for the payments they owed once the moratorium ended. The immediate effects of the moratorium produced negative externalities for landlords, who were responsible for many of the costs associated with the program.[457] Not all

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[453] "H.R.748 - 116th Congress (2019-2020)."
[454] Sonya Acosta, Anna Bailey, and Peggy Bailey, "Extend CARES Act Eviction Moratorium, Combine With Rental Assistance to Promote Housing Stability," Center on Budget and Policy Priorities, July 24, 2020, https://www.cbpp.org/research/housing/extend-cares-act-eviction-moratorium-combine-with-rental-assistance-to-promote.
[455] "Temporary Halt in Residential Evictions To Prevent the Further Spread of COVID-19," Federal Register, September 4, 2020, https://www.federalregister.gov/documents/2020/09/04/2020-19654/temporary-halt-in-residential-evictions-to-prevent-the-further-spread-of-covid-19.
[456] "The Supreme Court Will Allow Evictions To Resume. It Could Affect Millions Of Tenants," *Morning Edition* (NPR, August 26, 2021), https://www.npr.org/2021/08/26/1024668578/court-blocks-biden-cdc-evictions-moratorium.
[457] Edelberg, Sheiner, and Wessel, "Recession Remedies."

landlords are represented by large real estate firms, many of them are what are called “mom-and-pop” landlords that own single units. These landlords struggled under the eviction moratorium; pandemic-era economic policies did not provide them with the necessary support to offset financial losses. Many had to draw from their personal savings and the government has not reimbursed these losses, impacting their long run financial stability. Some of these landlords have been forced to exit the market. Large real estate firms that invest in additional units are often remodeled, and the costs become too expensive for struggling renters. These conditions have reinforced many of the housing instability issues that renters have faced for several years.

The third policy for renters during the pandemic was an Emergency Rental Assistance (ERA) program. ERA was implemented nine months after the crisis began, producing considerable time lags for when program benefits reached recipients. Between December 2020 and March 2021, Congress authorized $46.55 billion in funding for the ERA program. Under the Coronavirus Response and Relief Supplemental Appropriations Act, 2021, the ERA1 program allocated $25 billion to eligible households.[458] The American Rescue Plan Act (2021) implemented the ERA2 program allocating an additional $21.55 billion to these households.[459] Funds were distributed in the form of grants to states, territories, and local governments. Grantees were tasked with setting up their own procedures to assist households through existing or newly created rental assistance programs. The funds from these programs were designed to cover up to 18 months of rent for eligible households, with an additional 3 months in buffer support.[460] “Eligible households” must satisfy all the requirements, including (1) one or more

[458] “Emergency Rental Assistance Program,” U.S. Department of the Treasury, accessed April 20, 2023, https://home.treasury.gov/policy-issues/coronavirus/assistance-for-state-local-and-tribal-governments/emergency-rental-assistance-program.
[459] “Emergency Rental Assistance Program.”
[460] Edelberg, Sheiner, and Wessel, “Recession Remedies.”

individuals within the household qualified for UI/experienced reduced income due to COVID, (2) one or more individuals within the household demonstrated risk of homelessness/housing instability and (3) household income was at or below 80% of median income in the area.[461]

The ERA program does not impose stringent requirements about immigration status, but state-level programs operated independently of these directives. Because the ERA program was implemented in late-2020/early-2021, renters experienced higher rates of overcrowding and homelessness, along with increased exposure to the coronavirus due to the lack of immediate state support.[462] ERA funds were also slow to be disbursed. At the end of June 2021, only $3 billion (14%) of the ERA1 funds had been distributed to 633,000 households. By December 2021, $16.4 billion of ERA1 and $3.96 billion of ERA2 had been disbursed to 3.8 million renters in the United States.[463] Approval delays and rollout issues prevented an immediate launch, but federal officials issued guidance to make the application and approval process more streamlined. Still, many renters who qualified for assistance never received support due to insufficient program funding. Among renters, 23.9% are severely cost burdened, using 50% or more of their income on housing costs. However, only 4.9 million or just a fourth of renting households received federal assistance and aid during the pandemic.

Recessionary support during the pandemic for homeowners and renters, like student loan borrowers, was designed to avoid state failings from the Great Recession. The financial crisis in 2008 was in large part the result of weaknesses within the housing market, motivated by bad actors within the financial services sector. Despite an aggressive focus on the housing market

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[461] "FAQs," U.S. Department of the Treasury, accessed April 20, 2023, https://home.treasury.gov/policy-issues/coronavirus/assistance-for-state-local-and-tribal-governments/emergency-rental-assistance-program/faqs.
[462] Antwan Jones and Diana S. Grigsby-Toussaint, "Housing Stability and the Residential Context of the COVID-19 Pandemic," *Cities & Health* 5, no. sup1 (July 21, 2021): S159–61, https://doi.org/10.1080/23748834.2020.1785164.
[463] Edelberg, Sheiner, and Wessel, "Recession Remedies."

among policymakers and economists in the wake of the housing bubble burst, fiscal and monetary support was unable to carry households through a strong recovery into the 2010s. Like student loans, many of the programs were front-loaded, with aid quickly being stripped away before households had the proper time to recover, negatively impacting their long run trajectories in the post-recession economy. Households were eventually able to regain growth, but divergent economic circumstances took shape between homeowners and renters right before the pandemic hit. Economic distress among renters was growing, with more and more households unable to make monthly payments. Homeowners on the other hand, were in a much more stable economic position before the pandemic, and public policy during the crisis functioned to prevent economic destabilization among these households. State interventions in the housing market were most successful during this latter period, especially among homeowners.

A thorough, multi-pronged analysis identifying the conditions of households (homeowners and renters) and student loan borrowers has now been developed. With the relevant information now documented and reviewed, this paper can look ahead to the future. Over the past two years, and especially within the past few months, important economic developments are relevant and need to be addressed in the closing remarks of this research. What does the future hold for economic policymaking in the 21st century and what concerns lie ahead for households and student loan borrowers? It is quite possible our economy is on the road to recession in the coming years. If so, public policy will play a critical role.

[CONCLUSION]

The central focus of this research aims to evaluate the federal government's use of fiscal and monetary policies to combat economic downturns in a 21st century context. The United States economy has undergone rapid changes over the past 50 years. The monetary and fiscal measures of the last century cannot sufficiently combat the new types of economic crises experienced in the current century. How has this proven to be true? Economic downturns after 2000 were provoked by a unique host of macroeconomic conditions that had not been previously observed. The Great Recession was triggered by a bubble that, when burst, allowed housing market insecurities to spread into the wider economy. The speculative bubble that had formed by the early-2000s was driven by an underregulated financial sector that took advantage of the mortgage market to turn higher profits. A decade later, the economy was once again faced with *recessionary woes* that were similarly extreme but developed under an alternative set of conditions. The COVID-19 pandemic caused major disruptions and did so very quickly, with health-related lockdown and quarantine measures impacting global supply chains, labor markets, and household security overall. Each of these recessionary conditions required a well-tailored, robust policy response to support households and the macroeconomy.

To test the efficacy of the federal government's policy implementation process, this research specifically outlines government interventions for homeowners and renters in the housing market and student loan borrowers in higher education. A thorough review of the government's response to each crisis reveals an enduring theme: To varying degrees, Congress, the executive branch, and regulators at the Federal Reserve did not respond to the Great Recession with the proper combination of robust fiscal stimulus and targeted monetary interventions. In the aftermath of the financial crisis, the U.S. economy failed to generate sizable growth in the aggregate, and the post-recession era was characterized by slow (sometimes even negative) growth along with labor market slacks that depressed economic prospects. At the turn of the decade, when coronavirus quickly began to spread, the government did not want to make the same mistakes again. Federal intervention strategies in the pandemic era signaled a mindset in which lawmakers, regulators, and bureaucrats made decisions with a clear goal of avoiding the sins of the past. The health-related concerns accompanying the 2020 recession likely also played a role in motivating policymakers to take swift action. Because of these conditions, fiscal and monetary interventions for the pandemic recession were more robust than the Great Recession, with policies aimed at reaching a larger segment of the population within a quicker timeframe and for a longer duration of time.

This theme is exemplified through the policy decisions supporting student loan borrowers along with households (homeowners and renters) during each recessionary period. For student loan borrowers, the Great Recession is often cited as a major contributor to the student loan crisis during the 2010s. Relief during the financial crisis was accessible to student loan borrowers during the onset of the crisis, but it was quickly taken away once the recession had officially ended. Federal guidance aimed at increasing the share of the population enrolled in higher education led more Americans to take on student loan debt, only to enter a “slack” labor market that remained for several years after the recession ended. Workers were left with more debt to pay off but few prospects for occupational mobility, often associated with higher educational attainment. In addition, states across the country were forced to cut funding for public colleges and universities after the federal government failed to provide robust and continuous state and local fiscal support in the years after the recession ended. Persistent labor market concerns combined with rising costs for higher education worsened the economic position of student loan borrowers in the aftermath of the recession.

Conditions for student loan borrowers worsened during the 2010s, but the pandemic recession was an opportunity for the federal government to provide outsized support. Pandemic forbearance was the government's primary mechanism, granting payment relief to all students with federal loans. Forbearance was initially implemented in March 2020 under President Trump for a period of 60 days. The program was then extended nearly a dozen times. Forbearance remains in place and is set to expire at the end of June 2023. Persistent payment relief, along with a zero percent interest rate on these loans, put student loan borrowers in a much better position than they were in the first few years after the Great Recession. As of the 2022-23 academic year, the price of tuition and fees for public and private colleges and universities have trended downward since 2020-21, providing additional relief to students. In the coming years, it will be important for future research to address whether this trend continues downward or if costs begin to rise again. In addition, President Biden's student loan forgiveness program would provide the most substantial relief to student loan borrowers ever. Challenges to the policy have made their way to the Supreme Court. Oral arguments in *Biden v. Nebraska* were heard in February 2023, and a decision is expected sometime in June 2023. Whether the court upholds or strikes down the policy, future researchers must address how the Court's decision impacts the economic position of these borrowers as a result.

The housing market played a pivotal role in the development of recessionary conditions in the late-2000s. As such, policies addressing these deficiencies were uniquely tailored to support homeowners and renters in the post-recession era. Programs established by the federal government included formula grants from the American Recovery and Reinvestment Act, the Homeless Prevention Rapid Re-Housing Program, the Neighborhood Stabilization Fund, and the Home Affordable Modification Program. Despite the number of programs, state interventions were generally not robust enough to provide sufficient coverage to support struggling households. Program benefits were not extended for long periods of time, preventing households from taking full advantage of a recovery.

Still, there was a reckoning for large financial institutions in the wake of the crisis. The government passed the Dodd-Frank Wall Street Reform and Consumer Protection Act in an effort to implement much-needed regulations for the financial sector. The law brought sweeping reforms designed to prevent a banking crisis of this magnitude from ever forming again. These reforms were weakened by the Economic Growth, Regulatory Relief, and Consumer Protection Act, which was passed in 2018. Important statutes, such as the Volcker Rule, were eliminated through this partial repeal of Dodd. These regulatory changes have economic effects and may have played a role in the recent banking crises of 2023.

Mirroring efforts for student loan borrowers, the federal government again responded more aggressively in the wake of the pandemic recession to support homeowners and renters. The federal government supported homeowners in three primary ways, including mortgage forbearance, income support, and asset purchases. The CARES Act and subsequent agency directives extended to homeowners with federally backed mortgages the ability to postpone payments without penalty. Initial labor market instability in the first few months of the crisis allowed struggling homeowners to take advantage of these postponements. Forbearance benefits were front-loaded, and most homebuyers were not in need of the support by spring 2021. The CARES Act also enhanced Unemployment Insurance (UI) benefits, extending stimulus to a wider variety of workers with benefits being more robust and longer in duration. Three rounds of Economic Impact Payments (EIPs) were delivered to homeowners in 2020 and 2021, further bolstering available income to taxpayers and their families.

The Fed's monetary actions involved a large-scale asset purchases program, which induced higher rates of refinancing among homeowners. These activities put many households in a better position after the pandemic compared to their position prior. Renters had a more difficult time during the pandemic, and this is often a reflection of instability in the rental market prior to the crisis. Policymakers implemented several measures to address pandemic-related difficulties. Like homeowners, renters also benefited from CARES Act provisions enhancing UI benefits to workers. The three rounds of EIPs provided additional income cushions to renters, but many of these households remained cost-burdened for the duration of the crisis. Renter-specific measures from the federal government included eviction moratoriums. The CARES Act initially prevented evictions through a 120-day moratorium. Guidance from the CDC extended these benefits until August 2021, when the Supreme Court ruled that the CDC had overreached its authority. An Emergency Rental Assistance (ERA) program was developed to support the most vulnerable populations during the pandemic, but program lags and administrative delays prevented the program from being successful when renters needed it most.

Examining the policy mechanism of both recessions, the government's pandemic response was more effective in supporting Americans. Many of the programs implemented in 2020 and 2021 may be worthy of replication when the next crisis undoubtedly arises. Public commentary in recent months has grown concerned that the next downturn is just around the corner. In 2021, economists debated whether rising inflation was long term or transitory. The persistence of high inflation into 2022 and 2023 has heightened long run concerns, and the Fed's monetary policy has been unable to address supply-side issues that contribute to these inflationary pressures in the post-pandemic market. In just the past few weeks, a new banking crisis has ushered in a wave of concerns around increased financialization in the economy.[464] Financialization has been a phenomenon since the 1970s, describing an economic environment where the financial sector accounts for a higher share of national income relative to other sectors. Scholars have identified a relationship between the expansion of the financial sector and higher degrees of inequality among Americans in recent decades.[465] The Federal Reserve has taken steps to resolve the crisis, issuing several statements throughout March 2023.[466] The Fed developed the Bank Term Funding Program (BTFP) to establish itself as a lender of last resort and prevent further runs on the banking system.[467] It is too early to assess the possible outcomes associated with economic activity in the current market. Still, future research should examine the types of tools policy actors decide to implement to address these economic conditions. If a recession does indeed form in the coming years, to what extent will policymakers look to prior crises for possible solutions? Will they utilize tools from the Great Recession, the pandemic, or a combination of both? Only time will tell.

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[464] Silicon Valley Bank (SVB) failed on March 10, 2023, followed by Signature Bank on March 12, 2023. The run on these banks produced the second and third largest bank failures in U.S. history. The run on Washington Mutual in September 2008 remains the largest bank failure in the nation's history.

[465] Amanda Fischer, "The Rising Financialization of the U.S. Economy Harms Workers and Their Families, Threatening a Strong Recovery," *Washington Center for Equitable Growth* (blog), May 11, 2021, https://equitablegrowth.org/the-rising-financialization-of-the-u-s-economy-harms-workers-and-their-families-threatening-a-strong-recovery/.

[466] A joint statement on March 12, 2023, announced that the FDIC would resolve all issues associated with bank runs from Silicon Valley Bank (SVB) and Signature Bank. All deposits would be made whole and systemic risk would be removed to protect households and businesses. The statement can be found here: https://www.fdic.gov/news/press-releases/2023/pr23017.html

[467] "Bank Term Funding Program," Board of Governors of the Federal Reserve System, April 11, 2023, https://www.federalreserve.gov/monetarypolicy/bank-term-funding-program.htm.

[BIBLIOGRAPHY]

"A Fresh Start for Federal Student Loan Borrowers in Default." Federal Student Aid. Accessed April 12, 2023. https://studentaid.gov/announcements-events/default-fresh-start.

Acosta, Sonya, Anna Bailey, and Peggy Bailey. "Extend CARES Act Eviction Moratorium, Combine With Rental Assistance to Promote Housing Stability." Center on Budget and Policy Priorities, July 24, 2020. https://www.cbpp.org/research/housing/extend-cares-act-eviction-moratorium-combine-with-rental-assistance-to-promote.

"Agency Financial Report Fiscal Year 2011." U.S. Department of Housing and Urban Development, November 15, 2011. https://www.hud.gov/program_offices/cfo/afr/section1/recovery_act.

Arias, Maria A., and Yi Wen. "The Liquidity Trap: A Reason for Today's Low Inflation." Federal Reserve Bank of St. Louis, April 1, 2014. https://www.stlouisfed.org/publications/regional-economist/april-2014/the-liquidity-trap-an-alternative-explanation-for-todays-low-inflation.

Ashkenas, Ron. "Is Dodd-Frank Too Complex to Work?" HuffPost, March 15, 2012. https://www.huffpost.com/entry/finance-regulation_b_1344686.

Auerbach, Alan J., William G. Gale, and Benjamin H. Harris. "Activist Fiscal Policy." *Journal of Economic Perspectives* 24, no. 4 (Fall 2010): 141–64. https://doi.org/10.1257/jep.24.4.141.

Bernanke, Ben S. "The Subprime Mortgage Market." Board of Governors of the Federal Reserve System, May 17, 2007. https://www.federalreserve.gov/newsevents/speech/bernanke20070517a.htm.

Bharadwaj, Asha, and Charles S. Gascon. "Slowing U.S. Housing Sector Still Shaped by Great Recession." Federal Reserve Bank of St. Louis, April 8, 2019. https://www.stlouisfed.org/publications/regional-economist/first-quarter-2019/slowing-us-housing-sector.

Bivens, Josh, and Lawrence Mishel. "Identifying the Policy Levers Generating Wage Suppression and Wage Inequality." Economic Policy Institute, May 13, 2021. https://www.epi.org/unequalpower/publications/wage-suppression-inequality/.

———. "Occupy Wall Streeters Are Right about Skewed Economic Rewards in the United States." Economic Policy Institute, October 26, 2011. https://www.epi.org/publication/bp331-occupy-wall-street/.

Blagg, Kristin, and Erica Blom. "Student Debt Repayment Fell during the Great Recession. Borrowers from Low-Income Backgrounds Saw the Steepest Decline." Urban Institute, May 16, 2018. https://www.urban.org/urban-wire/student-debt-repayment-fell-during-great-recession-borrowers-low-income-backgrounds-saw-steepest-decline.

Blagg, Kristin, and Jason Cohn. "How Student Loan Borrowers Have Changed since 2008." Urban Institute, March 7, 2022. https://www.urban.org/urban-wire/how-student-loan-borrowers-have-changed-2008.

Block, Melissa, and Michael Hirsh. "2000 Commodities Act Paved Way For Problems." *NPR*, March 20, 2009, sec. Politics. https://www.npr.org/templates/story/story.php?storyId=102185942.

Board of Governors of the Federal Reserve System. "Appendix E: Maps of the Federal Reserve System: Budget Review 2011," July 13, 2011. https://www.federalreserve.gov/publications/budget-review/2011-appendix-e-maps.htm.

Board of Governors of the Federal Reserve System. "Bank Term Funding Program," April 11, 2023. https://www.federalreserve.gov/monetarypolicy/bank-term-funding-program.htm.

Board of Governors of the Federal Reserve System. "Credit and Liquidity Programs and the Balance Sheet," May 10, 2021. https://www.federalreserve.gov/monetarypolicy/bst_crisisresponse.htm.

Board of Governors of the Federal Reserve System. "Federal Reserve Board Announces Establishment of a Commercial Paper Funding Facility (CPFF) to Support the Flow of Credit to Households and Businesses," March 17, 2020. https://www.federalreserve.gov/newsevents/pressreleases/monetary20200317a.htm.

Board of Governors of the Federal Reserve System. "Federal Reserve Board Announces Establishment of a Primary Dealer Credit Facility (PDCF) to Support the Credit Needs of Households and Businesses," March 17, 2020. https://www.federalreserve.gov/newsevents/pressreleases/monetary20200317b.htm.

Board of Governors of the Federal Reserve System. "Federal Reserve Board Broadens Program of Support for the Flow of Credit to Households and Businesses by Establishing a Money Market Mutual Fund Liquidity Facility (MMLF)," March 18, 2020. https://www.federalreserve.gov/newsevents/pressreleases/monetary20200318a.htm.

Board of Governors of the Federal Reserve System. "Federal Reserve Board Modifies Main Street Lending Program to Provide Greater Access to Credit for Nonprofit Organizations Such as Educational Institutions, Hospitals, and Social Service Organizations," July 17, 2020. https://www.federalreserve.gov/newsevents/pressreleases/monetary20200717a.htm.

Board of Governors of the Federal Reserve System. "Federal Reserve Issues FOMC Statement," March 15, 2020. https://www.federalreserve.gov/newsevents/pressreleases/monetary20200315a.htm.

Board of Governors of the Federal Reserve System. "Federal Reserve Issues FOMC Statement," March 15, 2020. https://www.federalreserve.gov/newsevents/pressreleases/monetary20200315a.htm.

Board of Governors of the Federal Reserve System. "Federal Reserve Issues FOMC Statement," March 23, 2020. https://www.federalreserve.gov/newsevents/pressreleases/monetary20200323a.htm.

Board of Governors of the Federal Reserve System. "Federal Reserve Issues FOMC Statement," September 16, 2020. https://www.federalreserve.gov/newsevents/pressreleases/monetary20200916a.htm.

Board of Governors of the Federal Reserve System. "Federal Reserve Issues FOMC Statement," November 3, 2021. https://www.federalreserve.gov/newsevents/pressreleases/monetary20211103a.htm.

Board of Governors of the Federal Reserve System. "Federal Reserve Issues FOMC Statement," December 15, 2021. https://www.federalreserve.gov/newsevents/pressreleases/monetary20211215a.htm.

Board of Governors of the Federal Reserve System. "FRB: Press Release--FOMC Statement," December 16, 2008. https://web.archive.org/web/20170727224117/https://www.federalreserve.gov/newsevents/press/monetary/20081216b.htm.

Board of Governors of the Federal Reserve System. "FRB: Press Release--FOMC Statement," March 18, 2009. https://web.archive.org/web/20170728130838/https://www.federalreserve.gov/newsevents/press/monetary/20090318a.htm.

Board of Governors of the Federal Reserve System. "Historical Approaches to Monetary Policy," March 8, 2018. https://www.federalreserve.gov/monetarypolicy/historical-approaches-to-monetary-policy.htm.

Board of Governors of the Federal Reserve System. "Main Street Lending Program," March 13, 2023. https://www.federalreserve.gov/monetarypolicy/mainstreetlending.htm.

Board of Governors of the Federal Reserve System. "Municipal Liquidity Facility," March 13, 2023. https://www.federalreserve.gov/monetarypolicy/muni.htm.

Board of Governors of the Federal Reserve System. “Paycheck Protection Program Liquidity Facility (PPPLF),” March 13, 2023. https://www.federalreserve.gov/monetarypolicy/ppplf.htm.

Board of Governors of the Federal Reserve System. “Structure of the Federal Reserve System,” August 24, 2022. https://www.federalreserve.gov/aboutthefed/structure-federal-reserve-system.htm.

Board of Governors of the Federal Reserve System. “Survey of Consumer Finances, 1989-2019,” November 4, 2021. https://www.federalreserve.gov/econres/scf/dataviz/scf/chart/#series:Education_Installment_Loans;demographic:racecl4;population:1,2,3,4;units:median;range:1989,2019.

Board of Governors of the Federal Reserve System. “What Is the Difference between Monetary Policy and Fiscal Policy, and How Are They Related?,” August 9, 2017. https://www.federalreserve.gov/faqs/money_12855.htm.

Board of Governors of the Federal Reserve System (US). “Federal Funds Effective Rate.” FRED, Federal Reserve Bank of St. Louis. FRED, Federal Reserve Bank of St. Louis. Accessed March 21, 2023. https://fred.stlouisfed.org/series/FEDFUNDS.

Boddupalli, Aravind, Nikhita Airi, Tracy Gordon, and Solomon Greene. “Lessons from the American Recovery and Reinvestment Act for an Inclusive Recovery from the Pandemic.” Urban Institute, November 2021. https://www.urban.org/sites/default/files/publication/105113/lessons-from-arra-for-an-inclusive-recovery-from-the-pandemic.pdf.

Brookings. “Webinar: Federal Reserve Chair Jerome Powell on COVID-19 and the Economy,” April 6, 2020. https://www.brookings.edu/events/webinar-federal-reserve-chair-jerome-powell-on-covid-19-and-the-economy/.

Brooks, Clem, and Jeff Manza. “A Broken Public? Americans’ Responses to the Great Recession.” *American Sociological Review* 78, no. 5 (October 1, 2013): 727–48. https://doi.org/10.1177/0003122413498255.

Brownfield, Troy. “How the Great Recession Forced Us to Political Extremes.” The Saturday Evening Post, January 22, 2019. https://www.saturdayeveningpost.com/2019/01/how-the-great-recession-forced-us-to-political-extremes/.

CBS News. “Bernanke Defends Bear Stearns Bailout,” April 3, 2008. https://www.cbsnews.com/news/bernanke-defends-bear-stearns-bailout/.

Center for American Progress. “The Rental Housing Crisis Is a Supply Problem That Needs Supply Solutions,” August 22, 2022. https://www.americanprogress.org/article/the-rental-housing-crisis-is-a-supply-problem-that-needs-supply-solutions/.

Centers for Disease Control and Prevention. “CDC Museum COVID-19 Timeline,” March 15, 2023. https://www.cdc.gov/museum/timeline/covid19.html.

Centers for Disease Control and Prevention. “COVID Data Tracker,” March 21, 2023. https://covid.cdc.gov/covid-data-tracker.

Centers for Disease Control and Prevention. “COVID-19 Vaccination,” November 1, 2022. https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines/overview-COVID-19-vaccines.html.

Centers for Disease Control and Prevention. “COVID-19 Vaccination,” March 2, 2023. https://www.cdc.gov/coronavirus/2019-ncov/vaccines/stay-up-to-date.html.

“Chart Book: Tracking the Post-Great Recession Economy,” May 22, 2022. https://www.cbpp.org/research/economy/tracking-the-post-great-recession-economy.

Clark, Carol. "Senior Seminar in Economics." Lecture, Trinity College, Hartford, CT, Fall 2022.

CNN. “Obama Signs Tax Deal into Law,” December 17, 2010. http://www.cnn.com/2010/POLITICS/12/17/tax.deal/index.html.

College Board. “Trends in College Pricing and Student Aid 2022,” October 2022. https://research.collegeboard.org/media/pdf/trends-in-college-pricing-student-aid-2022.pdf.

Committee for a Responsible Federal Budget. “How Does COVID Relief Compare to Great Recession Stimulus?,” July 1, 2020. https://www.crfb.org/blogs/how-does-covid-relief-compare-great-recession-stimulus.

Congressional Budget Office. “CBO’s Estimates of ARRA’s Economic Impact | Congressional Budget Office,” February 22, 2012. https://www.cbo.gov/publication/43014.

Corporate Finance Institute. “Dotcom Bubble - Overview, Characteristics, Causes,” December 7, 2022. https://corporatefinanceinstitute.com/resources/equities/dotcom-bubble/.

Council on Foreign Relations. “The U.S. Financial Crisis.” Accessed March 21, 2023. https://www.cfr.org/timeline/us-financial-crisis.

Crump, Sarah, and Jenny Scheutz. “What the Great Recession Can Teach Us about the Post-Pandemic Housing Market.” *Brookings* (blog), March 29, 2021. https://www.brookings.edu/research/what-the-great-recession-can-teach-us-about-the-post-pandemic-housing-market/.

Cucinotta, Domenico, and Maurizio Vanelli. “WHO Declares COVID-19 a Pandemic.” *Acta Bio Medica : Atenei Parmensis* 91, no. 1 (March 19, 2020): 157–60. https://doi.org/10.23750/abm.v91i1.9397.

Custer, Bradley D., and Ella Azoulay. "Timeline: Federal Student Loans During the COVID-19 Pandemic." Center for American Progress, August 9, 2022. https://www.americanprogress.org/article/timeline-federal-student-loans-during-the-covid-19-pandemic/.

Dynarski, Susan. "In a Sharp Downturn, College Can Be a Shock Absorber." *The New York Times*, January 19, 2020, sec. Business. https://www.nytimes.com/2020/01/19/business/college-downturn-absorber.html.

Economic Policy Institute. "Five Years Since the American Recovery and Reinvestment Act: The Downward Spiral of Public Investment," February 12, 2014. https://www.epi.org/publication/years-american-recovery-reinvestment-act/.

Economics Help. "Crowding in Effect." Accessed April 10, 2023. https://www.economicshelp.org/blog/glossary/crowding-in-effect/.

Edelberg, Wendy, Louise Sheiner, and David Wessel. "Recession Remedies." *Brookings* (blog), April 27, 2022. https://www.brookings.edu/essay/recession-remedies/.

Education Data Initiative. "Student Loan Debt by Gender," December 16, 2021. https://educationdata.org/student-loan-debt-by-gender.

Emergency Economic Stabilization Act of 2008, Pub. L. No. H.R. 1424, 2 U.S.C. 661a (2008). https://www.govinfo.gov/app/details/BILLS-110hr1424enr.

Emmons, William R. "The End Is in Sight for the U.S. Foreclosure Crisis." Federal Reserve Bank of St. Louis, December 2, 2016. https://www.stlouisfed.org/on-the-economy/2016/december/end-sight-us-foreclosure-crisis.

Federal Housing Finance Agency. "Fact Sheet: Home Affordable Refinance Program (HARP)," November 24, 2011. https://www.fhfa.gov/Media/PublicAffairs/Pages/Home-Affordable-Refinance-Program-(HARP).aspx.

Federal Register. "Temporary Halt in Residential Evictions To Prevent the Further Spread of COVID-19," September 4, 2020. https://www.federalregister.gov/documents/2020/09/04/2020-19654/temporary-halt-in-residential-evictions-to-prevent-the-further-spread-of-covid-19.

Federal Reserve Bank of New York. "Large-Scale Asset Purchases." Accessed March 21, 2023. https://www.newyorkfed.org/markets/programs-archive/large-scale-asset-purchases.

Federal Reserve Bank of New York. "Monetary Policy Implementation." Accessed December 18, 2022. https://www.newyorkfed.org/markets/domestic-market-operations/monetary-policy-implementation.

Federal Reserve Bank of New York. "Overnight Bank Funding Rate." Accessed December 18, 2022. https://www.newyorkfed.org/markets/reference-rates/obfr.

Federal Reserve Bank of New York. "Statement Regarding Treasury Securities, Agency Mortgage-Backed Securities, and Agency Commercial Mortgage-Backed Securities Operations," June 10, 2020. https://www.newyorkfed.org/markets/opolicy/operating_policy_200610.

Federal Reserve Bank of New York. "The Labor Market for Recent College Graduates," February 10, 2023. https://www.newyorkfed.org/research/college-labor-market/index.

Federal Reserve Bank of St. Louis. "Fiscal Policy - The Economic Lowdown Podcast Series." Accessed December 18, 2022. https://www.stlouisfed.org/education/economic-lowdown-podcast-series/episode-21-fiscal-policy.

Federal Reserve History. "Financial Services Modernization Act of 1999, Commonly Called Gramm-Leach-Bliley," November 12, 1999. https://www.federalreservehistory.org/essays/gramm-leach-bliley-act.

Federal Reserve History. "Recession of 1981–82," November 22, 2013. https://www.federalreservehistory.org/essays/recession-of-1981-82.

Federal Reserve History. "The Great Recession," November 22, 2013. https://www.federalreservehistory.org/essays/great-recession-of-200709.

Federal Student Aid. "COVID-19 Emergency Relief and Federal Student Aid." Accessed April 12, 2023. https://studentaid.gov/announcements-events/covid-19.

Federal Student Aid. "Public Service Loan Forgiveness." Accessed April 14, 2023. https://studentaid.gov/manage-loans/forgiveness-cancellation/public-service.

Feldstein, Martin S. "Rethinking the Role of Fiscal Policy." Working Paper. Working Paper Series. National Bureau of Economic Research, January 2009. https://doi.org/10.3386/w14684.

"Final Vote Results for Roll Call 70," February 13, 2009. https://clerk.house.gov/evs/2009/roll070.xml.

Fischer, Amanda. "The Rising Financialization of the U.S. Economy Harms Workers and Their Families, Threatening a Strong Recovery." *Washington Center for Equitable Growth* (blog), May 11, 2021. https://equitablegrowth.org/the-rising-financialization-of-the-u-s-economy-harms-workers-and-their-families-threatening-a-strong-recovery/.

Giovanni, Julian di. "How Much Did Supply Constraints Boost U.S. Inflation?" Federal Reserve Bank of New York, August 24, 2022. https://libertystreeteconomics.newyorkfed.org/2022/08/how-much-did-supply-constraints-boost-u-s-inflation/.

Glazer, Emily. "Jamie Dimon Pushes for Simpler, More Coordinated Bank Regulations." *Wall Street Journal*, April 4, 2017, sec. Markets. https://www.wsj.com/articles/jamie-dimon-pushes-for-simpler-more-coordinated-bank-regulations-1491326079.

Gould Ellen, Ingrid, and Samuel Dastrup. "Housing and the Great Recession." Furman Center for Real Estate and Urban Policy, October 2012. https://furmancenter.org/research/publication/housing-and-the-great-recession.

Grynbaum, Michael M. "Home Prices Fell in '07 for First Time in Decades." *The New York Times*, January 24, 2008, sec. Business. https://www.nytimes.com/2008/01/24/business/24cnd-home.html.

Henderson, David. "Did Alan Greenspan's Federal Reserve Cause the Housing Bubble?" *Wall Street Journal*, March 27, 2009, sec. Opinion. https://www.wsj.com/articles/SB123811225716453243.

Hoffman, Liz, and David Benoit. "Shedding 2008 Stigma, Biggest U.S. Banks Borrow Straight From the Fed." *Wall Street Journal*, March 17, 2020, sec. Markets. https://www.wsj.com/articles/shedding-2008-stigma-biggest-u-s-banks-borrow-straight-from-the-fed-11584412394.

Holmes, Steven A. "Fannie Mae Eases Credit To Aid Mortgage Lending." *The New York Times*, September 30, 1999, sec. Business. https://www.nytimes.com/1999/09/30/business/fannie-mae-eases-credit-to-aid-mortgage-lending.html.

Horton, Mark, and Asmaa El-Ganainy. "Fiscal Policy: Taking and Giving Away." International Monetary Fund. Accessed December 18, 2022. https://www.imf.org/en/Publications/fandd/issues/Series/Back-to-Basics/Fiscal-Policy.

"H.R.1 - 111th Congress (2009-2010): American Recovery and Reinvestment Act of 2009," February 17, 2009. 02/17/2009. http://www.congress.gov/.

"H.R.133 - 116th Congress (2019-2020): Consolidated Appropriations Act, 2021," December 27, 2020. 12/27/2020. http://www.congress.gov/.

"H.R.266 - 116th Congress (2019-2020): Paycheck Protection Program and Health Care Enhancement Act," April 24, 2020. 04/24/2020. http://www.congress.gov/.

"H.R.748 - 116th Congress (2019-2020): CARES Act," March 27, 2020. 03/27/2020. http://www.congress.gov/.

"H.R.1319 - 117th Congress (2021-2022): American Rescue Plan Act of 2021," March 11, 2021. 03/11/2021. http://www.congress.gov/.

"H.R.1412 - 108th Congress (2003-2004): Higher Education Relief Opportunities for Students Act of 2003." Legislation, August 18, 2003. 08/18/2003. http://www.congress.gov/.

"H.R.3630 - 112th Congress (2011-2012): Middle Class Tax Relief and Job Creation Act of 2012," February 22, 2012. 02/22/2012. http://www.congress.gov/.

"H.R.3765 - 112th Congress (2011-2012): Temporary Payroll Tax Cut Continuation Act of 2011," December 23, 2011. 12/23/2011. http://www.congress.gov/.

"H.R.4173 - 111th Congress (2009-2010): Dodd-Frank Wall Street Reform and Consumer Protection Act," July 21, 2010. 07/21/2010. http://www.congress.gov/.

"H.R.4853 - 111th Congress (2009-2010): Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010," December 17, 2010. 12/17/2010. http://www.congress.gov/.

"H.R.5140 - 110th Congress (2007-2008): Economic Stimulus Act of 2008," February 13, 2008. 02/13/2008. http://www.congress.gov/.

"H.R.6074 - 116th Congress (2019-2020): Coronavirus Preparedness and Response Supplemental Appropriations Act, 2020," March 6, 2020. 03/06/2020. http://www.congress.gov/.

"H.R.6201 - 116th Congress (2019-2020): Families First Coronavirus Response Act," March 18, 2020. 03/18/2020. http://www.congress.gov/.

HUD User. "Defining Housing Affordability," August 14, 2017. https://www.huduser.gov/portal/pdredge/pdr-edge-featd-article-081417.html.

Hulse, Carl, and Emily Cochrane. "As Coronavirus Spread, Largest Stimulus in History United a Polarized Senate." *The New York Times*, March 26, 2020, sec. U.S. https://www.nytimes.com/2020/03/26/us/coronavirus-senate-stimulus-package.html.

Ihrig, Jane E., and Scott A. Wolla. "How Does the Fed Influence Interest Rates Using Its New Tools?" Federal Reserve Bank of St. Louis, August 5, 2020. https://www.stlouisfed.org/open-vault/2020/august/how-does-fed-influence-interest-rates-using-new-tools.

International Monetary Fund. "Policy Responses to COVID19," June 3, 2021. https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19.

Investopedia. "What Is a Credit Default Swap (CDS), and How Does It Work?," March 15, 2023. https://www.investopedia.com/terms/c/creditdefaultswap.asp.

Jahan, Sarwat, Ahmed Saber Mahmud, and Chris Papageorgiou. “What Is Keynesian Economics?” *Finance & Development* 51, no. 3 (September 2014). https://www.imf.org/external/pubs/ft/fandd/2014/09/basics.htm.

Joint Center for Housing Studies of Harvard University. “New Report Shows America’s Rental Affordability Crisis Climbing the Income Ladder,” January 31, 2020. https://www.jchs.harvard.edu/press-releases/new-report-shows-americas-rental-affordability-crisis-climbing-income-ladder.

Jones, Antwan, and Diana S. Grigsby-Toussaint. “Housing Stability and the Residential Context of the COVID-19 Pandemic.” *Cities & Health* 5, no. sup1 (July 21, 2021): S159–61. https://doi.org/10.1080/23748834.2020.1785164.

Kahn, Lisa B. “The Long-Term Labor Market Consequences of Graduating from College in a Bad Economy.” *Labour Economics* 17, no. 2 (April 1, 2010): 303–16. https://doi.org/10.1016/j.labeco.2009.09.002.

Klepper, David. “COVID-19 Conspiracies Soar after New Classified Report on Virus Origins.” PBS NewsHour, March 1, 2023. https://www.pbs.org/newshour/nation/covid-19-conspiracies-soar-after-new-classified-report-on-virus-origins.

Koba, Mark. “Dodd-Frank Act: CNBC Explains.” CNBC, May 11, 2012. https://www.cnbc.com/2012/05/11/doddfrank-act-cnbc-explains.html.

Kolodner, Meredith. “Parent Plus Loans Are Burying Families in College Debt.” NBC News, November 12, 2020. https://www.nbcnews.com/news/education/parent-plus-loans-are-burying-families-college-debt-n1125391.

Krugman, Paul. “Failure to Rise.” *The New York Times*, February 13, 2009, sec. Opinion. https://www.nytimes.com/2009/02/13/opinion/13krugman.html.

———. “Is Fiscal Policy Poised for a Comeback?” *Oxford Review of Economic Policy* 21, no. 4 (December 1, 2005): 515–23. https://doi.org/10.1093/oxrep/gri029.

Labaton, Stephen. “Agency’s ’04 Rule Let Banks Pile Up New Debt.” *The New York Times*, October 3, 2008, sec. Business. https://www.nytimes.com/2008/10/03/business/03sec.html.

Lane, Sylvan. “Democrats Clash on Dodd-Frank Rollback Bill.” Text. *The Hill* (blog), March 6, 2018. https://thehill.com/regulation/finance/376874-democrats-clash-on-dodd-frank-rollback-bill/.

———. “Senate Passes Bipartisan Bill to Roll Back Dodd-Frank.” Text. *The Hill* (blog), March 14, 2018. https://thehill.com/policy/finance/378491-senate-passes-bipartisan-bill-to-rollback-dodd-frank/.

Lerner, Michele. “10 Years Later: How the Housing Market Has Changed since the Crash.” The Washington Post, October 4, 2018. https://www.washingtonpost.com/news/business/wp/2018/10/04/feature/10-years-later-how-the-housing-market-has-changed-since-the-crash/.

Lumina Foundation. “A History of Federal Student Loan Aid.” Accessed March 30, 2023. https://www.luminafoundation.org/history-of-federal-student-aid/.

Lydia, Saad. “COVID-19 Aid Package Both Popular and Controversial.” The Gallup Organization, March 26, 2021. https://news.gallup.com/poll/342041/covid-aid-package-simultaneously-popular-controversial.aspx.

Meeropol, Michael A. “A Tale of Two Tax Cuts: What Recent History Teaches about Recessions and Economic Policy.” Economic Policy Institute, May 1, 2001. https://www.epi.org/publication/issuebriefs_ib157/.

Merced, Michael de la, Vikas Bajaj, and Andrew Ross Sorkin. “As Goldman and Morgan Shift, a Wall St. Era Ends.” The New York Times, September 21, 2008. https://dealbook.nytimes.com/2008/09/21/goldman-morgan-to-become-bank-holding-companies/.

Milstein, Eric, and David Wessel. “What Did the Fed Do in Response to the COVID-19 Crisis?” *Brookings* (blog), December 17, 2021. https://www.brookings.edu/research/fed-response-to-covid19/.

Minsky, Adam S. “What Biden’s Latest Covid Move Means For Student Loan Programs, Including Loan Forgiveness.” Forbes, January 31, 2023. https://www.forbes.com/sites/adamminsky/2023/01/31/what-bidens-latest-covid-move-means-for-student-loan-programs-including-loan-forgiveness/?sh=64793b7c306a.

Mitchell, Michael, and Michael Leachman. “Years of Cuts Threaten to Put College Out of Reach for More Students.” Center on Budget and Policy Priorities, May 13, 2015. https://www.cbpp.org/research/state-budget-and-tax/years-of-cuts-threaten-to-put-college-out-of-reach-for-more-students.

National Bureau of Economic Research. “Business Cycle Dating Committee Announcement July 19, 2021,” July 19, 2021. https://www.nber.org/news/business-cycle-dating-committee-announcement-july-19-2021.

National Bureau of Economic Research. “Business Cycle Dating Procedure: Frequently Asked Questions,” August 15, 2022. https://www.nber.org/research/business-cycle-dating/business-cycle-dating-procedure-frequently-asked-questions.

National Center for Education Statistics. “Digest of Education Statistics, 2021.” Accessed March 30, 2023. https://nces.ed.gov/programs/digest/d21/tables/dt21_303.70.asp.

"National Housing Market Summary." U.S. Department of Housing and Urban Development, March 2020. https://www.huduser.gov/portal/sites/default/files/pdf/NationalSummary_4Q19.pdf.

NBC News. "Stimulus Bill Far from Perfect, Obama Says," February 6, 2009. https://www.nbcnews.com/id/wbna29050187.

New America. "College Pays Off. But by How Much Depends on Race, Gender, and Type of Degree.," March 1, 2022. http://newamerica.org/education-policy/edcentral/college-pays-off/.

O'Connell, Brian, and Benjamin Curry. "What Happens When The Fed Cuts Interest Rates?" Forbes Advisor, June 23, 2021. https://www.forbes.com/advisor/investing/fed-cuts-interest-rates/.

Office of the Comptroller of Currency. "Volcker Rule: Final Rule," November 14, 2019. https://www.occ.treas.gov/news-issuances/bulletins/2019/bulletin-2019-56.html.

Olick, Diana. "Decade after Housing Crash, Fannie Mae and Freddie Mac Are Uncle Sam's Cash Cows." CNBC, September 5, 2018. https://www.cnbc.com/2018/09/05/fannie-mae-freddie-mac-are-uncle-sams-cash-cows-a-decade-after-crash.html.

Oliff, Phillip, and Ilan Levin. "How Will Student Loan Borrowers Fare After the Pandemic?" The Pew Charitable Trusts, June 28, 2021. https://pew.org/35UE2Xw.

Oreopoulos, Philip, Till von Wachter, and Andrew Heisz. "The Short- and Long-Term Career Effects of Graduating in a Recession: Hysteresis and Heterogeneity in the Market for College Graduates." Working Paper. Working Paper Series. National Bureau of Economic Research, April 2006. https://doi.org/10.3386/w12159.

Organization for Economic Co-operation and Development. "Unemployment Rate: Aged 15-64: All Persons for the United States." FRED, Federal Reserve Bank of St. Louis. FRED, Federal Reserve Bank of St. Louis. Accessed March 21, 2023. https://fred.stlouisfed.org/series/LRUN64TTUSQ156S.

Orton, Kathy. "Homeowners Stopped Paying Mortgages in Record Numbers in April." *Washington Post,* May 22, 2020. https://www.washingtonpost.com/business/2020/05/22/mortgage-delinquencies-april/.

Panic: The Untold Story of the 2008 Financial Crisis | Full VICE Special Report | HBO. YouTube, 2019. https://www.youtube.com/watch?v=QozGSS7QY_U.

Pinto, Sergio, and Marshall Steinbaum. "The Long-Run Impact of the Great Recession on Student Debt." SSRN Scholarly Paper. Rochester, NY, March 20, 2022. https://doi.org/10.2139/ssrn.3928927.

Plunkett, Travis, Regan Fitzgerald, Brian Denten, and Jon Remedios. "Student Loan Borrowers Starting Repayment During Economic Downturns Can Face a Difficult Path." The Pew Charitable Trusts, July 22, 2021. https://pew.org/2VYg2B5.

Pramuk, Jacob. "Trump Signs the Biggest Rollback of Bank Rules since the Financial Crisis." CNBC, May 24, 2018. https://www.cnbc.com/2018/05/24/trump-signs-bank-bill-rolling-back-some-dodd-frank-regulations.html.

Roberts, Russel. "How Government Stoked the Mania." *Wall Street Journal*, October 3, 2008. https://www.wsj.com/articles/SB122298982558700341.

Romer, David. "What Have We Learned about Fiscal Policy from the Crisis?" University of California, Berkeley, 2011. https://www.imf.org/external/np/seminars/eng/2011/res/pdf/DR3presentation.pdf.

"S.2155 - 115th Congress (2017-2018): Economic Growth, Regulatory Relief, and Consumer Protection Act," May 24, 2018. https://www.congress.gov/bill/115th-congress/senate-bill/2155.

Seager, Ashley, and Phillip Inman. "US Housing Crisis: Freddie and Fannie Are Nationalised." *The Guardian*, September 7, 2008, sec. Business. https://www.theguardian.com/business/2008/sep/08/freddiemacandfanniemae.subprimecrisis.

Segers, Grace. "Biden Signs $1.9 Trillion American Rescue Plan into Law." CBS News, March 12, 2021. https://www.cbsnews.com/news/biden-signs-covid-relief-bill-american-rescue-plan-into-law/.

Siegel, Rachel. "Why Does the Fed Raise Interest Rates?" *Washington Post*, September 21, 2022. https://www.washingtonpost.com/business/2022/09/20/fed-interest-rate-hike-inflation/.

Solow, Robert M. "Rethinking Fiscal Policy." *Oxford Review of Economic Policy* 21, no. 4 (December 1, 2005): 509–14. https://doi.org/10.1093/oxrep/gri028.

Sorkin, Andrew Ross. "Lehman Files for Bankruptcy; Merrill Is Sold." *The New York Times*, September 14, 2008, sec. Business. https://www.nytimes.com/2008/09/15/business/15lehman.html.

Stone, Chad. "CARES Act Measures Strengthening Unemployment Insurance Should Continue While Need Remains." Center on Budget and Policy Priorities, June 9, 2020. https://www.cbpp.org/research/federal-budget/cares-act-measures-strengthening-unemployment-insurance-should-continue.

Stone, Chad, and William Chen. “Introduction to Unemployment Insurance.” Center on Budget and Policy Priorities, July 30, 2014. https://www.cbpp.org/research/introduction-to-unemployment-insurance.

Stupak, Jeffrey M. “Fiscal Policy: Economic Effects.” *Congressional Research Service*, May 16, 2019. https://crsreports.congress.gov/product/pdf/R/R45723/1.

Surowiecki, James. “Moral Hazard and the Crisis.” *The New Yorker*, January 14, 2010. https://www.newyorker.com/business/james-surowiecki/moral-hazard-and-the-crisis.

Tax Foundation. “What Is a Progressive Tax?” Accessed December 18, 2022. https://taxfoundation.org/tax-basics/progressive-tax/.

Tax Policy Center. “What Are Automatic Stabilizers and How Do They Work?,” May 2020. https://www.taxpolicycenter.org/briefing-book/what-are-automatic-stabilizers-and-how-do-they-work.

The Pew Charitable Trusts. “How the Pandemic Could Affect the Rise in Student Debt,” December 22, 2021. https://pew.org/3pgti0j.

“The Supreme Court Will Allow Evictions To Resume. It Could Affect Millions Of Tenants.” *Morning Edition*. NPR, August 26, 2021. https://www.npr.org/2021/08/26/1024668578/court-blocks-biden-cdc-evictions-moratorium.

The White House. “FACT SHEET: President Biden Announces Student Loan Relief for Borrowers Who Need It Most,” August 24, 2022. https://www.whitehouse.gov/briefing-room/statements-releases/2022/08/24/fact-sheet-president-biden-announces-student-loan-relief-for-borrowers-who-need-it-most/.

Totenberg, Nina. “Biden’s Student Loan Relief Faces Its Biggest Test yet at the Supreme Court.” *NPR*, February 28, 2023, sec. Law. https://www.npr.org/2023/02/28/1159606491/student-loan-forgiveness-supreme-court.

United States Senate. “Budget.” Accessed April 10, 2023. https://www.senate.gov/reference/reference_index_subjects/Budget_vrd.htm.

United States Senate. “U.S. Senate Roll Call Votes 111th Congress - 1st Session,” February 13, 2009. https://www.senate.gov/legislative/LIS/roll_call_votes/vote1111/vote_111_1_00064.htm#top.

U.S. Bureau of Economic Analysis. “GDP Price Deflator,” March 30, 2023. https://www.bea.gov/data/prices-inflation/gdp-price-deflator.

U.S. Bureau of Economic Analysis. “Real Gross Domestic Product.” FRED, Federal Reserve Bank of St. Louis. FRED, Federal Reserve Bank of St. Louis. Accessed March 21, 2023. https://fred.stlouisfed.org/series/A191RL1Q225SBEA.

U.S. Bureau of Labor Statistics. “Employment Status of the Civilian Noninstitutional Population 25 Years and over by Educational Attainment, Sex, Race, and Hispanic or Latino Ethnicity,” January 25, 2023. https://www.bls.gov/cps/cpsaat07.htm.

U.S. Bureau of Labor Statistics. “Unemployment Rates for Persons 25 Years and Older by Educational Attainment.” Accessed March 30, 2023. https://www.bls.gov/charts/employment-situation/unemployment-rates-for-persons-25-years-and-older-by-educational-attainment.htm.

US Census Bureau. “New Residential Construction.” Accessed April 17, 2023. https://www.census.gov/construction/nrc/historical_data/index.html.

U.S. Department of Education. “Dear Colleague Letter to Financial Aid Administrators.” Letters (Correspondence). US Department of Education (ED), May 8, 2009. https://www2.ed.gov/policy/gen/guid/secletter/090512.html.

U.S. Department of Education. “ED Review: March 20, 2020,” March 20, 2020. https://www2.ed.gov/news/newsletters/edreview/2020/0320.html#1.

U.S. Department of Housing and Urban Development. “Program-Level Plan Homelessness Prevention and Rapid Re-Housing Program,” February 2009. https://www.hudexchange.info/programs/hprp.

U.S. Department of the Treasury. “AIG Program Status,” March 17, 2023. https://home.treasury.gov/data/troubled-assets-relief-program/aig/status.

U.S. Department of the Treasury. “Emergency Rental Assistance Program.” Accessed April 20, 2023. https://home.treasury.gov/policy-issues/coronavirus/assistance-for-state-local-and-tribal-governments/emergency-rental-assistance-program.

U.S. Department of the Treasury. “FAQs.” Accessed April 20, 2023. https://home.treasury.gov/policy-issues/coronavirus/assistance-for-state-local-and-tribal-governments/emergency-rental-assistance-program/faqs.

U.S. Department of the Treasury. “Home Affordable Modification Program (HAMP).” Accessed April 18, 2023. https://home.treasury.gov/data/troubled-assets-relief-program/housing/mha/hamp.

Veterans Affairs. “About GI Bill Benefits,” February 14, 2023. https://www.va.gov/education/about-gi-bill-benefits/.

Webel, Baird, David H Carpenter, Raj Gnanarajah, Katie Jones, Marc Labonte, Rena S Miller, David W Perkins, Gary Shorter, and N Eric Weiss. “The Dodd-Frank Wall Street Reform and Consumer Protection Act: Background and Summary.” Congressional Research Service, April 21, 2017.

Wessel, David. “Who Has to Leave the Federal Reserve Next?” *Brookings* (blog), March 22, 2023. https://www.brookings.edu/opinions/who-has-to-leave-the-federal-reserve-next/.

White House Archives. “Fact Sheet on the Framework Agreement on Middle Class Tax Cuts and Unemployment Insurance,” December 7, 2010. https://obamawhitehouse.archives.gov/the-press-office/2010/12/07/fact-sheet-framework-agreement-middle-class-tax-cuts-and-unemployment-in.

White House Archives. “President Bush Helped Americans Through Tax Relief.” Accessed March 21, 2023. https://georgewbush-whitehouse.archives.gov/infocus/bushrecord/factsheets/taxrelief.html.

World Economic Forum. “Key Milestones in the Spread of the Coronavirus Pandemic,” April 22, 2020. https://www.weforum.org/agenda/2020/04/coronavirus-spread-covid19-pandemic-timeline-milestones/.

Yale Program on Financial Stability. “The Financial Crisis Five Years Later Response, Reform, and Progress,” September 2013. https://ypfs.som.yale.edu/node/3786.

Zannoni, Diane. “Macroeconomic Theory.” Lecture, Trinity College, Hartford, CT, Spring 2021.