CHAPTER 13: FINANCIAL INSTABILITY AND ECONOMIC INEQUALITY

The financial crisis that originated in the United States in 2007 and quickly became global has been widely referred to as the "Great Recession". It is the most serious economic crisis experienced by the industrialized world since the Great Depression. The UN estimates that between 2007 and 2009 the number of unemployed globally rose by 27 million, to a total of more than 200 million. High-income countries were especially hard hit, as more than 14 million jobs were lost in the United States and the member states of the EU. Why did this happen? Why were the effects of the crisis so large and so widespread? What lessons can be learned for the future?

This chapter provides some insights into these questions. We begin by describing the 2007–2008 financial crisis and examining the causes of such crises, in general. We then take a closer look at the growing inequality of wealth and income in the United States—a central aspect of the financial crisis and a major economic challenge of the current century. Finally, we suggest some measures for avoiding future crises and creating a more equitable and sustainable economic system.

1. THE 2007–2008 FINANCIAL CRISIS

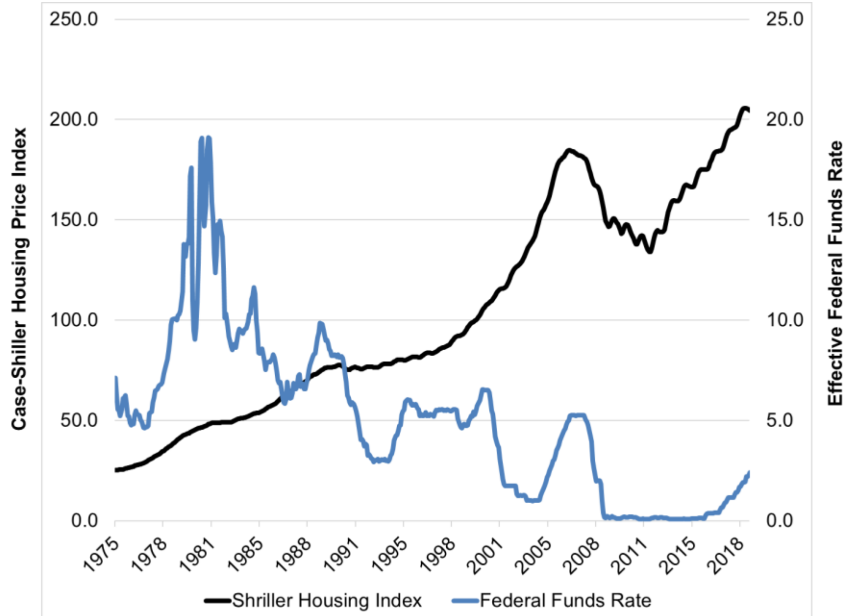
In retrospect, it is not difficult to see that something "big" was going to happen. Economic conditions were unusual. Interest rates were at historic lows, housing prices were rising rapidly, and consumption and growth levels were increasing, even though real wages had remained stagnant for decades. At the same time, the financial sector was booming with the invention of complex financial instruments—most of which were poorly understood. Yet many economists missed the typical signs of a looming crisis: rapidly rising asset prices and economic growth driven by excessive borrowing.

1.1 ENTERING THE CRISIS

In 2001, in response to the collapse of the dot-com bubble, the Fed lowered the federal funds rate from 6 percent to 1.75 percent with the goal of promoting growth. In the summer of 2003, the rate was lowered still further to 1 percent—its lowest in 50 years. The low federal funds rate led to reductions across the board, including rates for loans and home mortgages.

The low interest rate was a boon to consumers who, amid stagnant wages, increasingly turned to the credit market to meet their consumption needs. The housing market, in particular, saw a boost as the demand for real estate increased, with mortgage rates falling to a 50-year low of just over 5 percent in 2003. This increased demand fueled a rise in home prices, which in turn fed a speculative frenzy where millions rushed to buy believing that prices could only go in one direction—up! The buyers included not only would-be homeowners, but also speculators who were buying simply with an interest in "flipping" the property (reselling at a higher price). During the mid-1990s, U.S. households borrowed an annual average of approximately $200 billion in mortgage loans. The figure rose abruptly to $500 billion for the period 1998–2002 and to $1 trillion from 2003 to 2006.

Figure 13.1 Housing Bubble and Credit Access, 1975 – 2019



Sources: Federal Reserve; Shiller dataset www.econ.yale.edu/~shiller/data.htm.

Housing prices—which had increased gradually for decades until the early 1990s—skyrocketed in the late 1990s and peaked in 2006. Many of the mortgages granted during this period were classified as "**subprime**"—indicating that the borrowers may have difficulty repaying loans due to high level of debt, relatively low income, or poor credit history. Historically, subprime borrowers were either charged higher interest rates to compensate for the increased lending risk or denied bank loans. During the housing bubble, however, they were allowed to borrow at low rates, often tied to risky conditions. Subprime mortgages increased from less than 10 percent of U.S. mortgages in 2002 to approximately 25 percent by 2005.

subprime mortgage: a mortgage given to someone with high debt levels, relatively low income, or poor credit

While low interest rates are attractive to borrowers, they are decidedly unattractive to lenders. Why then were lenders willing to provide such high volumes of mortgages? First, financial institutions had a lot of funds to lend, as the low federal funds rate generated increased liquidity. Second, the lenders made a tremendous amount of income in the form of fees for originating and trading loans. An estimated $2 trillion was generated in such fees between 2003 and 2008.[1] Finally, financial innovation in the form of securitization motivated the lenders to increase the supply of loans.

Securitization is the process of pooling various kinds of loans (mortgages, auto loans, credit card debts, and commercial bank loans), slicing and sorting them according to their estimated risk levels, and repackaging them into new financial instruments. This process involves bundling high-risk loans with low-risk loans and selling them to investors as a single item. After making an initial loan, the lender could quickly sell the loan off to another financial intermediary (such as an investment bank) and receive an up-front payment for it. The financial intermediaries would then securitize such loans into complex financial instruments, and sell them off to other investors—which are often other financial institutions or foreign investors.

securitization: the process of pooling various kinds of loans, slicing and sorting them according to their risk levels, and repackaging them into financial instruments

There were two direct benefits of securitization to the lenders. First, the ability to sell off the loans to other financial investors freed up capital to make new loans. Second—and perhaps more important—since the initial lenders could sell off the loans to other investors, they no longer carried the risks associated with the loans they made. Traditionally, home mortgages involved only the borrower, on one side, and the bank on the other. The banks generally continued to own the mortgages for their duration and the risk of default. The ability of lenders to transfer this risk to other financial institutions encouraged them to originate as many loans as possible without careful assessment of the risks. Lenders also had strong incentives to downplay the risks associated with the loans to make it easier to sell them on to other financial institutions. The creation of such perverse incentives is what economists refer to as the "**moral hazard**" problem. In this case, the loan originators had no financial incentive to protect against the risk of default by ensuring the creditworthiness of the borrower.

moral hazard: the creation of perverse incentives that encourage excessive risk-taking because of protections against losses from that risk

Figure 13.2 (a) Traditional Mortgage Lending Structure

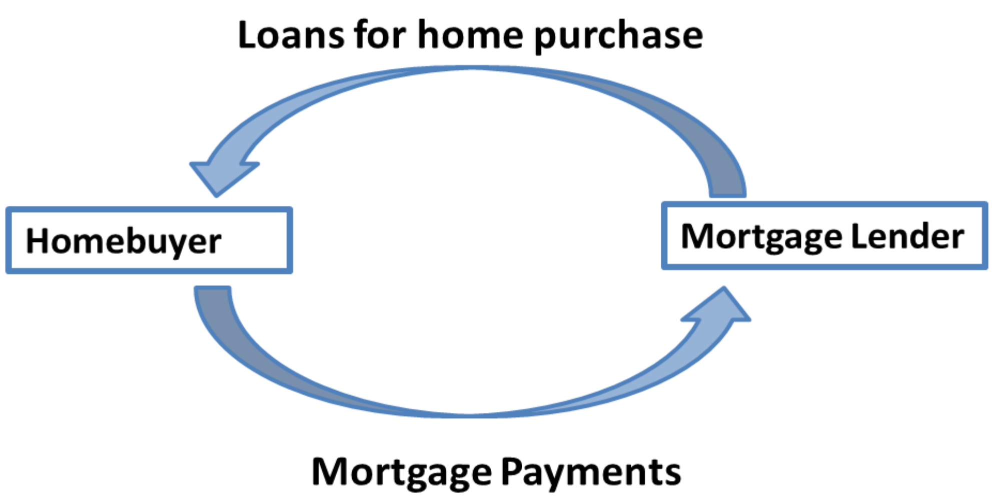
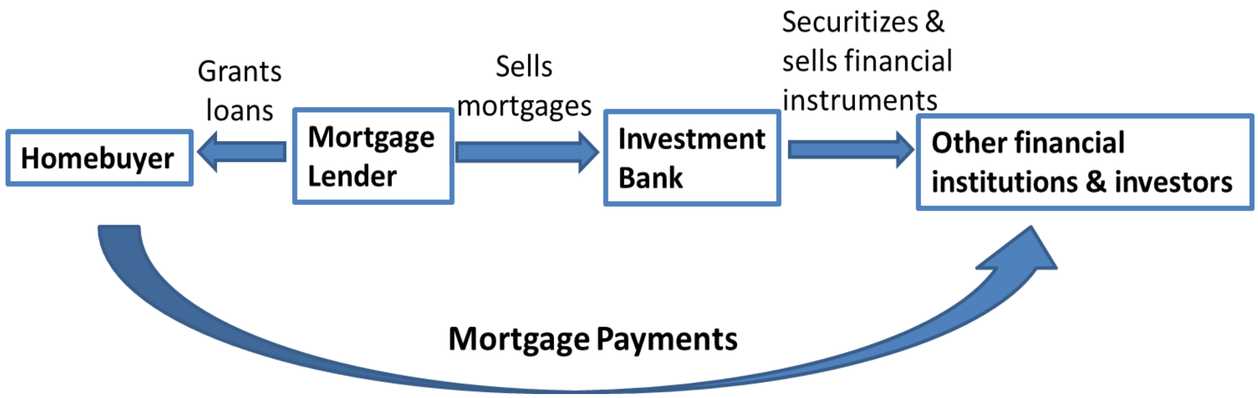


Figure 13.2 (b) Basic Structure of Securitized Mortgage Lending System



The investors buying the securitized loans obtain a share of mortgage payments, but they also take on the risks associated with these securities. Why weren't these investors worried about the creditworthiness of the borrowers? Unfortunately, most investors were not aware of the risks, partly because the seller misrepresented the true risk. Additionally, securitization made these financial assets so complex that even sophisticated traders often did not understand what they were handling. Investment in these securities was mainly driven by the more attractive rates of return as compared to other types of bonds. Investors also depended heavily on the **credit rating agencies (**Standard and Poor's, Moody's, and Fitch Group) to evaluate the risks associated with these securities. Notably, these agencies mostly rated the financial securities as being very safe.

The failure of the rating agencies to evaluate the risks contained in the financial instruments is partly explained by the complex nature of these securities and the uncertain nature of the financial markets. There was also a moral hazard problem: the credit rating agencies were paid by the investment banks trying to sell these securities. Hence, the rating agencies had an incentive to understate the risks of default so as to not antagonize the investment banks who were their customers. The rating agencies also didn't face any consequences for inaccurate ratings so they had little incentive to assess the risks more accurately.

credit rating agencies: companies that assign credit ratings, by evaluating the risks of default associated with various loans and other financial instruments

Many investment banks—which were well placed to understand the high-risk nature of these financial securities—were actively creating, holding and trading them. Why would they take such risks? This behavior is partly explained by their being "**too big to fail,**" meaning the banks had become so large that their failure could spill over to the rest of the economy. If these banks reached the verge of failure, the government would have to rescue them. Presuming that the government would come to their rescue, large banks had little incentive to manage risks well, thus creating another moral hazard issue. This was what happened in 2008, when many large financial institutions were "bailed out" by federal regulators to avoid the catastrophic impacts that the failure of these institutions might have had on the economy.

"too big to fail": when a company grows so large that its failure would cause widespread economic harm in terms of lost jobs and diminished asset values

1.2 THE COLLAPSE OF THE HOUSING BUBBLE AND IMPACTS OF THE CRISIS

As the economy moved from recession to boom in early 2000s, the Fed started increasing interest rates gradually, from about 1 percent in 2004 to just over 5 percent in 2006. This change, despite being gradual, caused a sharp increase in mortgage payments for many homeowners. By 2006, many borrowers began falling behind on their monthly payments, housing prices started declining, and some economists warned about the possibility of a large-scale crisis. The Fed, chaired by Ben Bernanke, started lowering interest rates in 2007, but the crisis was inevitable given the huge amount of risky loans made during the boom years.

As home values declined, the value of financial assets—derived from the value of mortgages—fell. First, the large mortgage companies, such as Countrywide and Washington Mutual, nearly collapsed. Securities firms and investment banks were next. In March 2008, the investment bank Bear Stearns took a huge loss. To prevent the crisis from spreading further, the Fed—which had essentially stayed out of the operations of investment banks—agreed to absorb $30 billion of Bear Stearns' liabilities, and Bear Stearns was bought by JP Morgan. The crisis, however, continued to worsen, with Lehman Brothers going bankrupt in September 2008, followed by Merrill Lynch selling itself to Bank of America, and Wachovia selling itself to Wells Fargo. By the end of 2008, all the investment banks had reorganized themselves as bank holding companies to make themselves eligible for federal loans.[2]

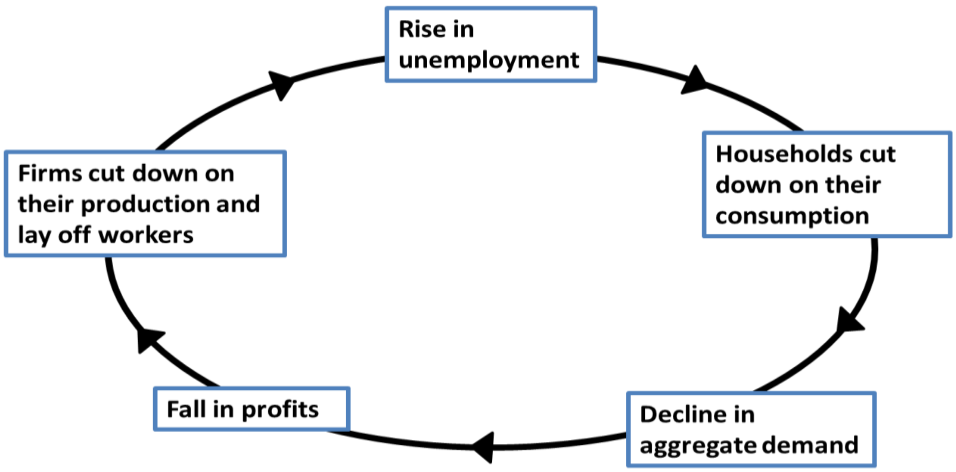
With the failure of large financial firms, lenders became much less willing to give out new loans. This led to a "credit crunch" in which families and businesses were unable to obtain loans. With the tightening of credit, options for refinancing mortgages dwindled and default rates increased, further intensifying the crisis. Approximately 11 million homebuyers faced foreclosure from 2008 to mid-2012, accounting for about a quarter of the mortgages in the United States. Additionally, an immense amount of financial wealth disappeared as U.S. families lost $10.9 trillion in financial investments related to stocks and bonds from mid-2007 to early 2009.

The impacts of the crisis quickly spread from the financial sector to the real sector (the part of the economy that is concerned with producing goods and services as opposed to the financial side, whose activities focus on trading in financial markets.) During the housing boom, the real sector had experienced tremendous growth from home purchases, construction, and increased consumption of durable goods. When the crisis hit, consumers cut their spending drastically. Between 2008 and 2011, U.S. consumers on average reported spending $175 per month less than they would have in the absence of a recession. This decline in spending resulted in lower profits for businesses and rising unemployment. From 2007 to 2009, the U.S. economy lost nearly 9 million jobs. The official unemployment rate hit 10 percent in October 2009 and stayed above 7 percent through late 2013. Unemployment numbers, including marginally attached workers and those working part-time involuntarily, reached over 17 percent in late 2009. With rising unemployment, overall spending declined further. Hence the economy entered a vicious cycle of rising unemployment and declining demand (See Figure 13.3).

Income and wealth inequality, already severe before the crisis, only intensified after it. While the wealthiest members of society lost the most in dollar terms (although much of it was recovered by 2010), the lower and middle class, on average, lost a far greater share of their existing wealth. The value of retirement accounts plummeted during the crisis, wrecking the retirement plans of millions of middle-class families. From 2007 through 2010, the median household lost nearly 40 percent of their wealth, while the average household net worth of the poorest 25 percent fell to zero. The wealth of middle-income families increased by 68 percent (from $95,879 to

$161,050) between 1983 and 2007, but most of this gain had disappeared by 2013 as their wealth levels had fallen to $98,000. At the same time, upper-income families saw their wealth more than double from 1983 to 2007 (from $323,402 to $729,930), and though they also faced losses during the recession, by 2013 their wealth had risen to $650,074.[3]

Figure 13.3 Vicious Cycle of Unemployment



The impacts of the crisis spread to many other countries throughout the world (see Box 13.1). Global economic growth declined drastically as a result, becoming negative in 2009. This clearly demonstrated the dependence of the global economic system on a healthy financial sector, and its vulnerability when that sector came close to collapse.

BOX 13.1 GLOBAL IMPACTS OF THE 2008 FINANCIAL CRISIS

The financial crisis that started in the United States quickly spread to the rest of the world. World economic growth, which had remained relatively steady between 2004 and 2007, experienced a sharp decline of almost 3 percent in 2009. While high-income countries experienced the steepest decline, developing countries also suffered as their growth rate (while still positive) declined in 2008 and 2009 (Figure 13.4).[4]

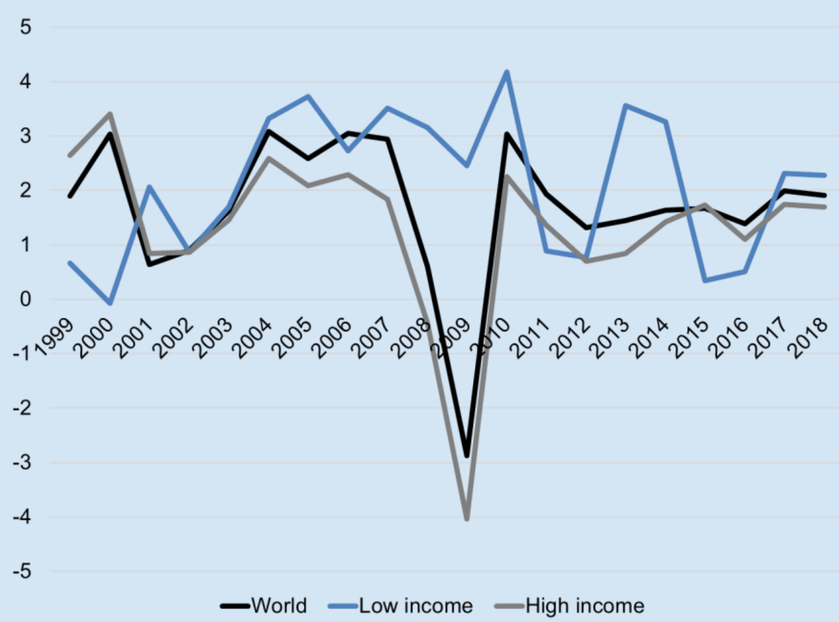
There were several channels through which the crisis in the U.S. spread to these other countries. First, other advanced economies that had invested heavily in U.S. financial securities were severely hit. Globally, an estimated $50 trillion in financial wealth was wiped out during the crisis. Additionally, as U.S. banks faced liquidity pressures at home, they repatriated their funds from foreign banks. This caused a decline in lending activities of foreign institutes and an overall reduction in spending and growth.

Problems were especially severe in Europe, where some countries had accumulated high levels of debt. With the surfacing of the highly risky nature of the financial assets, investors started worrying about these debts and demanded higher interest rates. To meet these demands, governments cut down on their spending and increased taxes, lowering overall demand and exacerbating the crisis. As a result, the crisis in the U.S became a prelude to a second debt crisis in Europe, which led to further contraction in output and more job losses in countries such as Greece, Ireland, Portugal, Italy and Spain.

The economic decline in the developed countries also affected oil exporting nations in the Middle-East and countries like China, Japan and Mexico that have the U.S. and Europe as their major export markets. In 2009, exports from China fell by 17 percent.[5] Mexico's GDP—about a quarter of which is dependent on exports—declined by 6.6 percent as exports fell by over 17 percent in 2009.[6]

Other countries that did not have close economic ties with the U.S. were affected through indirect channels. For example, the decline in the Middle East economy from falling oil exports resulted in a rise in unemployment, especially for migrant workers from Asia and North Africa. This led to a fall in remittances sent home by these migrants, adversely affecting remittance-dependent economies such as the Philippines, Nepal and Gambia. In the United States, unemployment rate for immigrants from Mexico and Central America was higher (11.5 percent) than that for native born Americans (9.5 percent, as of October 2009). Consequently, remittances received by these countries declined.[7] The crisis in the United States thus became truly global.

Figure 13.4 GDP per capita Growth Rates, 1999-2018



Source: World Development Indicators, World Bank

1.3 POLICY RESPONSES FOR RECOVERY

Recovery from the 2008 financial crisis involved active management of the economy, including regulatory reforms and expansionary fiscal and monetary policy. A decade later, it is possible to provide an evaluation of the impacts of these measures, though some issues, such as the appropriate extent and nature of financial regulation, remain controversial.

Fiscal and Monetary Responses

In response to the 2008 crisis, the government instituted a massive fiscal stimulus. Specifically, Congress passed the American Recovery and Reinvestment Act (ARRA) (discussed in Chapter 10). As of 2013, a total of $816.3 billion had been spent, of which $270.7 billion was in the form of tax relief, $264.4 billion was in benefits (unemployment, food stamps and Medicare), and $261.2 billion was in job creation contracts, grants and loans.[8] Independent analysts estimate that ARRA created between 1.5 million and 7.9 million new jobs from 2009 to 2012. Nevertheless, with the unemployment rate over 7 percent through 2013, employment growth remained lackluster. While economist Paul Krugman and others have criticized the fiscal stimulus as being not big enough,[9] others have expressed concern over its contribution to raising the government deficit.

While the federal bill was boosting spending, many state and local governments were cutting down on their spending due to a decline in their tax revenues from the reduction in overall income levels. State budget deficits ballooned, peaking at a total of $191 billion in 2010. While states received some federal assistance as a part of ARRA, it only covered about 40 percent of their budget shortfalls from 2009 to 2011. To make up the rest, 46 states had cut their spending and 30 states had increased taxes by 2012. Such contractionary policies at the state level partially countervailed the recovery efforts at the federal level and significantly slowed the rate of economic recovery.[10]

The recovery efforts of the government also included a $700 billion Treasury bailout—known as the Troubled Asset Relief Program (TARP)—to make emergency loans to firms that were in critical condition. Major recipients of this bailout included large investment banks and financial corporations such as Citibank, JP Morgan Chase, Bank of America, Goldman Sachs, and insurance giant AIG. Even nonfinancial firms, such as General Motors and Chrysler, received billions of dollars in TARP loans as they had invested heavily in financial assets. The goal was to keep the financial system from complete collapse (in which the bailout program was successful), and to get lending going again (which had much less success). Although TARP loans were paid back to the government by 2014, there was widespread criticism of a policy that bailed out the banks that created the crisis, rather than helping the middle and low-income homeowners who suffered large losses during the crisis.

In the area of monetary policy, the Fed lowered the effective federal funds rate from over 5 percent to 0−0.25 percent, and reduced the discount rate from 5.75 percent to 0.5 percent between August 2007 and December 2008. The Fed, through its quantitative easing program, purchased billions of dollars' worth of shaky financial assets that had lost majority of their value. This increased the value of assets on the Fed's balance sheet from about $950 billion in 2007 to more than $2.5 trillion in 2008. These Fed purchases of "toxic assets" in danger of default helped to inject liquidity into the financial system and reduce the likelihood of systemic crisis.

Despite these efforts, the expansionary monetary policies had limited impact on economic recovery, since the increase in the flow of money did not alleviate the pessimism felt by consumers and businesses, who remained unwilling to start borrowing and spending. In addition, banks were not willing to increase their lending, both because they did not trust the creditworthiness of the borrowers and because they had just suffered huge capital losses.

BOX 13.2 THE GREAT DEPRESSION AND THE GREAT RECESSION COMPARED

How does the "Great Recession" of 2007−2009 compare to the other "great" economic downturn of the past century, the Great Depression? Both downturns were preceded by a period of economic strength. Average annual growth during the 1920s is estimated to have been more than 4 percent, similar to the 4.4 percent average annual growth between 2005 and 2007. In the

1920s people were feeling optimistic and spending which drove asset prices up, comparable to the price bubble in the housing market in the 2008 crisis. In addition, inequality levels were at historically high levels preceding both of these crises.

In terms of possible explanations for each economic downturn, the two episodes may have been more similar than different. But in terms of economic consequences, the differences are noteworthy. For example, in the Great Recession, the U.S. economy moved into its recovery phase a mere year and a half after the financial collapse. During the Great Depression, it took almost four years, and the limited recovery was then interrupted by further downturns. Although inflation declined significantly in the 2008 crisis, there was no deflation, whereas a decline in prices of more than 25 percent took place during the Great Depression. In addition, over 5,000 banks and 85,000 businesses failed in the early years of the Great Depression, causing millions of depositors to lose their savings. GDP fell by 46 percent in the 4 years between 1929 and 1933. In contrast, far fewer banks failed in the 2008 recession, depositors' accounts were protected by the FDIC, and GDP fell by only about 3 percent between 2007 and 2009. The unemployment rate at the nadir of the Great Recession was about 10 percent, compared to the 25 percent unemployment during the Great Depression.

The principal reason for the difference in impacts of these two big economic downturns is explained by the existence of government regulation, automatic stabilizers, and discretionary fiscal and monetary policy in the recent crisis. During the Great Depression, the government was primarily focused on maintaining a balanced budget, while in the recent crisis the government ran huge deficits to help the economy recover. Unemployment benefits—which did not exist during the Great Depression—were extended to 99 weeks during the 2007−2009 recession and throughout much of the subsequent slow recovery. Such benefits helped many of those involuntarily jobless to spend on necessities, keeping consumption from collapsing too far and also averting the fears of deflation. The absence of such basic government support during the 1930s consigned millions to poverty and prolonged depression. After much discussion about deregulation and pressure to reduce social safety nets over the previous three decades, the financial crisis revealed the importance of these government activities in preventing a second Great Depression.

The Dodd-Frank Bill

In the wake of the crisis, the political environment—which since the 1970s had increasingly been persuaded by the merits of deregulation—changed abruptly, and the need for regulating the financial sector to prevent future crisis became a priority. The principal response to the call for reform was the 2010 Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank), cosponsored by Senator Chris Dodd (D-CT) and Representative Barney Frank (D-MA). The key goals of the Dodd Frank reform include:

- **Protecting consumers:** The Consumer Financial Protection Bureau was created to monitor lenders and protect vulnerable borrowers.
- **Preventing predatory lending:** Minimum criteria related to credit history, income and debt levels were set for to determine the eligibility of mortgages for prospective borrowers.
- **Discouraging risky practices**: Banks were required to hold at least 5 percent of the financial instruments they create, in order to limit their incentives to make risky loans.

- **Controlling executive pay**: The act called for the Securities and Exchange Commission to ensure that corporate board members who determine CEO compensation do not have private interests in the company. It proposed allowing shareholders to have more say on corporate affairs with a non-binding vote on executive pay.
- **Protecting investors:** Rating agencies were required to disclose the method used to rate each security, in order to increase transparency to investors.
- **Ending "too big to fail":** The act was designed to limit the amount of leverage (borrowing for investment) permitted to large financial firms, and requiring them to hold larger capital reserves. It imposed restrictions on the activities of financial companies with more than $50 billion in assets, and forbade any merger that allowed a single firm to hold more than 10 percent of the liabilities of the entire financial sector.
- **Enforcing regulations:** The act strengthened oversight and empowered regulators to aggressively pursue financial fraud, conflicts of interest and manipulation of system.

The financial sector was critical of the bill from the start, arguing that it would create significant costs to them and slow down job creation. Over time, the bill has been "watered down," to a great extent due to intense lobbying efforts from the financial sector. While the bill has been credited for making the financial sector safer and more resilient with higher capital and leverage requirements, it has also been criticized as being too complex and not sufficient to deal with some of the key problems in the financial sector.[11] For example, the bulk of derivatives (indirect forms of investment such as options to buy or sell stocks) are still traded directly by banks with little government supervision, and the rating agencies are still paid by the firms that they rate. Also, no regulators were fired and no big bankers subjected to criminal prosecution in the aftermath of the crisis, so there has been little incentive to change behavior in the financial sector. The basic structure, business model and practices of large banks remain unaltered. In addition, the expansion of nonbank financial institutions has continued with little regulation, raising new dangers for financial stability. More recently, the Trump administration has focused on undoing most of the Dodd-Frank regulations. In 2018, legislation was passed to revise regulations pertaining to small and regional banks, to free midsize lenders from some of the strictest post-crisis oversight, and to weaken some accountability measures for larger banks.

Discussion Questions

1. Would you prefer interest rates in the economy to be high or low? On what does it depend? Who benefited from low interest rates during the housing bubble? How did the low interest rates create problems?
2. What do you think of the measures that were taken to recover from the 2008 crisis? Have we done enough to avoid similar problems in the future?

2. UNDERSTANDING FINANCIAL INSTABILITY

We now take a broader look at the financial system—discussing some of its key functions and transformations over the past century. We will then develop a theoretical model to understand the occurrence of financial crisis in general.

2.1 THE FINANCIAL SYSTEM

The principal function of the financial system is to *intermediate* the movement of funds between savers and investors. Households borrow from the financial sector to buy a car, or a house, or to pay for college. And, businesses borrow from the financial sector to make investments needed to produce goods and services. Hence, the financial sector supports activities in the real economy.

The financial sector also facilitates 'investment' in **financial assets** which include stocks, bonds, foreign currencies, certificates of deposit, and money market accounts (specially designed savings accounts, which pay higher interest than normal savings accounts, but generally place restrictions on withdrawals and set minimum deposit levels). Individuals can hold such financial assets as wealth, or trade them in financial markets to make monetary gains. To an economist, 'investment' in financial assets is not true investment in the sense that such investment does not directly add to the economy's stock of capital—it just transfers of ownership of an existing financial assets from one person to another.

financial assets: a variety of holdings in which wealth can be invested with an expectation of future return

Finance also supports speculation, that is, buying a financial asset in the hope of exploiting changes in its future price to achieve short-term financial gains. Speculative activity has the potential to influence the economy at a large scale, as we saw in the case of housing bubble created through excessive speculation in the 2008 crisis. Speculation is especially problematic when speculators use excessive **leverage**—investment based on borrowed funds—to finance risky ventures that have the potential to destabilize the entire financial system. Another possible problem occurs when lenders extend large lines of credit to borrowers who would not ordinarily satisfy minimum loan criteria.

leverage: the use of debt to increase the potential rate of return of one's investment

There was a time when banks were responsible for most activities related to lending, and investing in financial assets. However, over the past few decades, banks have been declining in importance relative to **nonbank financial institutions** (often referred to as the shadow banking system), which perform similar services as regular banks but are not a licensed bank and not subject to banking regulations. Examples of nonbank financial institutions include hedge funds, pension funds, and insurance companies. Most savings today go through such institutions. Their proliferation relative to the much slower growth of traditional banks has raised concerns, since it effectively means that a greater share of "banking activity" is conducted by non-bank institutions that are not highly regulated.

nonbank financial institution: a financial institution that performs a number of services similar to those offered by banks but that is not a licensed bank and is not subject to banking regulations

2.2 DEREGULATION AND FINANCIALIZATION

The stock market crash of 1929, which triggered the Great Depression, brought about major changes in the financial sector. Most important were regulations set in place to minimize the risk-taking behavior of this sector. These included the Glass-Steagall Act, which separated investment banks from commercial banks, essentially preventing commercial banks from engaging in risky investments and investment banks from holding deposits. Also, interest was prohibited on checking accounts and an interest rate ceiling was imposed on savings accounts (regulation Q). Most banking activity could not be conducted across state lines. In addition, several capital and leverage requirements were imposed on the financial sector, the Federal Deposit Insurance Corporation (FDIC) was set up to insure bank deposits, and the Securities and Exchange Commission (SEC) was established to maintain an orderly and efficient financial sector.

Until the 1960s, finance was mostly limited to facilitating the flow of funds through the economy and making investments in financial assets. However, the change in economic environment in the late 1960s and early 1970s (discussed in Chapters 9 and 12), partly due to the decline in business profits resulted in the economic and political system becoming more responsive to the demands of businesses. This led to an era of deregulation starting in the 1980s, justified by the "free-market" mantra that banks and other financial institutions could be depended on to self-regulate, on the assumption that profit-seeking enterprises would voluntarily avoid risky practices that might cause them to fail.

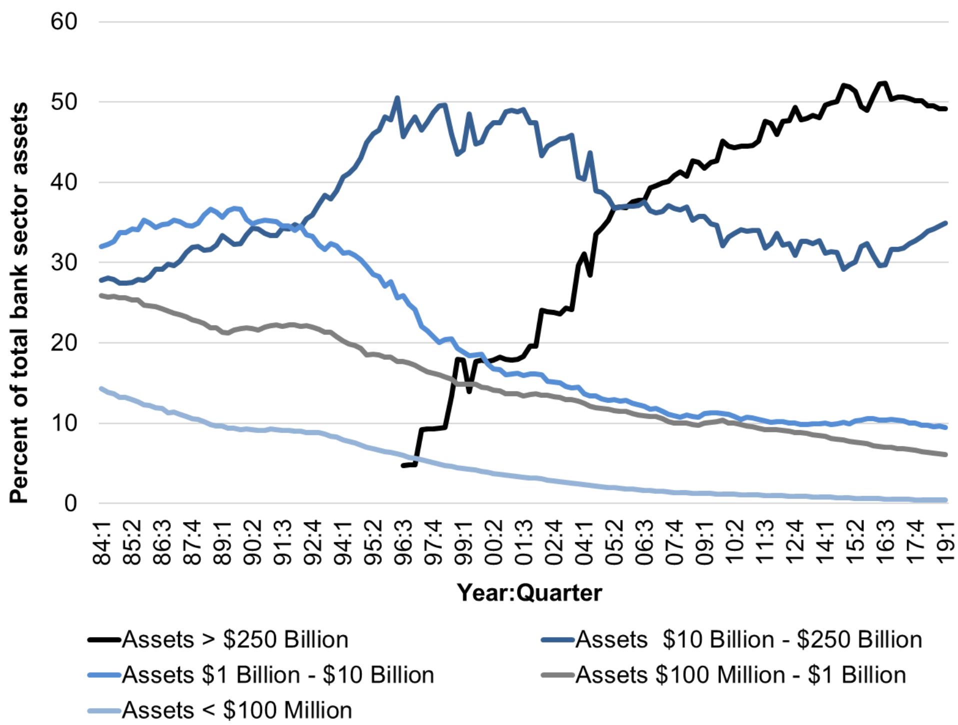
The deregulation of the financial sector included policies for loosening restrictions on capital across borders, removing interest rate ceilings, allowing banks to measure the riskiness of their own products, permitting financial institutions to offer interest bearing checking, and increasing the amount of leverage permitted to investment banks. In 1994, prohibitions on interstate banking were repealed which resulted in a surge in bank mergers. Additionally, the separation between investment and commercial banks was gradually eroded through the 1980s and 1990s. In 1999, the Financial Services Modernization Act allowed large financial companies to engage in commercial and investment banking as well as in insurance activities. This act, perhaps more than any other piece of legislation, contributed to the increase in the number of "megabanks."

Supporters of large banks argued that large banks are more efficient and less vulnerable to risk than small banks, as they have a more diverse source of income and are able to lend to more geographically dispersed borrowers than smaller banks. Opponents argue that such benefits only encourage larger banks to take more risks. Empirical evidence generally supports the latter claim. In 2013, megabank JP Morgan Chase, for example, agreed to pay $13 billion in a settlement resulting from the bank's questionable mortgage practices.

Deregulation encouraged a proliferation of new kinds of financial institutions and instruments. Finance turned away from its traditional role of lending for consumption and investment, and most of the money got directed towards lending against existing assets such as housing, stocks and bonds—not creating new assets. From the 1940s to the 1970s, nonfinancial institutions received 15 to 20 percent of their funding for productive investment from the financial sector; this dropped to 7 to 10 percent after 1980. Most financial corporations started lending to each other, instead of lending to nonfinancial corporations; such within-sector lending increased from 10 percent before 1970s to over 30 percent after 1980.[12] The operation of the financial sector has also expanded through the rise of the shadow banking system, which encouraged putting more money into high-yield financial schemes.

The frequency of bank mergers has increased steadily since the 1980s. From 1984 to 2019, the number of banks with more than $10 billion in assets increased from 28 to 141, and the share of banking sector assets held by these large banks increased from 28 to more than 84 percent (Figure 13.5). The consolidation continues to this day. In 2019, the nine largest financial institutions (with more than $250 billion in assets) held almost half of the total financial assets. From the 1980s to 2008, the financial sector took in a growing share of corporate profits. Their profit share collapsed during the 2008 crisis, but has subsequently recovered, although not to the previous highs (Figure 13.6). Although finance only constituted about 7 percent of the economy and employed 5 percent of the workforce, it took over 20 percent of the corporate profits in 2014.

Figure 13.5 Increasing Bank Size

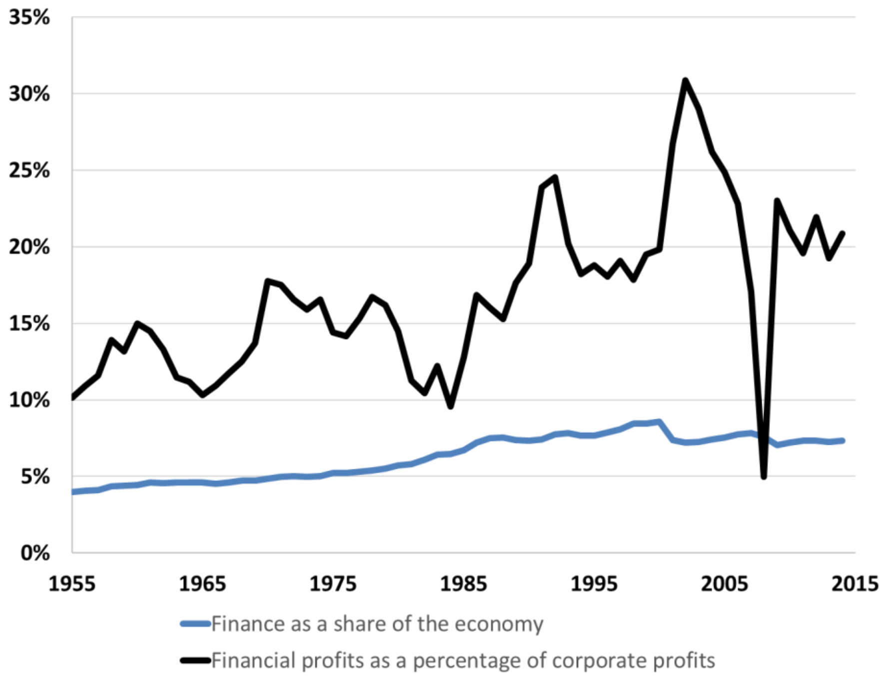


Source: Federal Deposit Insurance Corporation

This process of increasing size and importance of the financial markets in the operation of the economy—with the financial sector accounting for a greater share of GDP and acquiring an increased ability to generate and circulate profits—is known as '**financialization**'.[13] Even nonfinancial corporations have become increasingly involved in investing in financial instruments, rather than investing to expand production of goods and services. For example, in 2000 Ford generated more income from selling loans than from selling cars, and GE Capital (GE's financial arm) generated approximately half of GE's total earnings.[14] Today American companies in every sector earn five times more revenue from financial activities, such as investing, hedging and offering financial services, than they did before 1980.[15]

financialization: a process of increasing size and importance of the financial markets in the operation of the economy—with the financial sector accounting for a greater share of GDP and acquiring an increased ability to generate and circulate profits

Figure 13.6 Finance as a Share of the Economy and Financial Profits as a Percentage of Corporate Profits



Source: U.S. Bureau of Economic Analysis, National Income and Product Accounts, Tables 6.2A-6.2D, and Thomas Piketty, Emmanuel Saez, and Gabriel Zucman. "Distributional National Accounts: Methods and Estimates for the United States," Appendix tables II: Distributional series, National Bureau of Economic Research Working Paper Series, Working Paper 22945, December 2016.

Households have also become increasingly dependent on the financial markets, relying more on loans to meet their expenses due to the stagnation of real wages. In 1980, for example, U.S. households held an average debt equal to about 60 percent of disposable income; this figure exceeded 130 percent in 2007. The financial crisis forced households to reduce debt to just below 100 percent of disposable income by 2017, still considerably higher than 1980 levels. In addition, the proliferation of mutual funds and their increased availability in employee accounts has caused a higher percentage of the population than ever before to have a stake in the financial market. Today, the financial sector has expanded far beyond the provision of the financial intermediation services demanded by the economy; what has grown is not only the demand for credit but the overall volume of trading of financial securities, including speculative and risk-taking activities. This suggests a need for economic theory to account better for the role of finance in macroeconomics.

2.3 THEORIES OF FINANCIAL INSTABILITY

The conventional theory of the financial market is based on the "efficient market hypothesis." This theory argues that the price of a financial asset at any moment reflects all the information available about its true value. As new information becomes available, market participants revalue the asset. The theory portrays the economy as consisting of rational individuals who live in a world of perfectly competitive markets and possess complete information about the price of assets. Elaborate logical and mathematical analysis, built on this assumption, concludes that markets are always self-correcting, and that they always move to a stable equilibrium state in the absence of external interference. Based on these assumptions, the theory suggests that financial crises are caused by external shocks such as technological change, government action, or some unknowable force; hence, it is not possible to predict or foresee crises.

The key problem with this theory, is not in its internal logic or mathematics, but its foundational assumptions. In particular, it ignores how uncertainty and the expectations of market participants influence the value of assets. For example, if market participants expect the price of a certain asset to rise in the future, more people will buy it now, causing an increase in current prices. As current prices increase, many people expect prices to rise even further; thus fueling current demand, inflating prices and creating a bubble. In such cases, the underlying value of an asset could be much lower than its market price. Theories of efficient markets lack an explanation for the creation of such bubbles, and of their eventual collapse.

An alternative theory, which gained prominence in the aftermath of the 2008 crisis, is the 'financial instability hypothesis' proposed by Hyman P. Minsky. Minsky's key argument is that unregulated markets will always produce instability and crisis. When an economy is just recovering from a crisis, investors will be cautious since many of them will have been clobbered by the just-ended recession. Hence, they will keep large margins of safety, holding cash reserves as a cushion to protect against future crisis.

However, as the economy emerges from its slump and profits start rising, investors become more confident and willing to pursue risky ideas, and they let their safety margins and cash reserves dwindle. Bankers are financiers are also motivated to take greater risks when the economy is booming: they invent and reinvent new forms of money, substitutes for money, and innovative financing instruments that expand investment opportunities for capital gains and increased profit. Thus, during an economic expansion, the stance of financial firms tends to move from the safer financing to more risky financing practices. This weakens their financial strength and makes the economy more fragile and credit-dependent.

Eventually this expansion will cause the economy to go beyond a period of steady growth to one of speculative boom. This is unsustainable and when some event triggers a fall in investment, the entire system falls apart. The complex structure of interlinked and overlapping cash commitments built during the boom era spreads the crisis widely, leading to a rapid collapse not only in finance but in the real economy.

In recovering from this state of disaster, firms reduce their debt burden, improve their liquidity positions, reduce their risk-taking behavior, and maintain large safety margins. Eventually, the financial system regains some strength and becomes less vulnerable. As economic conditions slowly start to improve, confidence builds up, and firms start narrowing their safety margins and taking more debt, thus eventually re-entering the phase of speculative boom. Based on these observations, Minsky argued that the seeds of instability are sowed while the economy is booming. Hence, stability is in effect destabilizing, since it is when market conditions are stable that there is a move towards deregulation and more risk-taking. For example, financial markets were regulated in the wake of the Great Depression, when banks were reeling from huge losses, investors were more cautious about taking risks, and the general market sentiment was focused on preventing future crisis. By the 1970s, much of the pain of the Great Depression was forgotten, allowing a movement towards relaxing regulations to gain momentum.

Minsky's theory is derived from Keynes' notion of 'fundamental uncertainty', which argues that, since it is impossible to know the future, our actions are guided by our expectations which are based on conventions that have been socially and historically created. Unlike the classical world, where things are in equilibrium until affected by some external event, expectations about the future, confidence levels, and risk-taking behavior all originate from within the economic system in the Keynesian world. During booms, optimistic expectations motivate agents to take more risks by borrowing and investing. This drives the boom forward, increases leverage, and brings capital gains. As the economy expands and agents take higher risks, their financial status becomes more fragile. Under these conditions, a fall in profit rates and a failure to meet expectations will have devastating effects on the economy, since investors rapidly adjust their expectation from optimistic to pessimistic, resulting in a "rush for the exits" as firms and individuals try to dump no longer-profitable investments, and in many cases are unable to cover their debts.

The Keynes-Minsky theory helps explain the occurrence of crisis as being inherent to the economic system. The numerous crises of the past few decades, including the stock market crash in 1987, savings and loans crisis in 1989, dotcom bubble of 2001, and the Great Recession of 2008, can be explained by the increasing risk-taking behavior in the financial industry during periods of boom. Both Keynes and Minsky argued that it is impossible to avoid wide fluctuations in a capitalist economy, because of the uncertain nature of market psychology based on expectations. They both advocated for government to play a larger role in creating regulations that can minimize fluctuations in investment and create a more stable financial system.

Minsky's theory is very helpful in understanding the roots of financial instability, but it does not shed much light on how problems in the real sector might contribute to financial instability, or on the role of inequality in fueling a crisis. Given that rising inequality was an important factor in the 2008 financial crisis, and is at the center of many current economic problems, we now turn to analyzing inequality.

Discussion Questions

1. Do you think changes in the value of "paper assets" such as stocks and bonds, or even homes, should have real economic effects? Why? Why do you think that employment suffered from the disappearance of so much financial wealth following the financial crisis?

2. Think about the ways in which uncertainty and expectations about the future may affect your current economic decisions and give two examples of such decisions. What role does expectation about the future play in Minsky's theory of financial instability?

3. THE CREATION OF AN UNEQUAL SOCIETY

Over the last century economists have for the most part converged on a consensus that overall economic growth is the most effective way to promote increased incomes and improve the quality of life. This appeared to be true throughout much of the post-World War II period, as fairly steady growth "lifted all boats" and led to improved living standards. In recent decades, however, rising inequality has meant that overall economic growth does not necessarily leave the majority of people better off.

In this section, we will look at the trends in income inequality and some of the causes of rising inequality in the United States. While we focus on the case of the United States, it is important to note that inequality has been increasing in most industrialized nations, as well as most of Asia, including India and China. And while inequality has generally been decreasing in Latin America and sub-Saharan Africa, these regions still have the highest overall levels of inequality.[16] We will discuss some trends in global inequality in Chapter 15.

Our analysis of inequality here is centered on inequality of income. But it is important to recognize that inequality extends beyond the realm of money. For example, vast inequalities exist in the quality of healthcare, which is reflected in differences in life expectancy and incidence of diseases across the world. There is also considerable imbalance in education—while children in developed countries can expect to receive an average of seventeen years of education, the average for children in sub-Saharan countries of Niger, Mali, and Chad is less than eight years.[17]

3.1 TRENDS IN INEQUALITY

One of the most common ways to measure inequality is to measure the income share (percent of all income) held by various groups ordered by income from poorest to richest, such as the bottom 20 percent, the middle 20 percent, the top 1 percent, etc. Table 13.1 presents the distribution of household income in the United States in 2018. The data are arranged in order of income, and the share of the total income "pie" that accrues to each twentieth percentile (or quintile) is in the second column. To understand what this table means, imagine dividing up U.S. households into five equal-sized groups, with the lowest-income households all in one-group, the next-lowest in the next group, and so on.

Table 13.1 Household Income Distribution in the United States, 2018

Group of Households	Share of Income (Percent)	Annual Income Range
Bottom 20%	3.1	Below $25,600
Second 20%	8.3	$25,601 - $50,000
Third 20%	14.1	$50,001 - $79,542
Fourth 20%	22.6	$79,543 - $130,000
Top 20%	52.0	Above $130,000

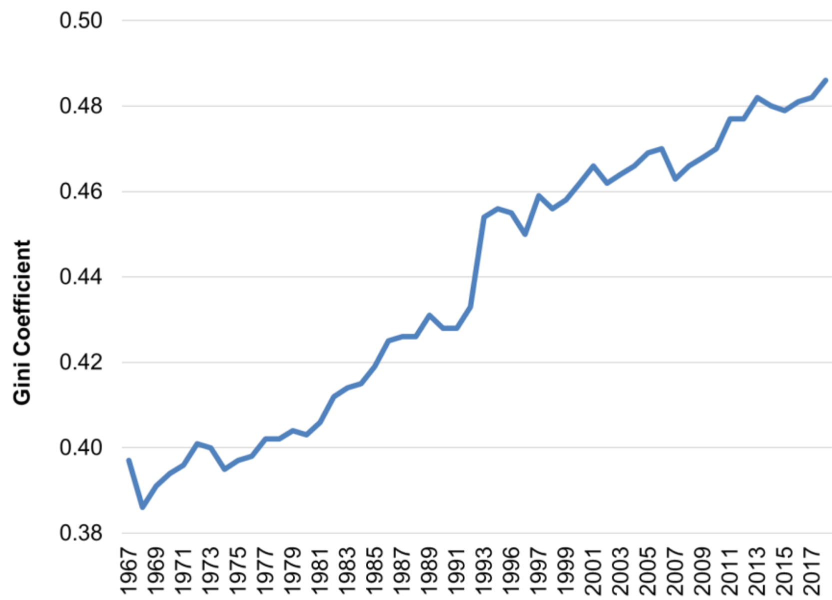
Source: U.S. Census Bureau, Historical Income Tables: Households, Tables H-1 and H-2.

The lowest-income quintile, with household incomes below $25,600, received only 3.1 percent of all the household income in the country. The richest quintile, those with incomes of $130,000 or more, received 52 percent. In other words, more than half of all the income in the country was received by those in the top-income quintile.

Inequality levels are often expressed in terms of **Gini coefficient**—a measure of the distribution of income (or wealth) within a population represented by a number between 0 and 1. A Gini coefficient of 0 represents absolute equality, meaning each individual in the population gets the same amount of income. And, a Gini coefficient of 1 represents absolute inequality, where all the income goes to a single individual. We see from Figure 13.7 that in the Gini coefficient in the United States reached a record low of 0.386 in 1968. After that, the Gini coefficient increased in 39 of the next 50 years.

Gini coefficient: a measure of inequality that goes from 0 (absolute equality) up to 1 (absolute inequality)

Figure 13.7 Gini Coefficient in the United States, 1967-2018



Source: U.S. Census Bureau, Historical Income Tables: Households, Table H-4.

In the three decades before the 2008 crisis, the income gap between the rich and poor widened to levels not seen since the 1920s. During the last two decades of the twentieth century, rising income inequality was mostly due not to real income declines for the poor and middle classes but to relative gains for the wealthy. The low and middle-income groups were gaining in absolute terms; the problem was merely to keep pace with the rich. But starting around 1999, the median U.S. household income began a real decline, signifying that the low and middle classes were now losing out in both absolute and relative terms.

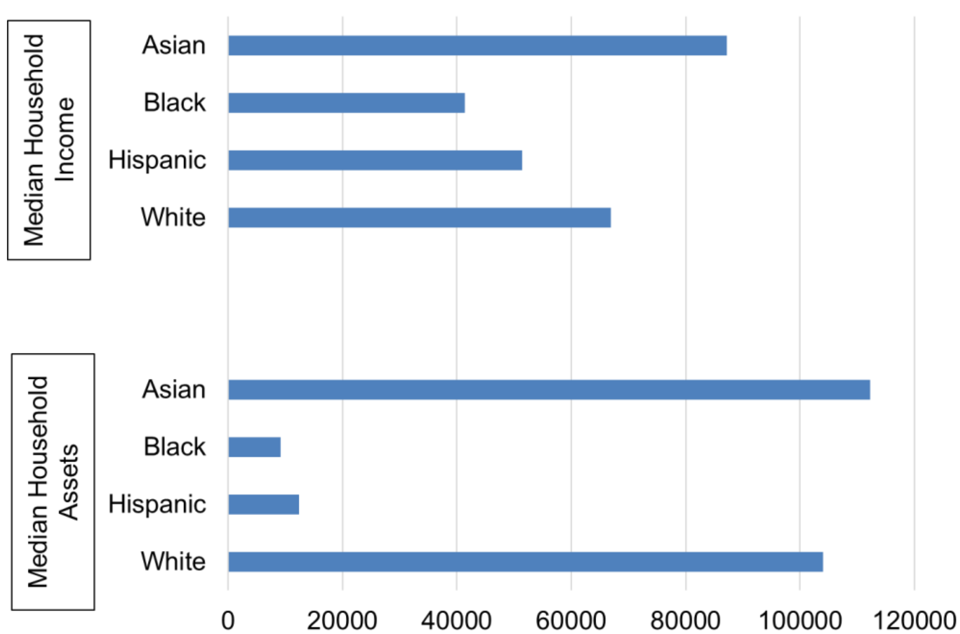
In 1980, the bottom 50 percent of wage-earners in the U.S. took home about 21 percent of the total income in the country—compared to 11 percent of the income being taken by the top 1 percent. In 2016, the bottom 50 percent only took home about 13 percent of the total income, while over 20 percent went to the top 1 percent.[18] We discuss some factors contributing to this shift below.

Gini coefficients may also be calculated for the distribution of wealth rather than income. This distribution, which depends on what people own in assets, tends to be even more unequal than income distribution. Many lower-income people have almost no net wealth, and even people with middle-class income levels often have only a relatively small amount of wealth. It is even possible to have *negative* net wealth. This happens when the value of a person's debts (e.g., for a car, house, or credit cards) is higher than the value of her assets.

The distribution of wealth is, however, less frequently and less systematically recorded than the distribution of income—in part because wealth can be hard to measure. This is because wealth is usually held in the form of assets such as shares in a company, or land, or commodities such as real estate, paintings or antiques, whose value are realized only when they are sold. These caveats notwithstanding, U.S. Gini coefficient for wealth is estimated to be in the neighborhood of 0.8, significantly higher than the income Gini coefficient of 0.48.[19] The top 10 percent by wealth own 77 percent of all wealth. The top 1 percent (those with more than $4 million in assets) own 42 percent of all wealth, much more than the bottom 90 percent combined.[20]

Note that income and wealth inequality in the United States is clearly related to race, age and other demographic factors. For example, Figure 13.8 illustrates the difference in median household income and median household assets by race. We see that Asian households have the highest median annual income, about $87,000, while black households have the lowest at only $41,000. While white households' incomes are 62 percent higher than the incomes of black households, the assets of white households are more than 11 times higher than those of black households. Hispanic households also have little in assets, only about $12,000.

Figure 13.8 Median Household Income (2018) and Median Value of Household Assets (2016) in the United States by Race



Source: Bernadette D. Proctor, Jessica L. Semega, and Melissa A. Kollar. 2016, "Income and Poverty in the United States: 2015." Current Population Reports, U.S. Census Bureau, September 2016. Table 1; U.S. Census Bureau, 2019.

3.2 CAUSES OF RISING INEQUALITY

The question of why inequality has been increasing in the United States and many other countries is a source of much debate. We now consider several of the explanations, recognizing that rising inequality is something that cannot be attributed to a single cause.

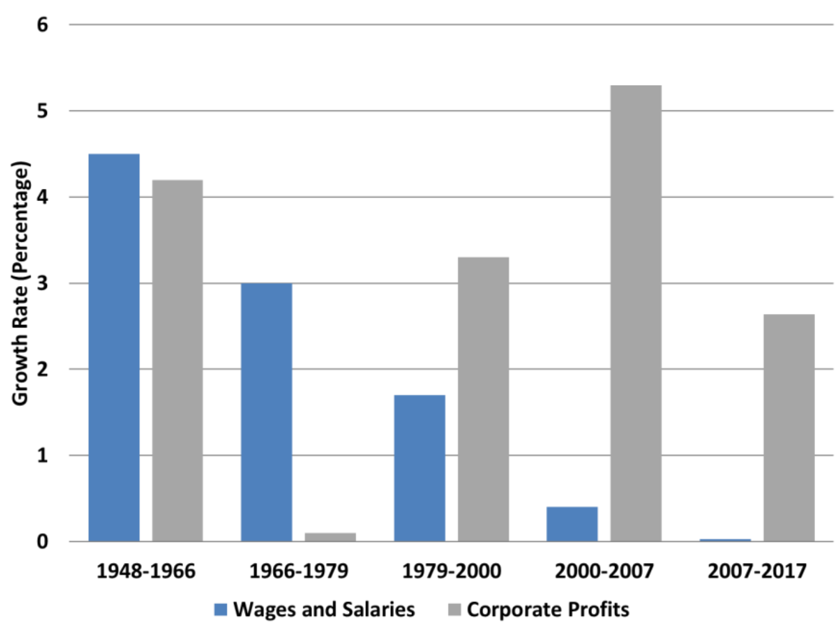
Demographic Changes

Some of the increase in inequality in the United States and other industrialized nations is due to changing demographics. As people worldwide live longer on average, the proportion of the population that is elderly increases. Because elderly people tend to have relatively low incomes, this demographic trend pushes incomes down on the low end. The increase in the rate of single parenthood has also contributed to an increase in the share of the population with low incomes, as single-parent households are more likely to have low incomes.[21] A similar factor separating households is the increase in "assortive mating"—the tendency of people to marry partners who have a similar earning potential to themselves. For example, data shows that men with undergraduate degrees are now about twice as likely to marry women with undergraduate degrees as they were in 1960. A 2014 study concludes that the U.S. Gini coefficient would be significantly lower (0.34 as opposed to 0.43) if people married randomly rather than selecting mates who are similar to themselves in terms of earnings potential.[22]

Decline in Wages as a Share of Total Income

Another factor explaining income inequality is the share of total income received by labor as compared to the share accruing to the owners of capital. As shown in Figure 13.9, between 1948 and 1979, wages grew faster than corporate profits. Since the 1980s, however, this trend has reversed, with annual growth in wages declining over time while corporate profits increased rapidly. Between 2000 and 2007, corporate profits grew at over 5 percent annually, while growth in wages remained below 1 percent. Between 2007 and 2017, as the economy recovered from the financial crisis, profits grew at around 2.5 percent, while wages hardly increased at all.

Figure 13.9 Annual Growth Rates of Wages and Salaries and Corporate Profit

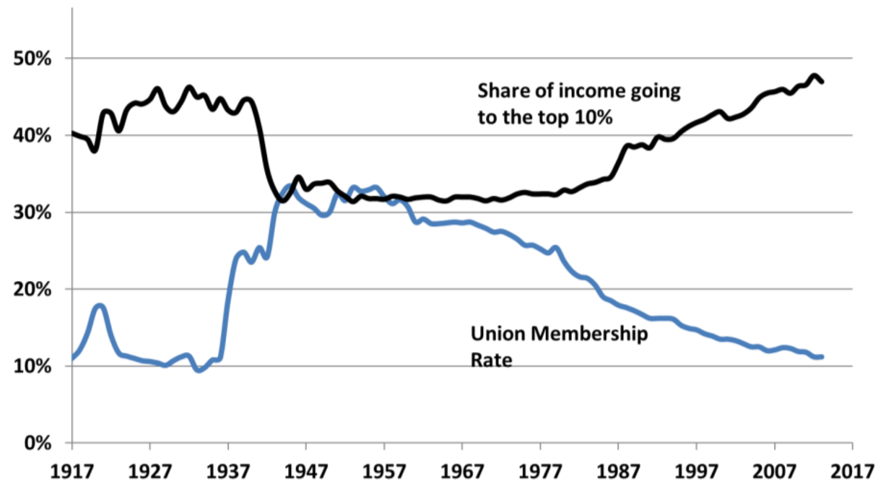


Source: U.S. Bureau of Economic Analysis (2017) National Income and Product Accounts, Table 1.14, 1.1.4; Bureau of Labor Statistics (2017).

One explanation for stagnant wages could be a reduction in labor productivity levels—but, as noted in Chapter 7 (Figure 7.10), labor productivity has actually been rising faster than wages. Indeed, the gap between productivity growth and real wage growth has been widening since the 1970s.[23] With wage increases not keeping up with productivity growth, a growing share of the gains from productivity growth has been going into expanding profits rather than raising wages. Some explanations for why wages have not kept up with productivity include:

1) **The decline of unions**: Decline in the bargaining power of unions in the United States is one obvious explanation for the widening gap between productivity and wages. Since the 1970s, government policy has become decidedly less supportive of unions and low-wage workers, and the rate of union participation has declined markedly. Labor union membership has also been falling recently in other wealthy nations including Germany, Japan, Sweden, Australia, and the United Kingdom.[24] Although the relation between union strength and income distribution is not simple, in general it is likely that workers can push for higher wages when unions are stronger. It is also likely to be true that when inequality is high the rich can have more influence over the political process, and may be able to promote policies that weaken unions. Figure 13.10 illustrates that during periods with strong unions and high union membership the share of income going to the rich was lower.

Figure 13.10 Union Membership and Income Inequality, 1917 – 2017



2) **Globalization and Trade**: Globalization has also contributed to a decline in the bargaining power of workers. As employers have become accustomed to looking around the world for the lowest cost workers, transnational corporations have shifted production facilities to developing countries resulting in a loss of many middle-income jobs in the United States. Competition from cheaper imports from developing countries has compelled producers in developed countries to either lower their prices and wages, or to simply leave the business. For example, many industrial jobs—in textiles and automobiles—that formerly fell in the middle of the U.S. wage distribution have been eliminated by competition from imports. Such impacts of increased trade and globalization have affected middle-income wages and eliminated middle-income jobs. When people who had worked in these middle-income jobs move to lower-income service and retail jobs the "hollowing out of the middle" contributes to the increase in inequality.

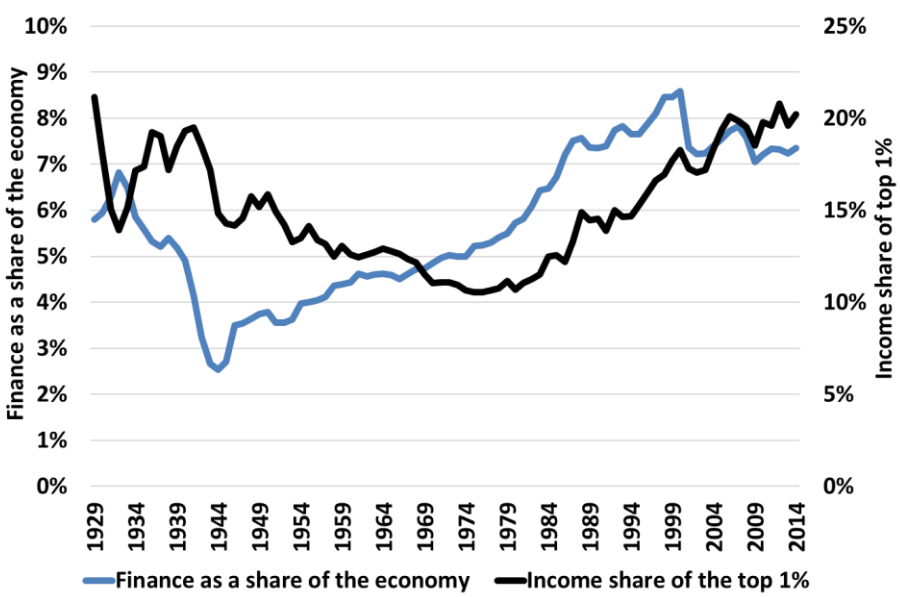
3) **Technology**: Another factor driving the increase in inequality in developed nations is technological change.[25] New technologies related to computers, biotechnology, and other fields have become more important, increasing the income of skilled workers who understand and use the new techniques and equipment, while leaving behind the less-skilled workers who remain in low-technology occupations. Technological change has also, especially in the long run, led machines to replace human workers for certain types of jobs. It has contributed substantially to polarization of the labor market into groups of "high-skill" jobs at one end and many more "low-skill" jobs at the other end. As technological unemployment creeps up the skill ladder, evidence suggests that fewer workers are experiencing a net benefit from technology in recent years. A 2012 paper notes:

> It is hard … to find the winners from technical change in the last ten years, as the wages of the bottom 70 per cent of college graduates have been flat or in decline. That would leave just 30 per cent of college graduates (6.6 per cent of the workforce) and the 11 per cent of workers with advanced degrees as the winners of technical change.[26]

Financialization and Inequality

The increase in inequality in the past few decades in the United States has occurred concurrently with the growth of the financial sector. A recent ILO report examining the causes of inequality finds that about 46 percent of the rise in inequality can be attributed to financialization—much greater than the impacts of globalization (19 percent), technological change (10 percent) and other institutional factors (25 percent).[27] How does financialization contribute to inequality?

Figure 13.11 Financialization and Inequality, 1929-2014



Source: U.S. Bureau of Economic Analysis, National Income and Product Accounts, Tables 6.2A-6.2D, BEA; Thomas Piketty, Emmanuel Saez, and Gabriel Zucman. 2016. "Distributional National Accounts: Methods and Estimates for the United States." National Bureau of Economic Research Working Paper Series, Working Paper 22945, December 2016.

According to economist Gerald Epstein, as economies become more financialized a greater share of income generated goes to the owners of financial assets, who tend to be in the upper income brackets in most countries. For instance, direct gains from rising stock prices goes to those who own stocks—more than three-quarters of which in the U.S. are held by the wealthiest 10 percent.[28] Although higher stock prices also increase the value of retirement accounts, only about half of the country has retirement accounts. Access to stocks and bonds has increased in the last few decades, with about 51 percent of American families now owning stocks directly or through retirement accounts; but stock ownership is much lower among less affluent families.[29] This disparity in ownership of financial assets also explains why the economic gains during the recovery from the 2008 crisis went mostly to the rich.

One of the other major aspects of financialization that has affected inequality is the shift in focus of corporations from creating wealth by making productive investments to "maximizing shareholder value" by increasing stock prices, often by buying back their own stock. Between 2003 and 2012, S&P 500 firms spent 54 percent of their profits on stock buybacks.[30] Stock buybacks hit record values of over $753 billion in 2018, in the wake of the 2017 tax cuts.[31]

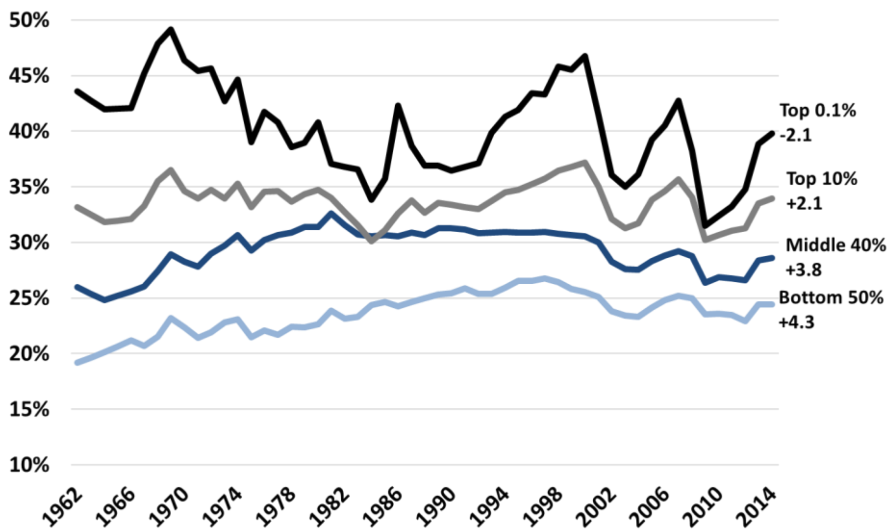
This focus on raising stock prices through buyback is partly motivated by the change in pay structure in large corporations. Until the 1990s, chief executive officers (CEOs) were generally paid a salary that would grow at a rate comparable to other employees. Since then, a larger proportion of executive pay has come in the form of stock options and bonuses, which has motivated executives to focus on raising stock prices as they can gain personal benefits from it.

Domestic Policy Changes

The increase in inequality has also been explained in terms of policies that, intentionally or unintentionally, have led to higher inequality. In recent years, tax policies in the United States have become much less progressive than they used to be. There have, for example, been a series of tax cuts—during the 1980s under Ronald Reagan and during the 2000s under George W. Bush—that primarily reduced the tax burden on the wealthiest groups (though some of these tax cuts were reversed during the presidencies of Bill Clinton and Barack Obama). The 2017 tax cuts under President Trump follow the same pattern, with the largest benefits going to the higher-income earners.[32] Overall, the difference in effective tax rates paid by the rich and the poor has narrowed, with reductions in federal income tax rates on the highest income earners and declines in corporate taxes as a percentage of GDP, at the same time payroll taxes on the working class have increased.[33] As illustrated in Figure 13.12, since the 1960s the total tax rate, combining federal, state and local taxes, has declined for the top 0.1 percent by 2.1 points while it has increased for the middle 40 percent by 3.8 points and for the bottom 50 percent by 4.3 points.

Starting in the 1990s there has also been a reduction in support for low income workers, with the phasing out of programs such as Aid for Families with Dependent Children (AFDC). Government outlays on affordable housing and public infrastructure as a share of GDP have declined sharply, and the federal minimum wage ($7.25 as of 2019) has fallen significantly behind inflation. In addition to directly reducing such support, the diminished generosity of the welfare state also adversely affects workers' bargaining power, hence their wages. With less government benefits on which to rely, employees threatened with unemployment are more likely to accept a wage cut. Research has found that a strong public sector, particularly as a provider of public goods, can reduce income inequalities.[34]

Figure 13.12 Change in Tax Rates by Income Group



Source: Thomas, Piketty, Emmanuel Saez, and Gabriel Zucman. 2016. "Distributional National Accounts: Methods and Estimates for the United States." National Bureau of Economic Research Working Paper Series, Working Paper 22945, December 2016.

3.3 CONSEQUENCES OF INEQUALITY

Research on the impacts of inequality shows that economic inequalities often relate to inequalities in other aspects of human well-being and lead to various social problems. For example, richer Americans have a life expectancy 10–15 years higher than the poorest Americans. Low-income Americans are more likely to suffer from psychological problems such as anxiety, depression, and attention problems.[35] In their 2009 book *The Spirit Level*, Richard Wilkinson and Kate Pickett present data showing that rich countries with greater inequality tend to have lower life expectancy, higher rates of infant mortality, and higher rates of mental illness.[36]

Most economists tend to agree that excessive inequality can lead to reduced economic growth. A 2014 study published by the International Monetary Fund presents perhaps the most comprehensive analysis of the relationship between inequality and economic growth, based on data from 153 countries from 1960 to 2010.[37] The study found that high inequality can indeed result in reduced economic growth and that "it would be a mistake to focus on growth and let inequality take care of itself, not only because inequality may be ethically undesirable but also because the resulting growth may be low and unsustainable."[38]

Finally, excessive economic inequality often fosters concentration of political power and a weakening of democratic institutions. The 2012 book *Affluence and Influence*, by Princeton University professor Martin Gilens, analyzes the relationship between the policy preferences of Americans at different income levels and actual policy outcomes.[39] He concludes that:

> The American government does respond to the public's preferences, but that responsiveness is strongly tilted toward the most affluent citizens. Indeed, under most circumstances, the preferences of the vast majority of Americans appear to

have essentially no impact on which policies the government does or doesn't adopt.[40]

Discussion Questions

1. In a 1963 speech, President John F. Kennedy stated, "A rising tide lifts all boats," implying that everyone benefits from economic growth. Is this statement still true? Have periods of economic growth been equally beneficial to people from different income groups?
2. If you could change one of the "causes" of inequality described above, which one would you focus on? Why?

4. POLICIES TO PROMOTE FINANCIAL STABILITY AND GREATER EQUALITY

Restoring the economy from the damages of the Great Depression involved strong government intervention to increase growth and employment. This process emphasized infrastructural development, creation of the welfare state, redistributive taxation, regulation of businesses and financial activities, increase in provision of public goods, and strong trade unions; it took place in an environment of oligopolistic markets and weak foreign competition. From the 1940s to the 1970s financial institutions were highly regulated, financial crises were relatively rare, and inequality levels declined. Since the 1970s many of the earlier policies and regulations have been reversed. This has contributed to a rise in inequality and financial sector vulnerability. What kind of policies might help create a more stable financial system and promote equality?

Some economists argue that appropriate regulation could help with many of the current problems. However, given the changed economic landscape in the last few decades, with rising foreign competition, globalization, technological advances, and financialization, regulation alone may not be sufficient to resolve issues such as the wage-productivity gap and the shifts in corporate culture described above. Structural changes as well as specific public policies to address such issues are essential to achieving a more equal distribution of income and wealth, and a more stable economic system.

Other economists—mostly those following the "free-market" ideology—argue that further deregulation and smaller government is the path to prosperity, as the market is supposed to guide the economy towards equilibrium. There has, however, been little empirical evidence to support this view, especially as the rise of finance and increasing deregulation have been associated with rising inequality, more frequent economic crises, and a slower rate of economic growth compared to the earlier era of more regulated capitalism.

Regulating the Financial System

In the aftermath of the 2008 crisis, better oversight of the financial system and a new set of rules to discourage excessive risk-taking were seen as essential to reforming the system. The Dodd-Frank legislation was a step in this direction, but it has been under constant attack from the financial sector and many of the problems it intended to address remain unresolved. Several suggestions have been made on regulating the financial system to make it more resilient, including:

- Giving the central bank greater oversight of the financial health of borrowing institutions. This could include requirements for large financial institutions to hold sufficient capital reserves to cover the risks associated with the financial instruments they create.
- Greater oversight and regulation of nonbank institutions in the shadow banking system.
- Reinstituting a version of the Glass-Steagall Act, separating banking and investment functions, promoting the role of smaller and regional banks, and possibly breaking up financial institutions in the “too big to fail” category.
- Blocking the revolving door between finance and politics by instituting requirements that individuals must wait a significant number of years between the time they leave a government position in which they can affect legislation on industry sectors and when they can begin work in those sectors.

Channeling Financial Resources to More Socially Useful Investments

One of the criticisms of the current financial system is that it directs too much effort and money towards short-term financial profit-making, while providing insufficient support for productive investment. Policies to reverse this bias might include:

- Promoting regional and community financial institutions, credit unions, and other smaller financial institutions whose main orientation is towards supporting local businesses and homebuyers.
- Instituting a small tax on financial transactions. Both Keynes and the Nobel laureate economist James Tobin supported such a tax as a way of discouraging short-term financial speculation. What has come to be known as a “Tobin tax” could be at a very low rate, but would still raise substantial revenues due to the very large volume of financial transactions. In 2014, the European Commission adopted a tax on all stock, bond, and derivative trading in the European Union.
- Restricting companies from stock buybacks, and rewarding them through the tax system for investing in their employees; linking executive pay to productive performance of the company instead of share prices; adding worker representatives on corporate boards so their interests are represented when decisions are made.[41]
- Encouraging the type of cooperative-based organizations discussed in Chapter 7 could also help create a stronger and more equitable economic system. Cooperatives have a motive to invest in the long-term viability of the company and improve the well-being of workers. Worker-owned companies, community development corporations, and credit unions tend to be locally oriented and resilient to economic fluctuations at the national level.

Policies to Reduce Inequality

Fiscal policies aimed at reducing inequality could include more progressive tax policies, expansion of transfer systems, and more public investment in areas with wide social benefit. Increased investment in social programs, such as career skills training, housing assistance or healthcare that enhance the well-being and productivity of workers could mitigate inequality.

Specific policies to mitigate inequality could include:

- Raising minimum wages would improve the well-being of most low-wage workers and reduce poverty.[42] While some argue that increases in the minimum wage could result in increased unemployment, most real-world evidence indicates that smaller phased increases have little negative impact on overall employment.[43] Also, analysis based on Keynesian-type macroeconomic reasoning suggests that such wage increases can promote economic growth and employment.[44]
- Investment in human capital through such programs as universal pre-kindergarten and more effective public schools systems, together with increased public financing to make public colleges more affordable and community colleges more accessible can reduce inequality by strengthening workers' skills and their bargaining power. Increased investment in workers through training programs could increase their productivity and wage-earning potential.
- Government policies that support the right to organize and the bargaining power of labor unions. Research by the IMF suggests that stronger labor unions may be able to reduce inequality.[45]
- Reducing the gap in job protection between regular and temporary workers contributes significantly to reducing inequality. [46] As discussed in Chapter 7, the increase in part-time and temporary workers, who tend to receive lower pay and benefits and have little job stability, has contributed to rising inequality. In Europe, more than half of all new jobs created since 2010 are based on temporary contracts.[47] Some countries, including Norway, France, and Sweden, have laws mandating that employers provide equal pay and benefits to temporary workers.[48]
- Investment in infrastructure projects such as roads, water, and sewage systems, natural resource conservation, and other projects can provide stable employment for people as well as general public benefits which improve the quality of life for all, including low-income workers. Even further, the government could serve as an "employer of last resort" to achieve full employment, directly hiring people to work on public projects.
- Direct income support for low-income workers. Expanding the current earned-income tax credit is one approach to providing direct income support. Another, more radical, proposal is to institute a guaranteed basic income, which involves providing a periodic cash payment unconditionally to all individuals to help cover their basic expenses. (See Box 15.3 in Chapter 15.) If set at a relatively low level, a guaranteed income for all could provide greater equity without removing incentive to undertake paid work.[49]
- Fiscal and monetary policies that promote full employment. Low-income and minority workers suffer most when unemployment rises. As we saw in Chapter 12, there is often a tradeoff between unemployment and inflation, but so long as inflation is not a major threat, placing a priority on maintaining low unemployment will promote a more equitable labor market.[50]

The economy of the future will be different from the economy of the past. But we can learn lessons from past experiences, both in the Great Depression and the Great Recession, about how to promote greater stability and equity, and to avoid catastrophic crises. The policy solutions that we have discussed, together with other innovative approaches, will be required in the future in the effort to achieve the goal of an economy that works well for all.

Discussion Questions

1. Have you seen anything in the news in recent weeks about the regulation of banking and finance or changes in tax or wage policies? What do you think about the effectiveness of these policies in achieving greater financial stability and economic equality?

2. What do you think about a proposal to tax financial transactions? Would you prefer it to an income or a sales tax? Why or why not?

REVIEW QUESTIONS

1. What is "subprime" lending? How did it contribute to the housing bubble and the subsequent financial crisis?
2. How can a collapse of the U.S housing market and weakness in the banking system cause an economic recession?
3. What is securitization? How did it contribute to the problems leading to the financial crisis?
4. Explain "too big to fail" and why it is a potential economic problem in any economic setting. How is "too big to fail" related to moral hazard?
5. How did the 2008 financial crisis affect income and wealth inequalities?
6. What have been the principal fiscal and monetary responses to the recession to date? What have been the results thus far?
7. How is the recent economic downturn similar to the Great Depression? How is it different?
8. What is the purpose of the Dodd-Frank bill? What are its main provisions? Has it been favorably received?
9. What is the primary function of the financial sector? In what ways have these functions changed in recent decades?
10. What is financial deregulation? How important is it in explaining the financial crisis?
11. What do we mean by financialization? What are some of the ways in which it has supported or deterred growth in the real sector?
12. What is the "efficient market hypothesis"?
13. What is Minsky's theory of financial instability? How, according to Minsky, can we create a more stable financial system?
14. About what share of aggregate income does each quintile of households receive in the United States?
15. What is the Gini coefficient? What does a higher value of the coefficient signify?
16. How has income inequality in the United States changed in recent decades?
17. What are some of the factors that have contributed to a rise in wage inequality in the past few decades?
18. In what ways has globalization affected inequality?
19. How has the rise of financialization influenced the level of inequality in the economy?
20. What macroeconomic policies have contributed to the rise in inequality since the 1980s?
21. What are some consequences of inequality?
22. What are some of the ways in which we might address the problems of excessive risk taking in the financial market?
23. What is the Tobin tax? What would be its effect on financial transactions?
24. Discuss some policy measures that might help reduce inequality.

EXERCISES

1. How does the Great Recession compare to recent economic downturns? To explore this question in further detail, begin at the National Bureau of Economic Research website (www.nber.org).

   a. Select "Business Cycle Dates" from the "Data" tab at the NBER site and then record the starting dates (peaks) and ending dates (troughs) for the last four recessions. Assemble these dates in a table.

   b. Now gather some macroeconomic data. You can do this at the Federal Reserve Economic Database (http://research.stlouisfed.org/fred2/). Using the "National Income & Product Accounts" under the "National Accounts" tab within "Categories," locate Real Gross Domestic Product data for each peak and each trough in your table. Record these numbers in a new table. Calculate the percentage change in Real GDP from peak to trough for each of the last four recessions. Report these results in your new table.

   c. Return to the categories page at the FRED website. Select the "Current Population Survey (Household Survey)" link under the "Population, Employment, & Labor Markets" category. Select the "unemployment rate" series and record the numbers for each peak and each trough for each of the last four recessions. Organize these data in a table.

   d. Review your tables and calculations. Write a concise summary comparing the Great Recession to the previous three recessions. Make sure that you incorporate specific numbers into your summary.

2. The chapter identifies a series of contributing factors in its exploration of the underlying causes of the financial crisis. Identify the major factors and state which you think were most important.

3. What is the meaning of moral hazard? Give some examples of moral hazard, as discussed in the text, or others that you can think of.

4. Match each concept in Column A with a definition or example in Column B.

Column A	**Column B**
a. A Gini ratio close to 1	1. When a company grows so large that its failure would cause widespread economic harm in terms of lost jobs and diminished asset values
b. Securitization	2. Unregulated markets will always produce instability and crisis
c. Financialization	3. A would-be home-buyer whose credit-worthiness is suspect because he or she already has a high level of debt, and/or a low income, and/or a poor credit record

d. Sub-prime buyer	4. Increasing size and importance of the financial markets in the operation of the economy
e. Financial Instability Hypothesis	5. A very equal income distribution
f. Deregulation	6. The lack of any incentive to guard against a risk when you are protected against it
g. A Gini ratio close to 0	7. Process of pooling various kinds of loans, and slicing, sorting and repackaging them
h. Too-big-to-fail	8. Increasing the amount of leverage permitted to banks and allowing them to measure the riskiness of their own products
i. Moral hazard	9. A very unequal income distribution

NOTES

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