

Economic Analysis

# COVID-19 and Texas economy

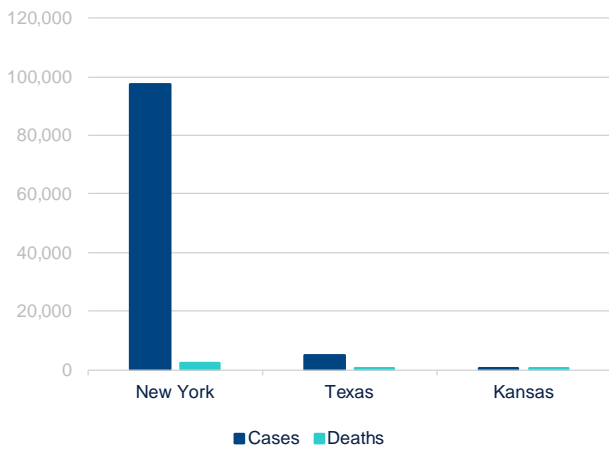
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April 3, 2020

## Texas and the U.S.

Since the Texas Department of State Health Services confirmed the first positive test case for COVID-19 on March 4<sup>th</sup>, the number of patients has been steadily increasing, and the state and city governments have been escalating preventive measures. Strict restrictions, such as "stay-at-home" or "essential services and activities only" orders, inevitably incur high costs on the local economy.

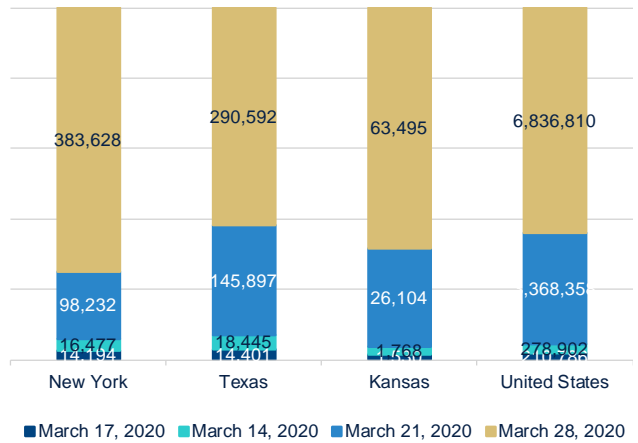
The current economic crisis distinguishes itself from previous ones by simultaneous supply- and demand-side shocks, coupled with financial markets dislocations and a global recession. Given the nature of the pandemic, the negative impact on the economy is mostly mechanical. In essence, many businesses have to shut down for an extended period no matter how well they are managed, and their closure happens simultaneously across regions. Such an all-in attack on people, not balance-sheets, partially paralyzes the national economy. Thus, the effect of economic stimulus is limited before all community outbreaks are contained.

Figure 1. Number of cases and deaths (by April 2)



Source: Johns Hopkins University

Figure 2. Initial claims (Thousands)



Source: Department of Labor and Haver Analytics

Such a high synchronization of adverse shocks is illustrated in Figures 1 and 2, where we compare Texas with two representative states in the current pandemic. As of today, New York has the highest number of COVID-19 patients while Kansas represents those with a relatively small number of cases. Although the severity of coronavirus outbreaks varies significantly, all three states started to lose a record-breaking number of jobs in the week of March 21<sup>st</sup>, followed by abrupt labor market deteriorations in the week of March 28<sup>th</sup>.

Such simultaneity shows that collective measures aimed to flatten the curve, such as the "stay-at-home" orders, are damaging local economies in a way shared among all regions. Therefore, for Texas, a large state with a

sophisticated economic structure, the coronavirus will damage its economy in the short term in a way comparable to the U.S. economy.

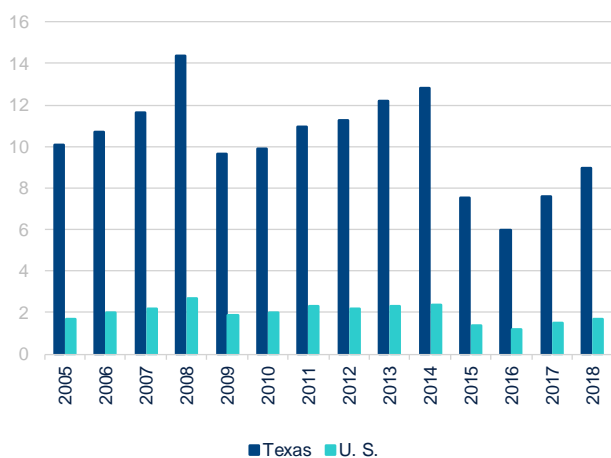
Already, the economic contraction in Texas is severely impacting accommodation and food services, transportation and warehousing, health care and social assistance, administrative, support, waste management, and remediation services, mining, retail trade, manufacturing, real estate rental and leasing, and construction industries.

## Oil and gas industry

Relative to other states, a distinctive feature of the Texas economy is the high concentration of energy companies. As a share of GDP, the mining sector in Texas accounts for around 15% of the total, whereas for the U.S., this share is 1.4%. In terms of nonfarm payroll, mining accounts for 1.8% in Texas and 0.5% in the U.S.

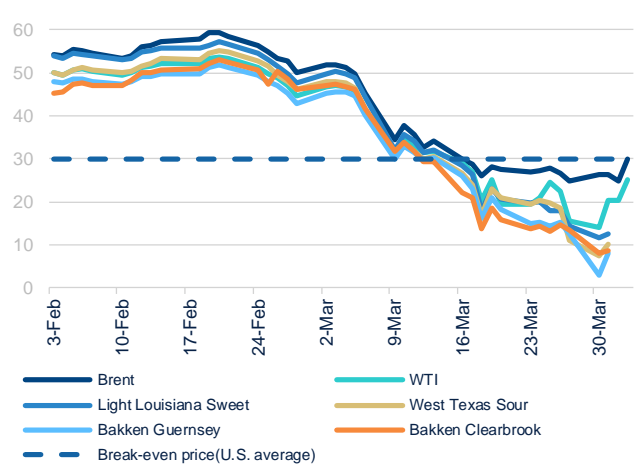
As a result, the ongoing price war between Russia and Saudi Arabia is dealing a massive blow to the state economy on top of the coronavirus outbreak. With the WTI trading between \$20 and \$30/b (some Texas blends have traded below \$10/b), many companies in the oil and gas industry will suffer negative cash flows at a time when credit and funding conditions remain impaired. If this environment extends for a prolonged period, the damage could be devastating.

Figure 3. Mining sector shares of GDP (%)



Source: BEA, Haver Analytics, and BBVA Research

Figure 4. Oil prices (USD per barrel)

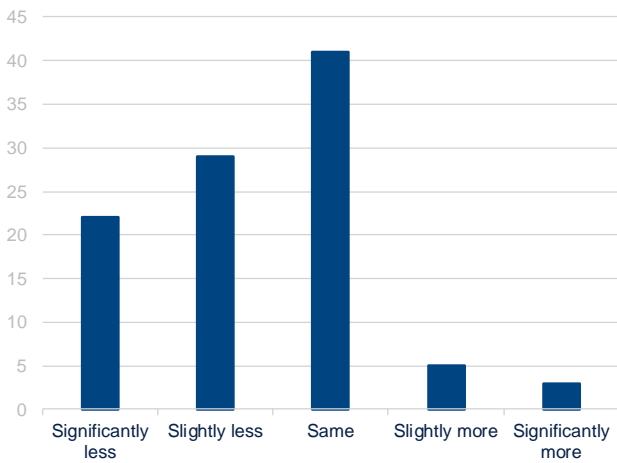


Source: EIA, Dallas Fed, Haver Analytics, and BBVA Research

A recent survey of the energy sector conducted by the Dallas Fed<sup>1</sup> illustrates a bleak outlook for the oil and gas industry. According to this survey, more than half of the oil producers plan to reduce their employment in 2020. Moreover, 15% of the firms could go bankrupt within a year if WTI continues to stay under \$40/b, and this ratio could increase to 40% if the crude oil price fails to go up within two years.

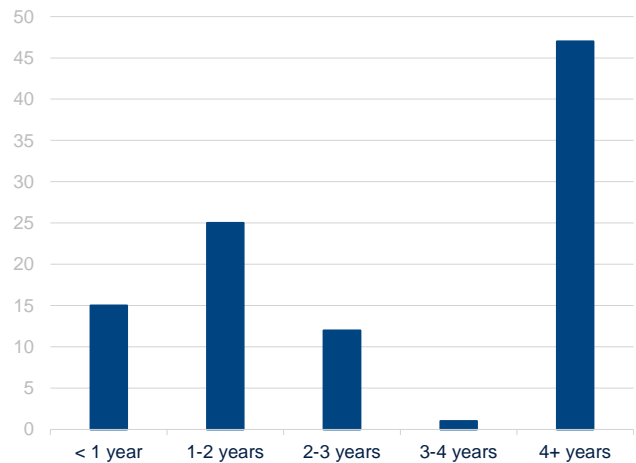
1: Dallas Fed Energy Survey (First Quarter, March 25, 2020): <https://www.dallasfed.org/research/surveys/des/2020/2001.aspx>

Figure 5. **Dallas Fed Survey – employment (%)**  
How do you expect the number of employees to change from December 2019 to December 2020?



Source: Dallas Fed

Figure 6. **Dallas Fed Survey – insolvency (%)**  
If WTI were to stay at \$40/b, how long would you expect your firm to remain solvent?



Source: Dallas Fed

During previous oil and gas downturns, firms managed to overcome the turmoil through cost reductions and productivity improvements. Critical technological advances often originated during stressed times. Also, many firms increased their leverage or took the opportunity to increase M&A activity. However, this time around, it is not clear how much private equity funding will be available or how quickly firms will be able to develop new and effective defensive strategies.

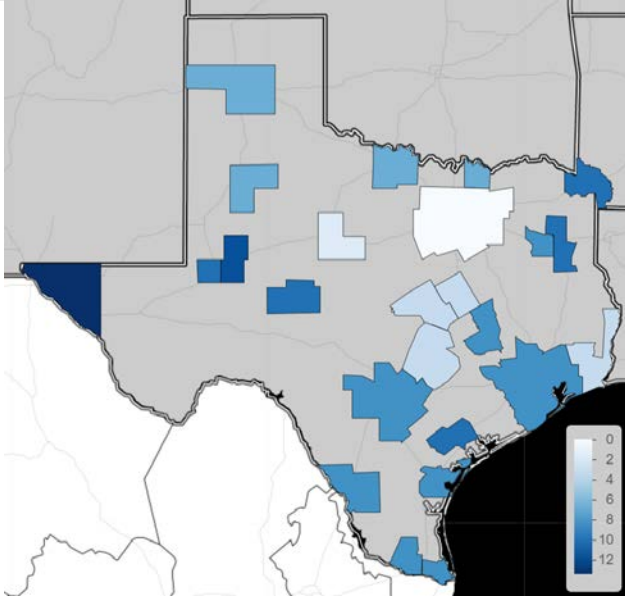
In principle, emergency responses from the Federal Reserve, the White House and Congress will help ease some of the financial pressures. However, unless all major oil producers swiftly implement significant cuts, it is uncertain how policies could effectively counter the one-two blow from the collapse in energy demand and the excess supply in the market.

## Vulnerable MSAs

The concentration of industries in large urban Texas cities is fairly diverse, save for downstream oil production in Houston, and compares to cities on both the east and west coast. However, West Texas and the border region, which are known as "oil towns," will likely feel more pressure from declining oil prices and contraction in demand. Industries that will be most affected include mining and natural resource extraction, travel, and transportation services, and leisure and hospitality. This leaves metropolitan areas around the Permian Basin as some of the most vulnerable anywhere in the country.

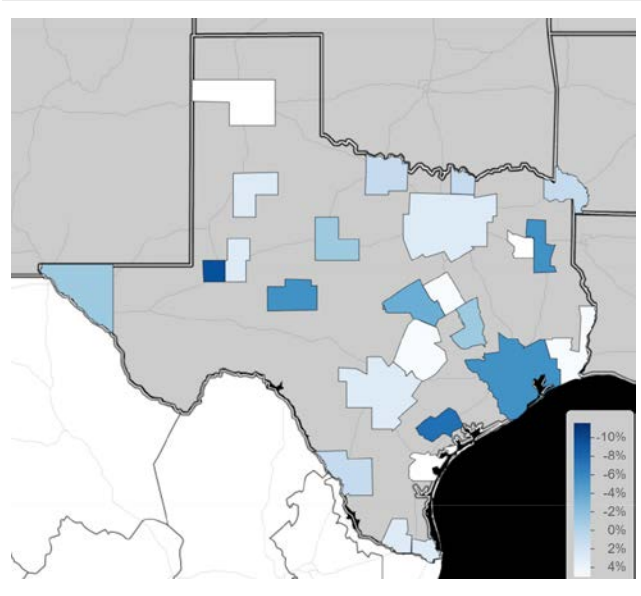
The 2015-2016 energy crisis created economic stress on Texas metropolitan areas in proportion to their exposure to mining and natural resource extraction. Odessa and Houston were hit the hardest, given their reliance on upstream and downstream activities, respectively. Regardless, few MSAs saw above-average growth in GDP in 2016, which should highlight the residual impact of oil and gas to be realized again in the current crisis.

Figure 7. **MSA vulnerability in pandemic**  
(darker: worse)



Source: BEA and BBVA Research

Figure 8. **GDP growth in 2016**  
(%)

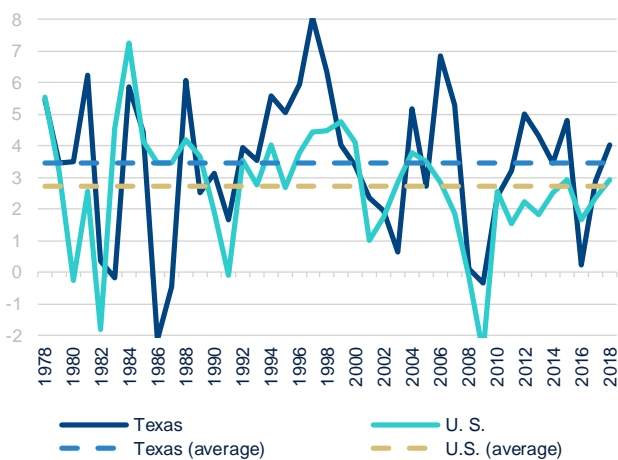


Source: BEA and BBVA Research

## Bottom Line

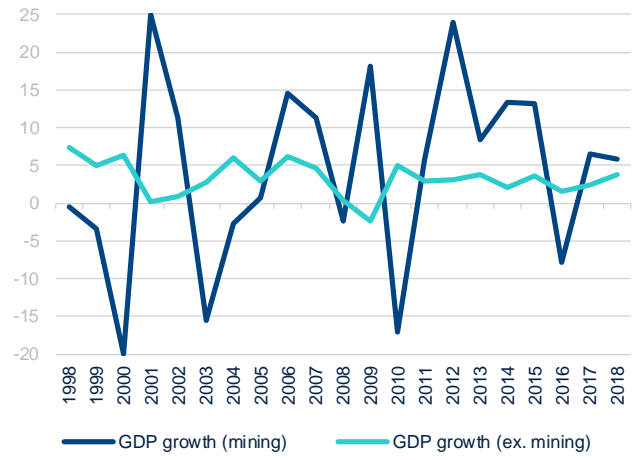
The headwinds from declining oil demand and increasing supply will delay the recovery of the Texas economy. Consequently, we expect Texas GDP to decline between -3.7% and -6.9% in 2020, that is, worse than the U.S. average. This would mark the worst recession since at least 1978.

Figure 9. **Real GDP growth**  
(%)



Source: BEA, Haver Analytics, and BBVA Research

Figure 10. **Texas economy: mining vs. non-mining**  
(%)



Source: BEA, Haver Analytics, and BBVA Research

Once the pandemic is over, and oil markets stabilize, Texas' strengths in economic and demographic fundamentals will support its recovery. The tremendous progress in structural diversification toward STEM-related and sustainable industries in the Lone Star state will also support the recovery. The current crisis may turn out to be a rare opportunity to invest in those industries and future-proof the Texas economy.

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