News Release

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TENTH DISTRICT ENERGY ACTIVITY EXPANDED AT A SLOWER PACE

Federal Reserve Bank of Kansas City Releases Second Quarter Energy Survey

KANSAS CITY, Mo. –The Federal Reserve Bank of Kansas City released the second quarter Energy Survey today. According to Chad Wilkerson, Oklahoma City Branch executive and economist at the Federal Reserve Bank of Kansas City, the survey revealed slower growth in Tenth District energy activity.

“Firms were not quite as optimistic in the second quarter as in the previous two quarters,” said Wilkerson. “They on average expect oil and natural gas prices to stay below levels needed for significant expansion for at least the next year, and perhaps longer.”

The Kansas City Fed's quarterly Tenth District Energy Survey provides information on current and expected activity among energy firms in the Tenth District. The survey monitors oil and gas-related firms located and/or headquartered in the Tenth District, with results based on total firm activity. Survey results reveal changes in several indicators of energy activity, including drilling, capital spending, and employment. Firms also indicate projections for oil and gas prices. All results are diffusion indexes – the percentage of firms indicating increases minus the percentage of firms indicating decreases. A summary of the second quarter survey is attached. Results from past surveys and release dates for future surveys can be found at https://www.kansascityfed.org/research/indicatorsdata/energy.

The Federal Reserve Bank of Kansas City serves the Tenth Federal Reserve District, encompassing the western third of Missouri; all of Kansas, Colorado, Nebraska, Oklahoma and Wyoming; and the northern half of New Mexico. As part of the nation’s central bank, the Bank participates in setting national monetary policy, supervising and regulating numerous commercial banks and bank holding companies, and providing financial services to depository institutions. More information is available online at www.kansascityfed.org.

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Tenth District Energy Survey

Tenth District Energy Activity Expanded at a Slower Pace in the Second Quarter of 2017

Second quarter energy survey results indicated that Tenth District energy firm activity continued to expand but at a slower pace. The future activity outlook also moderated but remained positive. Firms said that oil and natural gas prices on average needed to be $56 per barrel and $3.65 per million Btu, respectively, to increase drilling significantly.

Summary of Quarterly Indicators

District energy activity expanded at a slower pace in the second quarter of 2017, as reported by firms contacted between June 15 and 30 (Tables 1 & 2). Most indexes eased but remained above zero. The total revenues and profits indexes were significantly lower, and the drilling and business activity index declined moderately (Chart 1). The employment index was modestly lower, while the access to credit index fell into negative territory for the first time since the third quarter of 2016. In contrast, the indexes for employee hours and for wages and benefits edged higher.

Most year-over-year indexes increased further. The drilling and business activity and capital expenditures indexes increased to their highest readings in the survey's history. Similarly, the employee hours and wages and benefits indexes jumped to their highest readings since 2014. The revenues and employment indexes rose somewhat, and the profits index edged higher. Furthermore, the supplier delivery time index turned positive for the first time since early 2015. However, the access to credit index fell back into negative territory.

Most future expectations indexes dropped but remained in positive territory. The future drilling and business activity index fell from 57 to 26, and the future revenues and total profits indexes also declined considerably. The future capital spending index fell moderately from 37 to 19. However, the future employment index edged higher and the access to credit index rose from 0 to four.

Price expectations for oil and gas were mixed. The expected oil prices index inched up to four, meaning most respondents expected oil prices to stay near current levels through the end of 2017. The NGL price index rose moderately, while the natural gas price index fell from six to three.

Summary of Special Questions

Firms were asked what oil and natural gas prices were needed for drilling to increase substantially in the areas in which they were active. The average oil price needed was $56 per barrel, with a range of $40 to $70 (Chart 2). This was modestly lower than the $60 average in the fourth quarter of 2016. The average natural gas price needed was $3.65 per million Btu, with responses ranging from $3 to $5.

Firms were also again asked what they expected oil and natural gas prices to be in six months, one year, two years, and five years. The average expected WTI prices for these periods were $47, $49, $54, and $61 per barrel, respectively, lower than in the previous survey. The average expected Henry Hub natural gas prices for these periods were $3.05, $3.06, $3.25, and $3.51 per million Btu.

Firms were asked if they expected the U.S. rig count growth to continue at the current pace. The majority of contacts expected a slowdown in growth, citing the recent drop in oil prices as the main factor.

Firms were also asked if financing had become more or less available in recent months. Respondents said financing has tightened at banks and in bond markets, while equity markets were mixed (Chart 3). Private equity was the most readily available source of financing for most contacts.

Firms were asked what two areas of spending were cut most significantly from 2014 to 2016, and which two areas have seen the largest increases since 2016. Exploration and development capex and labor/wages/benefits were the top two areas that firms said saw the biggest cuts from 2014 to 2016 (Chart 4). Meanwhile, spending since 2016 has picked up the most in exploration and development capex followed by equipment maintenance capex and labor/wages/benefits.

Finally, firms were asked for their expected average employment levels for 2017 and 2018. Overall, year-over-year employment was expected to rise modestly in both 2017 and 2018. For 2017, the strongest employment growth was expected to come from E&P companies. However, services companies were expected to post the highest growth in 2018.

Selected Comments

"U.S. activity will offset OPEC cuts to keep prices down over the next several months. U.S. activity will curtail to some degree before year end due to poor returns and market balance will be achieved sometime in 2018. There is too much under-exploited oil supply for prices to rise to 2013 levels for some time."

"The rig count pace of growth is going to slow significantly and probably flat line. The industry has a significant number of drilled but uncompleted wells and this inventory is growing every day."

"Abundant supply of both oil and gas has the market depressed. Anticipate reduction in activity if the commodity price trend continues in this direction."

"I believe that the rig count has gone up ahead of the price of oil. I do not believe that the current price and oversupply requires the increase in rig counts that we have seen."

"The current rise in the rig count is a harvesting operation within the shale plays. Very little exploration seems to be occurring at the moment."

"There are huge volumes of natural gas everywhere. Every oil well being drilled has significant associated natural gas."

"Public companies overpaid for Permian assets and must show reserve and production growth, so drilling will continue to escalate for several months in the Permian, no matter the price. Other basins may counter that a bit when prices are uneconomic."

Table 1
Summary of Tenth District Energy Conditions, Quarter 2, 2017

	Quarter 2 vs. Quarter 1 (percent)*				Quarter 2 vs. Year Ago (percent)*				Expected in Six Months (percent)*			
Energy Company Indicators	Increase	No Change	Decrease	Diff Index^	Increase	No Change	Decrease	Diff Index^	Increase	No Change	Decrease	Diff Index^
Drilling/Business Activity	57	30	13	43	81	7	11	70	44	37	19	26
Total Revenues	47	27	27	20	76	10	14	62	46	25	29	18
Capital Expenditures					70	19	11	59	42	35	23	19
Supplier Delivery Time	15	81	4	11	19	74	7	11	15	73	12	4
Total Profits	34	34	31	3	69	21	10	59	38	35	27	12
Number of Employees	43	37	20	23	48	34	17	31	39	43	18	21
Employee Hours	33	53	13	20	41	45	14	28	29	64	7	21
Wages and Benefits	30	60	10	20	41	48	10	31	19	70	11	7
Access to Credit	17	63	20	-3	17	62	21	-3	18	68	14	4
Expected Oil Prices									25	54	21	4
Expected Natural Gas Prices									20	63	17	3
Expected Natural Gas Liquids Prices									28	66	7	21

*Percentage may not add to 100 due to rounding
^Diffusion Index. The diffusion index is calculated as the percentage of total respondents reporting increases minus the percentage reporting declines.

Note: The second quarter survey ran from June 15-30, 2017 and included 30 responses from firms in Colorado, Kansas, Nebraska, Oklahoma, Wyoming, northern New Mexico, and western Missouri.

Chart 1. Drilling/Business Activity Index vs. a Quarter Ago

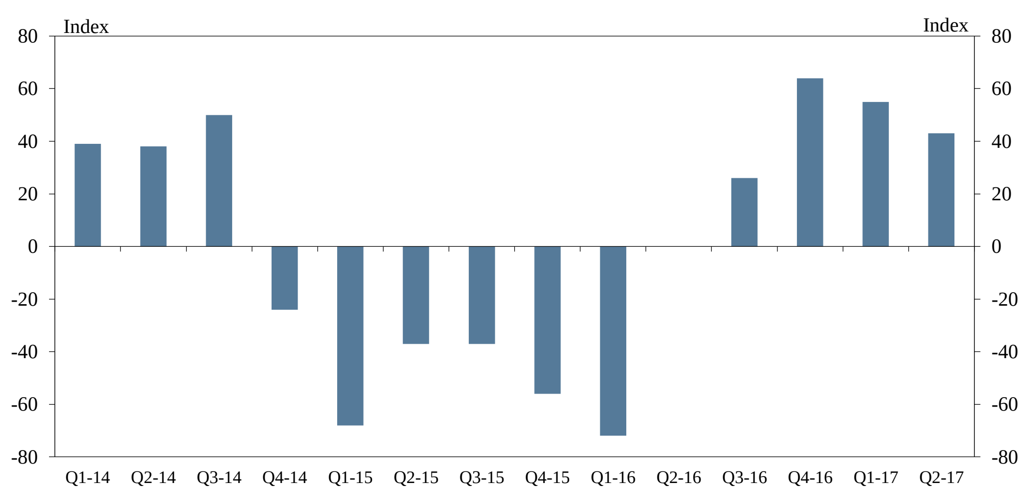

Table 2
Historical Energy Survey Indexes

	Q1'14	Q2'14	Q3'14	Q4'14	Q1'15	Q2'15	Q3'15	Q4'15	Q1'16	Q2'16	Q3'16	Q4'16	Q1'17	Q2'17
Versus a Quarter Ago														
(not seasonally adjusted)														
Drilling/Business Activity	39	38	50	-24	-68	-37	-37	-56	-72	0	26	64	55	43
Total Revenues	33	57	72	-42	-81	-45	-58	-86	-67	-31	5	62	52	20
Supplier Delivery Time	-3	12	-15	4	-3	11	6	-6	-9	-3	-8	-7	4	11
Total Profits	31	34	50	-44	-86	-53	-61	-76	-78	-22	-10	42	41	3
Number of Employees	42	28	41	0	-26	-37	-41	-49	-69	-59	-11	26	31	23
Employee Hours	20	14	34	-19	-43	-19	-39	-39	-54	-52	-10	20	16	20
Wages and Benefits	48	34	45	12	0	-16	-30	-33	-50	-37	-22	17	13	20
Access to Credit	6	15	14	-12	-17	-10	-41	-49	-39	-17	-5	0	3	-3
Versus a Year Ago														
Drilling/Business Activity	26	19	56	-23	-63	-84	-91	-89	-84	-65	-21	41	59	70
Total Revenues	53	63	71	-4	-70	-77	-88	-92	-81	-69	-31	15	52	62
Capital Expenditures	19	30	52	-11	-67	-62	-84	-76	-73	-84	-58	14	43	59
Supplier Delivery Time	-3	12	-15	8	11	-4	-18	-3	-6	-14	-11	-14	-4	11
Total Profits	38	46	62	-16	-74	-90	-89	-92	-81	-71	-49	23	55	59
Number of Employees	35	28	67	35	-13	-32	-47	-56	-78	-67	-50	-7	13	31
Employee Hours	20	11	33	4	-43	-38	-54	-40	-66	-48	-37	3	0	28
Wages and Benefits	59	38	67	38	3	-28	-25	-26	-47	-42	-33	17	9	31
Access to Credit	3	11	26	-25	-43	-32	-40	-56	-53	-47	-30	-17	13	-3
Expected in Six Months														
(not seasonally adjusted)														
Drilling/Business Activity	34	58	46	-83	-53	20	-26	-43	-31	39	21	73	57	26
Total Revenues	59	74	69	-60	-42	19	-36	-56	-17	26	6	67	52	18
Capital Expenditures	20	33	44	-64	-67	-3	-41	-67	-50	17	9	79	37	19
Supplier Delivery Time	-3	4	-11	15	10	-10	-3	-9	-3	-3	-8	-7	11	4
Total Profits	47	59	61	-76	-52	-3	-38	-63	-22	23	5	76	45	12
Number of Employees	42	50	59	-23	-29	-7	-34	-51	-39	6	-22	32	16	21
Employee Hours	29	26	39	-48	-26	0	-24	-42	-39	6	-8	28	16	21
Wages and Benefits	34	32	69	-8	-26	7	-14	-27	-38	-3	3	52	23	7
Access to Credit	13	29	23	-40	-21	0	-31	-40	-35	0	-6	3	0	4
Expected Oil Prices	3	24	-23	-52	3	32	20	-9	41	58	49	72	3	4
Expected Natural Gas Prices	22	30	37	-26	-19	16	11	-15	18	61	44	26	6	3
Expected Natural Gas Liquids Prices	26	26	-4	-42	-13	10	6	-15	29	59	31	64	14	21
Special Price Questions														
(averages)														
Profitable WTI Oil Price (per barrel)			$79		$62		$60		$51		$53		$51	
WTI Price to Significantly Increase Drilling						$73		$60		$64		$60		$56
WTI Price Expected in 6 Months													$51	$47
WTI Price Expected in 1 Year													$54	$49
WTI Price Expected in 2 Years													$60	$54
WTI Price Expected in 5 Years													$69	$61
Profitable Natural Gas Price (per million BTU)									$3.29		$3.45		$3.38	
Natural Gas Price to Significantly Increase Drilling										$3.65		$3.97		$3.65
Henry Hub Price Expected in 6 Months													$2.85	$3.05
Henry Hub Price Expected in 1 Year													$3.01	$3.06
Henry Hub Price Expected in 2 Years													$3.22	$3.25
Henry Hub Price Expected in 5 Years													$3.64	$3.51

Chart 2. Special Question - What price is currently needed for a substantial increase in drilling to occur for oil and natural gas, and what do you expect the WTI and Henry Hub prices to be in six months, one year, two years, and five years?

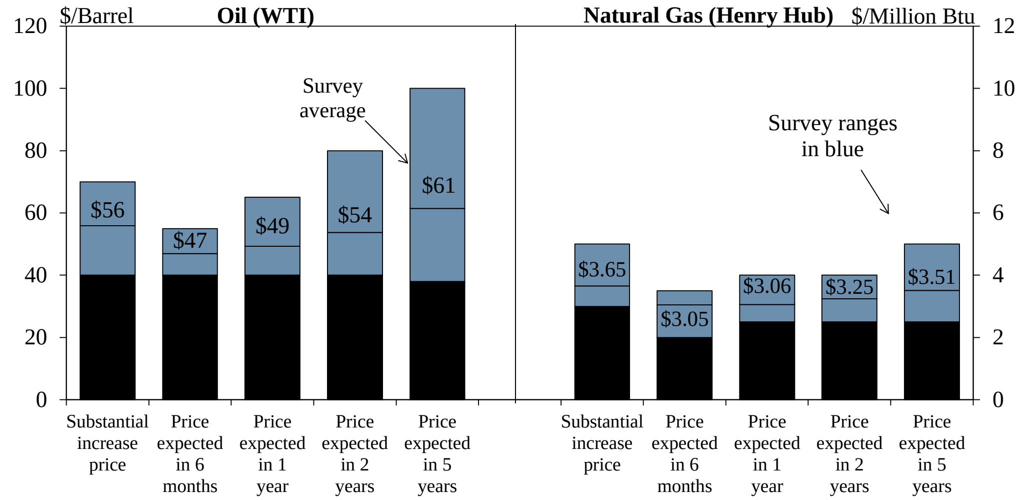

Chart 3. Special Question - Has financing become more available or less available from the following sources in recent months?

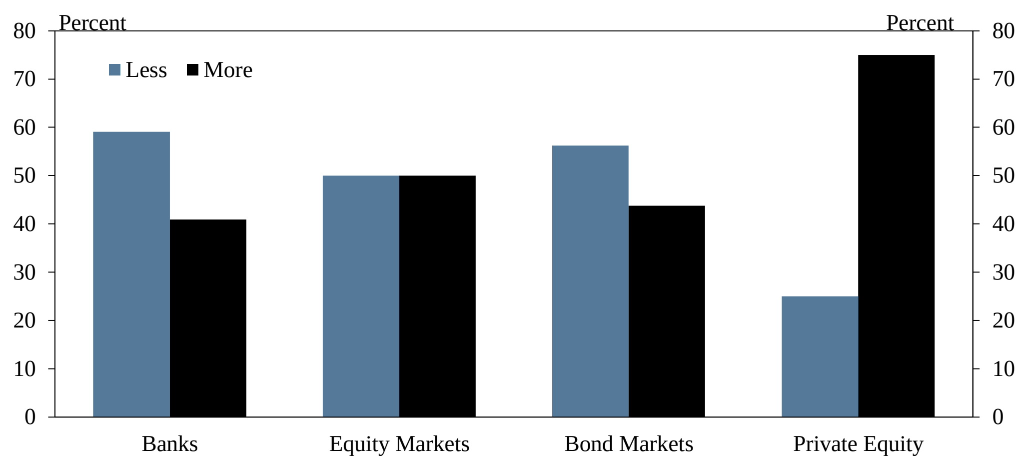

Chart 4. Special Question - Where are the top two areas your firm most significantly cut spending from 2014 to 2016, and where are the top two areas your firm has increased spending since 2016?