Tenth District Economic Databook

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



MARCH 26, 2018

FEDERAL RESERVE BANK of KANSAS CITY

SUMMARY OF CURRENT TENTH DISTRICT ECONOMIC CONDITIONS

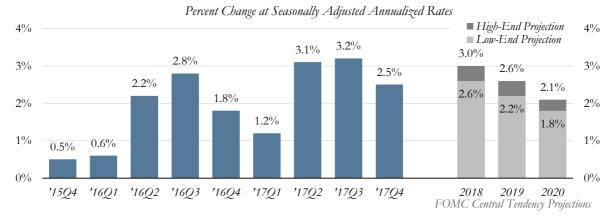
The unemployment rate was 3.6 percent across the Tenth District states in February, and total payroll employment grew 1.4 percent compared to the previous year. Employment growth was broad-based across industries, with the strongest percentage gains in the mining and logging and transportation and warehousing sectors. Tenth District nominal personal income grew 3.5 percent in the fourth quarter of 2017 compared to the previous year. In the energy sector, rig counts were well above year-ago levels. The Federal Reserve Bank of Kansas City's Manufacturing Survey indicated an increase in manufacturing activity in March 2018, with a composite index of 58.6. Nonirrigated farmland values, as measured by the Federal Reserve Bank of Kansas City's Survey of Agricultural Credit Conditions, decreased 3.6 percent in the fourth quarter of 2017 compared to the same period in 2016.

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.

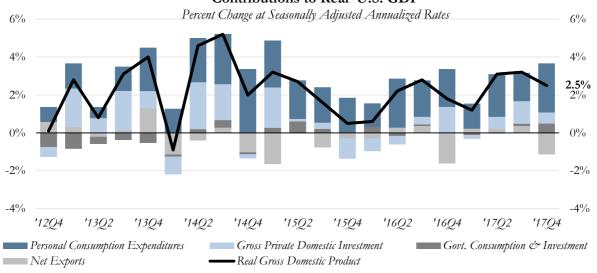


The Federal Reserve Bank of Kansas City's headquarters is located at 1 Memorial Drive in the heart of Kansas City, Missouri. The Federal Reserve Bank of Kansas City serves the Tenth Federal Reserve District, which includes Colorado, Kansas, western Missouri, Nebraska, northern New Mexico, Oklahoma and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

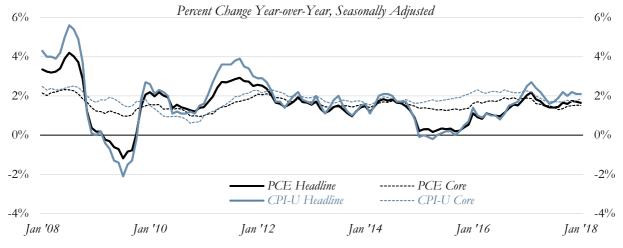


Tenth District Real Gross Domestic Product

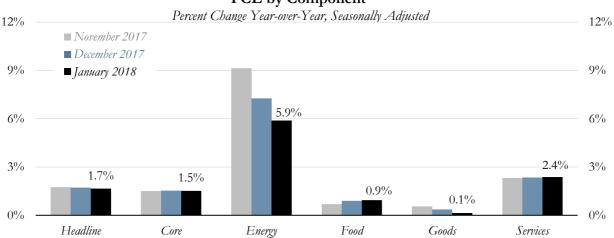


Source: Bureau of Economic Analysis, Federal Open Market Committee/Haver Analytics

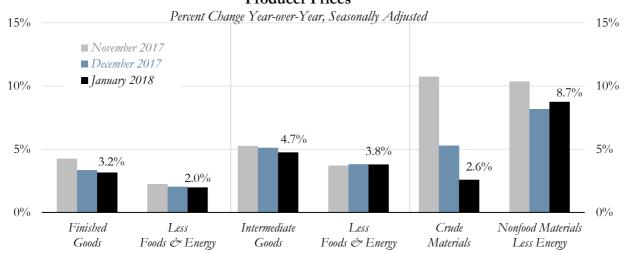
PCE & CPI-U Inflation



PCE by Component

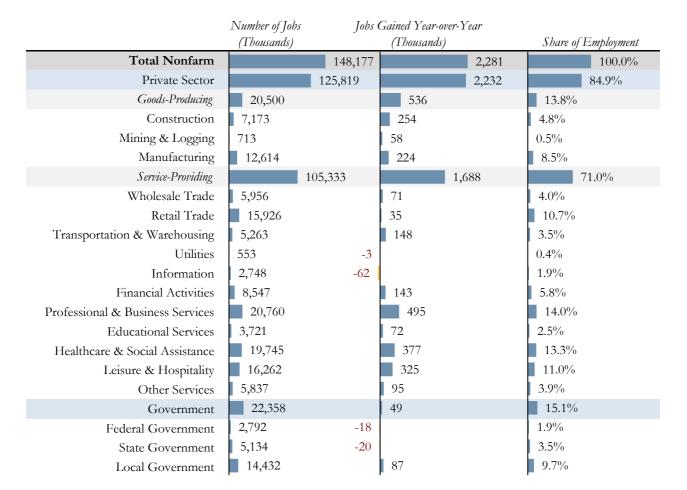


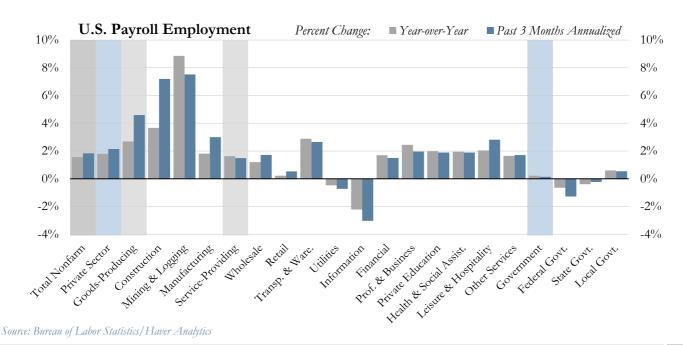
Producer Prices



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

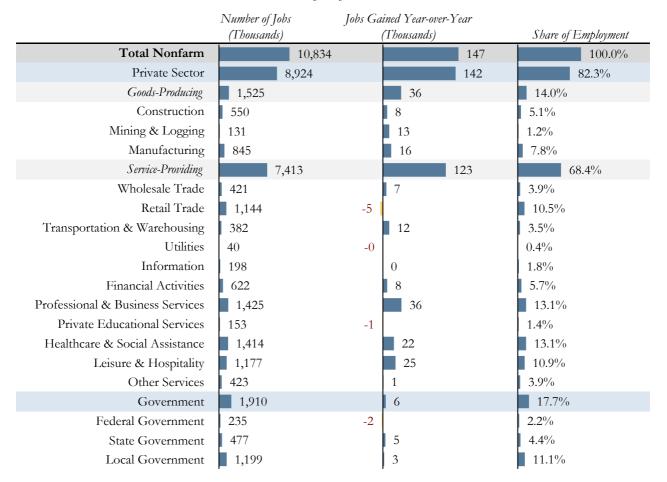
February 2018 U.S. Payroll Employment

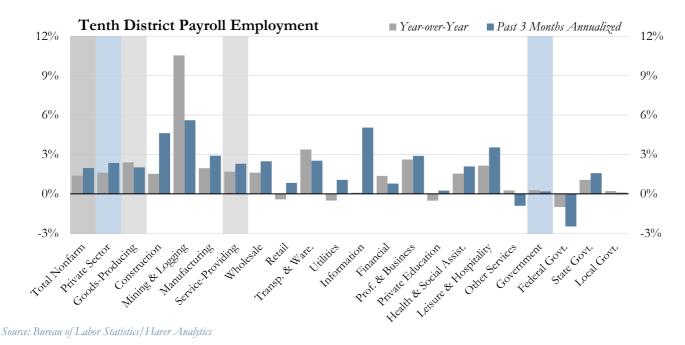




February 2018 Tenth District Payroll Employment

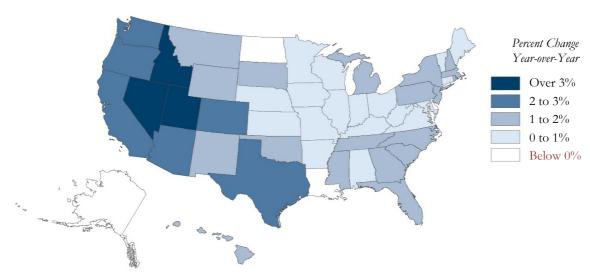
Seasonally Adjusted





February 2018 Total Nonfarm Employment

Seasonally Adjusted



Percent Change Year-over-Year

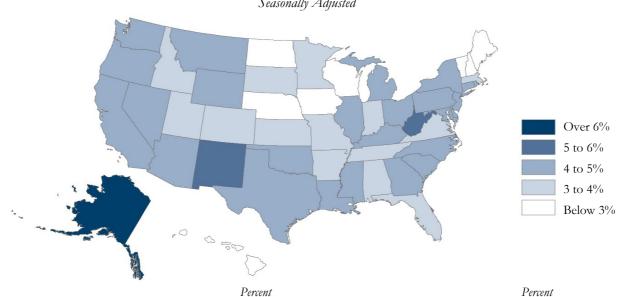
Percent Change Year-over-Year

		Year-over-Year			Year-over-Year
	United States	1.6%	25	Michigan	1.2%
	Tenth District	1.4	26	New York	1.2
1	Idaho	3.4	27	Montana	1.1
2	Nevada	3.2	28	Massachusetts	1.1
3	Utah	3.2	29	Indiana	1.0
4	Washington	2.9	30	West Virginia	1.0
5	Colorado	2.4	31	Missouri	1.0
6	Texas	2.3	32	Virginia	0.9
7	Oregon	2.3	33	Ohio	0.8
8	California	2.3	34	Alabama	0.8
9	Arizona	2.3	35	Illinois	0.8
10	Georgia	2.0	36	Minnesota	0.7
11	Florida	2.0	37	Wisconsin	0.7
12	Oklahoma	1.9	38	Iowa	0.6
13	Wyoming	1.7	39	Maine	0.6
14	North Carolina	1.6	40	Kansas	0.5
15	South Carolina	1.6	41	Connecticut	0.5
16	New Jersey	1.5	42	Kentucky	0.4
17	Tennessee	1.5	43	Arkansas	0.2
18	South Dakota	1.4	44	Nebraska	0.2
19	New Hampshire	1.4	45	Maryland	0.1
20	Pennsylvania	1.4	46	Vermont	0.1
21	Hawaii	1.4	47	Louisiana	0.0
22	New Mexico	1.4	48	Delaware	-0.1
23	Rhode Island	1.3	49	Alaska	-0.4
24	Mississippi	1.2	50	North Dakota	-1.6

Source: Bureau of Labor Statistics/Haver Analytics

February 2018 Unemployment Rates

Seasonally Adjusted



		Percent				Percent
		Unemployed	_			Unemployed
	United States	4.1%		23	Oregon	4.1%
	Tenth District	3.6		23	Montana	4.1
1	Alaska	7.3		27	Wyoming	4.0
2	New Mexico	5.8		27	Texas	4.0
3	West Virginia	5.4		29	Florida	3.9
4	Nevada	4.9		30	Arkansas	3.8
4	Arizona	4.9		31	Alabama	3.7
6	Pennsylvania	4.8		31	Missouri	3.7
6	Michigan	4.8		33	Virginia	3.5
8	Illinois	4.7		33	Massachusetts	3.5
8	Washington	4.7		35	South Dakota	3.4
10	New Jersey	4.6		35	Kansas	3.4
10	New York	4.6		35	Tennessee	3.4
10	Connecticut	4.6		38	Indiana	3.2
13	Ohio	4.5		38	Minnesota	3.2
13	Mississippi	4.5		40	Utah	3.1
13	Louisiana	4.5		41	Colorado	3.0
13	North Carolina	4.5		41	Idaho	3.0
13	Georgia	4.5		43	Maine	2.9
13	Rhode Island	4.5		43	Wisconsin	2.9
19	Delaware	4.4		43	Iowa	2.9
19	South Carolina	4.4		46	Vermont	2.8
21	California	4.3		46	Nebraska	2.8
22	Maryland	4.2		48	New Hampshire	2.6

23 Source: Bureau of Labor Statistics/Haver Analytics

23

Kentucky

Oklahoma

4.1

4.1

North Dakota

Hawaii

48

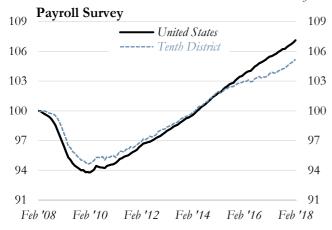
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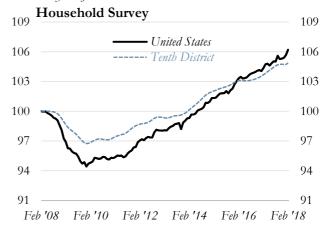
2.6

2.1

Total Nonfarm Employment

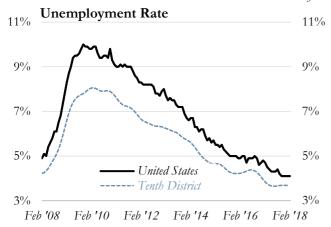
Ten-Year Index of Growth, Seasonally Adjusted

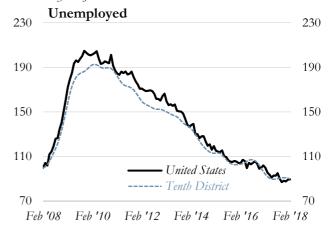


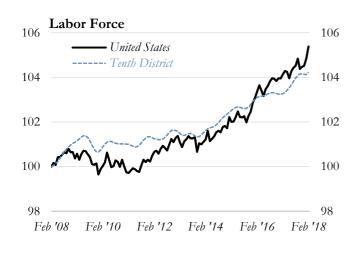


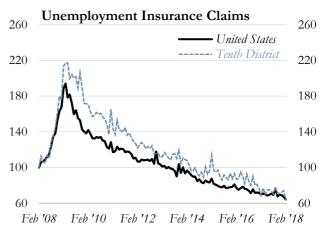
Labor Force Dynamics

Ten-Year Index of Growth, Seasonally Adjusted





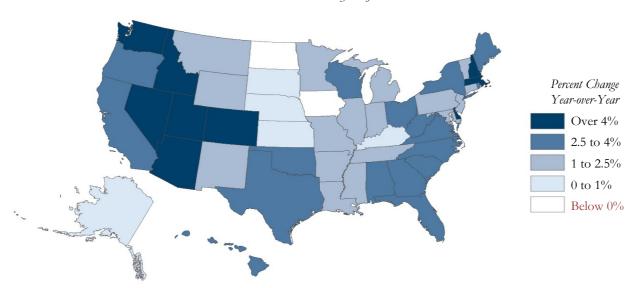




Source: Bureau of Labor Statistics & Department of Labor/Haver Analytics

2017Q4 Real Personal Income

Seasonally Adjusted



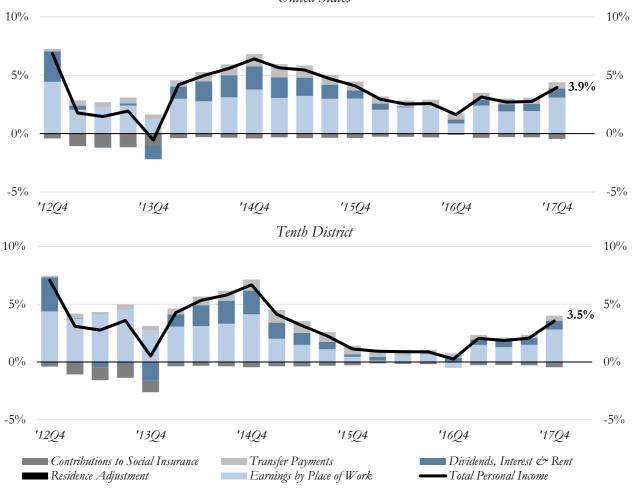
		Percent Change Year-over-Year	Per Capita Personal Income			Percent Change Year-over-Year	Per Capita Personal Income
	United States	2.2%	\$50,939	25	Maine	2.1%	\$45,589
	Tenth District	1.8	41,828	26	South Carolina	2.0	40,670
1	Nevada	4.6	45,225	27	Louisiana	2.0	43,917
2	New Hampshire	3.9	58,494	28	Wyoming	2.0	57,461
3	Arizona	3.9	42,207	29	Arkansas	1.8	41,064
4	Idaho	3.7	40,733	30	New Jersey	1.8	63,306
5	Colorado	3.6	54,202	31	Tennessee	1.8	44,689
6	Utah	3.4	42,561	32	Pennsylvania	1.8	52,811
7	Delaware	3.3	49,923	33	Vermont	1.7	51,653
8	Washington	3.3	56,961	34	Maryland	1.6	60,171
9	Massachusetts	3.1	66,811	35	Illinois	1.4	53,576
10	Rhode Island	2.9	52,375	36	Indiana	1.3	44,577
11	Texas	2.8	47,375	37	Connecticut	1.3	70,969
12	California	2.7	59,014	38	New Mexico	1.3	39,437
13	Georgia	2.7	43,708	39	Missouri	1.3	44,067
14	Florida	2.7	47,174	40	Montana	1.2	44,139
15	West Virginia	2.5	38,585	41	Mississippi	1.2	36,692
16	Wisconsin	2.4	48,506	42	Michigan	1.2	45,683
17	North Carolina	2.4	43,619	43	Minnesota	1.2	53,335
18	New York	2.3	61,767	44	Kentucky	0.7	39,774
19	Hawaii	2.2	52,675	45	Nebraska	0.4	50,564
20	Oregon	2.2	46,732	46	South Dakota	0.4	48,393
21	Alabama	2.2	40,374	47	Kansas	0.2	48,011
22	Ohio	2.1	46,251	48	Alaska	0.2	56,878
23	Virginia	2.1	54,828	49	Iowa	-1.0	46,058
24	Oklahoma	2.1	43,933	50	North Dakota	-2.1	54,458

Source: Bureau of Economic Analysis/Haver Analytics

Nominal Personal Income

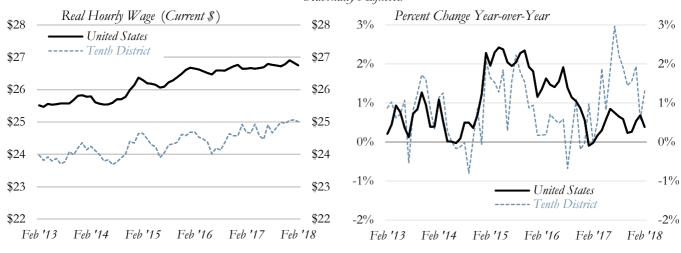
Contributions to Percent Change, Seasonally Adjusted





Real Average Hourly Wage

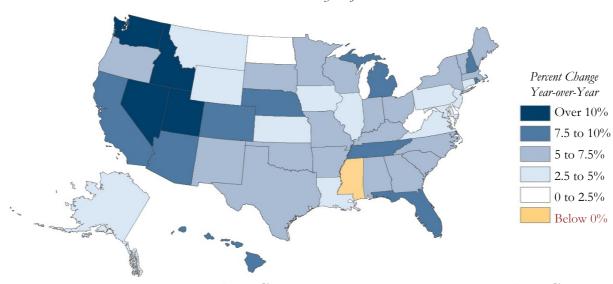
Seasonally Adjusted



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

2017Q4 FHFA Purchase-Only Home Price Index

Seasonally Adjusted



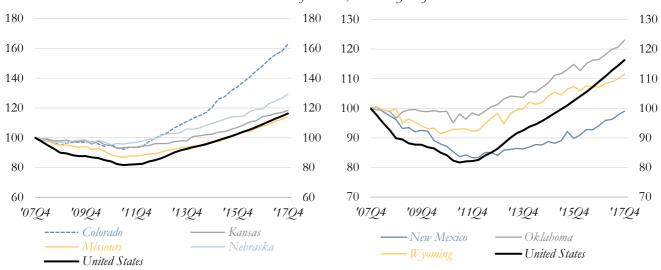
Percent Change Year-over-Year Percent Change Year-over-Year

	Year-over-Year				Year-over-Yea
	United States	6.7%	25	Minnesota	6.2%
			26	Massachusetts	6.1
1	Washington	12.0	27	New York	5.9
2	Idaho	11.5	28	Missouri	5.9
3	Nevada	11.5	29	Alabama	5.6
4	Utah	10.7	30	Oklahoma	5.6
5	Colorado	9.8	31	Wisconsin	5.6
6	Tennessee	9.4	32	Maine	5.5
7	Hawaii	8.7	33	South Dakota	5.5
8	Florida	8.7	34	New Mexico	5.1
9	Michigan	8.6	35	Pennsylvania	4.9
10	California	8.5	36	Virginia	4.9
11	Nebraska	8.3	37	New Jersey	4.6
12	Arizona	8.3	38	Iowa	4.4
13	Rhode Island	8.1	39	Wyoming	4.1
14	New Hampshire	7.6	40	Connecticut	3.7
15	Texas	7.3	41	Alaska	3.6
16	Kentucky	7.2	42	Maryland	3.5
17	Vermont	7.1	43	Kansas	3.5
18	Indiana	6.9	44	Illinois	3.2
19	Georgia	6.7	45	Montana	3.0
20	North Carolina	6.7	46	Louisiana	2.7
21	Oregon	6.5	47	Delaware	2.0
22	South Carolina	6.5	48	North Dakota	1.8
23	Ohio	6.3	49	West Virginia	1.1
24	Arkansas	6.3	50	Mississippi	-0.6

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

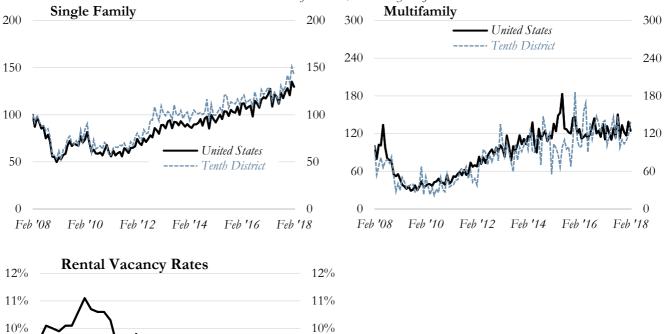
FHFA Purchase-Only Home Price Index

Ten-Year Index of Growth, Seasonally Adjusted



Housing Permits

Ten-Year Index of Growth, Seasonally Adjusted



9%

8%

7%

6%

'17Q4

'15Q4

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

'1104

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

'1304

United States

'0904

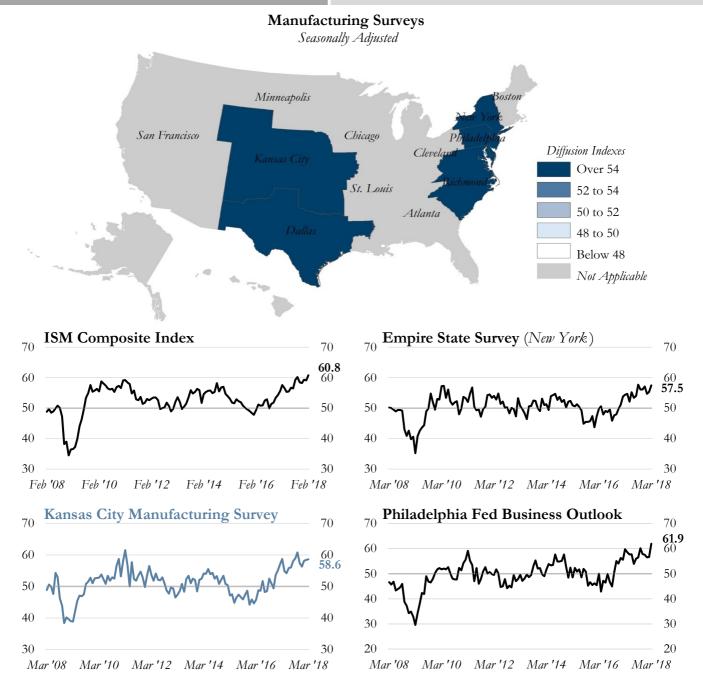
9%

8%

7%

6%

'07Q4



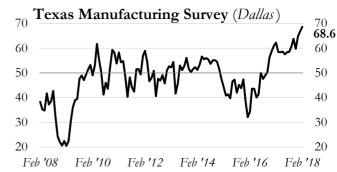
70

40

30

20

Feb '18



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

Feb '16

Feb '14

Richmond Manufacturing Survey

Feb '12

Feb '10

60

50

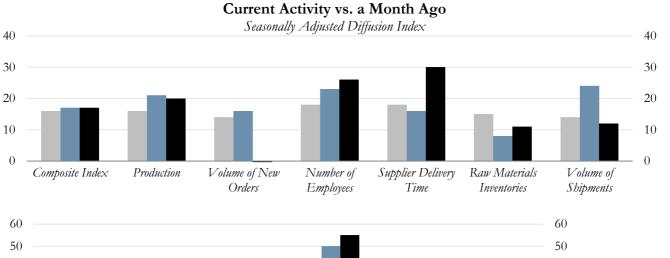
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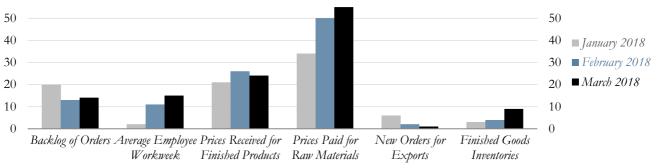
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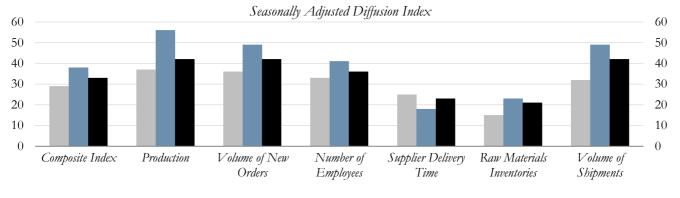


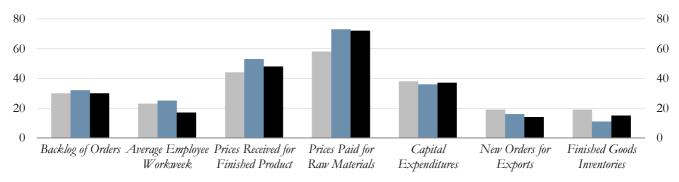
KANSAS CITY DISTRICT MANUFACTURING





Expectations Six-Months Ahead

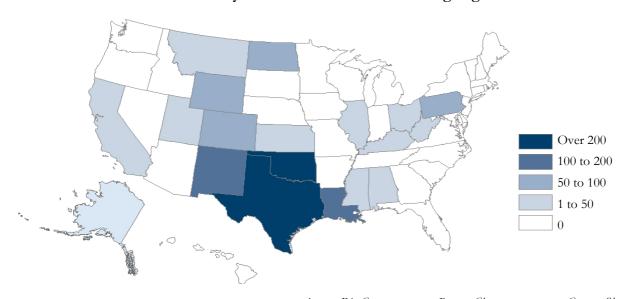




Note: Indices above zero indicate expansion.

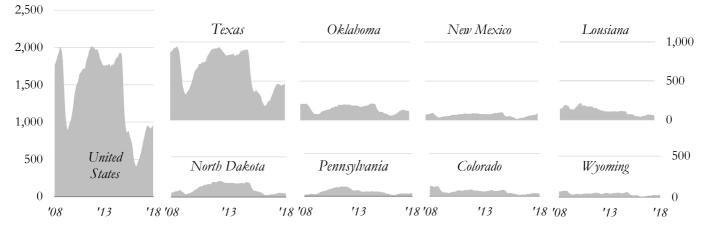
Source: Federal Reserve Bank of Kansas City/Haver Analytics

February 2018 Active Oil & Gas Drilling Rig Counts



		Average Rig Counts During the Month	Percent Change Year-over-Year	Current Share of Activity
	United States	969	22.8%	oj z uwuy
	Tenth District	269	37.9	27.8%
Top Producing States	Texas	476	28.6	49.1
	Oklahoma	120	17.6	12.4
	New Mexico	86	79.2	8.9
	Lousiana	60	15.4	6.2
	North Dakota	48	37.1	5.0
	Pennsylvania	38	11.8	3.9
	Colorado	33	26.9	3.4
	Wyoming	29	52.6	3.0
	Ohio	22	10.0	2.3
	West Virginia	18	80.0	1.9

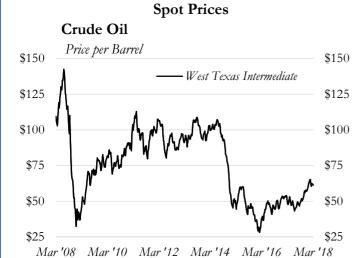
Ten-Year History of Most Active States *Average Active Monthly Drilling Rig Counts*

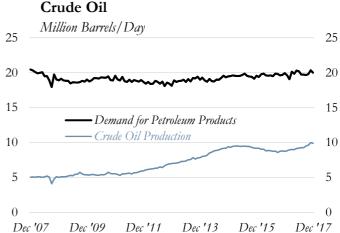


Source: Baker Hughes/Haver Analytics

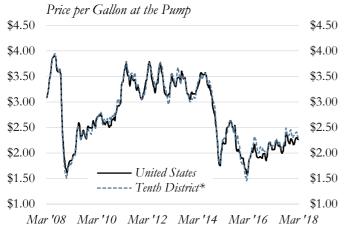
U.S. Supply/Demand Dynamics

Seasonally Adjusted

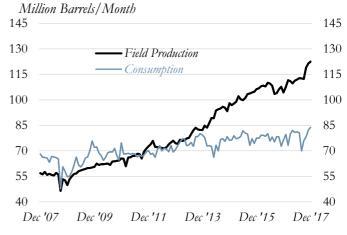




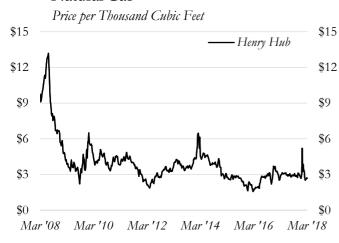
Gasoline



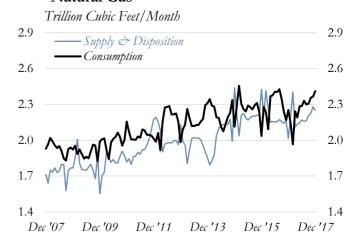
Natural Gas Liquids



Natural Gas

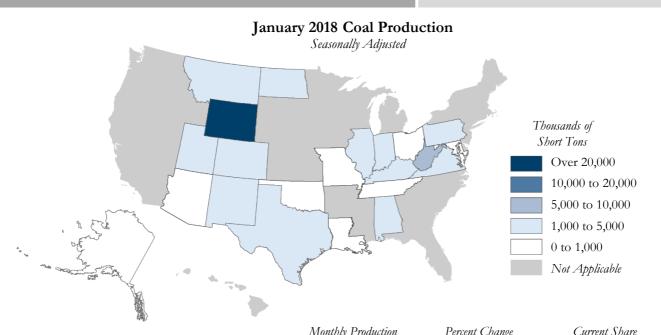


Natural Gas



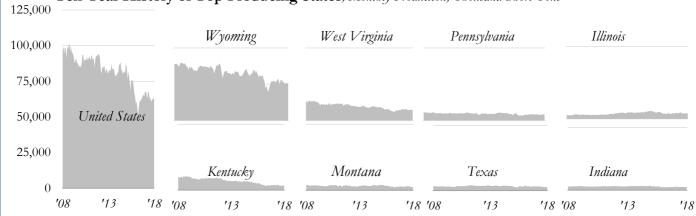
Source: Wall Street Journal, Oil & Gas Journal & Department of Energy, Energy Information Administration/Haver Analytics

 $[*]Average\ price\ per\ gallon\ for\ major\ Tenth\ District\ metro\ areas.$



		(Thousand Short Tons)	Perceni Change Year-over-Year	of Production
	United States	62,409.9	-7.4%	
	Tenth District*	28,074.9	-6.5	45.0%
Top Producing States	Wyoming	25,350.7	-7.3	40.6
	West Virginia	7,386.7	-5.0	11.8
	Pennsylvania	4,041.6	-4.7	6.5
	Illinois	3,772.6	-6.3	6.0
	Kentucky	3,425.0	-10.7	5.5
	Montana	2,697.5	1.5	4.3
	Texas	2,649.6	-16.0	4.2
	Indiana	2,400.6	-11.7	3.8
	North Dakota	2,064.0	-12.1	3.3
	Colorado	1,554.6	11.4	2.5

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



*Includes all Tenth District states but Nebraska.

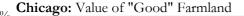
Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

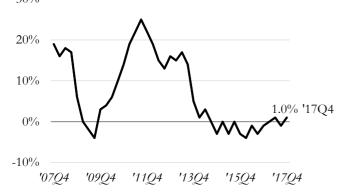
Farm Land Values*



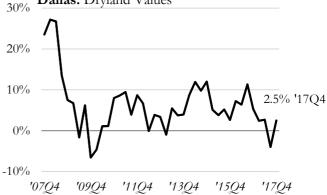
Farmland Values by Federal Reserve District

Percent Change Year-over-Year





30% **Dallas:** Dryland Values



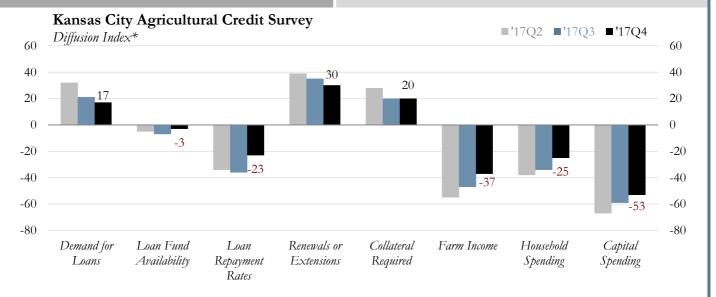
Kansas City: Nonirrigated Farmland Values



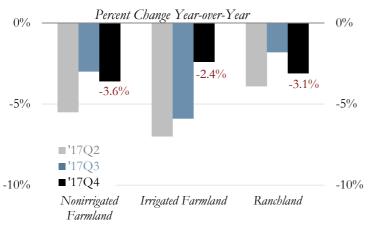
^{*}Values shown for the most recent survey available for each district. Source: Federal Reserve District Banks/Haver Analytics



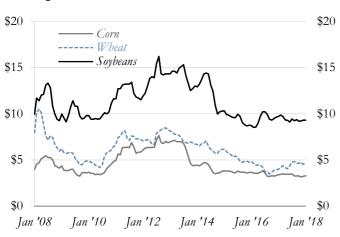
SELECTED AGRICULTURAL INDICATORS



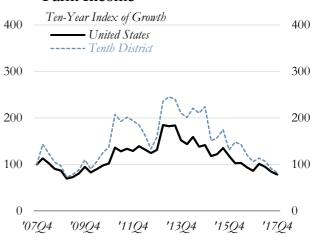
Tenth District Farmland Values



Spot Prices



Farm Income

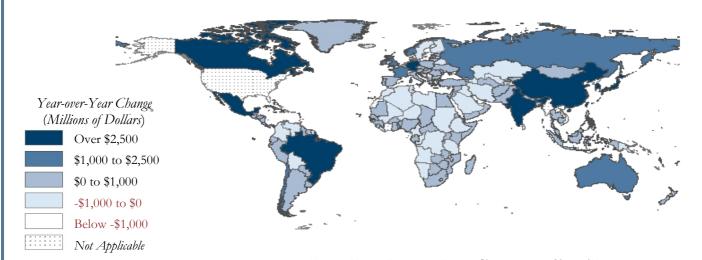


^{*}Calculated as the percentage of total respondents reporting increases less those reporting declines.

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

2017Q4 U.S. Exports

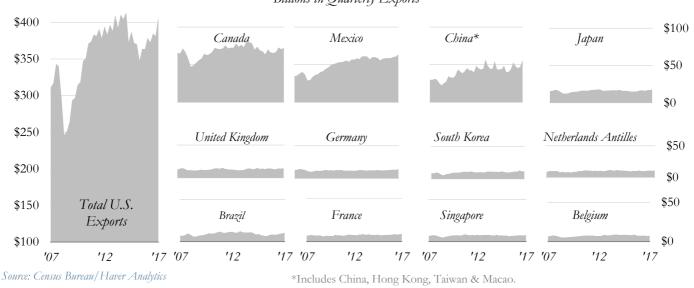
Year-to-Date



		Exports Year-to-Date (Billions of Dollars)	Percent Change Year-to-Date	Share of Exports Year-to-Date
	United States	\$1,546,732.0	6.4%	
Top Export Markets	Canada	282.5	6.2	18.3%
	Mexico	243.0	5.2	15.7%
	China*	196.6	10.9	12.7%
	Japan	67.7	7.0	4.4%
	United Kingdom	56.3	1.7	3.6%
	Germany	53.5	8.4	3.5%
	South Korea	48.3	14.2	3.1%
	Netherlands Antilles	42.2	4.6	2.7%
	Brazil	37.1	22.4	2.4%
	France	33.6	8.5	2.2%

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: http://www.bls.gov/web/empsit/ces_cps_trends.pdf 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

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