



## COVID-19 RESPONSE

# HOW THE CORONAVIRUS HAS IMPACTED THE GENERAL ECONOMIES OF THE U.S. AND OKLAHOMA

Learn about impacts to the economy due to the COVID-19 virus.

A discussion about the novel coronavirus' impact on the national economy and Oklahoma's economy should at least cover these factors: energy and agricultural markets, unemployment and inflation. The virus is proving what is already known—we live in one intertwined world, with factors that are difficult to tease apart.

One of the most common statements pundits seem to respond with in recent weeks when asked some version of "How bad is this?" is "We've never been here before." This is somewhat worse than the Great Recession of 12 years ago, and not yet as bad as the Great Depression. Therefore, these two notable events bracket COVID-19. Admittedly, if you are one of the 20 to 30 million or more who have lost your job and/or lost loved ones, it may be as bad as it can get. But, for the survivors—off work and still working—there is, if history has any lessons, a light at the end of the tunnel. Science can assist in planning for the short- to long-term, recognizing we need to be sensitive to each other's feelings, but be cautious about how they affect our decision-making and interpretation of the information circling around us. As if to say, "It is unspeakably terrible and beyond imagining!" but we have been here, economically, at least.

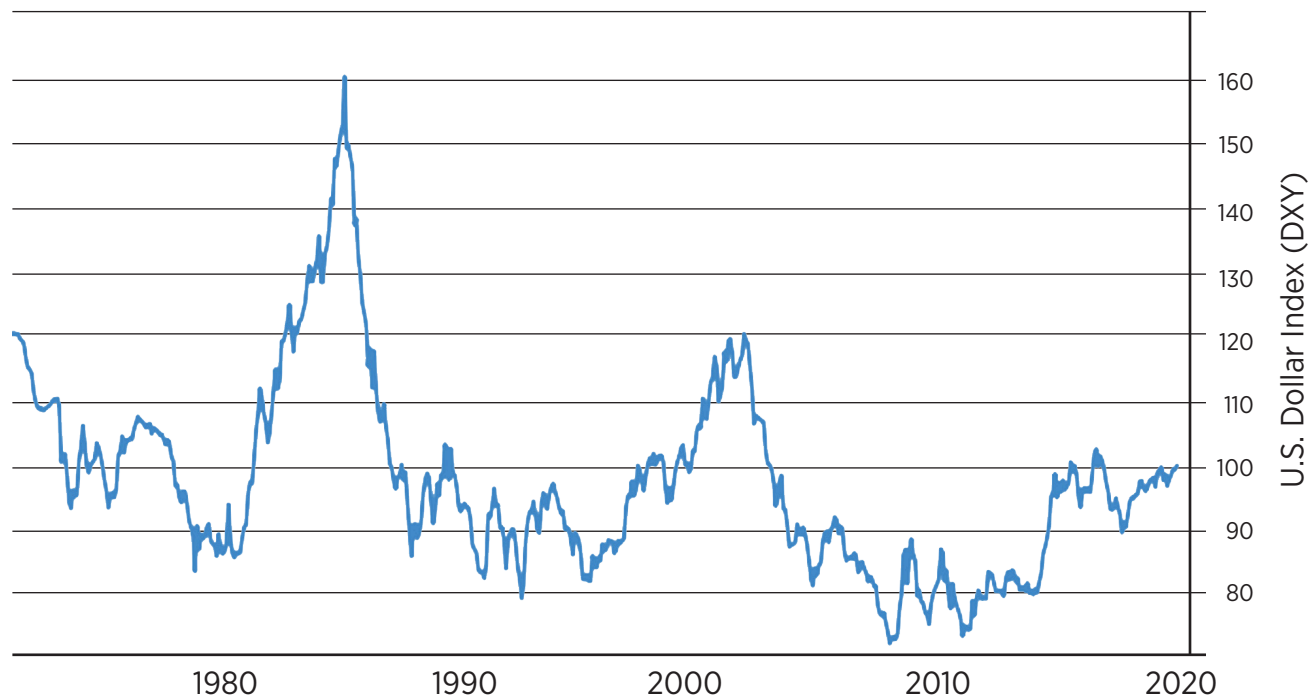
### INFLATION

Because both the Federal Reserve System and Congress are rapidly responding to the economic effects of COVID-19, it is difficult to distinguish which policies are having the most impact. At least theoretically speaking, both monetary policy from the Federal Reserve and fiscal policy from Congress are attempting to move in the same direction: get more money flowing in the economy.

So, to increase money supply in the U.S., the Federal Reserve dropped interest rates to between 0 and 0.25%. They also have started buying bonds and lending money to fuel the economy. These actions have the potential to increase inflation, which will result in some winners and losers. It also could potentially drive down the value of the dollar for foreign markets, which could result in increased exports (Figure 1). Thus, Oklahoma farmers will have an advantage if they can get those commodities to markets, assuming foreign consumers have the ability to pay for goods and do not impose tariffs. However, farmers will have to weigh the difference between rising commodity prices and rising input prices. Also, anyone looking to buy or travel in foreign markets will do so with a weaker dollar, meaning it will take more dollars to exchange for foreign

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**Figure 1. The U.S. Dollar Index measures the performance of the dollar against a basket of other currencies including EUR, JPY, GBP, CAD, CHF and SEK.** (Trading Economics, 2020).

currency. So, Oklahomans might want to buy American products and see the USA for this summer's vacation if you are not sheltering in place.

As of today, there have been many stimulus programs, including direct payments to taxpayers, which are labeled as pre-paying tax exemptions. These direct payments, with a maximum of \$1,200 per person decreasing with increased income, will not be taxed. Additionally, loan programs such as the Payroll Protection Program were introduced, which could have portions forgiven or be completely forgiven based on the circumstances surrounding their use. The first round of PPP resulted in \$349 billion in loans, which could be forgiven, with the second round topping out at \$310 billion. With these actions, the president and congress took responsibility for increasing public debt in the hope of improving the economy. We have been here before, after the Great Depression, when we were at our highest level of public debt after WWII. We were able to decrease that debt level then, and we'll do it again, but not overnight.

## ENERGY & AGRICULTURAL MARKETS

With the past few decades of expansion of hydraulic fracking and renewable energy, many farm families (and other Oklahomans) have become not only consumers of oil and gas, but also producers. Though it has changed significantly over the past several years, there still is a sig-

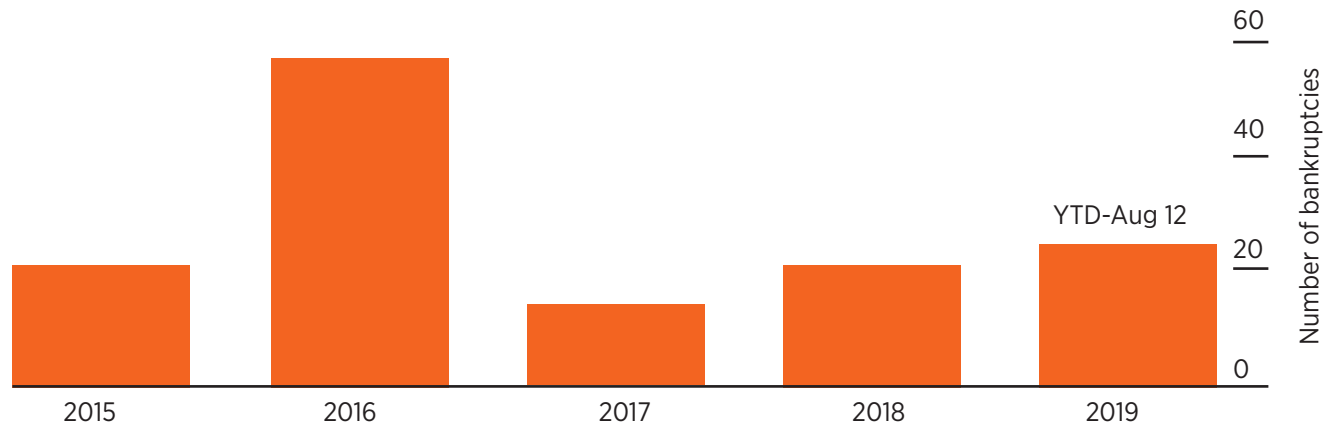
nificant connection between farming, land ownership and mineral interest ownership for many individual Oklahoma farm families. In addition, many also have been laborers in the oilfields contributing to off-farm income. Regardless of the impacts of COVID-19, the past year in Oklahoma has not been a pretty financial picture for anyone relying on oil and gas production as part of their income stream.

COVID-19 made headlines in the U.S. during February 2020. However, energy was already having tough times, with more than 20 oil and gas companies going bankrupt in the first 8½ months of 2019 (Figure 2). West Texas Intermediate Crude fell from more than \$60.00 a barrel at the beginning of 2020 to \$45.00 in early February. As the coronavirus picked up steam in March and April, some oil price markets even temporarily fell into negative territory, in part due to contracts coming due, before inching into the teens and low twenties (still extremely low) by early May.

The International Energy Agency has conducted analysis of short term estimated change in GDP and energy consumption between 2019 and 2020 as a result of COVID-19 (International Energy Agency, 2020). They estimated that world GDP and total energy use would decline by 6%, oil by 9% and natural gas consumption by 5%. Coal would decline by 8%, but nuclear energy would only decline by 2% (International Energy Agency, 2020). Renewable energy was the only energy source estimated to see positive gains, but only a 1% increase. International Energy Agency

## Energy Distress

Energy companies are going bankrupt at the fastest pace since 2016.



**Figure 2. Haynes and Boone LLP Oil Patch Bankruptcy Monitor** (McNeely, 2019).

analysis also indicated that CO<sub>2</sub> emissions would be down by 8% (International Energy Agency, 2020).

Analysis in 2019 indicated for every \$1 billion loss in oil and gas GDP there would likely be a \$102 million average reduction in state tax revenue in Oklahoma. The Oklahoma State Board of Equalization in April 2020 declared a \$416.6 million revenue failure for FY 2020. Partially to blame was a 65% drop in oil revenue in the state. Graphing the state of Oklahoma budget over the past 13 years shows a rough correlation between the nominal budget and the inflation-adjusted budget compared to the prices of oil and natural gas (Oklahoman, 2018). As oil generally increased in price between 2012-2015, the state budget increased. As oil price slipped in 2015-2016, the state budget also declined. During the International Energy Agency (IEA) discussion, it was suggested the oil and gas industry would not return to pre-COVID-19 employment levels until the end of 2022. Unemployment was likely to peak at 12% to 14% in 2020, and then slowly begin to improve.

However, the Oklahoma 2019 analysis was done prior to the IEA 2020 work. Bringing the two analyses together, a conservative conclusion suggests that the COVID-19 impact on Oklahoma energy and state revenue will be deeper and longer than initial estimates. This does not take into account the trillions of dollars of federal assistance that are being passed in Washington, with more yet to come as of May 2020. It also does not take into consideration whether the coronavirus infections are over, with some medical experts predicting there will be at least a second

wave in the fall of 2020 or winter of 2020 and early 2021. Additionally, it is not known if there will be financial benefits from a significant decline in CO<sub>2</sub> emissions.

Agriculture is another one of the primary sectors for Oklahoma's economy. The Food and Agriculture Organization (FAO) of the United Nations keeps records for global food commodities. "The Food Price Index is a measure of the monthly change in international prices of a basket of food commodities. It consists of the average of five commodity group price indices [cereal, vegetable, dairy, meat and sugar], weighted with the average export shares" (FAO, 2020). The food price index, as well as the food commodity price indices, for 2020 show steep declines largely driven by the COVID-19 pandemic. Dairy had an upswing through February, then a sharp decline in March. In fact, all noted commodities declined in price. The food price index in nominal and real terms over time goes back to 1961. There has been a general decline since 2011 in both real and nominal time.

## EMPLOYMENT

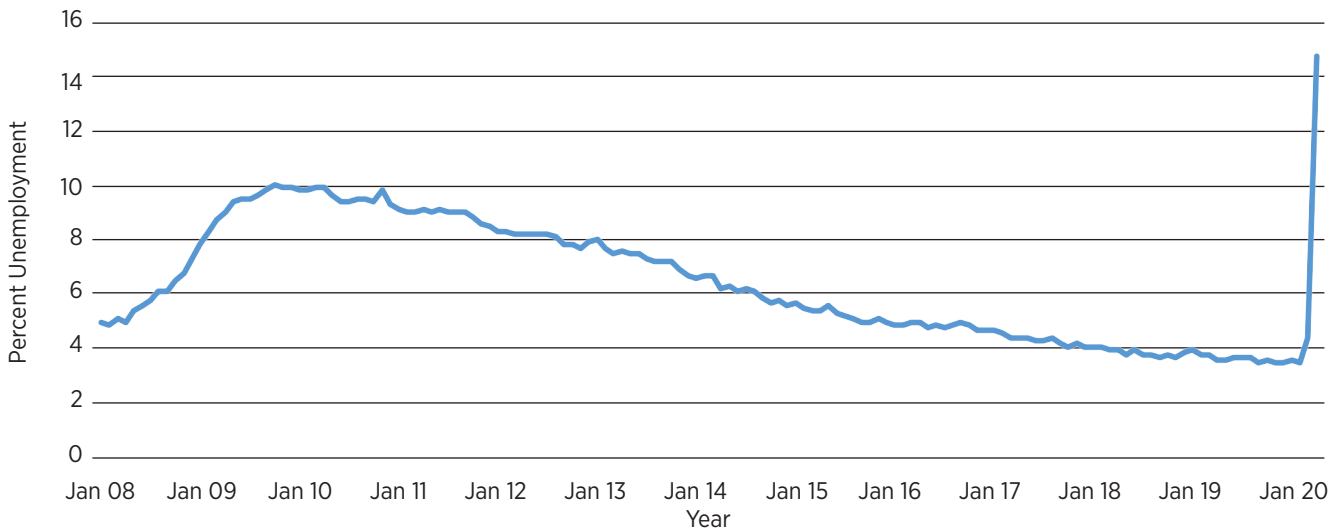
The U.S. in general has experienced very high unemployment in response to COVID-19 (Figure 3). Until the Great Recession, Oklahoma often had a history of leading downturns in U.S. unemployment and lagging upturns. Due to economic issues with the oil and gas industry, Oklahoma already was suffering 10% unemployment for several months before the national recession also jumped to 10% (Figure 4). By then, Oklahoma had already dropped to 7%. The dramatic difference in the end points of Figures 3 and

4 is the timeline. The U.S. unemployment shows more than 14% because it runs through March. The Oklahoma chart stops in January and reflects about 3.1%. By March, some estimates ratcheted it up to over 8%.

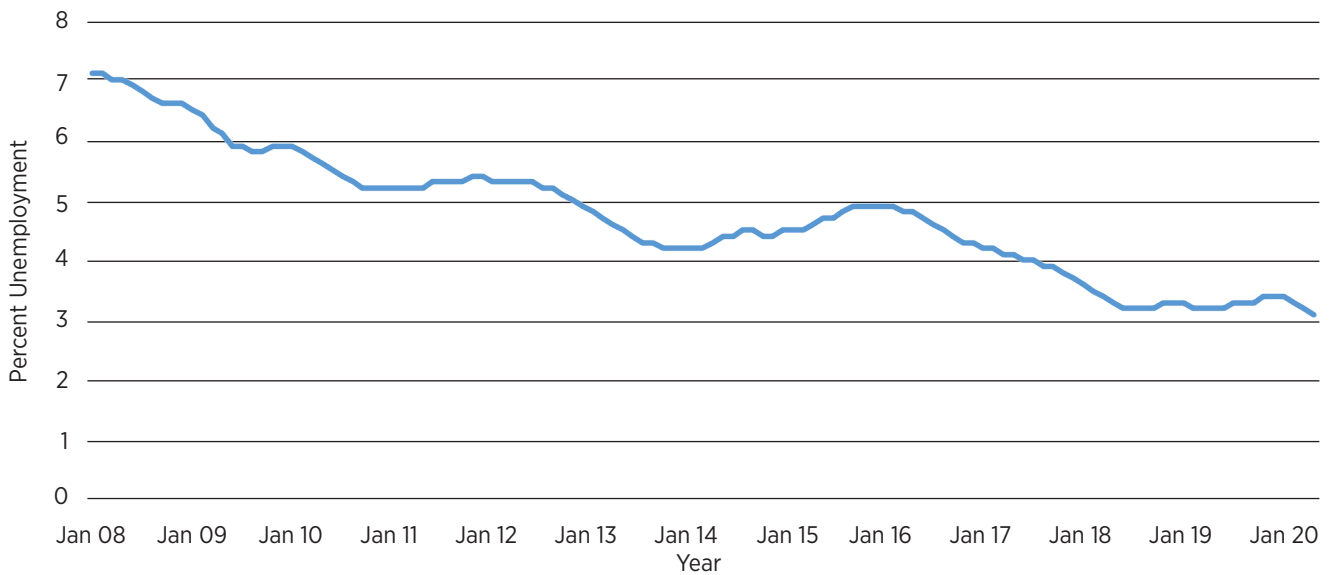
There is no comparing the Great Depression to the unfolding story of COVID-19 impacting Oklahoma. This is primarily because Oklahoma was literally brought to its knees when, in addition to the man-made catastrophe of the Depression, the Dust Bowl smacked the region. The so-called “Dirty Thirties” were seemingly brought on by a Faustian partnership between man and nature. But, recent recessions may suggest paths ahead and how to avoid the more onerous among them. If getting

people back to work and improving their spending power are policy goals, there are lessons to be learned from the past. Here is one on the length of time to return to “full employment.”

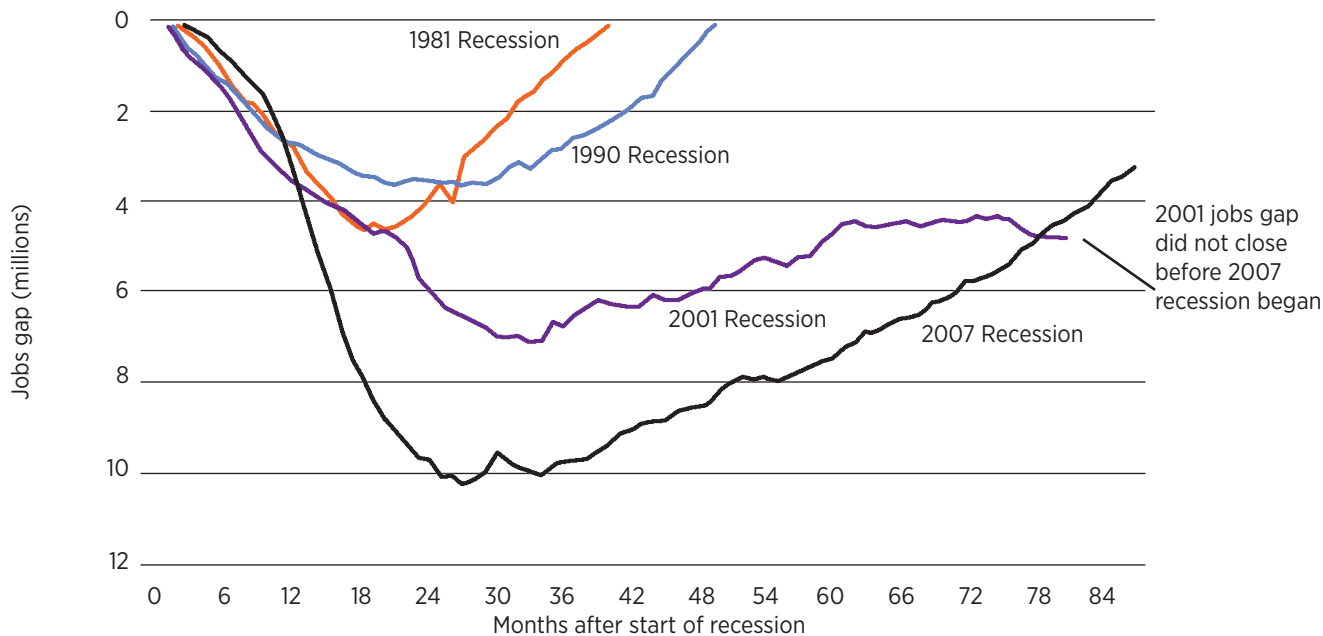
Figure 5 shows the 1981, 1990, 2001 and 2007 (2008) recessions. Each started at a certain level of jobs, then the graph tracks how long after it took for the national economy to return to that level of jobs. The first conclusion is that each successive recession takes longer to recover. The second is that the last two may be starting a trend to go deeper in job losses. Past recessions indicate that those with college degrees are more likely to go back to work and go back to work sooner.



**Figure 3. U.S. unemployment rate.** (U.S. Bureau of Labor Statistics, 2020a)



**Figure 4. Oklahoma unemployment rate.** (U.S. Bureau of Labor Statistics, 2020b)



**Figure 5. Jobs gaps after the last four recessions.** (Kearney and Hershbein, 2015)

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