



TEXAS

“Overall economic activity improved as the Texas economy expanded for the third consecutive quarter.

Despite challenges in hiring, joblessness and unemployment claims declined as Gov. Greg Abbott announced **Texas will opt out of further federal unemployment benefits** related to the COVID-19 pandemic effective June 26, 2021.

As the economy heated up and oil prices climbed, **inflation accelerated** amid further supply-chain disruptions.

Containment of the pandemic is vital as additional waves of infection, mainly from the Delta variant, can weigh on consumer behavior and slow the return to pre-pandemic conditions.” - Jul 2021 - Outlook for the Texas Economy - Real Estate Research Center - TAMU

AUSTIN

“The Austin economy continued to post strong performance in May. The Austin Business-Cycle Index grew at a robust rate, led by declines in the unemployment rate and recent broad-based job gains. COVID-19 hospitalizations steadily declined after increasing briefly in late April. Existing-home sales accelerated in May, and regional consumer spending remained strong.” - Jul 2021 - Austin Economic Indicators - Dallas Fed

UNITED STATES

“Activity data over the month suggest an ongoing recovery and upward pressure on prices. Output in Q1 rose to near its year-ago level. Consumption was the biggest contributor to growth, while exports and investment spending on structures underperformed.

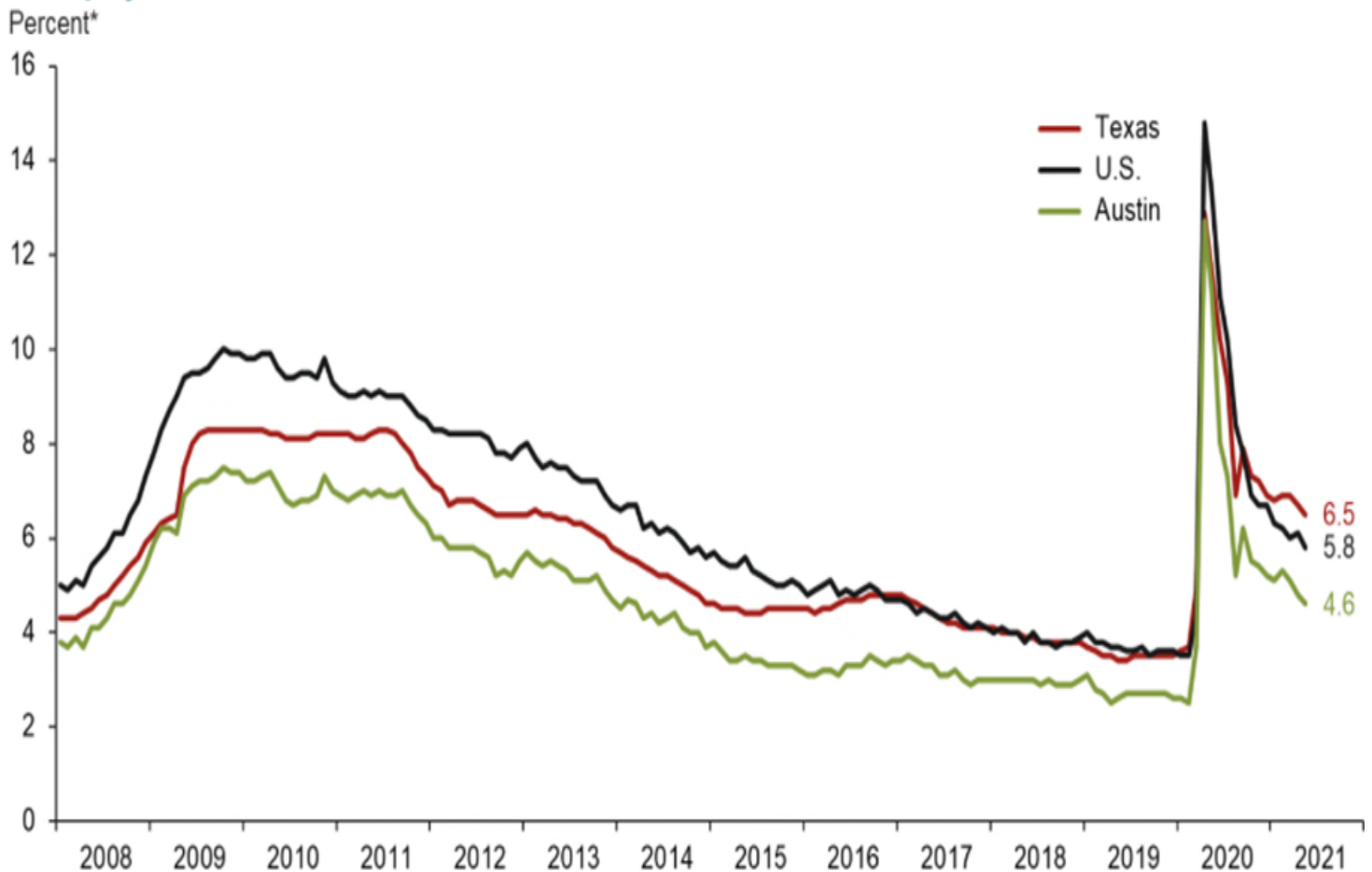
Personal income fell again in May because of a decline in government transfer payments. Compensation and proprietors' income data were strong. Saving as a percent of personal income fell from 21% in Q1 to a still elevated 13% in the first two months of Q2.

Housing starts were down in May relative to the March peak, but in line with pre-pandemic levels.” - Jul 2021 - U.S. Economy in a Snapshot - NY Fed

JOBS - UNEMPLOYMENT RATES – AUSTIN MSA, TEXAS, U.S.

“Austin’s unemployment rate declined in May to 4.6 percent, the lowest level since March 2020. This is well below the state’s jobless rate of 6.5 percent and the nation’s 5.8 percent rate.” – Jul 2021 – Austin Economic Indicators – Dallas Fed

Unemployment Rate



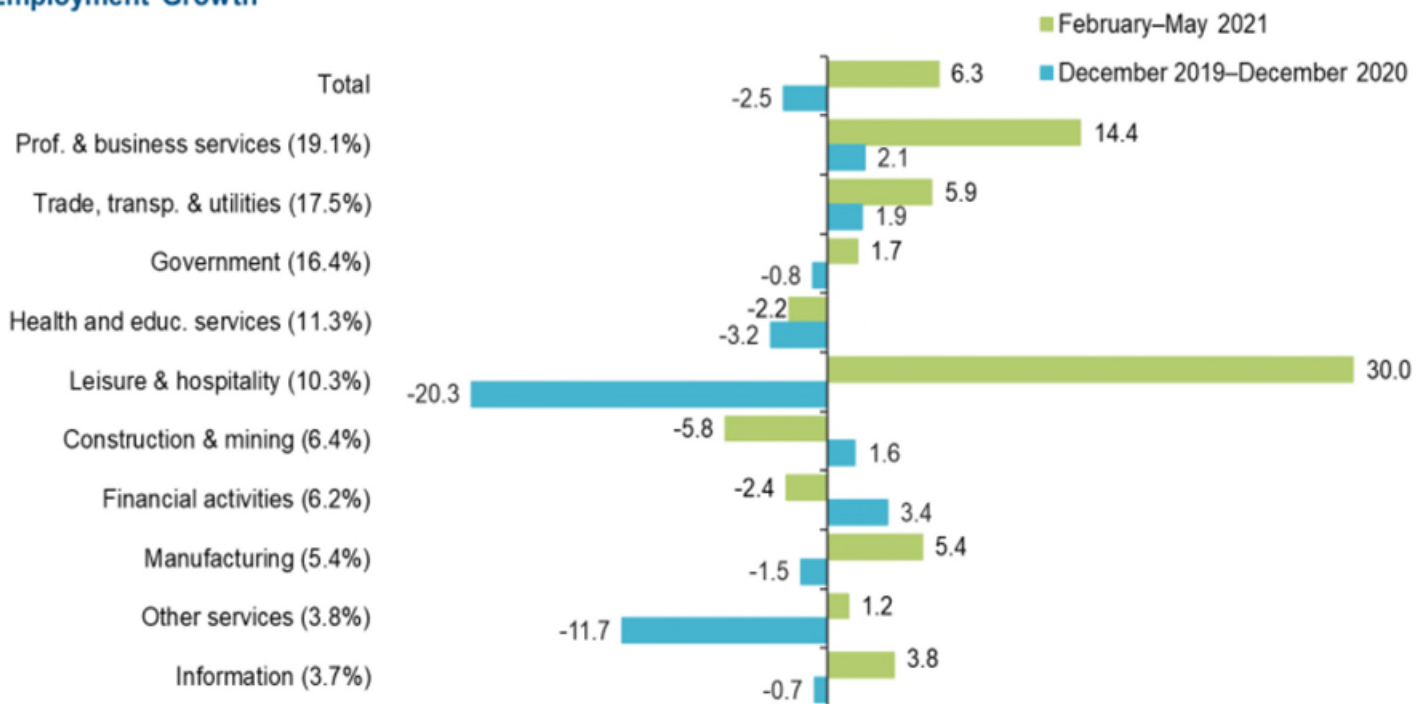
*Seasonally adjusted.
SOURCE: Bureau of Labor Statistics.

Provided by Federal Reserve of Dallas – Austin Economic Indicators – Jul 2021

JOBS – EMPLOYMENT GROWTH RATE – AUSTIN

“Austin payrolls expanded an annualized 6.3 percent, or 17,235 net jobs, in the three months ending in May. Leisure and hospitality led job growth (30.0 percent, or 7,400 jobs), followed by professional and business services (14.4 percent, or 7,140 jobs), trade, transportation and utilities (5.9 percent, or 2,840 jobs), and manufacturing (5.4 percent, or 795 jobs). Sectors that posted net job losses were construction and mining (-5.8 percent, or 1,090 jobs), financial activities (-2.4 percent, or 420 jobs), and health and private education services (-2.2 percent, or 715 jobs). As of May, 91.9 percent of the 133,211 jobs lost at the onset of the pandemic in March and April 2020 had been recovered.” – Jul 2021 – Austin Economic Indicators – Dallas Fed

Employment Growth



NOTE: Data show seasonally adjusted and annualized percentage employment growth by industry. Numbers in parentheses represent the share of total employment and may not sum to 100 due to rounding.

SOURCE: Bureau of Labor Statistics; Texas Workforce Commission; adjustments by the Dallas Fed.

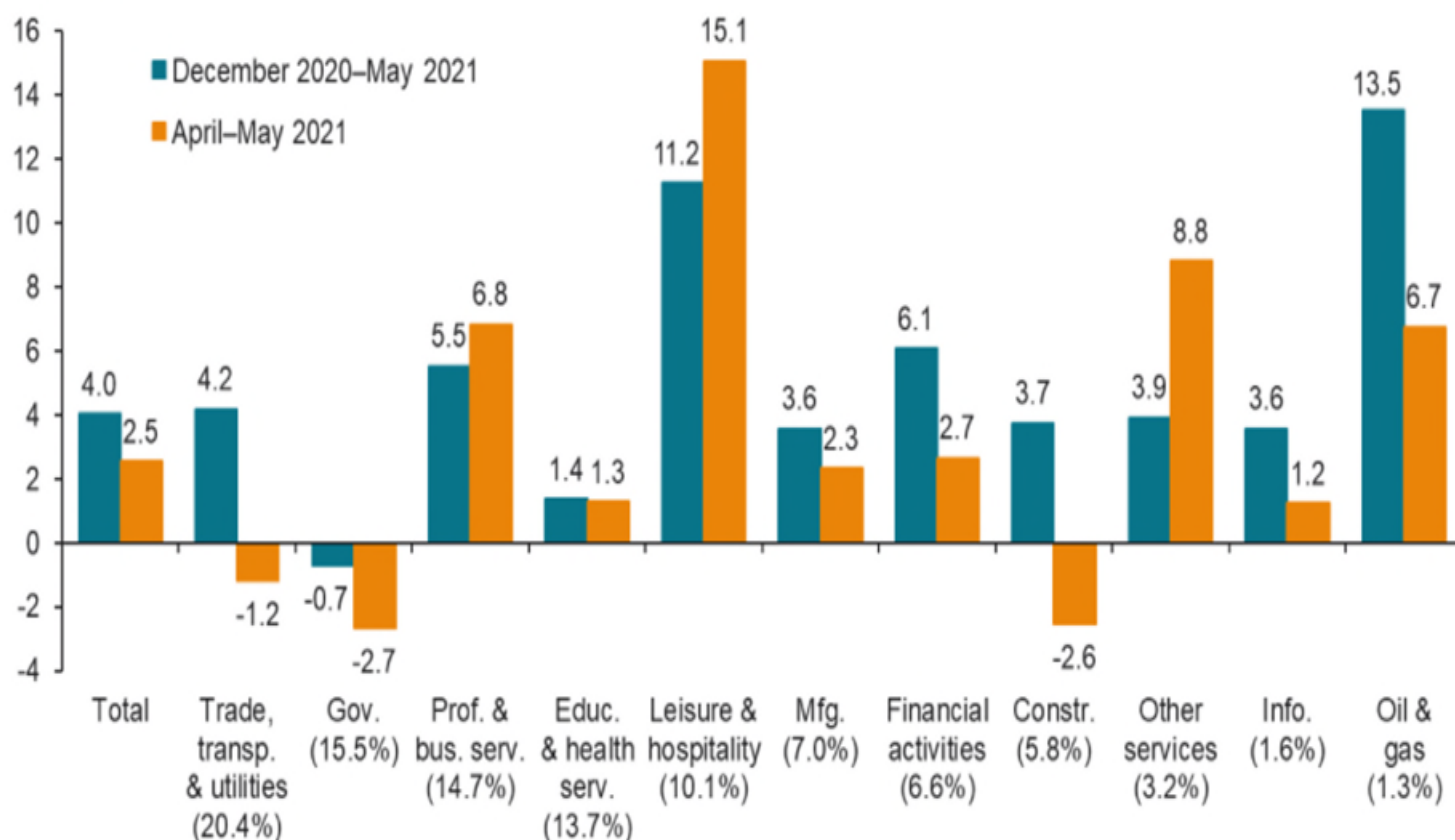
Provided by Federal Reserve of Dallas – Austin Economic Indicators – Jul 2021

JOBS – EMPLOYMENT GROWTH RATE – TEXAS

“Texas employment grew an annualized 2.5 percent in May after upwardly revised growth of 2.2 percent in April. In the first five months of 2021, employment rose 4.0 percent. **May job growth in Texas was strongest in leisure and hospitality, which grew 15.1 percent.** Growth was also robust for professional and business services, other services and the oil and gas sector. The construction sector shed jobs, though the net change so far this year remains positive. **Government payrolls also contracted in May.**” – Jun 2021 – Texas Economic Indicators – Dallas Fed

Employment by Sector

Percent change*



*Seasonally adjusted, annualized rate.

NOTE: Numbers in parentheses represent share of total employment in May 2021.

SOURCE: Bureau of Labor Statistics; Texas Workforce Commission; adjustments by the Dallas Fed.

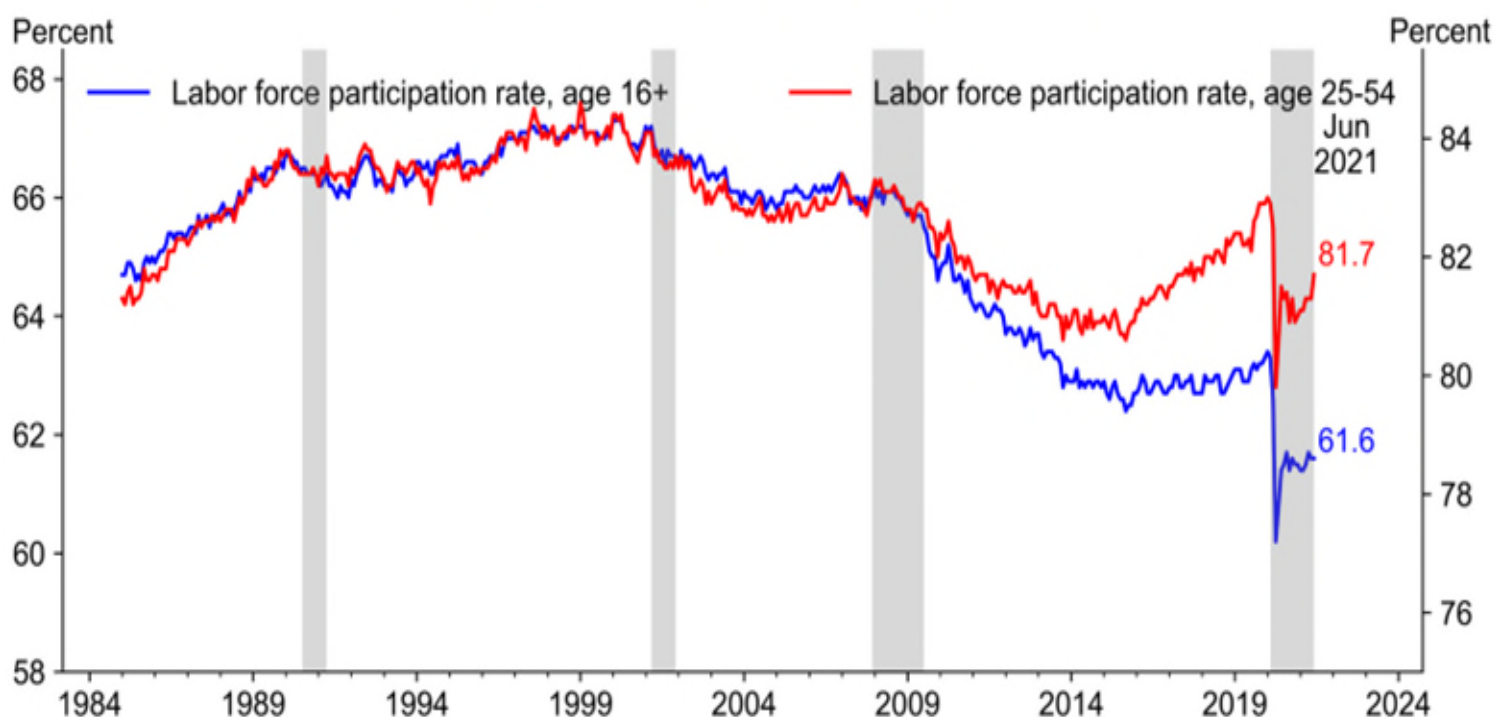
JOBS – LABOR PARTICIPATION RATE IN THE U.S.

“The labor force participation rate was unchanged at 61.6 percent in June and has remained within a narrow range of 61.4 percent to 61.7 percent since June 2020. The participation rate is 1.7 percentage points lower than in February 2020. The employment-population ratio, at 58.0 percent, was also unchanged in June but is up by 0.6 percentage point since December 2020.”

“The number of persons employed part time for economic reasons decreased by 644,000 to 4.6 million in June. This decline reflected a drop in the number of persons whose hours were cut due to slack work or business conditions.”

“In June, the number of persons not in the labor force who currently want a job was 6.4 million, little changed over the month but up by 1.4 million since February 2020. These individuals were not counted as unemployed because they were not actively looking for work during the last 4 weeks or were unavailable to take a job.” - Jul 2021 – News Release – Bureau of Labor Statistics

Labor Force Participation



SOURCES: Bureau of Labor Statistics.

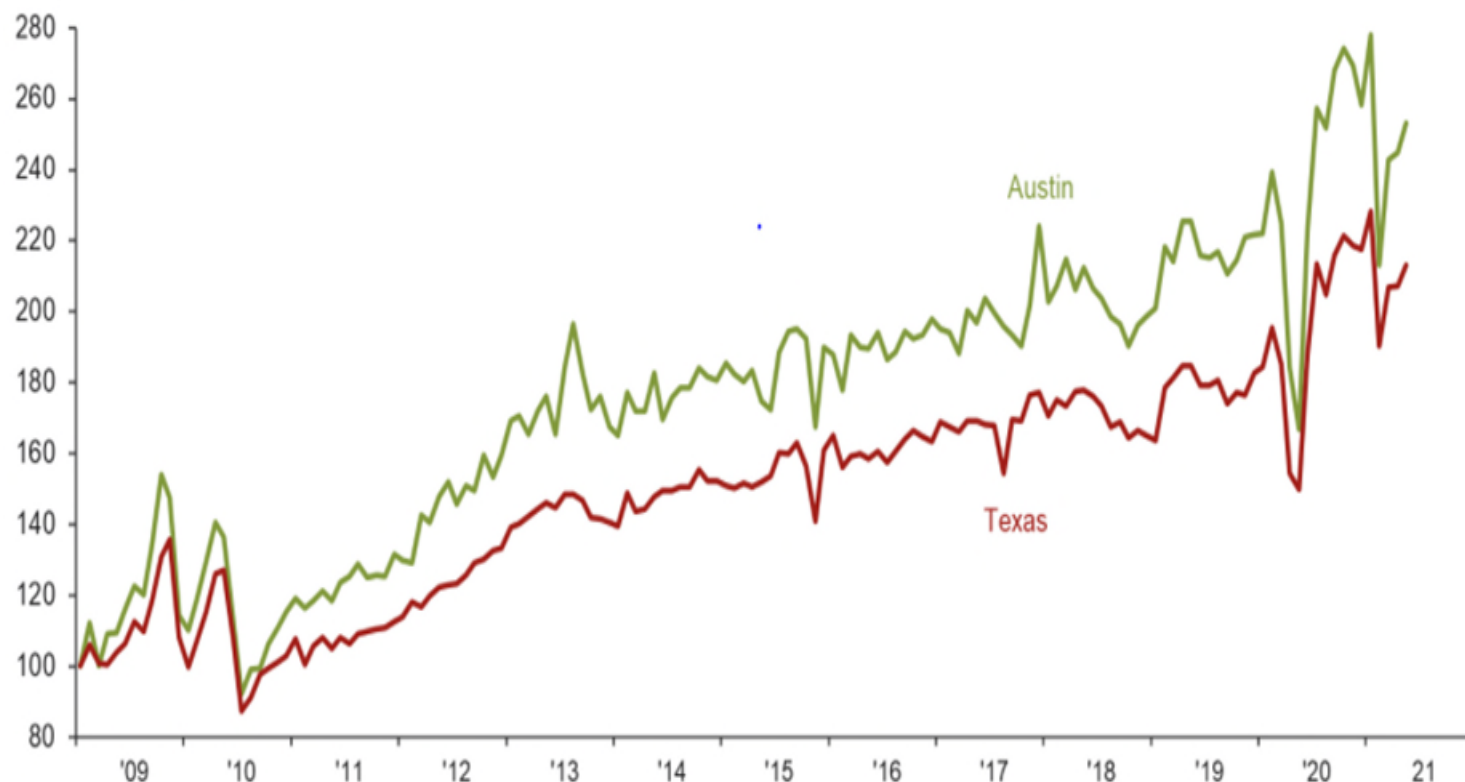
Provided by Federal Reserve of Dallas – U.S. Economy Charts – Jul 2021

HOUSING – EXISTING HOME SALES – AUSTIN MSA

“Existing-home sales in Austin grew a moderate 3.3 percent in May after expanding a mild 0.9 percent in April. That compares with a 2.9 percent increase in the state in May and 0.1 percent in April. In the first five months of 2021, metro home sales were 18.8 percent higher relative to the same period in 2020. At the state level, sales were up 20.3 percent for that period. In May, the median price of homes sold was \$447,521 in the metro, a 35.1 percent rise year over year, compared with \$293,327 in Texas, a 15.9 percent increase. The recent slowing of home sales is likely due in part to a lack of supply; in May, there was less than a half-month of inventory available at the current sales rate.” – Jul 2021 – Austin Economic Indicators – Dallas Fed

Existing-Home Sales

Index, January 2009 = 100*



*Seasonally adjusted.

NOTE: Data measure sales of residential units (single-family homes, condominiums and townhomes).

SOURCE: Multiple Listing Service; Real Estate Center at Texas A&M University; adjustments by the Dallas Fed.

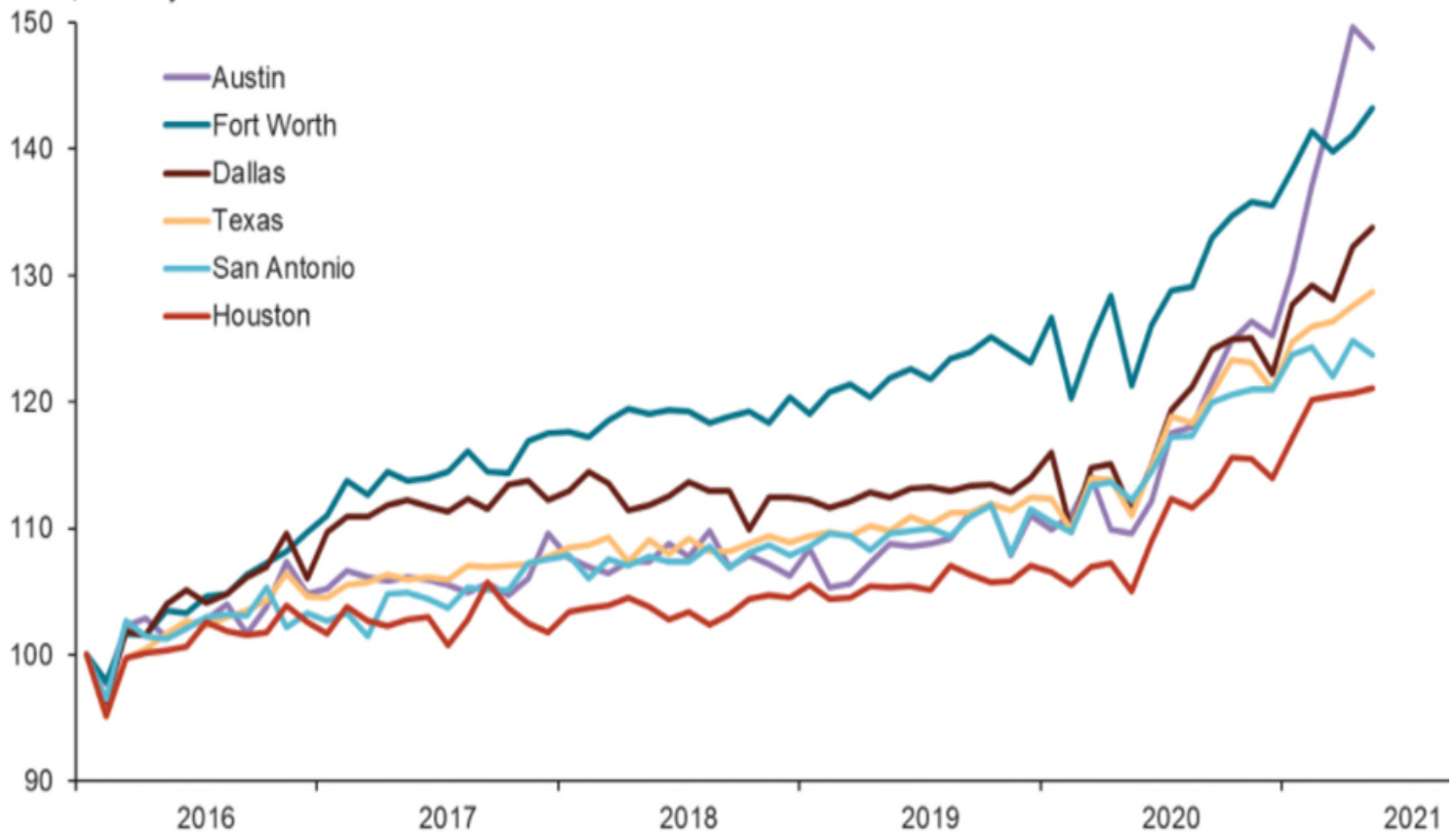
Provided by Federal Reserve of Dallas – Austin Economic Indicators – Jul 2021

HOUSING PRICES – MAJOR METROS IN TEXAS

“The median sales price of homes across the state ticked up in May for the fifth month in a row. Among the major Texas metros, sales prices grew the most in Fort Worth, increasing 1.5 percent in May. The Dallas median home price appreciated 1.1 percent. Austin saw the largest decrease in the month, slipping 1.1 percent. Despite this, year-to-date median house price growth remained strongest in Austin at 18.2 percent through May. Prices have increased so far in 2021 in all major Texas metros and are likely to continue to do so due to strong demand and tight supply.” – Jul 2021 – Texas Economic Indicators

Home Prices

Index, January 2016 = 100*



*Seasonally adjusted, real dollars.

SOURCE: Real Estate Center at Texas A&M University; Multiple Listing Service.

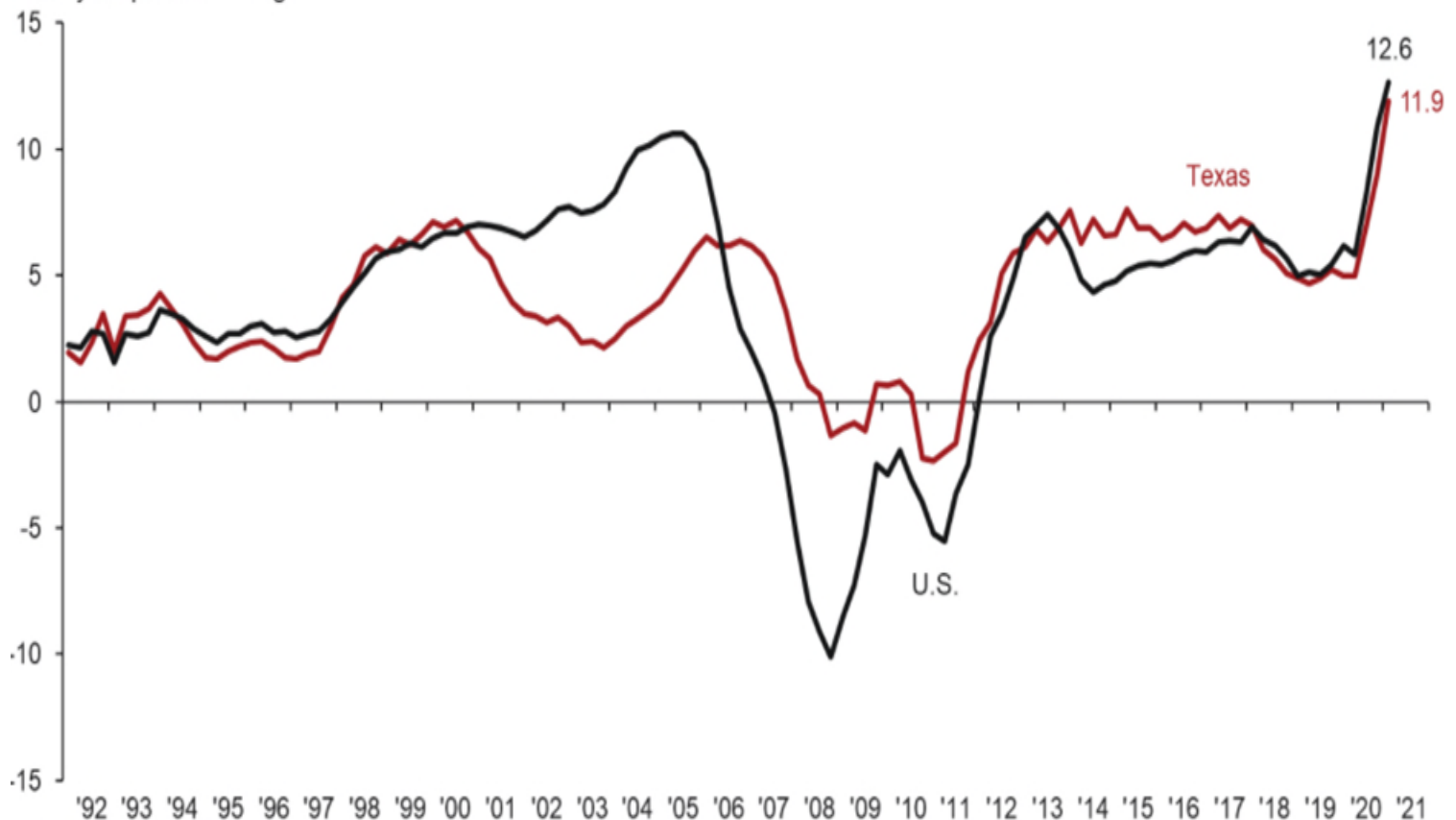
Provided by Federal Reserve of Dallas – Texas Economic Indicators – Jul 2021

HOUSING PRICES – TEXAS and U.S.

“In first quarter 2021, annual home price growth in Texas picked up even further from 2020’s year-end highs. According to the Federal Housing Finance Agency, which produces a repeat sales index that takes into account the size and location of the homes, **Texas home prices are growing at a faster rate than they were in the midst of the 2006 housing bubble. This holds true for the nation as well.** In fact, annual growth in the state and the nation is at its highest level since both series began in 1991. **This rapid rise in prices is due to robust demand and tight inventories, which may continue to drive prices higher through year-end.**” – Jun 2021 – Texas Economic Indicators

Home Prices

Year/year percent change*



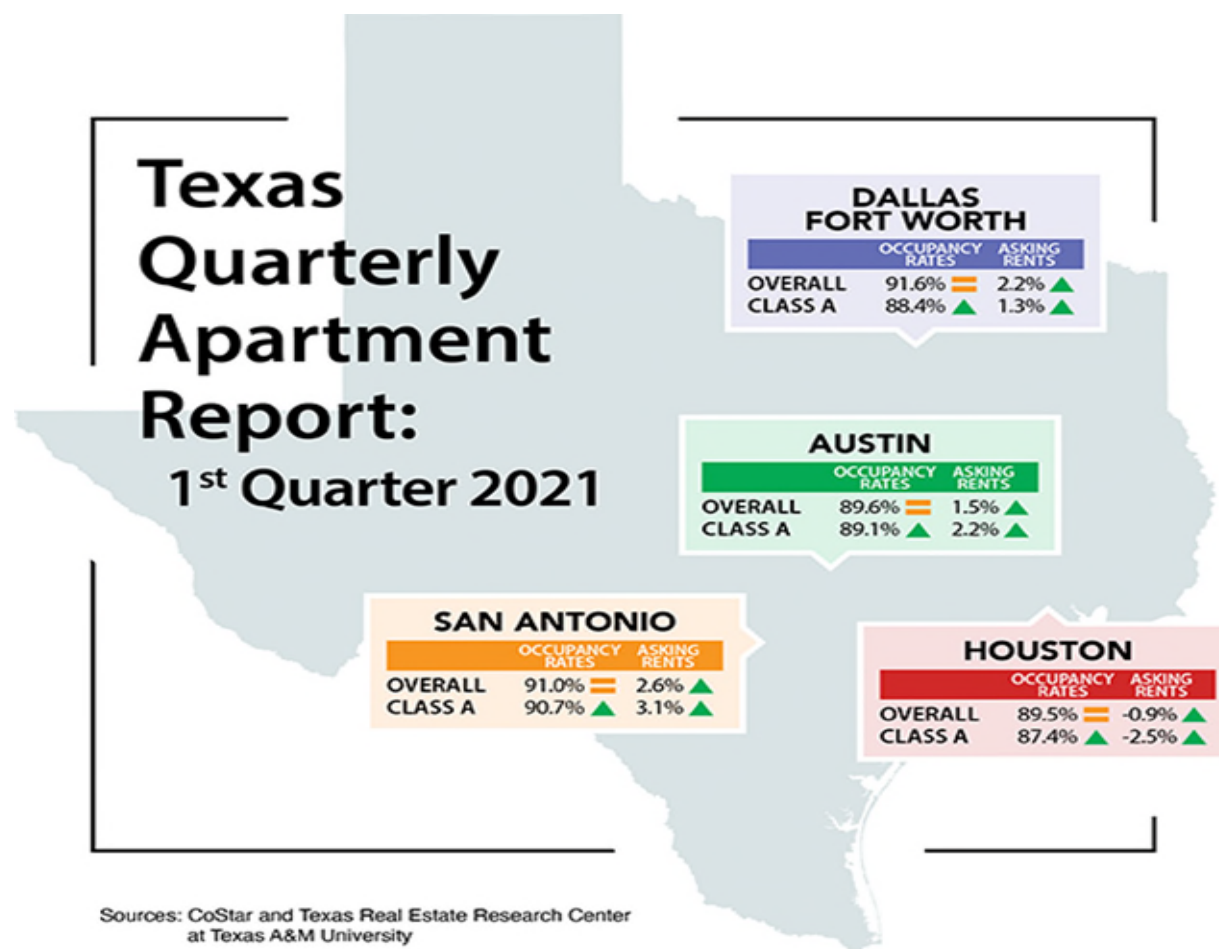
*Seasonally adjusted.

SOURCE: Federal Housing Finance Agency.

Provided by Federal Reserve of Dallas – Texas Economic Indicators – Jun 2021

TEXAS QUARTERLY APARTMENT REPORT

The graph below was included in the Texas Quarterly Apartment Report prepared by the Texas Real Estate Research Center in June 2021.



“Once the pressures from the pandemic are lifted, the multifamily market is positioned to do well because of constrained single-family supply and prices rapidly outpacing incomes, especially in high-growth Texas markets like Austin and DFW.” – Texas Quarterly Apartment Report

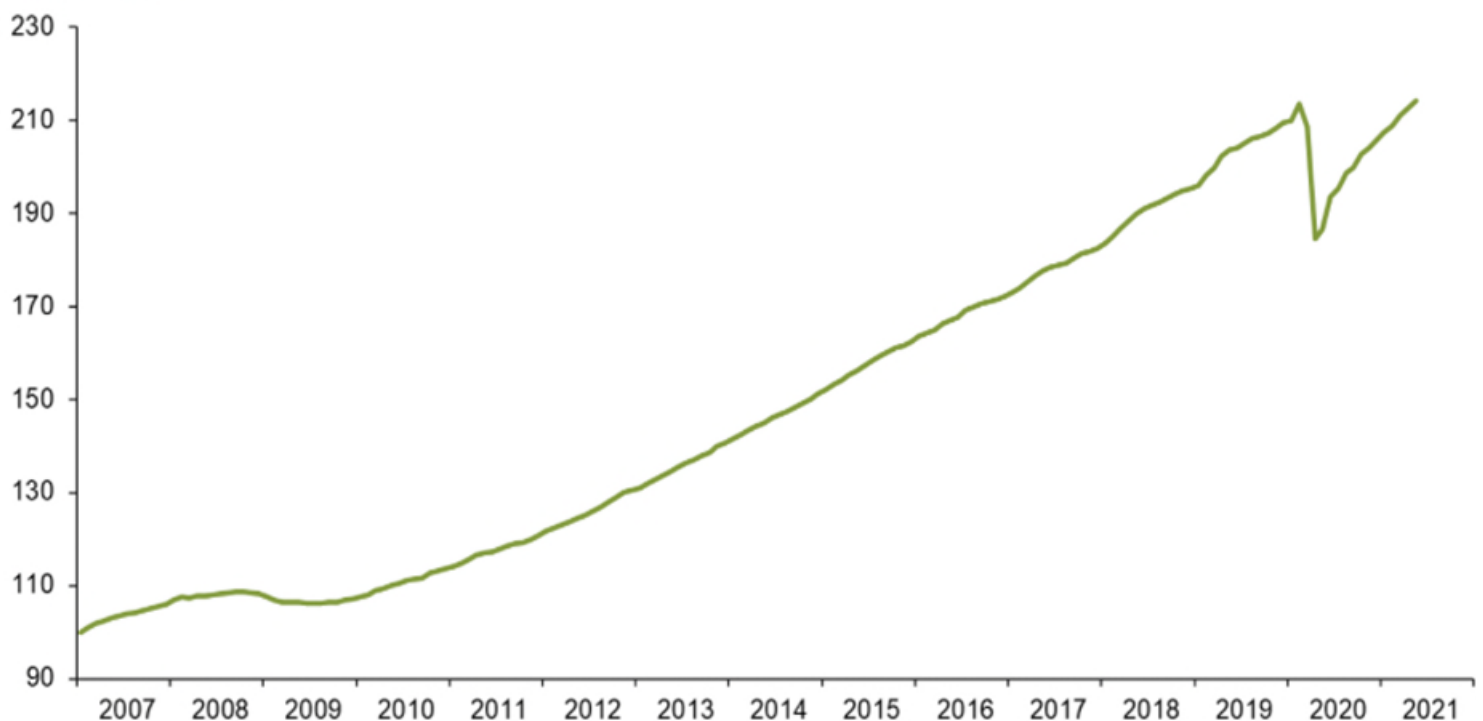
Class A properties represent highest quality apartments. “They are usually less than 10 years old and are often new, upscale apartment buildings. Average rents are high, and they are generally located in desirable geographic areas.” – multifamilypro.com

BUSINESS CYCLE INDEX – AUSTIN MSA

“The Austin Business-Cycle Index—a broad measure of economic activity—expanded an annualized 8.0 percent in May after growing 10.3 percent in April. Recent strength in the economy can be attributed to job gains and unemployment rate declines. May marked the 13th consecutive month of growth in the index and its first reading that surpassed the February 2020 peak, which suggests continued strength in the Austin economy.” – Jul 2021 – Austin Economic Indicators – Dallas Fed

Austin Business-Cycle Index

Index, January 2007 = 100



SOURCE: Dallas Fed.

Provided by Federal Reserve of Dallas – Austin Economic Indicators – Jul 2021

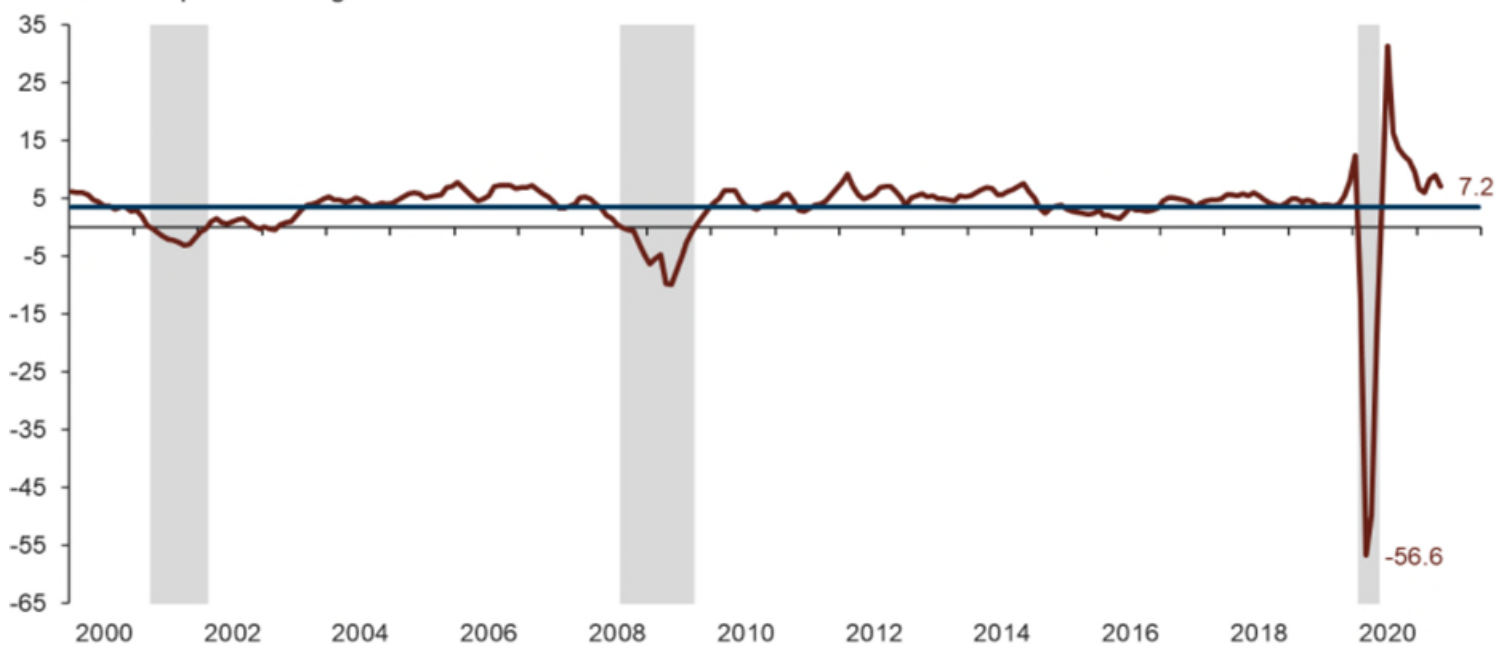
Business Cycle Indexes are meant to reflect broad movements in local economic conditions. The Dallas Fed states that “the [local area] indexes are constructed based on the aggregated movements in the local area unemployment rate, nonagricultural employment, inflation-adjusted wages, and inflation-adjusted retail sales. The weights of the components are statistically optimized for each metropolitan area in order to best capture the underlying cyclical movements in the local area economy.”

BUSINESS CYCLE INDEX – TEXAS

“The Texas Business-Cycle Index, a composite of the unemployment rate, state payroll employment and gross state product, measures underlying economic activity in the state. **In May, the index climbed an annualized 7.2 percent from April.** This is the 12th month the statewide index has shown growth. So far in 2021, the business-cycle index has climbed an annualized 7.5 percent, boosted by strong growth in the last three months. **Despite the continued recovery, the May 2021 index reading remains 3.6 percent below prepandemic levels in February 2020.**” – Jun 2021 – Texas Economic Indicators – Dallas Fed

Texas Business-Cycle Index

Month/month percent change*



*Annualized rate.

NOTES: The horizontal line is the average from January 2000 to December 2019. Gray bars indicate Texas recessions.

SOURCE: Dallas Fed.

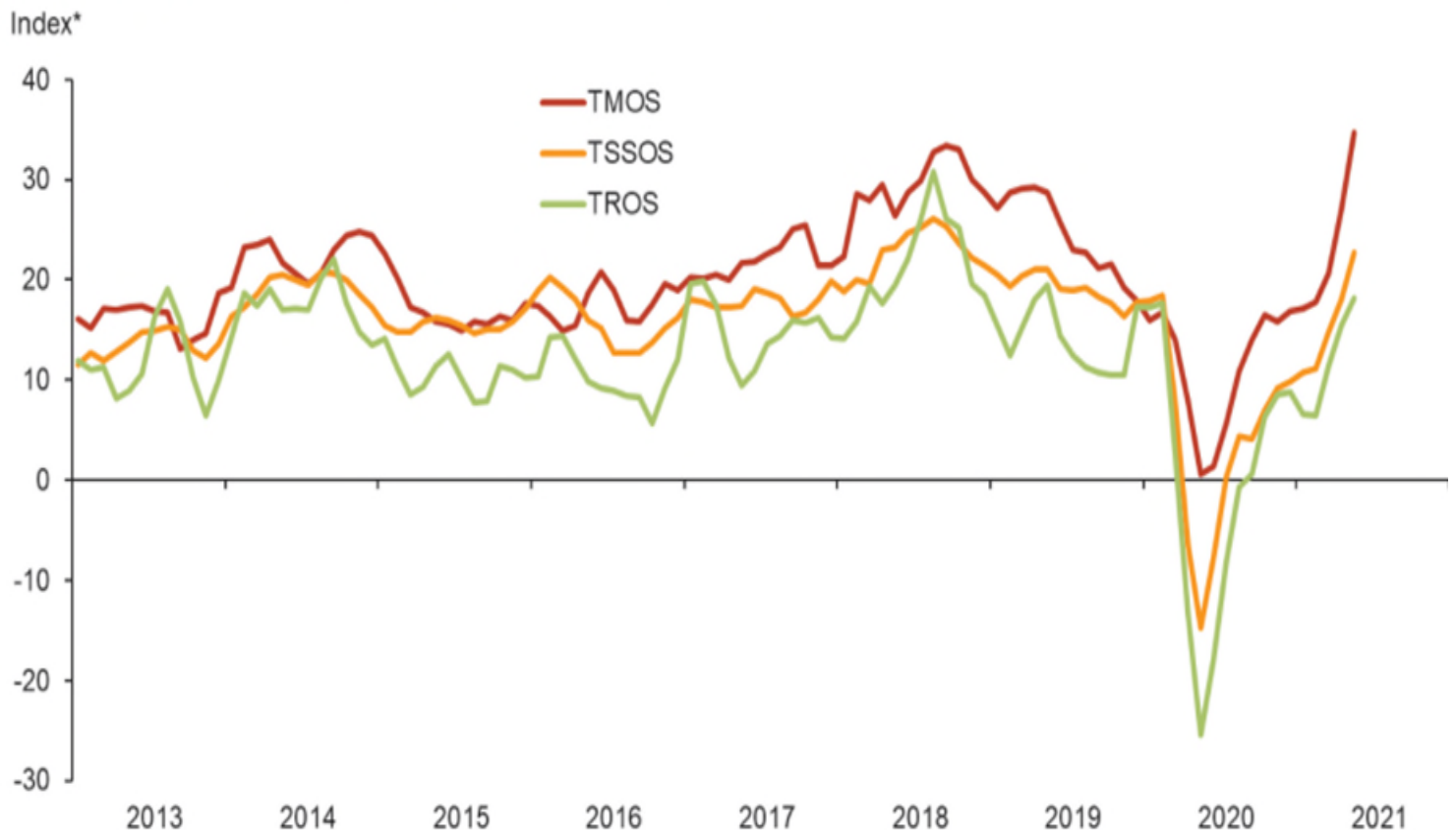
Provided by Federal Reserve of Dallas – Texas Economic Indicators – Jun 2021

Business Cycle Indexes are meant to reflect broad movements in local economic conditions. The Dallas Fed states that “the [local area] indexes are constructed based on the aggregated movements in the local area unemployment rate, nonagricultural employment, inflation-adjusted wages, and inflation-adjusted retail sales. The weights of the components are statistically optimized for each metropolitan area in order to best capture the underlying cyclical movements in the local area economy.”

TEXAS BUSINESS OUTLOOK SURVEY WAGES AND BENEFITS – TEXAS

“In May, an elevated number of respondents to the **Texas Business Outlook Surveys** **reported increasing wages**. Service sector and retail businesses reported healthy growth for the eighth month in a row. **The manufacturing index hit its highest reading since the series began in late 2004, signaling record growth in wages across manufacturing firms**. The strong growth in wages holds true for other Federal Reserve districts that conduct similar surveys, indicating that the current wage expansion is not unique to Texas.” – Jun 2021 – Texas Economic Indicators – Dallas Fed

Texas Business Outlook Survey Wages and Benefits Indexes



*Seasonally adjusted, three-month moving average.

NOTE: TMOS is the Texas Manufacturing Outlook Survey; TSSOS is the Texas Service Sector Outlook Survey; TROS is the Texas Retail Outlook Survey

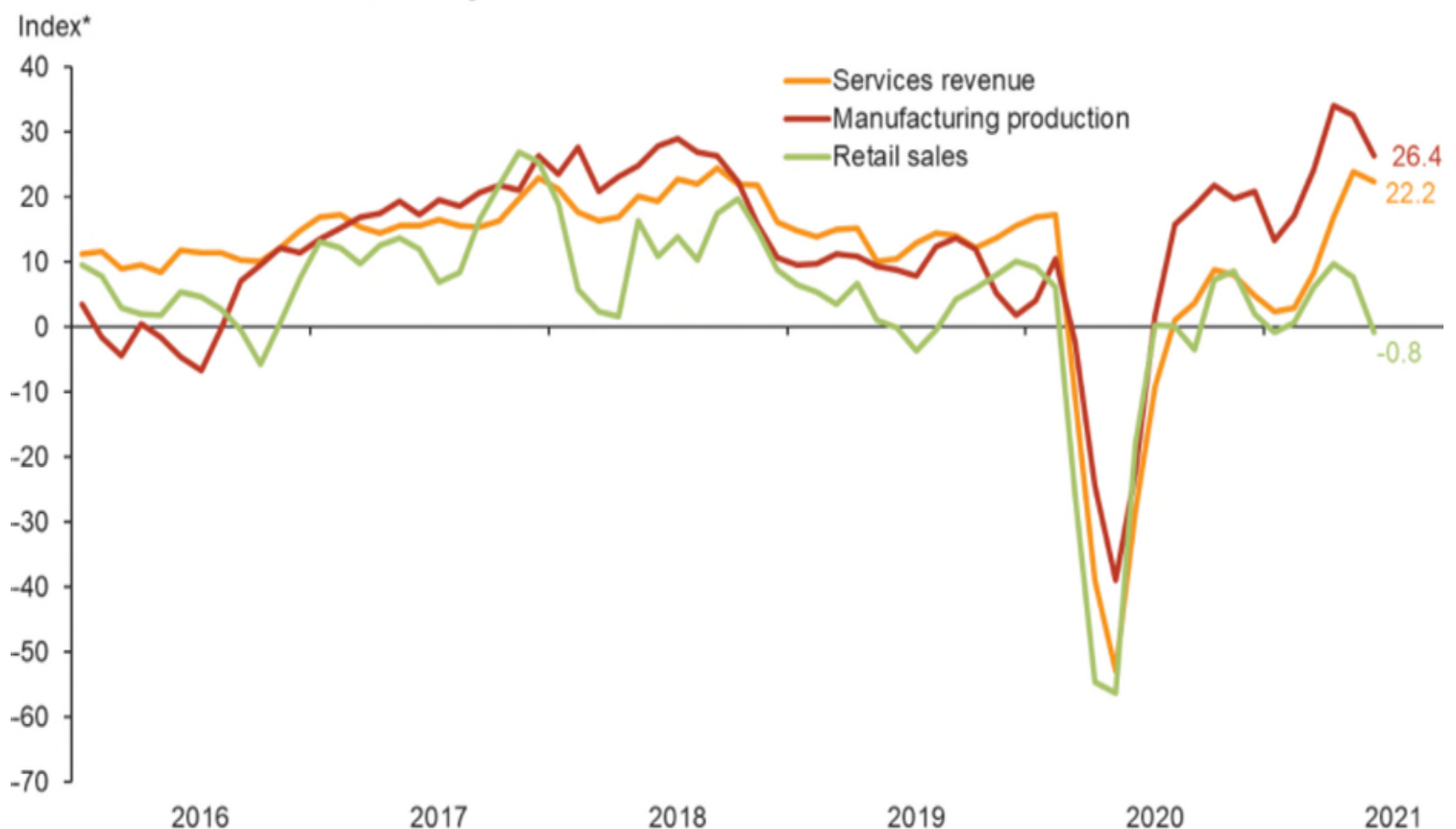
SOURCE: Dallas Fed.

Provided by Federal Reserve of Dallas – Texas Economic Indicators – Jun 2021

TEXAS BUSINESS OUTLOOK SURVEY HEADLINE INDEXES – TEXAS

“In June, the Texas Business Outlook Surveys headline indexes’ three-month moving average fell across all surveys. The smoothed retail index fell below zero for the first time since January 2021, indicating that on average **more retail respondents in the second quarter reported contraction in sales than reported growth. Manufacturing and service-sector contacts continued to report net growth in production and revenue, respectively, though the level of the indexes has come down from the multiyear highs reached earlier this year. The three-month moving average of the future headline indexes for all three surveys—which sheds light on how businesses expect production or revenue to change six months in the future—remained strong in June. This indicates continued optimism for growth among businesses across the state.”**– Jul 2021 – Texas Economic Indicators – Dallas Fed

Texas Business Outlook Surveys Headline Indexes



*Seasonally adjusted, three-month moving average.

SOURCE: Dallas Fed's Texas Manufacturing Outlook Survey, Texas Service Sector Outlook Survey and Texas Retail Outlook Survey.

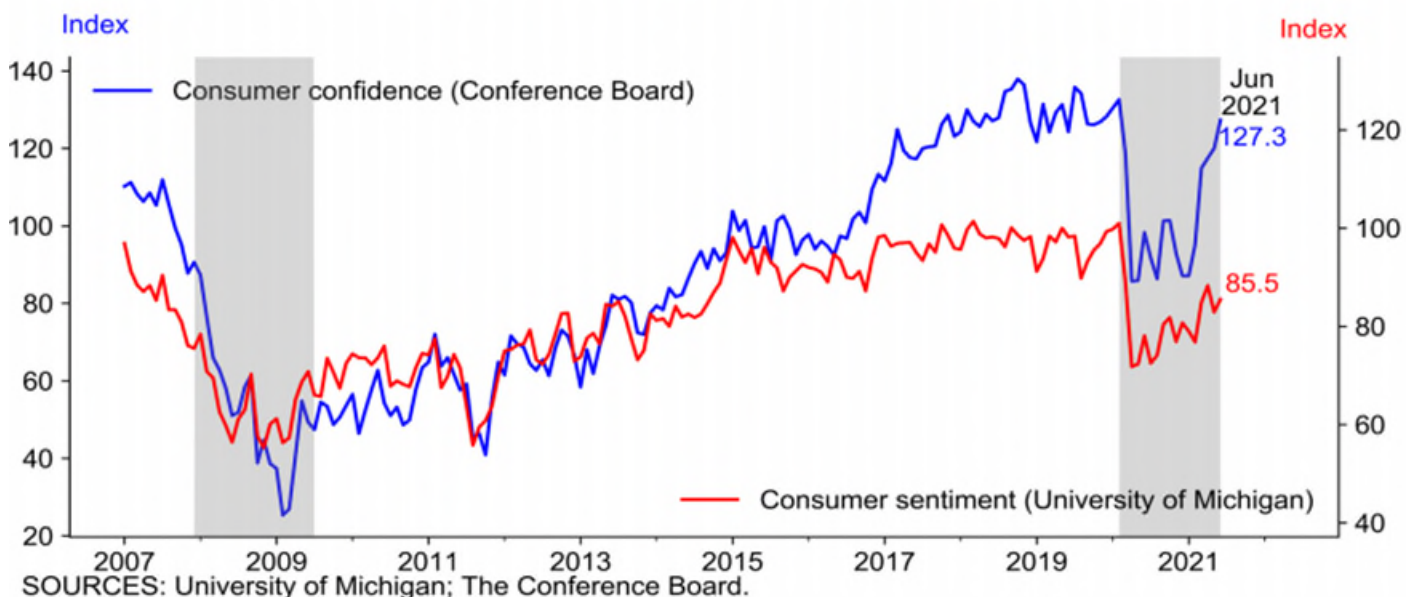
Provided by Federal Reserve of Dallas – Texas Economic Indicators – Jul 2021

CONSUMER CONFIDENCE AND SENTIMENT – U.S.

“Consumer confidence increased in June and is currently at its highest level since the onset of the pandemic’s first surge in March 2020,” said Lynn Franco, Senior Director of Economic Indicators at The Conference Board. “Consumers’ assessment of current conditions improved again, suggesting economic growth has strengthened further in Q2. Consumers’ short-term optimism rebounded, buoyed by expectations that business conditions and their own financial prospects will continue improving in the months ahead. While short-term inflation expectations increased, this had little impact on consumers’ confidence or purchasing intentions.” - June 29, 2021 – The Confidence Board

Surveys of Consumers, Chief economist, Richard Curtin, commented “Although consumer sentiment slipped in late June, it still remained 3.1% above the May reading, and the second highest since the start of the pandemic. All of the June gain was among households with incomes above \$100,000, and mainly in the way they judged future economic prospects. Consumers continued to pay close attention to three critical factors: inflation, unemployment, and interest rates. **Declines in unemployment rate in the year ahead were expected by 56% of consumers, the largest proportion ever recorded in the history of the surveys.**”

Consumer Confidence



Provided by Federal Reserve of Dallas – U.S. Economy Charts– Jul 2021

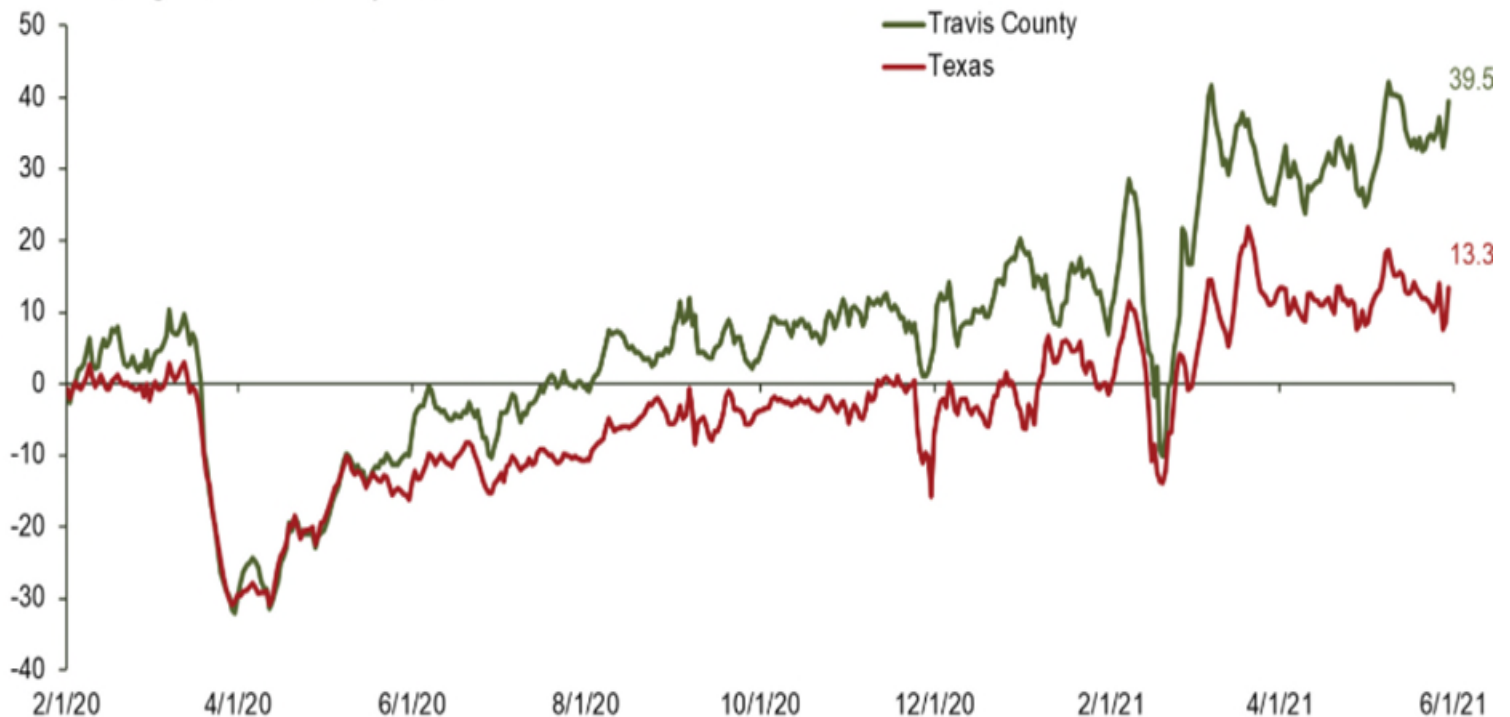
U.S. consumer **confidence** index (CCI) is defined as “**the degree of optimism on the [current] state of the economy** that consumers are expressing through their activities of savings and spending.” – Wikipedia U.S. consumer **sentiment** is defined as “**the indicator of the future course of the national economy.**” – Investopedia

CREDIT AND DEBIT CARD SPENDING – TRAVIS COUNTY AND TEXAS

“Consumer spending in Austin has been strong in recent months. **In the metro’s most-populous county, Travis, credit and debit card spending has surpassed January 2020 levels since last July, except for a dip in late November 2020 and during Winter Storm Uri in mid-February.** As of May 30, 2021, spending in the county was up a strong 39.5 percent relative to January 2020, while spending in Texas was up 13.3 percent.” – Jul 2021 – Austin Economic Indicators – Dallas Fed

Credit and Debit Card Spending

Percent change relative to January 2020



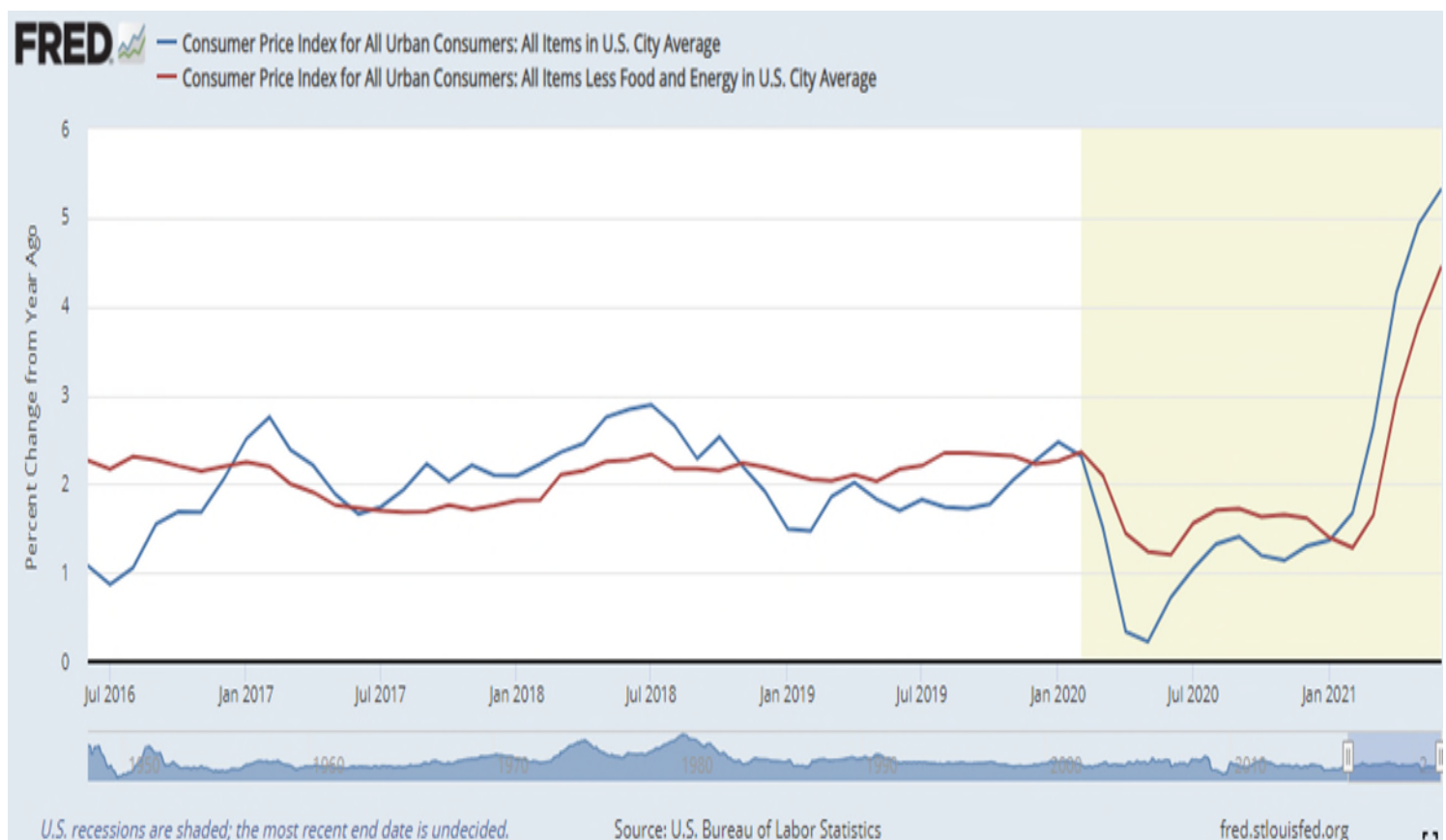
NOTE: Data are daily through May 30, 2021. Travis County includes Austin.
SOURCE: Affinity Solutions.

Provided by Federal Reserve of Dallas – Austin Economic Indicators – Jul 2021

CONSUMER PRICE INDEX

“The all items index rose 5.4 percent for the 12 months ending June; it has been trending up every month since January, when the 12-month change was 1.4 percent. The index for all items less food and energy rose 4.5 percent over the last 12-months, the largest 12-month increase since the period ending November 1991. The energy index rose 24.5 percent over the last 12-months, and the food index increased 2.4 percent.” – Jul 2021 – Economic News Release - Bureau of Labor Statistics

Consumer Price Index - 12 Month Percentage Change



Source: Bureau of Labor Statistics, not seasonally adjusted, 1982-84=100 Provided by the St. Louis Fed

According to the Bureau of Labor Statistics (BLS), “There are a variety of CPI numbers generated each month. In the graph above, two numbers are compared. The first is the **Official CPI Number** that is reported to the media. It is the broadest and most comprehensive CPI and is called the **All Items CPI for All Urban Consumers**. The second one is called the **All items less food and energy**.” The BLS mentions that “Some users of CPI data use this index because food and energy prices are relatively volatile, and these users want to focus on what they perceive to be the ‘core’ or ‘underlying’ rate of inflation.”

OIL AND NATURAL GAS

“The price of oil has climbed steadily in recent months, as the rig count has continued to creep up. Oil prices dipped in March and April but have since more than recovered that loss. As of the week ending June 18, oil prices were over \$70 per barrel, their highest price since October 2018.

According to results from the Dallas Fed Energy Survey, the breakeven price needed to profitably drill new wells is \$52. Oil prices have been above \$52 since mid-January 2021, so it is not surprising to see increases in the rig count. While the number of active rigs in Texas remains 45.8 percent below prepandemic levels, it has more than doubled from its trough last August. Additionally, as rigs become more efficient, fewer are needed to drill wells, so a long-term decline in active rigs is expected.” – Jun 2021 – Texas Economic Indicators – Dallas Fed

Energy Activity



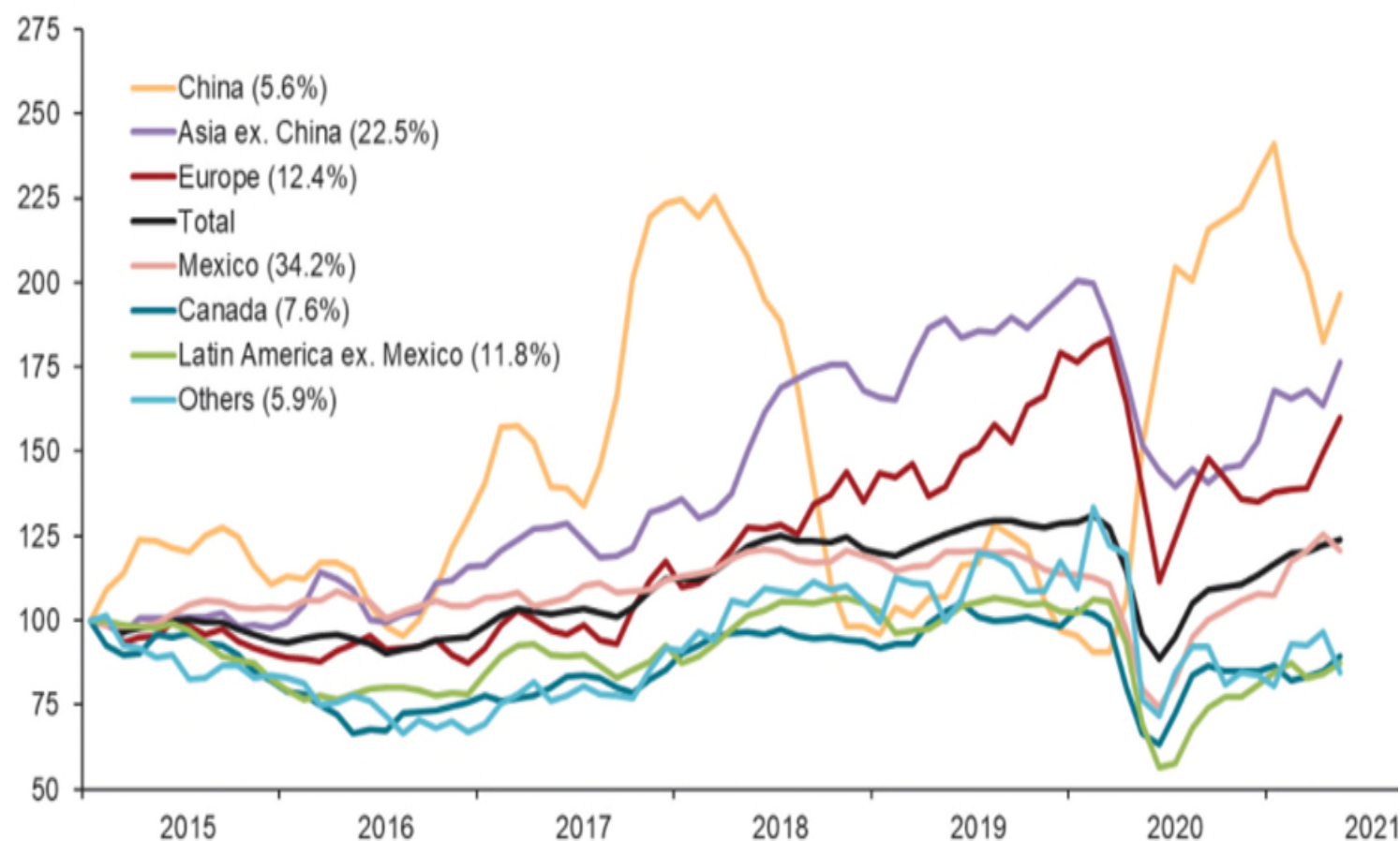
NOTE: Data are through the week ending Jun. 18, 2021. The oil price is for West Texas Intermediate crude.
SOURCE: Baker Hughes; Energy Information Administration.

TEXAS EXPORTS

“The three-month moving average of Texas exports ticked up in May for the 11th month in a row. This **growth was led by upswings in exports to China and the rest of Asia, which climbed 7.6 and 7.8 percent, respectively.** Texas exports to Europe also grew strongly, increasing 6.7 percent from April to May. Exports to Mexico fell in the month, while exports to the rest of Latin America and Canada saw healthy growth. The rest of the world saw a contraction in exports from Texas.” – Jul 2021 – Texas Economic Indicators – Dallas Fed

Texas Exports by Region

Index, 2015 = 100*



*Three-month moving average, real dollars, seasonally adjusted.

NOTE: Numbers in parentheses refer to share of May 2021 Texas exports.

SOURCE: Census Bureau; Bureau of Labor Statistics.

Provided by Federal Reserve of Dallas – Texas Economic Indicators – Jul 2021

U.S. EQUITY MARKET INDEX AND VOLATILITY

“U.S. equity prices increased over the month. **The S&P 500 index was up 15% year-to-date on July 2.**

Option-implied stock market volatility, as measured by the [Chicago Board Options Exchange] CBOE Volatility Index (VIX Index), fell. The VIX Index closed at 15.07 on July 2, comfortably below its median value of 17.54 over the period from 1990 to the present. **The VIX Index is now at its lowest level since the onset of the pandemic.**” – Jul 2021 – Federal Reserve Bank of New York

U.S. Equity Market Index and Volatility



Source: Bloomberg Finance L.P.

Provided by Federal Reserve Bank of New York – Jul 2021

IN-DEPTH – VEHICLE SHORTAGE

“If you’ve been in the market for a vehicle this year, chances are you haven’t been able to find what you want. And if you did, you paid a lot more for it. Fueled by post-COVID consumer optimism, pent-up demand and stimulus money, these past few months have seen **a frenzy of demand for both new and used vehicles as consumers flocked to auto dealerships, driving prices to all-time highs.**” – Jun 2021 – spectrumnews1



New Subaru cars sit in half empty storage lot in Richmond, California. New cars are becoming hard to find and the prices have surged as dealerships are having trouble with inventory due to the global chip shortage and global supply chain issues brought on by COVID-19-related complications. (Photo by Justin Sullivan/Getty Images) Provided by Forbes

IN-DEPTH – VEHICLE SHORTAGE

VEHICLE DEMAND IS INCREASING FOR A NUMBER OF FACTORS

MORE CASH ON HAND

“Many workers lost jobs and faced economic setbacks during the last year. But those who kept their jobs may have more available cash than normal. By some estimates, Americans have an extra \$2.4 trillion in savings compared with a year ago. Spending on activities like vacations and dining out was way down, as was the cost of commuting. Record high stock market values often feed into strong auto sales as well, as the wealth effect leads consumers to put aside less money for long-term savings. And then there were the **various stimulus payments from the government, which totaled thousands of dollars for many households.**”

LOW INTEREST RATES

“**Low interest rates are allowing many buyers to spend less on car payments than they would have otherwise.** And the boom in home refinancing in the last year reduced mortgage payments for millions, sometimes by enough to fit a car payment into the budget where it might not have before.”



File AP Photo/Matt Rourke, – Provided by mynbc15

RETURN TO WORK

“As offices reopen, workers who’d been staying home are **beginning to resume their commutes**, further fueling demand for cars. Employers added 559,000 jobs in May, but that’s only part of the story. Other employers are notifying workers that offices that have been closed since last year will be reopening in the coming months. Many who delayed new car purchases because of job uncertainty or the lack of a commute are now looking to buy.” – Jun 2021 - CNN

IN-DEPTH – VEHICLE SHORTAGE

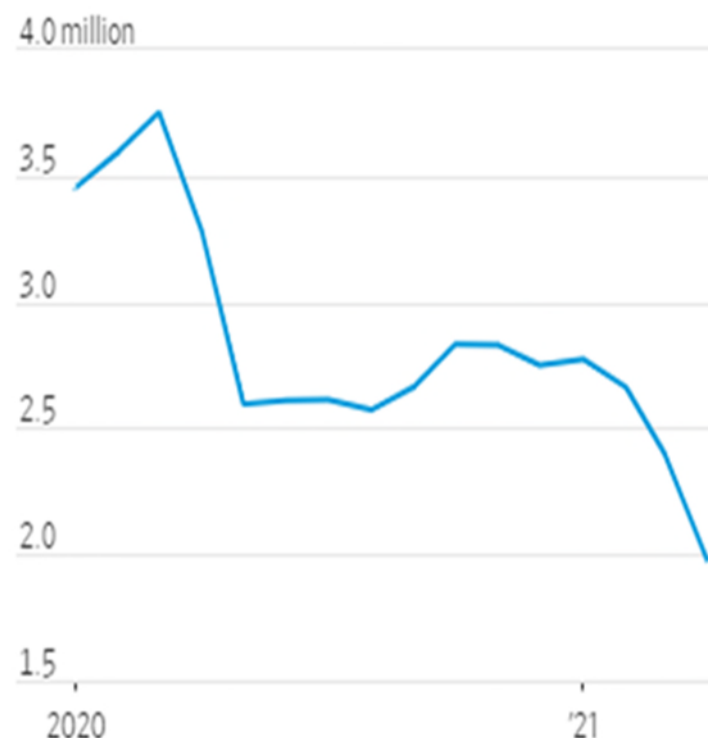
NEW VEHICLE INVENTORY IS LOW

“But resurgent demand is coming at a time when auto plants around the globe are closed or running at reduced production because of a computer chip shortage. New car production in North America was down about 3.4 million vehicles in the first three months of this year, according to Cox Automotive. And most automakers reported that the second quarter production was down even more than the first quarter.” – Jun 2021 - CNN

“Dealers had fewer than 2 million vehicles on the ground or en route to stores at the end of April, roughly half the normal number and the lowest level in more than three decades, according to research firm Wards Intelligence.” – May 2021 – WSJ

“The market mismatch is driving up prices, and many buyers expecting to drive new cars off the lot have to wait weeks or months for their vehicles to arrive. Some showroom models sell for thousands of dollars over the sticker price.

Vehicles available for sale



Source: Wards Intelligence

Running on Empty - New vehicle inventories have been nearly halved over the past 13 months. Vehicles available for sale Source: Wards Intelligence Provided by WSJ

‘We may just be in the greatest new-car market of our existence,’ Philadelphia-area car dealer David Kelleher said, ‘and we’re doing it with no cars.’” – May 2021 – WSJ

IN-DEPTH – VEHICLE SHORTAGE

AUTOMOBILE COMPUTER CHIP SHORTAGE

“In mid-2020 the automotive industry (logically) assumed that consumers would buy fewer cars during a global pandemic. As a result, automotive companies reduced their orders for chips with their contract chip manufacturers (“foundries”). In turn, these foundries, which now had unexpected capacity they needed to fill, sought new business and orders to fill their factories’ excess capacity. They re-tooled their automotive chip factory lines so they could take orders from consumer electronics chipmakers like Nvidia, which makes the graphics processing unit (GPU) chips found in the sorts of video game systems that saw a tremendous spike in demand while everyone was home during the pandemic.

However, the automotive industry’s assumption proved incorrect, and demand for cars shot up in the second half of 2020. **The automotive manufacturers, caught off-guard by this increase in demand, went back to their foundries and attempted to place orders for automotive chips, only to be told the factories were at capacity.”** – Apr 21 – Semiliterate



*Employees at a semiconductor production facility for Renesas Electronics in Beijing. Credit Mark Schiefelbein/Associated Press
Provided by New York Times*

IN-DEPTH – VEHICLE SHORTAGE

ADDITIONAL CHIP MANUFACTURING SETBACKS

“So the automotive industry was faced with a shortage of available factory capacity to make the chips they need. This shortage was exacerbated by several incredibly unlucky events:

- **a February 2020 power grid failure in Texas that shut down Samsung Foundry, NXP, and Infineon chip factories.** Samsung Foundry makes Tesla’s chips, while NXP and Infineon are the #1 and #2 automotive chip makers in the world.
- **a March 2020 fire at a Renesas factory** in Japan which partially destroyed its clean room, stopping chip production there until June. This halt is costing Renesas ~\$156 million/month. Renesas is the #3 automotive chipmaker in the world.

[T]he #1, #2, and #3 largest suppliers of automotive chips in the world all had black swan events shut down factories in early 2021 at a time when their production was already maxed out.” – Apr 21 – Semiliterate



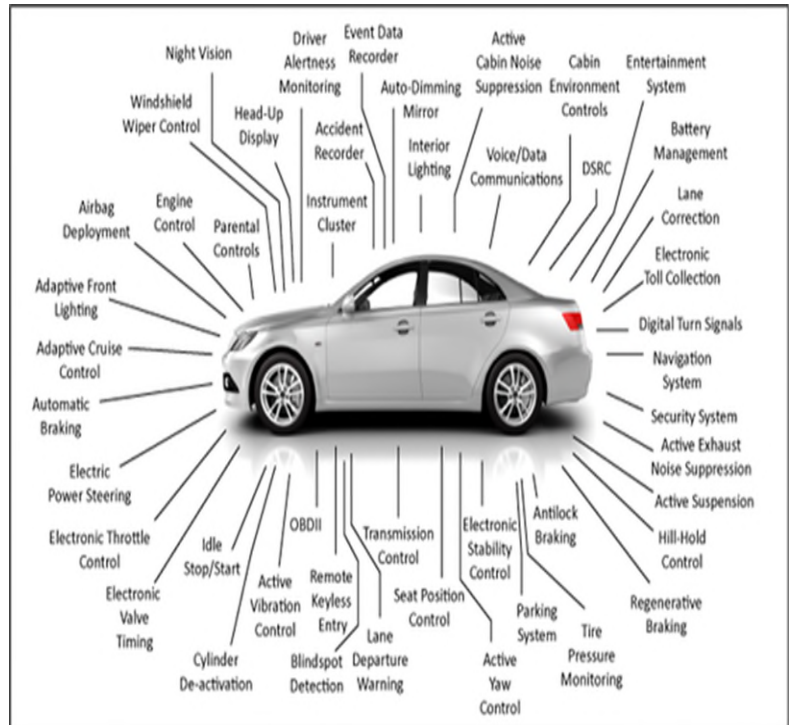
The fire left a swath of charred equipment in the factory, which is owned by a Renesas subsidiary.

*PHOTO: RENESAS ELECTRONICS CORP.
Provided by WSJ*

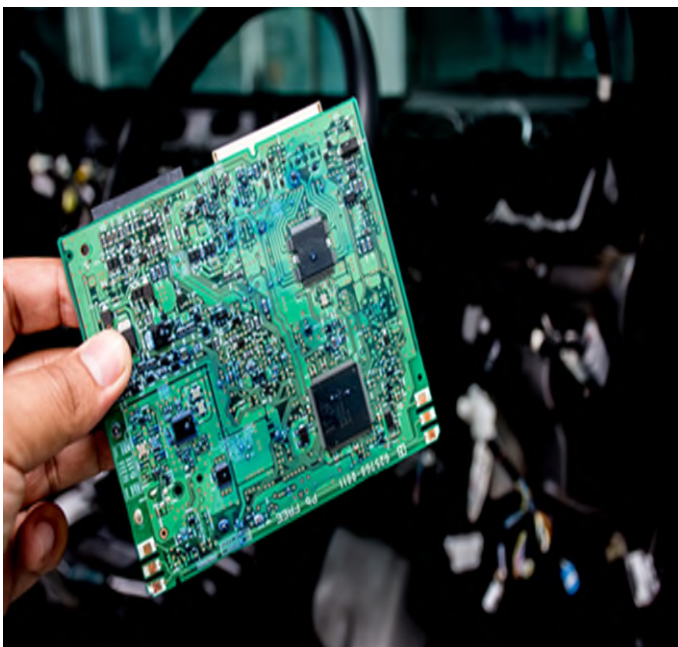
IN-DEPTH – VEHICLE SHORTAGE

WHY ARE SEMICONDUCTORS VITAL TO VEHICLE PRODUCTION?

“The automotive industry has so evolved that, today, cars are almost like computers on wheels. Many modern vehicles now come with autonomous driving aids, heads-up displays, cell phone integration, and high performance. Amongst other things, we have semiconductors to thank for these refinements. In fact, semiconductors are fueling the majority of the innovations in vehicle advancement and development.” – Feb 21 – Carpart.com



*Computers in modern cars monitor many different systems
Provided by Chips Etc.*



Provided by Carpart.com

“Semiconductors provide power for battery management, in-car entertainment, driver assistance systems, and much more. They are behind everything from connectivity platforms to mapping applications, graphics processing systems, and advanced driver warning systems. It is therefore not surprising that a standard vehicle can have \$330 worth of semiconductor content. On the other hand, hybrid electric cars have between \$1,000 and \$3,500 value of semiconductors.” – Feb 21 – Carpart.com

IN-DEPTH – VEHICLE SHORTAGE

HOW ARE CAR MANUFACTURES ADJUSTING TO THE CHIP SHORTAGE?

SHUTDOWN PRODUCTION: “The chip shortage has led U.S. automakers to shut down production to keep peace with the chip supply. Last week Ford said it would shutter eight North America factories for several weeks this summer, affecting production of the bestselling F-150, Mustang, Escape and Lincoln Nautilus brands. The carmaker expects to lose \$2.5 billion this year from chip supply shortages.” – Jul 2021 – CBSNews

BUILD AND PARK: “Car makers are building some models without needed semiconductors and parking them until chips are available to install. Tens of thousands of these vehicles sit at airport lots, a quarry, a racetrack and other makeshift holding pens near assembly plants in the South and Midwest.” – May 2021 – WSJ

SELL WITHOUT CHIPS OR FUNCTIONALITY: “Or they are building vehicles without some features — Tesla has taken out the passenger side lumbar support; GM took out fuel-saving features like automatic start-stop and the fuel management module.” – Jun 2021 Detroit Free Press



*New Ford F-150 pickup trucks parked in Detroit, waiting for computer chips to install. PHOTO: JIM WEST/ZUMA PRESS
Provided by WSJ*

IN-DEPTH – VEHICLE SHORTAGE

LOW SUPPLY OF USED VEHICLE INVENTORY ENTERING MARKET



The shortage of rental cars is one of the factors limiting the supply of cars for sale. Provided by CNN

RENTAL COMPANIES CANNOT BUY NEW, NOT SELLING USED

“The limit on new car availability is being felt in the used car market. Rental car companies, which sold off about a third of their fleets last year in order to raise cash and survive the downturn, now have their own car shortage just as travel is rebounding. The chip shortage also means that automakers don’t have an excess supply of new cars they can sell to rental companies at a discount.”

“The [rental car companies] typically buy 2 million vehicles a year, and that’s how many cars they typically sell into the market,” said Ivan Drury, senior manager of insights for Edmunds.com. **“With the automakers not able to sell to them right now, that turnover of one- and two-year old vehicles just isn’t happening right now.”** – Jun 2021 - CNN

LACK OF REPOSSESSIONS

“According to [Alex] Yurchenko, [senior vice president of data science for Black Book], ‘We still don’t have a lot of repossessions going to market ...’ ‘All of the stimulus money with government, it’s good for consumers, has really kept those cars out of the lanes. Repo rates are really low. We kind of expected repo rates to spike, but it really hasn’t happened,’ says [John] Hammer, [president of the auction powerhouse ADESA.]”

OFF-LEASE NOT REACHING AUCTIONS

Hammer explains, we “have really good insight into what’s going on the off-lease side. But prices have gone up so much in the market, there’s so much demand for those low-mileage cars, that they’re either getting bought by the customer or getting bought by a dealer before they’re even entering the remarketing channels and have an opportunity to go through the auctions.” –

IN-DEPTH – VEHICLE SHORTAGE

NEW AND USED VEHICLE PRICES SURGE

“All that pent-up demand is pushing car buyers into the used-car market, pushing those prices to unseen levels. The **average price for used vehicles between April and June jumped to \$25,410, up from \$20,942 in the year-ago period, according to Edmunds.com — the highest price on record** for the auto research firm. Used vehicle prices are responsible for one-third of the rise in consumer prices, according to the Labor Department.

Edmunds said the average price of a **new car in the second quarter was \$40,827, up from \$38,895 a year ago.**

In the past year, used vehicle prices on average have climbed 30%, according to Black Book, which tracks car and truck data. That's created situations where high-demand vehicles are selling for more than they did when they were new, said Alex Yurchenko, the company's senior vice president of data science.” – Jul 2021 – CBS News



AutoNation dealership in Fremont, California. The company reported record first quarter profits Tuesday that were triple its year-ago earnings. Provided by CNN

"The market is very strange right now," said Yurchenko. "Dealers need the inventory, so they are paying lots of money for their vehicles on the wholesale market.

When it was new, a typical 2019 Toyota Tacoma SR double cab pickup came with a sticker price just under \$29,000. Two years later, dealers are paying almost \$1,000 more than that to buy the same vehicle, even though it's used, and are reselling it to consumers for more than \$33,000.” – Jul 2021 – CBS News

IN-DEPTH – VEHICLE SHORTAGE

FUTURE

According to Nick Woolard, an analyst at TrueCar, “Experts are expecting this to drag on to the fall, and as far as where consumers can go for alternatives, there aren’t a whole lot of options,” he says. “Anyone who’s waiting for prices to come down might be waiting for a while.” – Jun 2021 – Consumer Reports

“But there are signs that price increases are starting to slow. Used car prices rose 0.75% last week, the lowest weekly gain in 17 weeks. Trucks and SUV prices grew 0.68%, the lowest weekly gain in 15 weeks, according to Black Book.

Karl Jensvold, owner of PricedRite Auto Sales, a used vehicle dealer in Lincoln, Nebraska, said he's seeing wholesale prices leveling off, but he doesn't expect them to drop anytime soon. ‘I think the normal used car market has reset to a different price point,’ he said. ‘I don't think we'll see the prices (from) before COVID for a while.’

Yurchenko said at some point prices will have to go back to normal and used vehicles will depreciate once again. The timing depends on how long it takes to get more computer chips so automakers can resume normal production, he said. ‘Once the new inventory levels start increasing, that's where the pressure on the used market will be relieved,’ he said.” – Jul 2021 – CBSNews

“Industry forecaster LMC Automotive said it expects semiconductor shortages to disrupt through the 2nd half of 2021, but it can’t rule out reverberations lasting through 2022.” – Jun 2021 – Forbes

IN-DEPTH TOPICS LOCATED ON THE COUNTY AUDITOR'S WEBPAGE

5G Network	4 th Qtr 2018
Afterpay	4 th Qtr 2020
Alibaba	3 rd Qtr 2017
Bitcoin	4 th Qtr 2016
Cashless Society	4 th Qtr 2017
Chatbots	1 st Qtr 2019
Deep Sea Mining	3 rd Qtr 2020
Facial Recognition	1 st Qtr 2018
Labor Participation Rate	4 th Qtr 2015
Libra, Calibra, Facebook	2 nd Qtr 2019
Money Market Fund Reform – New Rules	3 rd Qtr 2016
Natural Gas – U.S. 3 rd Largest Exporter of LNG	4 th Qtr 2019
Negative Interest Rate Policy (NIRP)	2 nd Qtr 2016
New Silk Road	2 nd Qtr 2017
Non-Fungible Tokens	1 st Qtr 2021
Pandemic – Possible Impact	1 st Qtr 2020
Quantitative Easing	1 st Qtr 2016
Repurchase Agreements – Repo Market in Crisis	3 rd Qtr 2019
Small Business Reorganization Act	2 nd Qtr 2020
Texas Imports and Exports	2 nd Qtr 2018
Universal Postal Union	3 rd Qtr 2018
Vehicle Shortage	2 nd Qtr 2021

DISCLAIMER

THIS PUBLICATION WAS DEVELOPED FOR INTERNAL, GOVERNMENTAL PURPOSES ONLY. IT WAS PREPARED IN GOOD FAITH AND FOR GENERAL INFORMATIONAL PURPOSES ONLY. WE DO NOT MAKE ANY WARRANTIES ABOUT THE COMPLETENESS, RELIABILITY OR ACCURACY OF THE INFORMATION. YOU SHOULD NOT USE ANY OF THE INFORMATION CONTAINED IN THIS REPORT WITHOUT FIRST SEEKING LEGAL AND OTHER PROFESSIONAL ADVICE. USE AT YOUR OWN RISK.