# Tenth District Economic Databook

A summary of regional and national economic indicators for the Tenth District states



DECEMBER 23, 2019

FEDERAL RESERVE BANK of KANSAS CITY

#### SUMMARY OF CURRENT TENTH DISTRICT ECONOMIC CONDITIONS

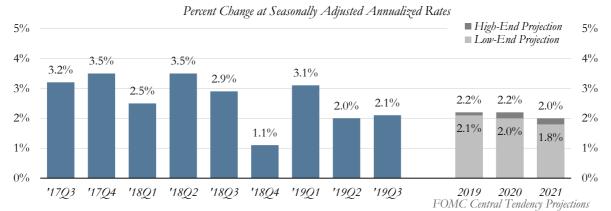
The unemployment rate was 3.2 percent across the Tenth District states in November, and total payroll employment grew 1.2 percent compared to the previous year. Employment growth was broad-based across industries, with the strongest percentage gains in the construction and professional and business services sectors. Tenth District nominal personal income grew 4.7 percent in the third quarter of 2019 compared to the previous year. In the energy sector, rig counts were well below year-ago levels. The Federal Reserve Bank of Kansas City's Manufacturing Survey indicated a decrease in manufacturing activity in December 2019, with a composite index of 46.1. Nonirrigated farmland values, as measured by the Federal Reserve Bank of Kansas City's Survey of Agricultural Credit Conditions, rose 0.1 percent in the third quarter of 2019 compared to the same period in 2018.

This databook provides current economic indicators to help monitor trends and allow comparison of past information. These indicators include: gross domestic product (GDP); inflation; employment; employment by industry; state unemployment; personal income; home prices; housing indicators; manufacturing activity; oil, gas and coal production; agriculture; and exports. These indicators can be found on the following pages.

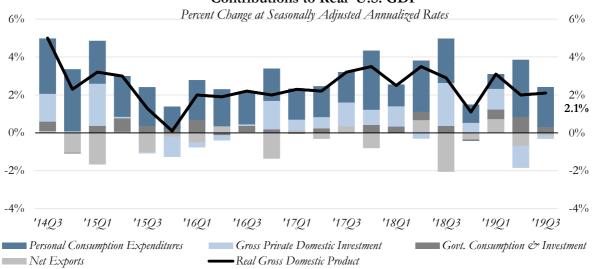


The Federal Reserve Bank of Kansas City's headquarters is located at 1 Memorial Drive in the heart of Kansas City, Missouri. The Federal Reserve Bank of Kansas City serves the Tenth Federal Reserve District, which includes Colorado, Kansas, western Missouri, Nebraska, northern New Mexico, Oklahoma and Wyoming. There are three branches across the Tenth Federal Reserve District located in Denver, Oklahoma City, and Omaha.

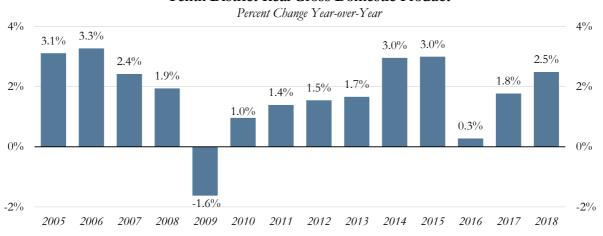
#### U.S. Real Gross Domestic Product



#### Contributions to Real U.S. GDP

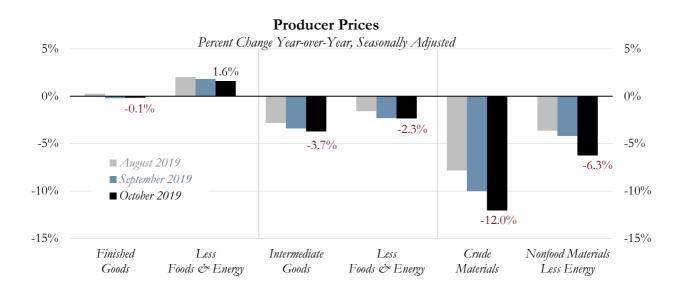


#### Tenth District Real Gross Domestic Product



Source: Bureau of Economic Analysis, Federal Open Market Committee/Haver Analytics

#### **PCE & CPI-U Inflation** Percent Change Year-over-Year, Seasonally Adjusted 4% 4% 2% 0% 0% PCE Headline ----- PCE Core - CPI-U Headline ----- CPI-U Core -2% -2% Oct '09 Oct '11 Oct '13 Oct '15 Oct '17 Oct '19 **PCE** by Component Percent Change Year-over-Year, Seasonally Adjusted 4% 4% 2.2% 1.6% 2% 1.3% 2% 1.1% 0% 0% -0.6% -2% -2% ■ August 2019 ■ September 2019 -4% -4%



-4.2%

Food

Goods

Energy

Source: Bureau of Economic Analysis & Bureau of Labor Statistics/Haver Analytics

**■** *October 2019* 

Core

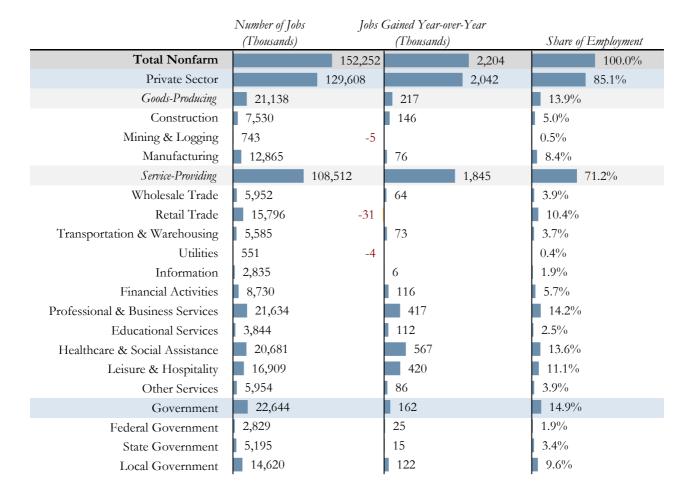
-6%

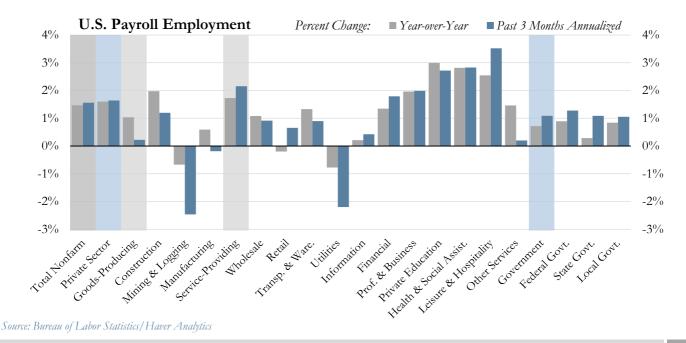
Headline

-6%

Services

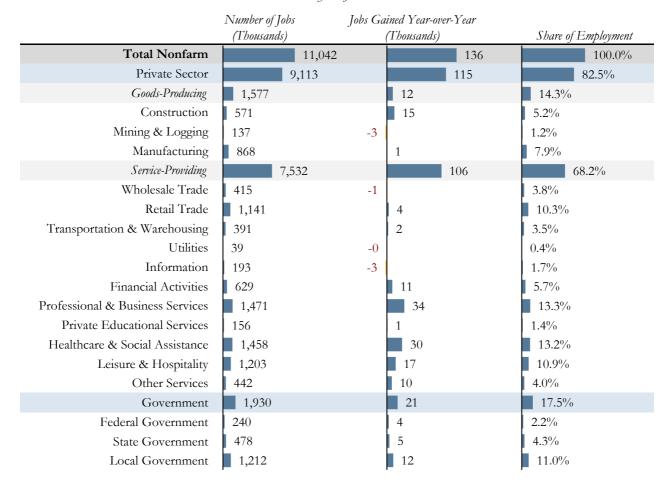
#### November 2019 U.S. Payroll Employment

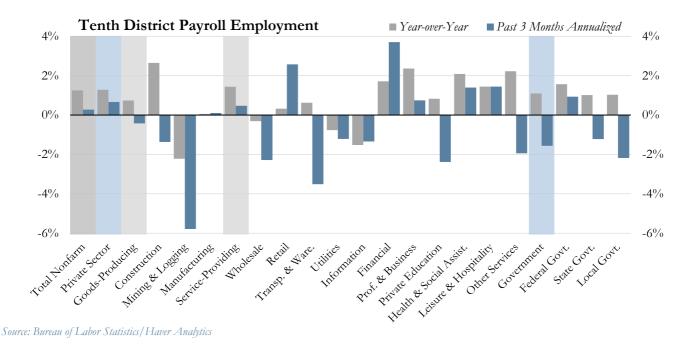




#### November 2019 Tenth District Payroll Employment

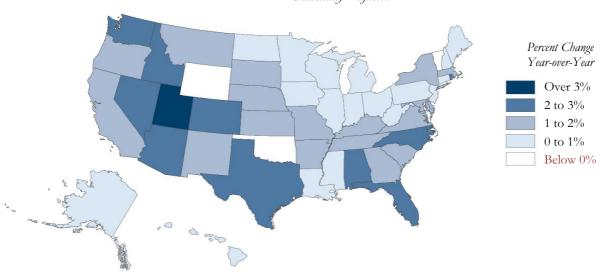
Seasonally Adjusted





### November 2019 Total Nonfarm Employment

Seasonally Adjusted



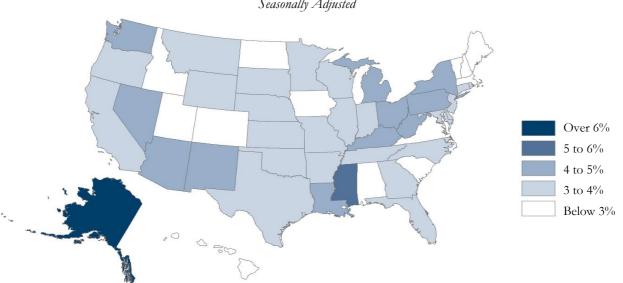
Percent Change Year-over-Year

Percent Change Year-over-Year

1 641-0161-16			1 cur-0/cr-1 cur		
1.2%	New York	25	1.5%	United States	
1.2	Montana	26	1.2	Tenth District	
1.2	Kansas	27	3.2	Utah	1
1.0	Maryland	28	2.7	Texas	2
1.0	Virginia	29	2.7	Idaho	3
0.8	Maine	30	2.6	Nevada	4
0.8	New Jersey	31	2.5	Washington	5
0.8	Pennsylvania	32	2.5	Florida	6
0.8	New Hampshire	33	2.4	Arizona	7
0.7	Illinois	34	2.4	Alabama	8
0.7	Mississippi	35	2.2	Rhode Island	9
0.6	North Dakota	36	2.1	Colorado	10
0.5	Alaska	37	2.0	North Carolina	11
0.5	Hawaii	38	1.9	New Mexico	12
0.5	Louisiana	39	1.9	Oregon	13
0.4	Michigan	40	1.9	California	14
0.4	Ohio	41	1.5	Tennessee	15
0.4	Indiana	42	1.5	Georgia	16
0.3	Iowa	43	1.5	South Carolina	17
0.2	Connecticut	44	1.5	Delaware	18
0.2	Wisconsin	45	1.4	South Dakota	19
0.2	Minnesota	46	1.4	Nebraska	20
0.1	West Virginia	47	1.3	Massachusetts	21
-0.1	Vermont	48	1.3	Missouri	22
-0.3	Oklahoma	49	1.3	Arkansas	23
-0.3	Wyoming	50	1.2	Kentucky	24

Source: Bureau of Labor Statistics/Haver Analytics

# November 2019 Unemployment Rates Seasonally Adjusted

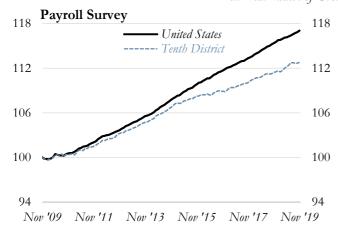


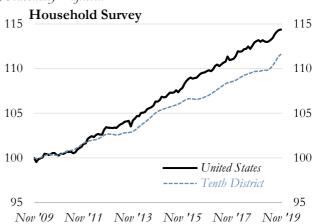
		Percent			Percent
		Unemployed			Unemployed
	United States	3.5%	24	Montana	3.4%
	Tenth District	3.2	24	Oklahoma	3.4
1	Alaska	6.1	24	New Jersey	3.4
2	Mississippi	5.6	28	Georgia	3.3
3	West Virginia	4.9	28	Tennessee	3.3
4	New Mexico	4.8	28	Wisconsin	3.3
5	Arizona	4.7	28	Minnesota	3.3
5	Louisiana	4.7	32	Indiana	3.2
7	Washington	4.4	33	Florida	3.1
7	Kentucky	4.4	33	Kansas	3.1
9	Pennsylvania	4.3	33	Missouri	3.1
10	Ohio	4.2	33	Nebraska	3.1
11	Michigan	4.0	33	South Dakota	3.1
11	Nevada	4.0	38	Massachusetts	2.9
11	New York	4.0	38	Idaho	2.9
14	Oregon	3.9	40	Maine	2.8
14	California	3.9	41	Alabama	2.7
16	North Carolina	3.8	42	Hawaii	2.6
16	Illinois	3.8	42	Colorado	2.6
16	Delaware	3.8	42	Virginia	2.6
19	Wyoming	3.7	42	New Hampshire	2.6
19	Connecticut	3.7	42	Iowa	2.6
21	Maryland	3.6	47	North Dakota	2.5
21	Arkansas	3.6	48	South Carolina	2.4
23	Rhode Island	3.5	48	Utah	2.4
24	Texas	3.4	50	Vermont	2.3

Source: Bureau of Labor Statistics/Haver Analytics

#### **Total Nonfarm Employment**

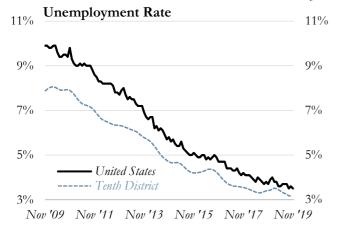
Ten-Year Index of Growth, Seasonally Adjusted

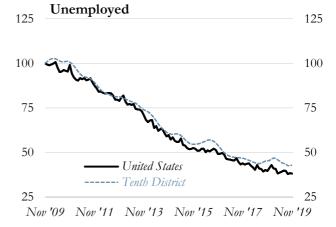


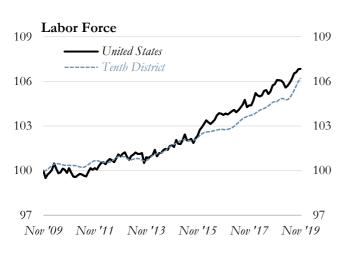


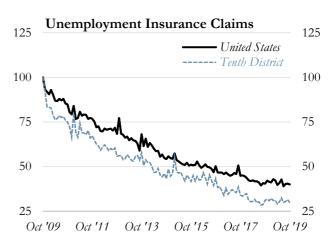
#### **Labor Force Dynamics**

Ten-Year Index of Growth, Seasonally Adjusted



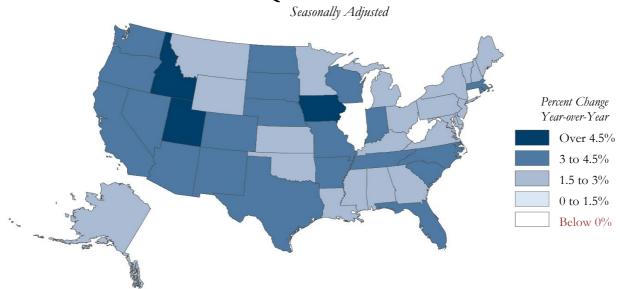






Source: Bureau of Labor Statistics & Department of Labor/Haver Analytics

# 2019Q3 Real Personal Income



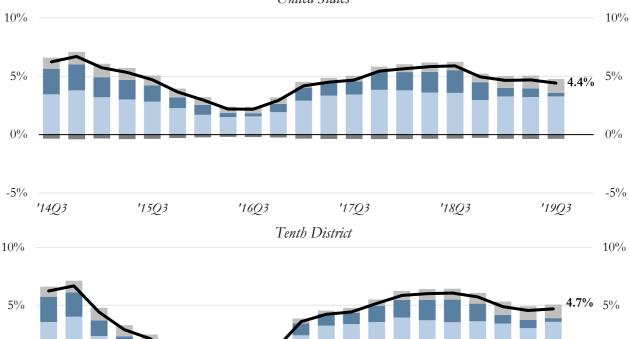
	Percent Change	Per Capita			Percent Change	Per Capita
	Year-over-Year	Personal Income			Year-over-Year	Personal Income
United States	3.0%	\$56,832	25	Pennsylvania	3.0%	\$59,082
Tenth District	3.2	48,302	26	Minnesota	3.0	59,912
Iowa	4.9	53,113	27	New Hampshire	3.0	64,066
Idaho	4.7	45,677	28	Mississippi	3.0	39,614
Utah	4.5	48,381	29	Georgia	2.9	48,419
South Dakota	4.3	54,418	30	Maine	2.9	51,242
Washington	4.2	65,024	31	Wyoming	2.9	63,567
North Dakota	4.1	58,235	32	Alabama	2.8	44,073
Arizona	3.9	46,167	33	Kansas	2.7	53,748
California	3.9	67,021	34	Vermont	2.6	56,496
Colorado	3.8	61,084	35	Oklahoma	2.5	48,109
Texas	3.7	52,487	36	Virginia	2.5	60,034
Arkansas	3.7	45,376	37	Kentucky	2.5	44,078
New Mexico	3.6	44,018	38	Delaware	2.4	54,208
North Carolina	3.6	48,041	39	Louisiana	2.3	48,266
Nevada	3.4	50,676	40	Ohio	2.3	50,753
Nebraska	3.4	55,316	41	Michigan	2.3	50,372
South Carolina	3.4	45,414	42	Maryland	2.3	65,881
Wisconsin	3.2	53,997	43	Montana	2.3	48,938
Oregon	3.2	52,963	44	New York	2.2	71,818
Florida	3.2	51,894	45	New Jersey	2.1	70,984
Rhode Island	3.2	57,181	46	Alaska	1.9	62,099
Missouri	3.1	49,893	47	Connecticut	1.6	79,560
Tennessee	3.1	48,955	48	Hawaii	1.6	57,465
Indiana	3.0	49,164	49	Illinois	1.5	59,060
Massachusetts	3.0	74,818	50	West Virginia	0.5	42,452
	Tenth District Iowa Idaho Utah South Dakota Washington North Dakota Arizona California Colorado Texas Arkansas New Mexico North Carolina Nevada Nebraska South Carolina Wisconsin Oregon Florida Rhode Island Missouri Tennessee Indiana	Vear-over-Year           United States         3.0%           Tenth District         3.2           Iowa         4.9           Idaho         4.7           Utah         4.5           South Dakota         4.3           Washington         4.2           North Dakota         4.1           Arizona         3.9           California         3.9           Colorado         3.8           Texas         3.7           Arkansas         3.7           New Mexico         3.6           North Carolina         3.6           Nevada         3.4           Nebraska         3.4           South Carolina         3.4           Wisconsin         3.2           Florida         3.2           Rhode Island         3.2           Missouri         3.1           Tennessee         3.1           Indiana         3.0	United States         3.0%         \$56,832           Tenth District         3.2         48,302           Iowa         4.9         53,113           Idaho         4.7         45,677           Utah         4.5         48,381           South Dakota         4.3         54,418           Washington         4.2         65,024           North Dakota         4.1         58,235           Arizona         3.9         67,021           Colorado         3.8         61,084           Texas         3.7         52,487           Arkansas         3.7         45,376           New Mexico         3.6         44,018           North Carolina         3.6         48,041           Nevada         3.4         55,316           South Carolina         3.4         45,414           Wisconsin         3.2         53,997           Oregon         3.2         52,963           Florida         3.2         57,181           Missouri         3.1         49,893           Tennessee         3.1         48,955           Indiana         3.0         49,164	Vear-over-Year         Personal Income           United States         3.0%         \$56,832         25           Tenth District         3.2         48,302         26           Iowa         4.9         53,113         27           Idaho         4.7         45,677         28           Utah         4.5         48,381         29           South Dakota         4.3         54,418         30           Washington         4.2         65,024         31           North Dakota         4.1         58,235         32           Arizona         3.9         67,024         34           Colorado         3.8         61,084         35           Texas         3.7         52,487         36           Arkansas         3.7         45,376         37           New Mexico         3.6         44,018         38           North Carolina         3.6         48,041         39           Nevada         3.4         50,676         40           Nebraska         3.4         55,316         41           South Carolina         3.4         45,414         42           Wisconsin         3.2         5	United States         3.0%         \$56,832         25         Pennsylvania           Tenth District         3.2         48,302         26         Minnesota           Iowa         4.9         53,113         27         New Hampshire           Idaho         4.7         45,677         28         Mississisppi           Utah         4.5         48,381         29         Georgia           South Dakota         4.3         54,418         30         Maine           Washington         4.2         65,024         31         Wyoming           North Dakota         4.1         58,235         32         Alabama           Arizona         3.9         46,167         33         Kansas           California         3.9         67,021         34         Vermont           Colorado         3.8         61,084         35         Oklahoma           Texas         3.7         52,487         36         Virginia           Arkansas         3.7         45,376         37         Kentucky           New Mexico         3.6         44,018         38         Delaware           North Carolina         3.6         48,041         39         Louis	Vear-over-Year         Personal Income         Year-over-Year           United States         3.0%         \$56,832         25         Pennsylvania         3.0%           Tenth District         3.2         48,302         26         Minnesota         3.0           Iowa         4.9         53,113         27         New Hampshire         3.0           Idaho         4.7         45,677         28         Mississippi         3.0           Utah         4.5         48,381         29         Georgia         2.9           South Dakota         4.3         54,418         30         Maine         2.9           Washington         4.2         65,024         31         Wyoming         2.9           North Dakota         4.1         58,235         32         Alabama         2.8           Arizona         3.9         46,167         33         Kansas         2.7           California         3.9         67,021         34         Vermont         2.6           Colorado         3.8         61,084         35         Oklahoma         2.5           Texas         3.7         45,376         37         Kentucky         2.5           New Mexi

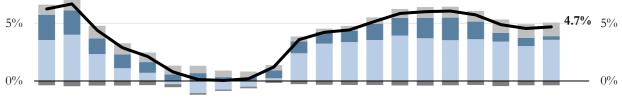
Source: Bureau of Economic Analysis/Haver Analytics

#### Nominal Personal Income

Contributions to Percent Change, Seasonally Adjusted



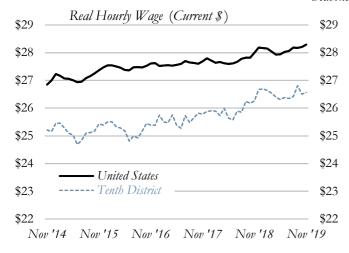


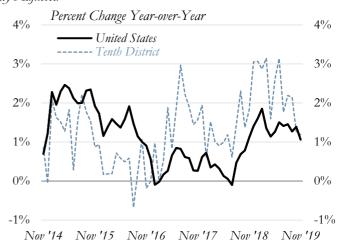




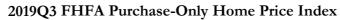
#### Real Average Hourly Wage

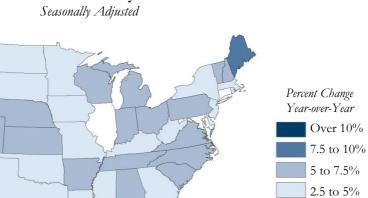
#### Seasonally Adjusted





Source: Bureau of Economic Analysis & Bureau of Labor Statistics/Haver Analytics





Percent Change Year-over-Year

Percent Change Year-over-Year

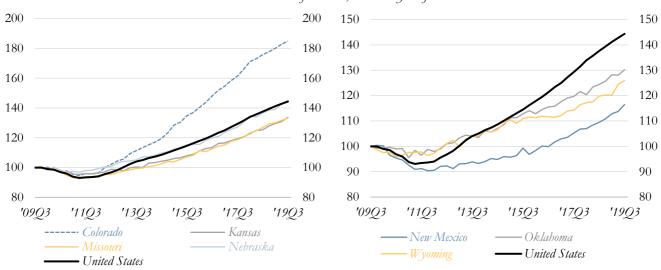
0 to 2.5% Below 0%

		Year-over-Year			Year-over-Year
	United States	4.9%	25	Arkansas	5.1%
			26	Florida	5.0
1	Idaho	11.6	27	Nevada	5.0
2	Maine	7.9	28	Kentucky	5.0
3	Arizona	7.9	29	Missouri	4.9
4	Utah	7.8	30	Texas	4.9
5	Indiana	7.4	31	Oregon	4.8
6	Vermont	7.1	32	Georgia	4.8
7	Kansas	6.8	33	Delaware	4.7
8	Wisconsin	6.4	34	Rhode Island	4.7
9	New Mexico	6.4	35	Alaska	4.7
10	Tennessee	6.3	36	Oklahoma	4.6
11	Hawaii	6.2	37	Minnesota	4.5
12	Montana	6.1	38	Massachusetts	4.3
13	Nebraska	6.1	39	California	4.1
14	New Hampshire	6.0	40	West Virginia	3.7
15	South Carolina	5.8	41	North Dakota	3.6
16	Michigan	5.8	42	New York	3.4
17	North Carolina	5.7	43	New Jersey	3.3
18	Ohio	5.6	44	Mississippi	3.2
19	Washington	5.6	45	Louisiana	3.2
20	Virginia	5.4	46	Iowa	3.2
21	Alabama	5.4	47	South Dakota	2.7
22	Pennsylvania	5.2	48	Maryland	2.4
23	Wyoming	5.1	49	Connecticut	2.2
24	Colorado	5.1	50	Illinois	1.9

Source: Federal Housing Finance Agency (FHFA)/Haver Analytics

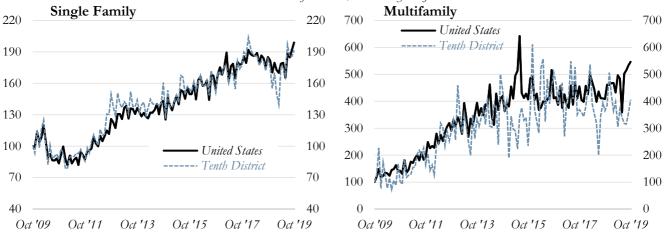
#### FHFA Purchase-Only Home Price Index

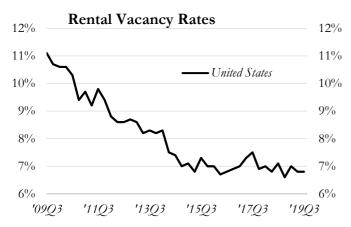
Ten-Year Index of Growth, Seasonally Adjusted



#### **Housing Permits**

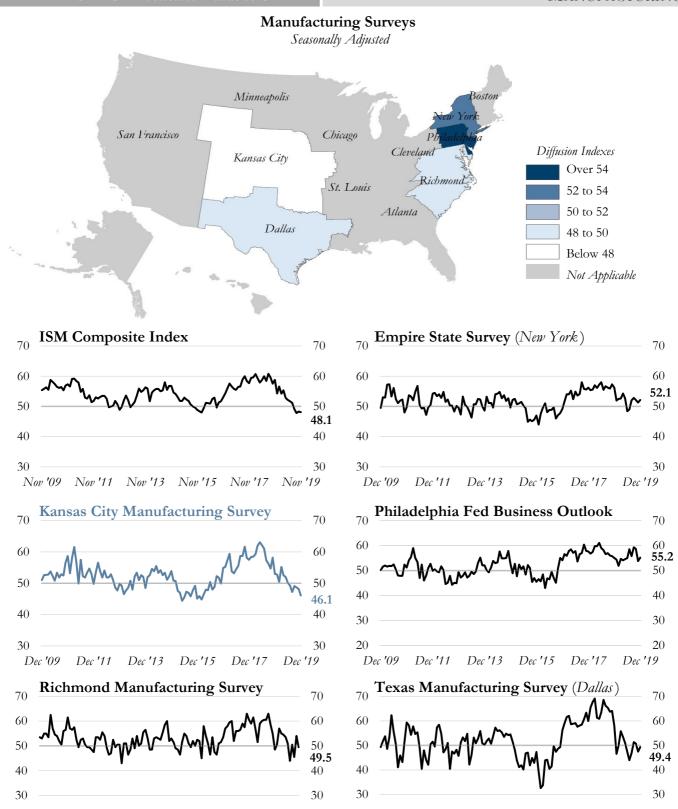
Ten-Year Index of Growth, Seasonally Adjusted





Note: Rental Vacancy Rates are not available for the Tenth District.

Source: Federal Housing Finance Agency (FHFA) & Census Bureau/Haver Analytics



20

Nov '09

20

Nov '19

Note: Indices are defined to be between 0 and 100; above 50 indicates growth and below 50 indicates contraction.

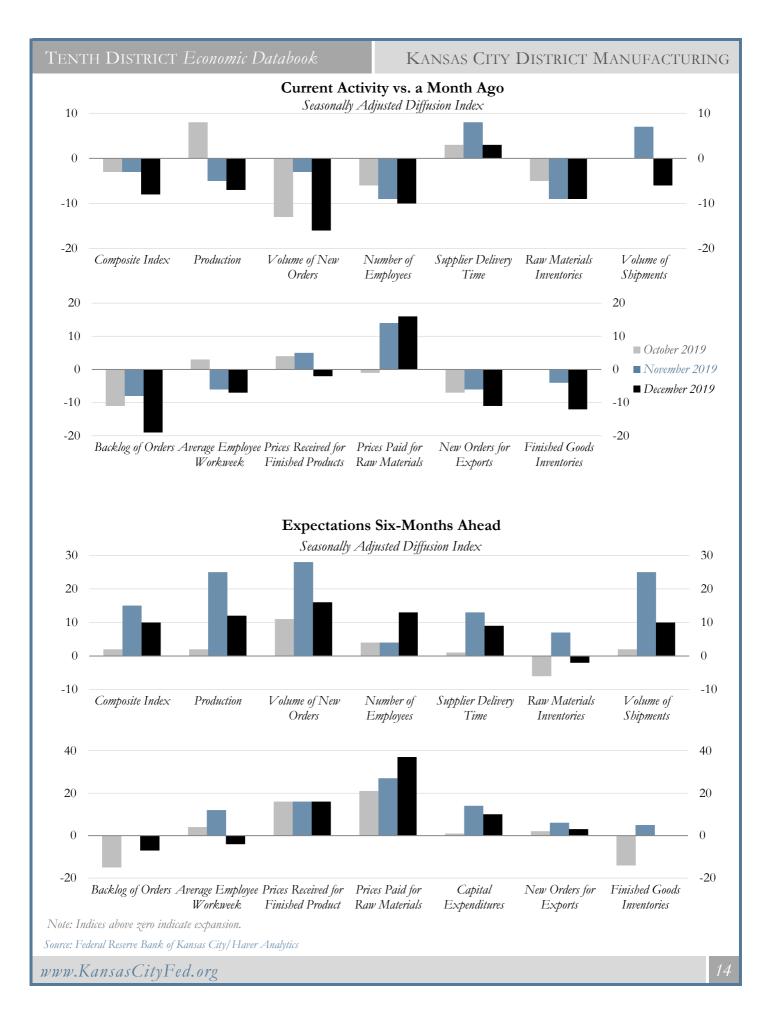
Source: Institute for Supply Management (ISM) & Federal Reserve District Banks/Haver Analytics

Nov '11 Nov '13 Nov '15 Nov '17

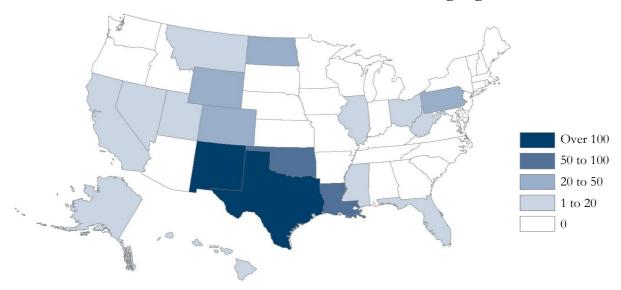
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Nov '11 Nov '13 Nov '15 Nov '17 Nov '19

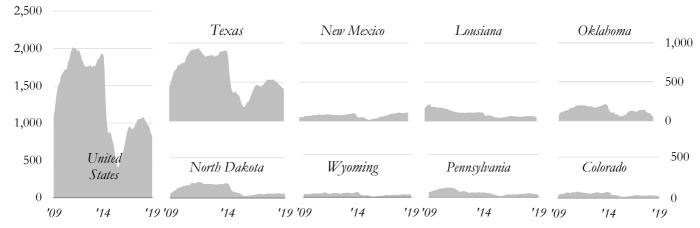


#### November 2019 Active Oil & Gas Drilling Rig Counts



		Average Rig Counts  During the Month	Percent Change Year-over-Year	Current Share of Activity
	United States	810	-24.8%	
	Tenth District	211	-32.8	26.0%
Top Producing States	Texas	410	-23.1	50.6
	New Mexico	105	-0.9	13.0
	Lousiana	56	-13.8	6.9
	Oklahoma	51	-64.8	6.3
	North Dakota	50	-7.4	6.2
	Wyoming	31	3.3	3.8
	Pennsylvania	24	-46.7	3.0
	Colorado	24	-27.3	3.0
	California	15	0.0	1.9
	West Virginia	14	7.7	1.7

# **Ten-Year History of Most Active States** *Average Active Monthly Drilling Rig Counts*



Source: Baker Hughes/Haver Analytics



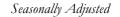
**Spot Prices** 

- West Texas Intermediate

Dec '17

#### SELECTED ENERGY INDICATORS





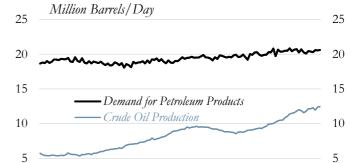
#### Crude Oil

\$125

\$100

\$75

\$25



Sep '15

# Dec '11 Gasoline

Crude Oil

\$125

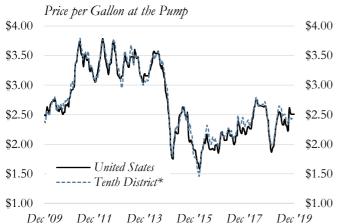
\$100

\$50

\$25

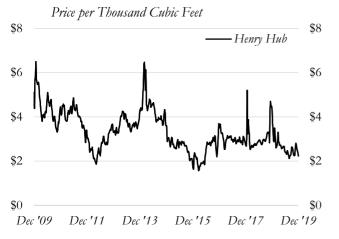
Dec '09

Price per Barrel



Dec '13 Dec '15

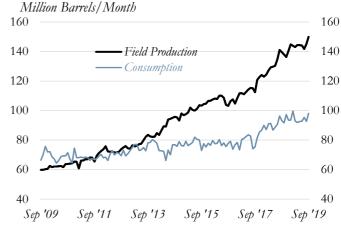
#### Natural Gas



#### Natural Gas Liquids

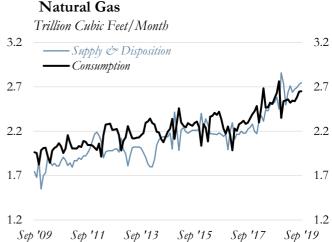
Sep '11

Sep '09



Sep '13

#### Natural Gas



Source: Wall Street Journal, Oil & Gas Journal & Department of Energy, Energy Information Administration/Haver Analytics

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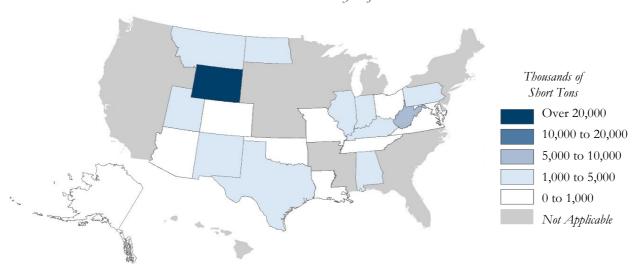
Sep '19

Sep '17

<sup>\*</sup>Average price per gallon for major Tenth District metro areas.

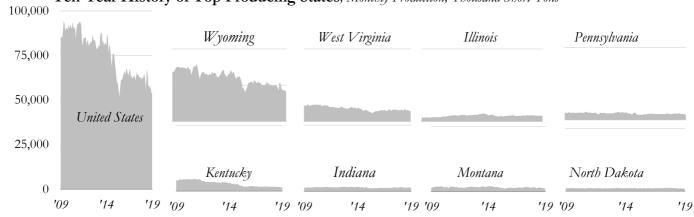
#### **November 2019 Coal Production**

Seasonally Adjusted



		Monthly Production (Thousand Short Tons)	Percent Change Year-over-Year	Current Share of Production
	United States	53,648.5	-13.2%	
	Tenth District*	23,003.5	-14.5	42.9%
Top Producing States	Wyoming	20,782.3	-15.5	38.7
	West Virginia	7,065.0	-8.6	13.2
	Illinois	3,905.5	-6.5	7.3
	Pennsylvania	3,726.2	-10.2	6.9
	Kentucky	2,876.5	-10.3	5.4
	Indiana	2,762.2	-9.4	5.1
	Montana	2,439.8	-24.3	4.5
	North Dakota	2,053.5	-13.0	3.8
	Texas	1,404.7	-16.3	2.6
	New Mexico	1,241.4	4.2	2.3

### Ten-Year History of Top Producing States, Monthly Production, Thousand Short Tons



\*Includes all Tenth District states but Nebraska.

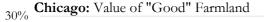
Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

Farm Land Values\*



#### Farmland Values by Federal Reserve District

Percent Change Year-over-Year

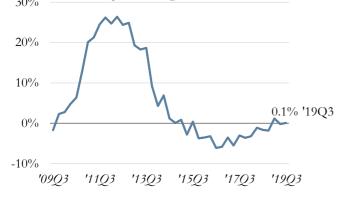




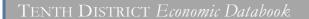
# 15% **Dallas:** Dryland Values



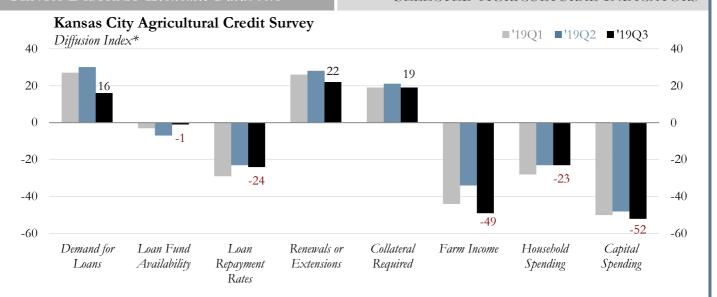
#### Kansas City: Nonirrigated Farmland Values



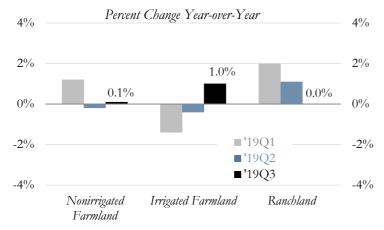
<sup>\*</sup>Values shown for the most recent survey available for each district. Source: Federal Reserve District Banks/Haver Analytics



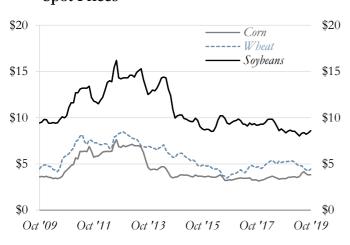
#### SELECTED AGRICULTURAL INDICATORS



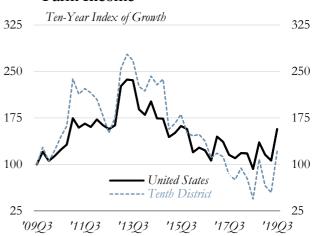
#### **Tenth District Farmland Values**



#### **Spot Prices**



#### Farm Income

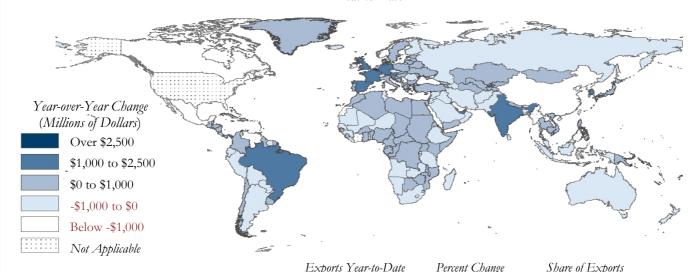


\*Calculated as the percentage of total respondents reporting increases less those reporting declines.

Source: Wall Street Journal, Bureau of Economic Analysis & Federal Reserve Bank of Kansas City/Haver Analysics

#### 2019Q3 U.S. Exports

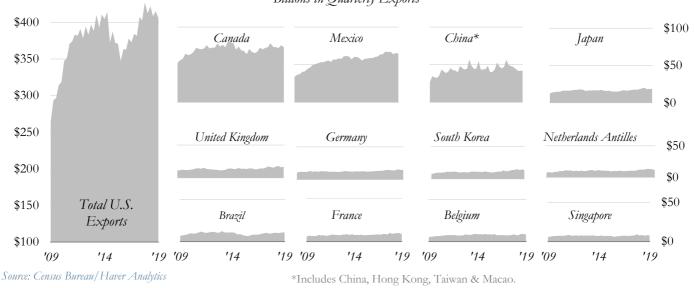
Year-to-Date



		(Billions of Dollars)	Year-to-Date	Year-to-Date
	United States	\$1,229,747.0	-1.0%	
Top Export Markets	Canada	221.2	-1.9	18.0%
	Mexico	194.1	-1.9	15.8%
	China*	125.8	-12.8	10.2%
	Japan	55.4	1.1	4.5%
	United Kingdom	51.2	3.8	4.2%
	Germany	45.3	4.1	3.7%
	South Korea	42.1	2.7	3.4%
	Netherlands Antilles	37.7	4.4	3.1%
	Brazil	31.6	8.0	2.6%
	France	27.9	3.8	2.3%

#### Ten-Year History of U.S. Top Export Countries

Billions in Quarterly Exports



\$450

Page 2: Gross domestic product (GDP) is the most commonly used measure of aggregate U.S. economic activity. Real GDP is indexed for inflation to 2009 dollars using the personal consumption expenditure price index (PCEPI). Advance, second, and third GDP estimates are released during the first, second, and third month of the following quarter. Each release reflects more complete information. Federal Open Market Committee (FOMC) projections for GDP are released quarterly. Contributions to GDP show how each component of GDP contributes to GDP growth. Tenth District GDP is the year-over-year percent change for the sum of the Gross State Products from CO, KS, MO, NE, NM, OK and WY

Page 3: Inflation is calculated as the year-over-year change in price indices. Headline inflation includes all price components, while core inflation excludes the more volatile components of food and energy. Producer prices reflect price changes in production components, while PCEPI and CPI-U (consumer price index for all urban consumers) estimates show changes in commodities sold to consumers.

Pages 4, 5 and 6: Nonfarm employment data from the Bureau of Labor Statistics Current Employment Survey are commonly called "Payroll" employment data. Estimates from this survey are revised throughout the year and a major revision or "benchmark" of the data occurs in March of each year.

Page 7: The "official" and most commonly reported unemployment rate is calculated as the number of unemployed workers divided by the total civilian labor force. These data are reported from the Bureau of Labor Statistics Current Population Survey, commonly called the "Household" survey.

Page 8: "Payroll" and "Household" surveys are released monthly, providing the most current estimates of employment published by the Bureau of Labor Statistics. Because methodologies differ between surveys, employment estimates also differ. For more information, visit: <a href="http://nww.bls.gov/web/empsit/ces\_cps\_trends.pdf">http://nww.bls.gov/web/empsit/ces\_cps\_trends.pdf</a> Initial claims show monthly applications for initial claims for state unemployment insurance benefits.

Pages 9 and 10: Personal income provides a measure of all income received by residents of a given geographic area. Data shown on page 9 are in real terms (adjusted for inflation) and data on page 10 are shown in nominal terms (not adjusted for inflation). Transfer payments include social benefits such as unemployment insurance, Social Security, and Medicaid. Contributions to social insurance are subtracted from personal income. These contributions include taxes paid by businesses and employees that support social insurance programs such as unemployment insurance, Social Security, and Medicaid. The residence adjustment adds income received outside of a recipients state of residence and makes a corresponding subtraction from the area where this income was earned or received. Real average hourly wages are calculated as total earnings divided by total employment for a given geographic area. Data are adjusted for inflation using the CPI-U and are indexed to the most current month of data.

Pages 11 and 12: Home price indices estimate regional growth in home values based on repeat sales data for detached single family residential properties.

Page 12: Monthly single and multifamily housing permits data are not revised and therefore may not sum to published year-end totals.

Page 13: The ISM composite index, also commonly called the Purchasing Managers Index (PMI), represents a weighted average of diffusion indices for new orders, production, supplier deliveries, inventories, and employment. Federal Reserve district surveys differ slightly in methodologies for composite indices.

Page 14: Kansas City Manufacturing Survey diffusion indices are calculated as the percentage of total respondents reporting increases in activity less those reporting declines.

Page 15: The active rig count is the number of rigs actively exploring for or developing oil or natural gas. Rig counts provide an indicator of new drilling activity and potential for expanded crude oil or natural gas production.

Page 16: A spot price is the current market delivery price of a given commodity.

Page 17: Coal production is shown as production during a given month.

Pages 18 and 19: Farmland values surveyed differ across Federal Reserve districts.

Page 20: Exports measure the total physical movement of a given product from the United States to a foreign country.

#### **Data Revisions**

Most data are revised periodically to correct for errors and incorporate additional information as it becomes available. Data shown in this report are subject to change.

#### Seasonal Adjustments

Most data are seasonally adjusted to remove variance caused by seasonal fluctuations in economic activity. Data in this report show the seasonal adjustments of data publishers where available. In other cases, Census X-12 adjustments were applied.

#### Additional Resources Available

- Agricultural Surveys
- Manufacturing Surveys
- Regional Economic Analysis
- Banker Resources
- Economic Indicators
- Economic Research
  - Educational Tools
  - Energy Survey
  - Speeches

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