THE ECONOMY AT A GLANCE

HOUSTON



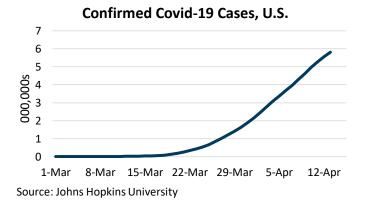
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CORONAVIRUS (COVID-19)

Since the last issue of *Glance*, the number of confirmed COVID-19 cases in the U.S. has skyrocketed. On March 15, there were fewer than 4,000 cases in a handful of states. As of April 16, there are nearly 671,000 cases with outbreaks in every state and commonwealth in the nation. Worldwide, there were more than 2.1 million cases by mid-April, with 70,000 to 90,000 new cases confirmed each day. The pandemic has wreaked havoc on the global, U.S. and local economies.



Global Outlook

The International Monetary Fund (IMF) expects the "Great Lockdown Recession" to be the worst downturn since the Great Depression. The global economy will contract 3 percent or more in '20, with severe declines in the advanced economies (*e.g.*, Germany, -7.0 percent; United Kingdom, -6.5 percent; United States, -5.9 percent) and nominal growth in a few developing economies (*e.g.*, India, +1.9 percent; China, +1.0 percent).

The World Trade Organization (WTO) forecasts merchandise trade to plummet 13 to 32 percent in '20. Nearly all regions will suffer double-digit declines, with exports from North America and Asia hit hardest.

IHS Market's Purchasing Managers' Indices shows economies were already contracting in March in eight of top 10 markets for U.S. exports. Recent reports suggest that China is struggling as well.

MARCH PURCHASING MANAGERS INDEX



U.S. Outlook

There's a 96.4 percent probability that the U.S. is already in a recession, according to a recent poll of prominent economists by *The Wall Street Journal*. The group forecasts U.S. gross domestic product (GDP) to shrink between 7.5 and 50.0 percent in Q2, with 25.3 percent being the average. The panel sees U.S. unemployment reaching 12.6 percent by June.

Recent economic data underscore that pessimistic outlook. U.S. retail sales fell 8.7 percent in March. Housing starts plunged 22.3 percent. Industrial production, a measure of factory, utility and mining output, fell 5.4 percent. And more than 22.0 million workers have filed initial claims for unemployment insurance since the outbreak began. That's nearly three times the 8.8 million jobs lost in the Great Recession.

The Texas Outlook

Activity at Texas factories fell in March, according to a survey by Federal Reserve Bank of Dallas. The production index, a key measure of state manufacturing conditions, plummeted from 16.4 to -35.3, suggesting a significant contraction is underway. New orders, capacity utilization, production, shipments and employment have all declined.

Texas Manufacturing Outlook Survey
March vs. February

	Percent of Respondents Reporting					
	Increases	No Change	Decreases			
New Orders	10.0	38.7	51.3			
Capacity Utilization	9.8	47.0	43.2			
Production	8.7	47.3	44.0			
Shipments	10.2	45.7	44.0			
Employment	2.6	71.8	25.6			

Source: Federal Reserve Bank of Dallas

Texas' service sector saw a similar decline, according to a companion survey. The revenue index, a key measure of service sector conditions, fell from 14.0 in February to -67.0 in March, an all-time low for the survey.

Texas Services Sector Outlook Survey
March vs. February

	Percent of Respondents Reporting					
	Increases	No Change	Decreases			
Revenue	2.4	28.2	69.4			
Employment	3.4	69.4	27.2			
Hours Worked	4.2	48.6	47.2			
Selling Prices	0.0	55.5	44.5			
Capital Spending	8.6	60.2	31.3			

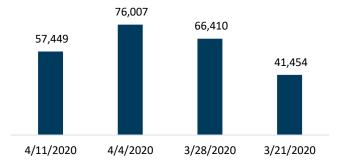
Source: Federal Reserve Bank of Dallas

More than 740,000 Texans filed initial claims for unemployment insurance (UI) between March 15 and April 11. That underestimates the extent of the losses. Those applying for benefits have found the Texas Workforce Commission's phone lines jammed and website servers overloaded. As the backlog is processed and firms shed employees, the number of claims, a surrogate for job losses, will climb.

Houston Unemployment Claims

More than 240,000 Houstonians filed claims over the same period. That also underestimates the extent of local losses. As the backlog is cleared and employers continue to cut staff, local claims will quickly top 300,000. Given the downward trend in almost all aspects of the economy, local claims may top 400,000 by mid-May. Note: Actual data on April job losses won't be available until May 22.

INITIAL CLAIMS, JOBLESS BENEFITS, HOUSTON



Source: Texas Workforce Commission * Partnership estimate

During the Great Recession, metro Houston lost 110,000 jobs, or 4.5 percent of total employment prior to the downturn. Based on the most recent four weeks of initial claims, Houston already exceeds that numeric and percentage loss.

In the energy bust of the '80s, the region lost 221,000 jobs, or 13.2 percent of the total. Houston has already surpassed that numeric value. The economy is much larger now, so it's yet to surpass that percentage. To achieve that, the region will need to drop more than 420,000 jobs. Based on unemployment fling so far, Houston is halfway there.

Purchasing Managers Index

The Houston Purchasing Managers (PMI) fell from 50.2 in February to 40.2 in March, the steepest one-month drop in the history of the series. Readings above 50 indicate the local economy is expanding, below 50 that it's contracting.

The March PMI is only 1.2 percentage points above the index's record low of 39.0 reached in March '09, the depth of the Great Recession. Comments provided by survey respondents suggest the PMI may fall below that level in April.



Chemicals and Refining

Chemical railcar loadings, the best real-time indicator of U.S. chemical industry activity, fell 8 percent the week ending April 4. "We haven't seen sustained declines of that magnitude since the Great Recession," notes John Gray, Senior Vice President at the Association of American Railroads. Metro Houston accounts for over 40 percent of the nation's base petrochemical capacity.

U.S. refineries typically run at 90 percent or more of their design capacity. Refinery utilization hit 94.5 percent the last week of December but dropped to 75.6 percent the first week of April. With travel plans cancelled, manufacturing output scaled back, and so many people working from home, the demand for gasoline, diesel and aviation fuels remains well below normal levels.

Transportation

With the slump in global trade, container traffic at the Port of Houston slipped 11.5 percent in March '20 compared to March '19. Detailed cargo statistics for the month will be available in May.

Data from the Transportation Safety Administration (TSA) shows that U.S. air passenger volumes have fallen 95 percent since the middle of March. Data specific to the Houston Airport System will also be available in May.

Construction

Local construction began to slow prior to the COVID-19 outbreak. Dodge Data & Analytics reports that Houstonarea starts slipped 18.8 percent, or \$4.0 billion, in the 12 months ending February '20 compared to the same period in '19. Projects now underway will be completed but anecdotal evidence suggests new projects are being put on-hold until the pandemic passes.

Commercial Real Estate

Houston's commercial real estate sector faced significant challenges before the outbreak of COVID-19. One-fourth of all local office space was vacant at the end of Q1/20. Absorption of new space has been negative nine out of the last 16 quarters. The vacancy rate for warehouse/industrial space has risen for eight consecutive quarters. The rate for Class A properties was 16.7 percent in Q1/20, up from 10.1

percent in Q1/19. With 18.1 million square feet under construction, the vacancy rate may approach 20 percent by year's end.

For most of Q1, leasing and sales activity continued at the normal, albeit slow, pace of recent years. Brokerages now report a near halting of activity since mid-March. Tenants are waiting on the sidelines until the pandemic passes.

A significant number of retail tenants and a lesser share of office and industrial tenants did not pay their April rent. For the most part, building owners and managers have been willing to work through these delinquencies, adding missed payments to the back end of a lease or pro-rating the amount over the remaining months of the contract.

A few hotels in Houston have closed. Those still open have only a handful of occupants. CBRE forecasts revenue per available room (RevPAR), a performance metric in the hotel industry, to decline 95 percent for upper-priced hotels 58 percent for lower priced hotels in Q2.¹

Residential Real Estate

The Houston resale housing market was relatively unscathed from the COVID-19 crisis in March. Stay-at-home orders came too late in the month to impact closings. Houston-area realtors sold 7,566 single-family homes, up 8.2 percent from March last year. Those deals entered the pipeline early in the year, however. Now that those deals have closed, sales will plummet. Spring is typically the peak for homebuying season in Houston.

A lack of inventory will further depress sales. New listings in the Houston Association of Realtors Multiple Listing Service are down 4.8 percent and active listings down 3.2 percent compared to this time last year. New listings in Zillow are down 8.7 percent. Those trends are expected to continue. Homeowners are reluctant to allow people they don't know well into their houses during the pandemic.

Anecdotal reports suggest Houston homebuilders now operate at 50 to 70 percent of their pre-COVID-19 capacity. Home showings continue, but by appointment only. Some builders won't allow parents to bring their kids along. Children like to touch things as they run through the house.

As with the resale market, most transactions entered the pipeline before concerns about the virus changed consumer behavior. Once stay-at-home orders are lifted,

¹ RevPAR, or revenue per available room, is calculated by dividing a hotel's total guestroom revenue by the room count and the number of days in the period being measured.

months may pass before the pipeline refills. Some developers are moving forward with projects already underway (water, sewage, drainage, paving) while others have halted all work to preserve cash.

Anecdotal reports for multifamily suggest a 5-10 percent delinquency rate for monthly rents at Class A properties and a 10-15 percent rate at Class B and C properties. Those rates will rise if more tenants lose their jobs.

The overall apartment occupancy rate was 89.7 percent in early April. With 16,700 units delivered since April '19 and 24,300 currently under construction, occupancy rates, especially for Class A properties, will fall this year, taking rental rates with them.

Small Business Outlook

The Greater Houston Partnership began surveying its small- and medium-sized members (e.g., with 500 or fewer employees) in early April to gauge how well they were managing the downturn. The first survey went our April 3-6, the second April 13-14. Major conclusions:

- 93.8 percent of respondents have instituted work-from-home practices,
- 53.6 percent indicated their revenues have declined since their last billing cycle,
- 47.1 percent have enacted a hiring freeze,
- 41.0 percent classify their operations as severely impacted,
- 34.5 percent are moderately impacted,
- 30.7 percent indicated their outlook has worsened in recent weeks, and
- 24.6 percent have shut down whole or partial operations.

Members were also asked how long they could remain solvent based on projected cash flow and without federal assistance. Their responses are below.

Based on projected cash flow and without government assistance, how long can your firm survive?

Length	% Respondents
1-2 weeks	0.0
3-4 weeks	4.3
5-6 weeks	4.3
7-8 weeks	10.0
3-6 months	19.3
Longer than 6 months	50.7
Don't know	11.4

Source: Greater Houston Partnership member survey

Energy Outlook

The spot price for West Texas Intermediate, the U.S. benchmark for light, sweet crude, closed at \$19.90 per barrel on April 16. Prices have not been that low since January '02. Adjusted for inflation, crude now sells for less than it did during the trough of the '80s energy bust.

The North American energy industry can't earn a profit at current prices. According to a Dallas Fed survey, companies require crude trade at \$24 and \$35 per barrel just to cover the operating costs of existing wells.

Prior to COVID-19, the world consumed around 100 million barrels of crude per day. By some estimates, consumption has since fallen to around 75 million barrels per day. Without an economic rebound or steep production cuts, the world will remain oversupplied and crude prices severely depressed.

OPEC and its allies have agreed to hold 9.7 million barrels per day off the market. That's not enough. Inventories continue to build and by mid-May global storage capacity will run out. That will depress prices further. Companies have begun to shut in wells, a trend that will accelerate in coming months.

According to the Dallas Fed, crude needs to trade above \$50 to profitably drill a well in North America. No surprise then that exploration budgets have been slashed; the cuts average 15 percent for the major integrated companies to 60 percent for the private independents. The North American rig count will fall below 400 before stabilizing. During the Fracking Bust, the count bottomed at 404.

Some firms have gone into hibernation, shutting down all but the most basic functions, hoping to stay alive until conductions improve. Apache, Baker Hughes, Halliburton, Noble Energy, Occidental, Schlumberger, and Weatherford have already announced furloughs, layoffs and pay cuts.

The industry carries a substantial amount of debt, with over \$10 billon due in '21 and \$15 billion in '22. The capital markets have been closed to the industry for the past two year, so few options exist to refinance the debt.

Energy analysts don't expect supply and demand to rebalance before Q2/21. Houston, with its concentration of oil field service, equipment manufacturing, exploration and engineering firms, is particularly vulnerable right now. Expect a surge in energy-related layoffs and bankruptcies over the next 18 months. The turmoil won't be confined to energy as sectors closely tied to the industry will suffer as well.

HOUSTON ECONOMIC INDICATORS

A Service of the Greater Houston Partnership

4/17/2020

		МО	NTHLY DATA		YEAR-TO-DATE TOTAL or YTD AVERAGE*			
	Month	Most Recent	Year Earlier	% Change	Most Recent	Year Earlier	% Change	
ENERGY								
U.S. Active Rotary Rigs	Feb '20	790	1,048	-24.6	791 *	1,056 *	-25.1	
Spot Crude Oil Price (\$/bbl, West Texas Intermediate)	Feb '20	59.88	49.52	20.9	53.37 *	53.07 *	0.6	
Spot Natural Gas (\$/MMBtu, Henry Hub)	Feb '20	1.91	2.69	-29.0	1.97 3	2.91 *	-32.3	
UTILITIES AND PRODUCTION								
Houston Purchasing Managers Index	Feb '20	50.2	52.5	-4.4	51.4 *	56.1 *	-8.4	
Top 12 Houston Cities' Sales and Use Tax Collections	Feb '20 N	71,718,378	72,725,870	-1.4	151,404,274	146,540,506	3.3	
Nonresidential Electric Current Sales (Mwh, CNP Service Area)	Jan '20	4,912,177	4,771,719	2.9	4,912,177	4,771,719	2.9	
CONSTRUCTION								
Total Building Contracts (\$, Houston MSA)	Dec '19	1,750,257,000	1,316,281,000	33.0	16,616,121,000	20,734,355,000	-19.9	
Nonresidential	Dec '19	790,023,000	770,189,000	2.6	6,779,126,000	9,333,310,000	-27.4	
Residential	Dec '19	960,234,000	546,092,000	75.8	9,836,995,000	11,401,045,000	-13.7	
Building Permits (\$, City of Houston)	Feb '20	509,538,087	535,244,901	-4.8	1,184,675,787	1,156,613,083	2.4	
Nonresidential	Feb '20	297,252,762	361,809,702	-17.8	720,094,417	652,257,509	10.4	
New Nonresidential	Feb '20	82,519,186	189,515,628	-56.5	201,321,065	274,309,967	-26.6	
Nonresidential Additions/Alterations/Conversions	Feb '20	214,733,576	172,294,074	24.6	518,773,352	377,947,542	37.3	
Residential	Feb '20	212,285,325	173,435,199	22.4	464,581,370	504,355,574	-7.9	
New Residential	Feb '20	177,652,800	146,952,113	20.9	395,222,350	430,892,729	-8.3	
Residential Additions/Alterations/Conversions	Feb '20	34,632,525	26,483,086	30.8	69,359,020	73,462,845	-5.6	
HOME SALES								
Property Sales	Mar '20	8,965	8,387	6.9	22,153	19,856	11.6	
Median Sales Price (Single-Family Detached)	Mar '20	249,900	240,000	4.1	243,282 *	232,333 *	4.7	
Active Listings	Mar '20	40,932	39,902	2.6	40,241 *	38,928 *	3.4	
EMPLOYMENT (Houston-The Woodlands-Sugar Land MSA)								
Nonfarm Payroll Employment	Dec '19	3,209,500	3,103,400	3.4	3,165,943 *	3,110,788 *	1.8	
Goods Producing (Natural Resources/Mining/Const/Mfg)	Dec '19	555,000	545,500	1.7	552,185 0	530,750 *	4.0	
Service Providing	Dec '19	2,654,500	2,557,900	3.8	2,613,758 0	2,580,038 *	1.3	
Unemployment Rate (%) - Not Seasonally Adjusted								
Houston-Sugar Land-Baytown MSA	Dec '19	3.6	3.9		3.7 *	4.3 *		
Texas	Dec '19	3.8	3.6		3.5 *	3.9 *		
U.S.	Dec '19	4.0	3.7		3.5 *	3.9 *		
FOREIGN TRADE (Houston-Galveston Customs District)								
Total Trade (\$000,000)	Jan '19	20,036	19,056	5.1	20,036	19,056	5.1	
Exports (\$000,000)	Jan '19	13,276	11,410	16.4	13,276	11,410	16.4	
Imports (\$000,000)	Jan '19	6,760	7,646	-11.6	6,760	7,646	-11.6	
TRANSPORTATION								
Port of Houston Authority Shipments (Short Tons)	Feb '20	3,670,961	3,348,160	9.6	7,673,732	7,339,092	4.6	
Air Passengers (Houston Airport System)	Sep '19	4,754,541	4,656,956	2.1	4,754,541	4,656,956	2.1	
Domestic Passengers	Sep '19	3,732,136	3,655,857	2.1	3,732,136	3,655,857	2.1	
International Passengers	Sep '19	1,022,405	1,001,099	2.1	1,022,405	1,001,099	2.1	
Air Freight (metric tons)	Sep '19	41,235	41,340	-0.3	79,657	78,454	-0.3	
CONSUMERS								
New Car and Truck Sales (Units, Houston MSA)	Dec '19	23,396	22,354	4.7	292,606	303,417	-3.6	
Cars	Dec '19	6,851	6,161	11.2	82,117	87,979	-6.7	
Trucks/SUVs	Dec '19	16,545	16,193	2.2	210,489	215,438	-2.3	
Total Retail Sales (\$000,000, Houston MSA, NAICS Basis)	Q1/19	28,824.4	29,296.0	-1.6	28,824.4	29,296.0	-1.6	
Consumer Price Index for All Urban Consumers ('82-'84=100)								
Houston-Galveston-Brazoria CMSA	Feb '20	230.2	226.8	1.5	229.5 *	226.7 *	1.2	
United States	Mar '20	258.1	254.2	1.5	258.3 *	252.9 *	2.1	
Hotel Performance (Houston MSA)								
Occupancy (%)	Q3/19	60.9	59.8		64.6 *	63.3 *		
Average Room Rate (\$)	Q3/19	100.40	110.12	-1.7	103.82 *	106.19 *	-2.2	

N = New Since Previous Issue

R = Revised

SOURCES Rig Count

Spot WTI, Spot Natural Gas Houston Purchasing Managers Index Electricity

Building Construction Contracts City of Houston Building Permits MLS Data

Employment Foreign Trade Aviation New Car and Truck Sales

Retail Sales
Consumer Price Index
Hotels

Baker Hughes, a GE company
U.S. Energy Information Administration
Institute for Supply Management - Houston, Inc.
CenterPoint Energy

Dodge Data and Analytics
Building Permit Department, City of Houston
Houston Association of Realtors
Texas Labor Market Information

U.S. Census Bureau Houston Airport System

TexAuto Facts Report, InfoNation, Inc., Sugar Land TX State Comptroller's Office

State Comptroller's Office U.S. Bureau of Labor Statistics CBRE Hotels



HOU	HOUSTON MSA NONFARM PAYROLL EMPLOYMENT (000)						
				Change fro		% Change	rom
	Feb '20	Jan '20	Feb '19	Jan '20	Feb '19	Jan '20	Feb '19
Total Nonfarm Payroll Jobs	3,201.8	3,165.0	3,132.9	36.8	68.9	1.2	2.2
Total Private	2,775.6	2,749.0	2,714.0	26.6	61.6	1.0	2.3
Goods Producing	551.7	544.7	550.4	7.0	1.3	1.3	0.2
Service Providing	2,650.1	2,620.3	2,582.5	29.8	67.6	1.1	2.6
Private Service Providing	2,223.9	2,204.3	2,163.6	19.6	60.3	0.9	2.8
Mining and Logging	75.6	76.5	81.2	-0.9	-5.6	-1.2	-6.9
Oil & Gas Extraction	35.4	36.7	37.2	-1.3	-1.8	-3.5	-4.8
Support Activities for Mining	38.7	38.4	42.5	0.3	-3.8	0.8	-8.9
Construction	243.2	238.2	233.5	5.0	9.7	2.1	4.2
Manufacturing	232.9	230.0	235.7	2.9	-2.8	1.3	-1.2
Durable Goods Manufacturing	148.9	147.7	150.3	1.2	-1.4	0.8	-0.9
Nondurable Goods Manufacturing	84.0	82.3	85.4	1.7	-1.4	2.1	-1.6
Wholesale Trade	176.3	175.7	171.8	0.6	4.5	0.3	2.6
Retail Trade	300.4	302.2	302.9	-1.8	-2.5	-0.6	-0.8
Transportation, Warehousing and Utilities	157.4	158.0	151.2	-0.6	6.2	-0.4	4.1
Utilities	17.2	17.1	17.2	0.1	0.0	0.6	0.0
Air Transportation	20.1	20.2	20.1	-0.1	0.0	-0.5	0.0
Truck Transportation	28.0	27.9	28.1	0.1	-0.1	0.4	-0.4
Pipeline Transportation	12.2	12.1	11.9	0.1	0.3	0.8	2.5
Information	32.7	32.5	32.0	0.2	0.7	0.6	2.2
Telecommunications	13.8	13.9	13.8	-0.1	0.0	-0.7	0.0
Finance & Insurance	103.3	103.2	102.5	0.1	0.8	0.1	0.8
Real Estate & Rental and Leasing	64.1	64.9	61.9	-0.8	2.2	-1.2	3.6
Professional & Business Services	514.9	509.5	500.4	5.4	14.5	1.1	2.9
Professional, Scientific & Technical Services	249.1	249.0	237.0	0.1	12.1	0.0	5.1
Legal Services	27.2	27.0	26.7	0.2	0.5	0.7	1.9
Accounting, Tax Preparation, Bookkeeping	29.8	29.0	28.4	0.8	1.4	2.8	4.9
Architectural, Engineering & Related Services	75.2	74.8	71.1	0.4	4.1	0.5	5.8
Computer Systems Design & Related Services	35.7	35.7	34.1	0.0	1.6	0.0	4.7
Admin & Support/Waste Mgt & Remediation	219.9	214.8	215.9	5.1	4.0	2.4	1.9
Administrative & Support Services	206.3	203.3	204.5	3.0	1.8	1.5	0.9
Employment Services	75.4	75.0	78.9	0.4	-3.5	0.5	-4.4
Educational Services	65.1	63.0	63.3	2.1	1.8	3.3	2.8
Health Care & Social Assistance	351.5	348.1	337.1	3.4	14.4	1.0	4.3
Arts, Entertainment & Recreation	36.8	36.0	34.3	0.8	2.5	2.2	7.3
Accommodation & Food Services	301.4	293.7	291.7	7.7	9.7	2.6	3.3
Other Services	120.0	117.5	114.5	2.5	5.5	2.1	4.8
Government	426.2	416.0	418.9	10.2	7.3	2.5	1.7
Federal Government	30.3	30.2	29.5	0.1	0.8	0.3	2.7
State Government Educational Services	89.5	88.6 51.1	87.9	0.9	1.6	1.0	1.8
State Government Educational Services	51.8	51.1	52.6	0.7	-0.8	1.4	-1.5
Local Government	306.4	297.2	301.5	9.2	4.9	3.1	1.6
Local Government Educational Services	214.0	204.9	210.7	9.1	3.3	4.4	1.6

SOURCE: Texas Workforce Commission