

Economic Impact of COVID-19



COVID-19 and the U.S. Economy

By Thomas A. Lubik and Sonya Ravindranath Waddell

The coronavirus and COVID-19 have generated a severe contraction in economic activity that is concentrated in particular sectors of the economy and the population. The unique nature of this shock suggests clear economic policy responses to ensure that the temporary, perhaps even necessary, effects of the shock do not cause longer-lasting damage.

On March 13, 2020, the president declared a national emergency to fight the spread of the coronavirus and the impending public health disaster. Social distancing measures, both imposed and voluntary, have taken a toll on the U.S. economy. The drop in restaurant bookings and hotel revenues has been staggering. States and counties have forced nonessential businesses to temporarily close. Airlines are reporting little demand from consumers, and air traffic is at 20 percent of the volume of the previous year. Plants and factories are struggling to safely continue operations, receive inputs, and transport finished goods. This brief will discuss the nature of this economic shock, how it is affecting the U.S. economy, and what sort of policies are most critical to address the current and future economic fallout. Future briefs will discuss policies that have been enacted and some forecasts for the U.S. economy.

The Shock of COVID-19

The impact of the coronavirus and the disease it causes, COVID-19, has been dramatic in scale and scope and something the world has not seen since the Great Depression or the Spanish

Flu Pandemic of 1918-20. At the same time, the nature of the shock and its economic effects are arguably better understood, and policy options are clearer, than is the case for any recent economic downturn, including the global financial crisis that led to the Great Recession in 2008.

The COVID-19 shock is both a supply and demand shock. The supply aspect is centered on the supply of labor, which has contracted dramatically as more workers stay home, either voluntarily or through mandate. On the demand side, public health measures ranging from social distancing to quarantines have not only negatively impacted demand, but also shifted demand away from communal activities and toward what may be described as home production: cooking at home instead of eating out; watching Netflix instead of going to the movies. To some extent, there might be a substitution of activity if households order takeout from the same restaurant at which they otherwise would have dined. However, this will not be costless to restaurants and will certainly adversely impact certain workers, such as waitstaff.

Overall, from what we have seen in the data and heard anecdotally, the combination of the supply and demand effects of COVID-19 has led to a severe contraction in activity that may be concentrated in particular sectors of the economy and the population. The labor impact is likely to fall more heavily on workers who cannot easily work from home, who are not salaried, or who work in industries that require a high level of personal interactions, such as much of the service sector (retail, entertainment, and restaurants).

How Bad Could It Get?

One challenge for economic policymakers has been that public health data arrive at a much higher frequency than macroeconomic data outside of financial markets. As the pandemic evolved, it was not until March 26, well after the public health reports had taken over the headlines, that the full scale of the economic calamity became apparent in the data: the weekly release of unemployment claims data showed that new claims had skyrocketed to 3.3 million. According to the Department of Labor, the prior peak was 695,000 claims in October 1982. This was the first indication of the severity of the shock to labor supply and demand.

One way to better understand the potential impact of COVID-19 on the U.S. economy is to see what share of people work in industries that are likely to be the hardest hit. With respect to both employment and economic share, the U.S. economy has become increasingly service oriented over the last 50 years. As can be seen in Figure 1 (on p. 5), in 1950, manufacturing made up 30 percent of the U.S. employment, while by 2019, that share was closer to 8 percent. (Importantly, this is employment. The share of economic activity that is manufacturing fell less, to around 11 percent in 2019.)

In 2019, about 11 percent of the U.S. workforce was employed in the leisure and hospitality sector, and 85 percent of those were in the accommodation and food services industry (with another 15 percent in arts, entertainment, and

recreation). That is almost 17 million workers who are likely to be severely impacted by the immediate and unpredicted drop in hotel and restaurant bookings. On March 25, STR—a source of hospitality data—reported a 56.4 percent decline in hotel occupancy and a 69.5 percent decline in revenue per available room from the prior week. Meanwhile, box office gross receipts were down 69 percent for the week ending March 19 compared to the same week the prior year, and OpenTable has reported a precipitous decline in restaurant bookings, to effectively zero. Not surprisingly, a large share of the 3.3 million initial unemployment claims filed in the United States seemed to be concentrated among waiters or waitresses, cooks, and bartenders. The Department of Labor, in their March 26 release of unemployment claims data, reported that the states continued to cite service industries broadly, particularly accommodation and foods services.

Other sectors also show sharp signs of decline, as evidenced mostly through unemployment claims or through conversations with firms. For example, as consumers put off nonessential dental visits or elective surgeries, smaller dentist and doctors' offices (captured in the educational and health services components) are affected, which shows up in unemployment claims data. The Department of Labor wrote in their March 26 release, "Additional industries heavily cited for the increases [in initial unemployment claims] included the health care and social assistance, arts, entertainment, and recreation, transportation and warehousing, and manufacturing industries." In addition, many firms, including manufacturing plants, are struggling to keep plants open while keeping workers safe. Manufacturing contacts report declining demand for certain consumer products, such as apparel. Still more firms are struggling to get shipments in or out as trucking and transportation firms are grappling with the same issues of higher demand and employee safety and are prioritizing some items (e.g., for health services) over others. In addition to still-disrupted supply chains, demand has dropped globally, which will impact U.S. exports.

Another way to gauge impact is to look into where consumers might cut their spending or where they might substitute. The two largest components of household consumption expenditures (see Figure 2 on p. 5) are housing and utilities and medical services, which, other than some elective procedures, might show a more limited impact. Spending might even shift toward these components, as households spend more time at home, engage in remodeling, use more electricity, and the like. Undoubtedly, transportation, recreation, and food services and accommodations will suffer a hit (despite some substitution into home delivery). With roughly a quarter of overall spending and assuming a decline by two-thirds, this would imply a reduction of household consumption of around 15 percent of the total. Since consumption takes up almost 70 percent of aggregate output, the resulting hit to output would be in the neighborhood of a tenth.

What Are the Key Policy Responses?

The unique nature of this shock suggests clear economic policy responses. First and foremost, it is an aggregate shock experienced simultaneously, and transparently, by households and businesses in the nation. In contrast to the financial crisis in 2008, the degree of uncertainty is arguably much lower. In the presence of COVID-19, everyone is in the same boat.

Second, the time pattern of the shock is broadly known. Pandemics follow a similar pattern: initial exponential growth is followed by an inflection point and a slowdown in infection as the contagion starts to run out of hosts to infect. Eventually, the contagion either disappears or the remaining susceptible population is protected by herd immunity. Although there is still much uncertainty about the timeframe of the pandemic in the United States, the experience of China suggests the possibility of an end in sight.

Finally, the COVID-19 shock does not affect the productive capacity of the economy, unlike a natural disaster or a war that often destroys

physical capital. Once the public health crisis is over and workers return to work, production should quickly return to precrisis levels. There are three caveats, however. First, in modern advanced economies like the United States, organizational capital—the know-how needed to operate and manage highly specialized and intricate businesses—has become an increasingly important component of production. The longer the adverse labor supply effects last, the more likely it is that such capital is lost. Second, and relatedly, workers may lose attachment to their previous place of work or even to the labor force. Third, workers need something to return to, so the businesses that employed them need to stay open or reopen. These caveats thus point toward the need for a set of policy options in the face of the crisis.

Congress and the president have passed and signed two major pieces of legislation intended to soften the blow of COVID-19 on the U.S. economy. On March 18, Congress passed legislation to, among other things, require employers to provide sick leave for workers. Then, on Friday, March 27, the president signed into law a historic \$2 trillion stimulus package that takes measures such as expanding unemployment insurance, providing stimulus checks to households, and changing rules around student debt repayment and charitable donations. The specifics of this legislation, whom it helps, and what it might have left behind will be discussed in a future brief. Here, we think about the potential of policy options more broadly.

The key policy objective is to stop the pandemic, bend the curve of infections, and get beyond the inflection point. Any monetary and fiscal policies should support, but be subordinate to, this public health response. Any economic policy measures can and should be designed to address the immediate economic effects of the pandemic. In a sense, it is the highly specific nature of the shock that allows policy actions to be more targeted than in previous downturns, albeit at a scale that seems hitherto unfathomable.

The fiscal policy measures are trying to ensure that the inevitable temporary, perhaps even necessary, effects of the coronavirus shock do not cause longer-lasting damage. In that sense, fiscal policy provides insurance against this largely unforeseen hit to the economy.

On the demand side, businesses will lose revenue while still needing to cover their fixed costs, such as rent or debt service. Normally, this would lead to bankruptcies, which presents a distortion of economic activity, especially when the underlying shock is temporary and economy-wide as is likely to be the case for the coronavirus pandemic. Much of the phase three fiscal package signed by the president on March 27 is designed to avoid such outcomes via bridge loans and grants, support for financial institutions that provide business financing, and other measures. At the same time, businesses might be forced to reduce their costs by reducing their wage bill when demand for their products disappears. This can be avoided by wage subsidies that allow businesses to reduce hours and wage payments without severing ties with their workers.

On the labor supply side, the COVID-19 shock reduces the income of workers. This can be addressed by providing a variety of social insurance payments that go beyond unemployment insurance, such as wage subsidies, short-time work payments, or direct payments to households.

Arguably, the key policy response in the crisis falls to the fiscal authority. Monetary policy, however, can support these measures. The Federal Reserve reduced its main policy interest rate to effectively zero, which provides a boost for the refinancing costs of financial institutions and reduces the borrowing costs of workers and small- and medium-sized enterprises. In addition, there were signs that several financial markets for a variety of asset classes experienced liquidity problems. The Federal Reserve supported these markets by providing a variety of liquidity-enhancing tools. More detail about the Fed's policy responses will be reviewed in a future brief.

What Is Next?

As the pandemic and its economic consequences evolve, the Richmond Fed will continue to engage our constituents and analyze incoming data to understand how COVID-19 is affecting our region and the United States as a whole. On our [COVID-19 research page](#), we will provide information on the fiscal policy measures and how they affect our District. We will discuss the forecast for the U.S. economy and what we might learn from historical precedent or from the experience of other countries, such as China. We will share what we are hearing from firms and community development professionals through our conversations and surveys. We will examine disparities in health care and credit access across our region. We will explore variation in states' unemployment insurance programs and what we are learning from unemployment claims.

In addition to providing research on the effects of COVID-19, the Richmond Fed has compiled a list of resources for consumers, small businesses, banks, and community development organizations. Visit our [website](#) for additional information.

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Figure 1
U.S. Employment Composition

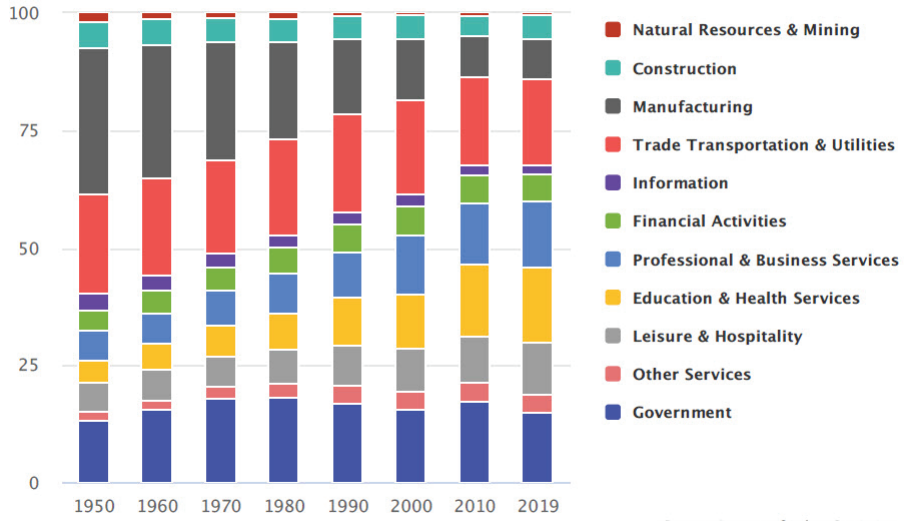
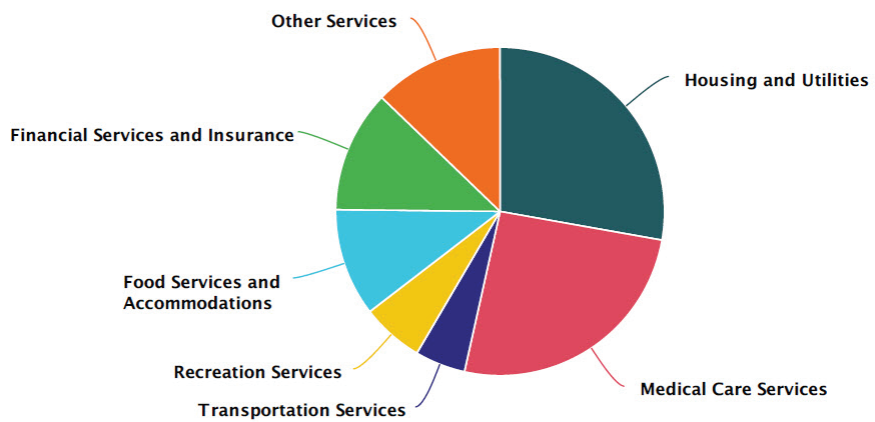


Figure 2

Composition of Household Consumption Expenditures in 2019



Source: Bureau of Economic Analysis