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Tenth District Energy Activity Fell Again

Federal Reserve Bank of Kansas City Releases First Quarter Energy Survey

KANSAS CITY, Mo. –The Federal Reserve Bank of Kansas City released the first quarter Energy Survey today. According to Chad Wilkerson, senior vice president at the Federal Reserve Bank of Kansas City, the survey revealed that Tenth District energy activity fell again and is expected to decline further in coming months.

“District drilling and business activity posted a decline for the fifth consecutive quarter in Q1,” said Wilkerson. “However, revenues were flat and profit declines slowed, and employment continued to edge higher.”

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 survey is attached. Results from past surveys and release dates for future surveys can be found at <https://www.kansascityfed.org/surveys/energy-survey>.

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 SUMMARY

First quarter energy survey results revealed that Tenth District energy activity fell again and is expected to decline further. Firms reported that oil prices needed to be on average \$65 per barrel for drilling to be profitable, and \$90 per barrel for a substantial increase in drilling to occur. Natural gas prices needed to be \$3.47 per million Btu for drilling to be profitable on average, and \$4.38 per million Btu for drilling to increase substantially.

Summary of Quarterly Indicators

Tenth District energy activity fell again in the first quarter of 2024, as indicated by firms contacted between March 15th, 2024, and April 1st, 2024 (Tables 1 & 2). The drilling and business activity index increased from -33 to -13 (Chart 1). Revenues stayed steady in Q1, while profits declined at a slower pace than in previous quarters. Only the employment-related indexes had positive readings this quarter—namely the number of employees, employee hours, and wages & benefits indexes.

Drilling activity also fell from this time last year, with the business/drilling activity index changing to -26 from -33 last quarter. Revenues and profits also declined somewhat, and the capital expenditures index was negative for the first time since Q4 2020.

The contraction in drilling activity is expected to continue in the next six months, but firms anticipate revenues and profits will pick up somewhat. Despite this, capital expenditures are expected to continue declining even as the outlook for access to credit is stable.

Summary of Special Questions

Firms were asked what oil and natural gas prices were needed on average for drilling to be profitable across the fields in which they are active. The average oil price needed was \$65 per barrel (Chart 2), while the average natural gas price needed was \$3.47 per million Btu (Chart 3). Firms were also asked what prices were needed for a substantial increase in drilling to occur across the fields in which they are active. The average oil price needed was \$90 per barrel (Chart 2), and the average natural gas price needed was \$4.38 per million Btu (Chart 3).

Firms reported 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 were \$81, \$83, \$85, and \$90 per barrel, respectively. The average expected Henry Hub natural gas prices were \$2.16, \$2.71, \$3.01, and \$3.58 per million Btu, respectively.

Firms were asked how they anticipate the ongoing consolidation in the oil sector will affect U.S. oil production growth and oil price trajectories (Chart 4). 42% believe the consolidation will likely lead to more cautious U.S. oil production growth and could potentially drive higher oil prices, while 35% believe it will lead to more cautious U.S. oil production growth and contribute to more stable oil prices. The other 23% of firms do not anticipate any significant impact on U.S. oil production or oil prices due to industry consolidation.

Contacts were also asked about how profit margins have changed in the last 3 months given current price pressures (Chart 5). Responses were mixed, with 29% reporting a slight decrease in margins, 25% a significant decrease, and 23% each reporting no change in margins or a slight increase.

Selected Energy Comments

“We are staying nimble in order to be able to react to major happenings in the world.”

“In the short run, there is very little that can be done to maintain profit margins. In general, we don't think there is a lot that service companies can do to lower their cost and thus pass on savings to exploration and production companies. Capital expenditures must come down to match cash flow.”

“Long term, the cost of gas needs to match the cost to replace the gas reserves. Current low prices do not justify the cost of reserve replacement.”

“Natural gas continues to be plentiful.”

“The USA is way oversupplied in natural gas, hence exports of LNG are critical. As LNG projects for exports are delayed, natural gas will back up in the USA.”

“Working through excess supply currently. Natural gas will be in higher demand as we move forward for electricity generation.”

“Dry gas development will meet increased demand needs. Associated gas constant to rising.”

“Less companies looking for new reserves means we will not be able to replace the reserves needed to cover the demand.”

“At least for publicly traded companies, there is sufficient motivation to place profits and return of capital over growth.”

“The industry remains highly fragmented in the US, and US production is a small component of an efficient global market.”

Table 1
Summary of Tenth District Energy Conditions, Quarter 1, 2024

Energy Company Indicators	Quarter 1 vs. Quarter 4 (percent)*				Quarter 1 vs. Year Ago (percent)*				Expected in Six Months (percent)*			
	Increase	No Change	Decrease	Diff Index [^]	Increase	No Change	Decrease	Diff Index [^]	Increase	No Change	Decrease	Diff Index [^]
Drilling/Business Activity	10	67	23	-13	19	35	45	-26	20	50	30	-10
Total Revenues	36	27	36	0	38	19	44	-6	34	44	22	13
Capital Expenditures					18	42	39	-21	16	50	34	-19
Supplier Delivery Time	0	84	16	-16	0	61	39	-39	0	87	13	-13
Total Profits	27	39	33	-6	34	19	47	-13	31	41	28	3
Number of Employees	30	58	12	18	47	41	13	34	31	63	6	25
Employee Hours	15	73	12	3	25	63	13	13	25	63	13	13
Wages and Benefits	55	39	6	48	75	19	6	69	38	56	6	31
Access to Credit	3	90	6	-3	13	77	10	3	17	77	7	10
Expected Oil Prices									41	50	9	31
Expected Natural Gas Prices									58	29	13	45
Expected Natural Gas Liquids Prices									29	58	13	16

*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 first quarter survey ran from March 15, 2024 to April 1, 2024 and included 33 responses from firms in Colorado, Kansas, Nebraska, Oklahoma, Wyoming, northern New Mexico, and western Missouri.

Chart 1. Drilling/Business Activity Indexes

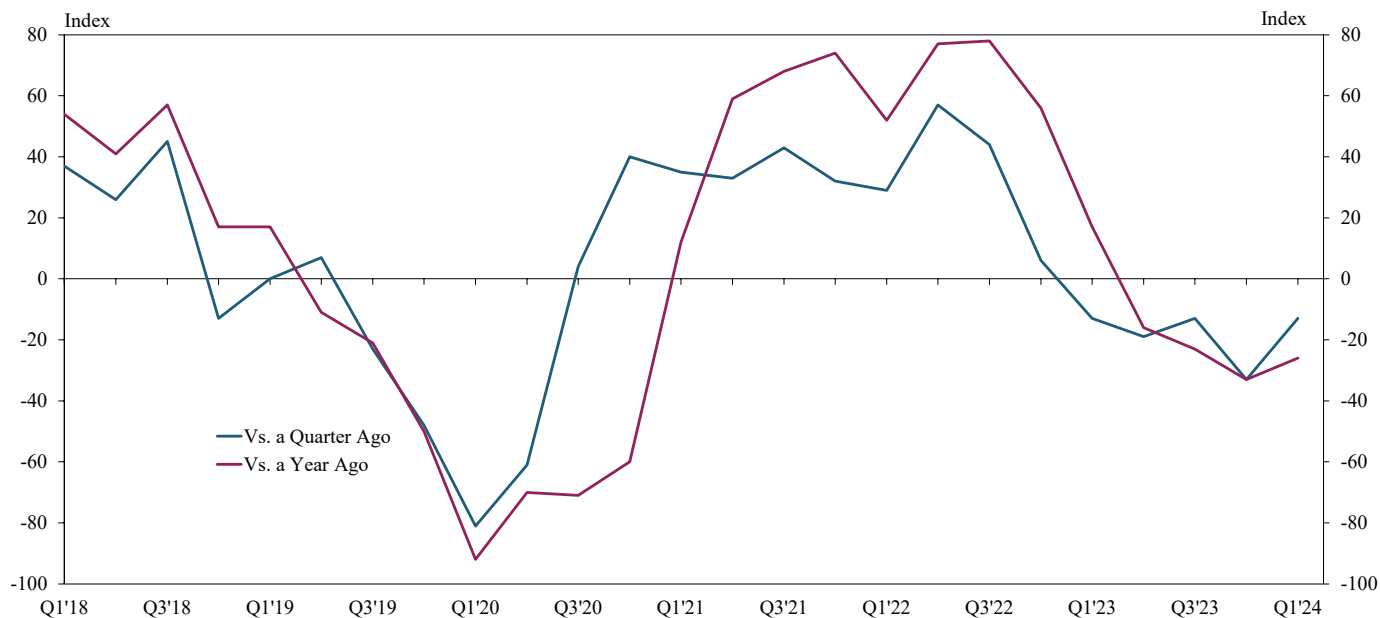


Table 2
Historical Energy Survey Indexes

	Q1'21	Q2'21	Q3'21	Q4'21	Q1'22	Q2'22	Q3'22	Q4'22	Q1'23	Q2'23	Q3'23	Q4'23	Q1'24
<i>Versus a Quarter Ago</i>													
(not seasonally adjusted)													
Drilling/Business Activity	35	33	43	32	29	57	44	6	-13	-19	-13	-33	-13
Total Revenues	44	82	82	63	38	87	25	-8	-42	-42	13	-13	0
Capital Expenditures	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplier Delivery Time	5	-3	-3	6	-9	10	-3	-11	-3	-21	-10	-3	-16
Total Profits	36	70	69	34	44	68	29	-17	-26	-39	-3	-19	-6
Number of Employees	12	25	26	34	39	42	47	38	6	27	13	13	18
Employee Hours	17	42	38	28	41	39	37	41	6	18	6	0	3
Wages and Benefits	21	39	33	53	56	58	61	59	42	27	35	32	48
Access to Credit	5	9	16	10	25	16	6	6	0	3	-3	-6	-3
<i>Versus a Year Ago</i>													
Drilling/Business Activity	12	59	68	74	52	77	78	56	17	-16	-23	-33	-26
Total Revenues	20	88	92	88	72	90	87	67	-10	-48	-23	-17	-6
Capital Expenditures	14	30	54	59	63	71	71	65	26	0	6	6	-21
Supplier Delivery Time	7	3	8	9	-3	23	6	-5	10	-45	-6	-23	-39
Total Profits	5	91	82	84	75	81	84	61	3	-48	-26	-17	-13
Number of Employees	-17	12	31	32	66	55	61	56	26	39	23	43	34
Employee Hours	-7	30	45	29	63	55	50	57	26	21	3	20	13
Wages and Benefits	0	45	56	77	84	77	87	89	77	58	77	73	69
Access to Credit	-12	24	29	23	38	19	27	3	6	6	-3	0	3
<i>Expected in Six Months</i>													
(not seasonally adjusted)													
Drilling/Business Activity	41	41	45	45	42	50	25	19	-13	-22	7	7	-10
Total Revenues	54	76	58	50	53	55	27	11	-26	3	42	23	13
Capital Expenditures	36	33	31	53	63	52	52	49	-6	-9	16	7	-19
Supplier Delivery Time	10	18	8	9	9	16	-10	-19	-23	-42	0	-13	-13
Total Profits	37	79	59	44	38	35	39	6	-23	-3	23	3	3
Number of Employees	24	30	31	42	47	42	42	38	13	12	19	40	25
Employee Hours	36	27	26	23	41	32	27	30	13	3	3	27	13
Wages and Benefits	36	36	46	71	72	63	65	70	45	24	52	55	31
Access to Credit	7	12	13	6	19	6	7	3	-6	3	-3	-3	10
Expected Oil Prices	24	55	33	34	-16	-6	20	62	29	42	32	32	31
Expected Natural Gas Prices	31	59	31	3	0	10	-10	-3	14	53	50	-16	45
Expected Natural Gas Liquids Prices	36	63	34	13	19	0	21	22	20	31	37	-7	16
<i>Special Price Questions</i>													
(averages)													
Profitable WTI Oil Price (per barrel)	\$53		\$57		\$62	\$65	\$61	\$64	\$64	\$63	\$64	\$64	\$65
WTI Price to Substantially Increase Drilling		\$72		\$73	\$86	\$98	\$102	\$89	\$86	\$86	\$90	\$84	\$90
WTI Price Expected in 6 Months	\$62	\$74	\$73	\$75	\$96	\$109	\$88	\$83	\$75	\$75	\$91	\$76	\$81
WTI Price Expected in 1 Year	\$65	\$76	\$75	\$78	\$89	\$102	\$89	\$86	\$81	\$79	\$88	\$79	\$83
WTI Price Expected in 2 Years	\$67	\$76	\$75	\$78	\$83	\$88	\$90	\$88	\$86	\$83	\$88	\$84	\$85
WTI Price Expected in 5 Years	\$70	\$78	\$76	\$80	\$84	\$86	\$93	\$88	\$90	\$88	\$93	\$88	\$90
Profitable Natural Gas Price (per million BTU)	\$2.94		\$3.88		\$3.72	\$4.64	\$4.42	\$4.32	\$3.45	\$3.49	\$3.45	\$3.12	\$3.47
Natural Gas Price to Substantially Increase Drilling		\$3.82		\$4.27	\$4.53	\$6.34	\$7.65	\$6.13	\$4.74	\$4.67	\$4.36	\$4.04	\$4.38
Henry Hub Price Expected in 6 Months	\$2.72	\$3.19	\$4.72	\$3.66	\$4.45	\$7.06	\$7.46	\$5.01	\$2.82	\$3.00	\$3.06	\$2.55	\$2.16
Henry Hub Price Expected in 1 Year	\$2.94	\$3.21	\$4.22	\$3.92	\$4.32	\$6.65	\$6.48	\$5.52	\$3.33	\$3.33	\$3.34	\$3.04	\$2.71
Henry Hub Price Expected in 2 Years	\$3.14	\$3.34	\$4.31	\$3.97	\$4.29	\$6.06	\$6.16	\$5.78	\$4.04	\$3.71	\$3.97	\$3.42	\$3.01
Henry Hub Price Expected in 5 Years	\$3.50	\$3.71	\$4.79	\$4.29	\$4.74	\$5.77	\$6.51	\$6.19	\$4.51	\$3.98	\$4.83	\$3.96	\$3.58

Chart 2. Special Question: What price is currently needed for a drilling to be profitable and for a substantial increase in drilling to occur for oil? What do you expect WTI prices to be in six months, one year, two years, and five years?

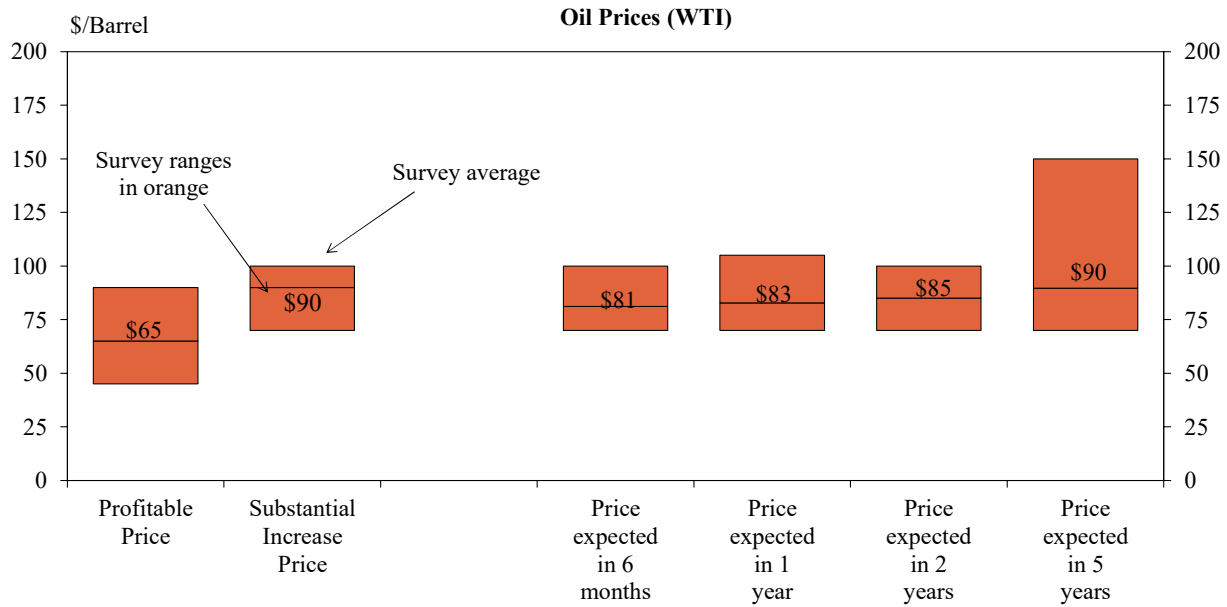


Chart 3. Special Question: What price is currently needed for a drilling to be profitable and for a substantial increase in drilling to occur for natural gas? What do you expect Henry Hub prices to be in six months, one year, two years, and five years?

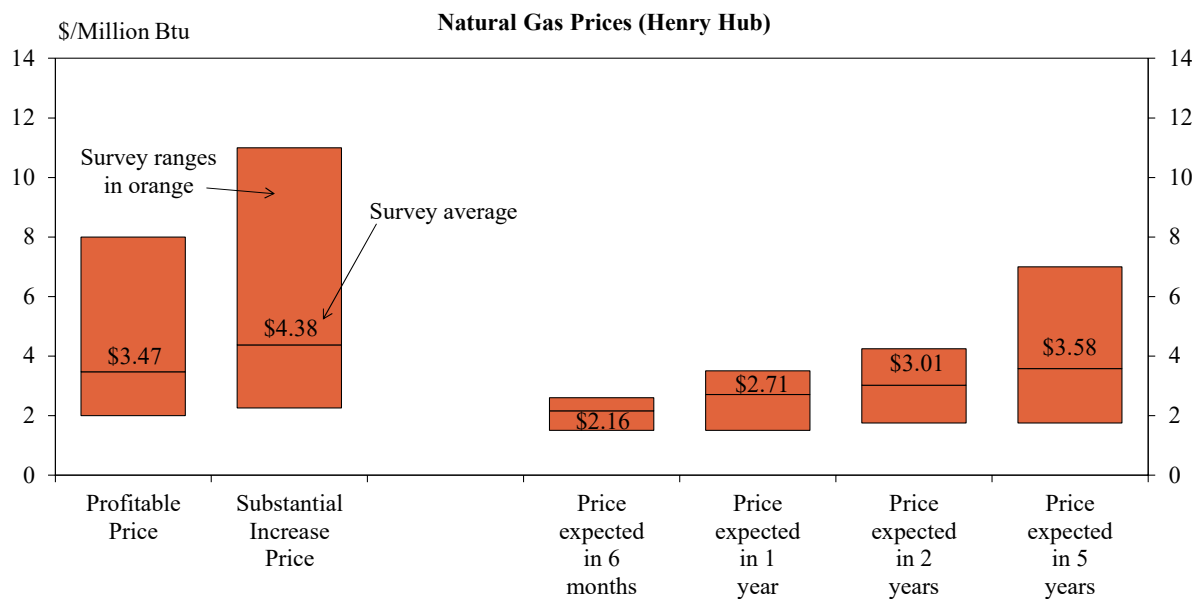


Chart 4. Special Question: In light of the ongoing consolidation in the oil sector, how do you anticipate this will affect U.S. oil production growth and oil price trajectories?

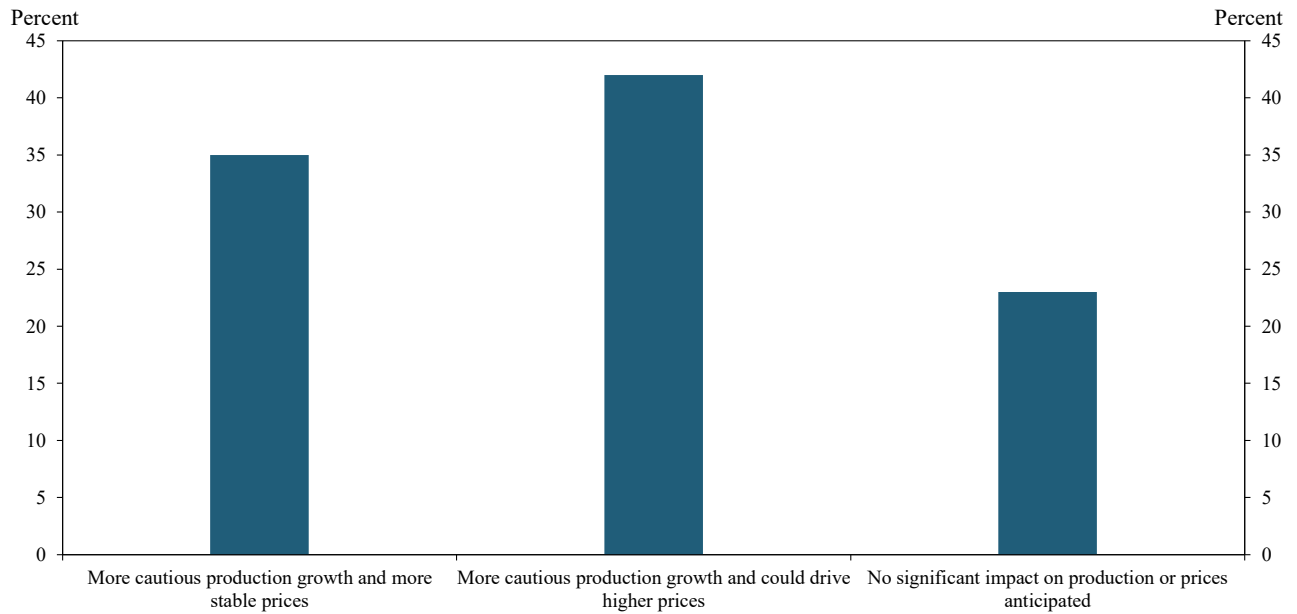


Chart 5. Special Question: Given current price pressures, how have profit margins changed for your firm since the last 3 months?

