

THE U.S. Energy DATABOOK

A summary of national and global energy indicators



JANUARY 18, 2018

FEDERAL RESERVE BANK of KANSAS CITY

SUMMARY OF CURRENT ENERGY CONDITIONS

The number of total active drilling rigs in the United States decreased 2.8 percent from a month ago, but increased 12.2 percent from a year ago. U.S. crude oil production inched up 0.7 percent in October, and natural gas production ticked up 4.1 percent. Crude oil prices continued to decline in January, though more slowly than in previous months. For the week ending January 11th, West Texas Intermediate (WTI) crude oil averaged \$50.78 per barrel and North Sea Brent averaged \$58.64 per barrel, a decline of 1.5 percent for both measures in the last month. The Henry Hub natural gas spot price averaged \$2.89 per million Btu for the week ending January 11th, falling 34 percent in the last month. U.S. crude oil and petroleum products imports rose 2.8 percent, while exports decreased 6.8 percent over the last month. Global demand for petroleum expanded 0.6 percent in the fourth quarter of 2018, and global petroleum production edged lower by 0.5 percent in December 2018.

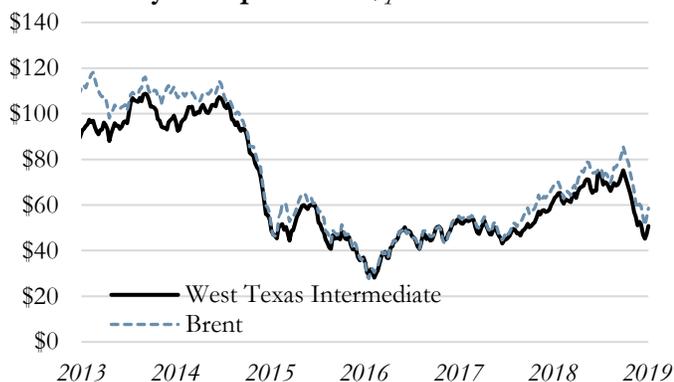
This databook provides current economic indicators to help monitor trends and allow comparison of past information. These indicators include: oil and natural gas prices; global petroleum production and demand; U.S. oil production and petroleum demand; U.S. crude oil stocks; OECD petroleum stocks; U.S. oil imports; U.S. oil exports; oil and gas drilling rig counts; and U.S. natural gas production. These indicators can be found on the following pages.



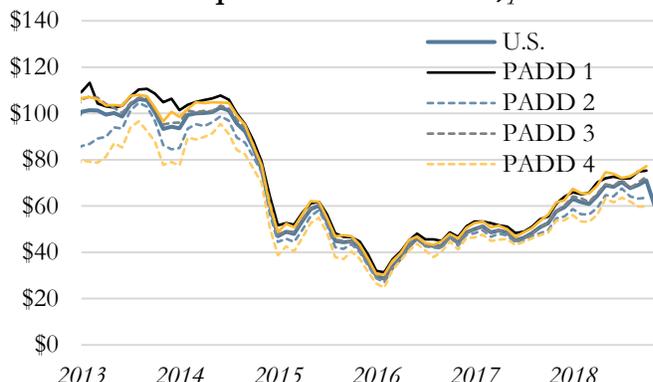
The Federal Reserve Bank of Kansas City's headquarters is located at 1 Memorial Drive in the heart of Kansas City, Missouri. The Federal Reserve Bank of Kansas City serves the Tenth Federal Reserve District, which includes Colorado, Kansas, western Missouri, Nebraska, northern New Mexico, Oklahoma and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

Weekly data through January 11, 2019

Weekly Oil Spot Prices, per barrel



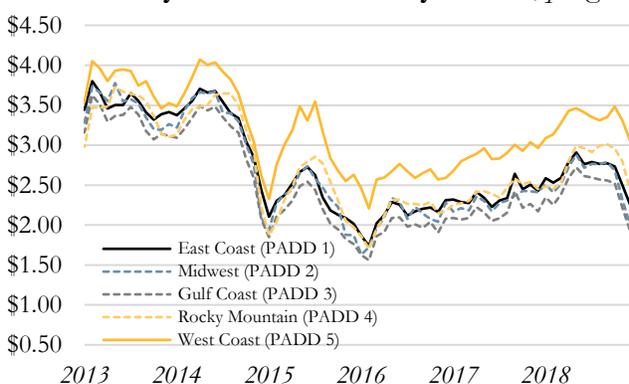
Refiner Acquisition Cost of Oil*, per barrel



Weekly Natural Gas Spot Prices, per mmbtu



Monthly Gasoline Prices by PADD, per gallon



Weekly Spot Prices, Change from

	Current	1 Week	1 Month	3 months	6 Months	1 Year
Weekly Spot Prices	1/11/19	Ago	Ago	Ago	Ago	Ago
West Texas Intermediate	\$50.78	\$3.78	-\$0.76	-\$22.18	-\$21.18	-\$12.48
Brent	\$58.64	\$4.33	-\$0.87	-\$24.41	-\$16.65	-\$10.83
Henry Hub	\$2.89	-\$0.03	-\$1.49	-\$0.41	\$0.00	-\$0.35

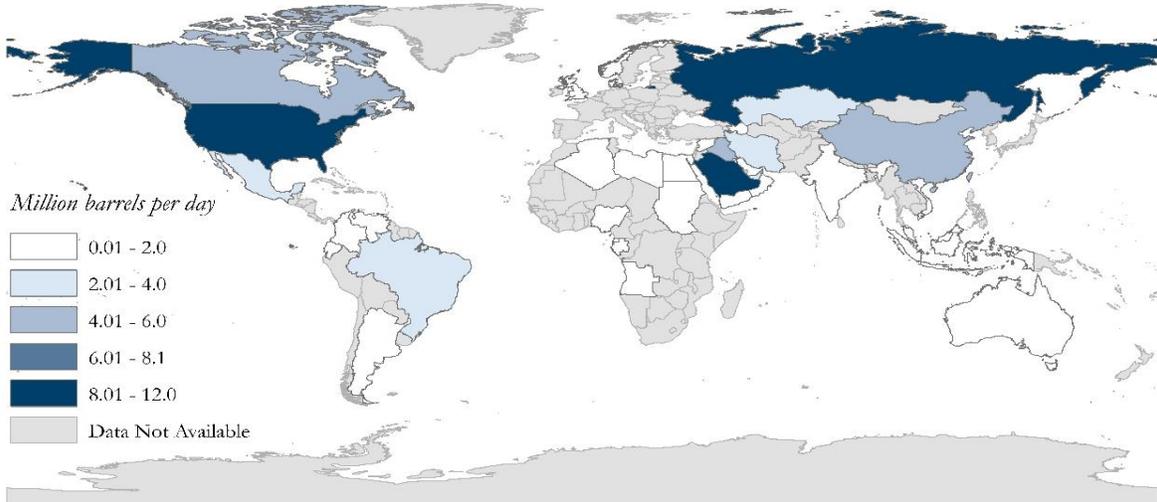
Monthly Gasoline Spot Prices, Change from

	Current	1 Month	3 months	6 Months	1 Year
Geographic Area	Dec-18	Ago	Ago	Ago	Ago
East Coast (PADD 1)	\$2.25	-\$0.25	-\$0.52	-\$0.51	-\$0.18
Midwest (PADD 2)	\$2.01	-\$0.31	-\$0.78	-\$0.71	-\$0.40
Gulf Coast (PADD 3)	\$1.93	-\$0.29	-\$0.63	-\$0.69	-\$0.24
Rocky Mountain (PADD 4)	\$2.43	-\$0.37	-\$0.59	-\$0.53	-\$0.02
West Coast (PADD 5)	\$3.05	-\$0.26	-\$0.30	-\$0.36	\$0.09

*The cost of crude oil, including transportation and other fees paid by the refiner.

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

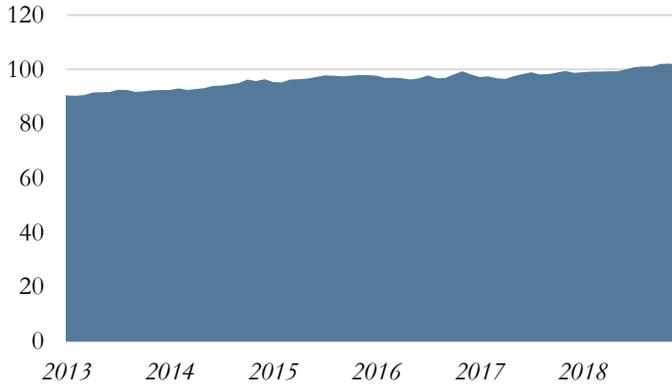
December 2018 Global Petroleum Production



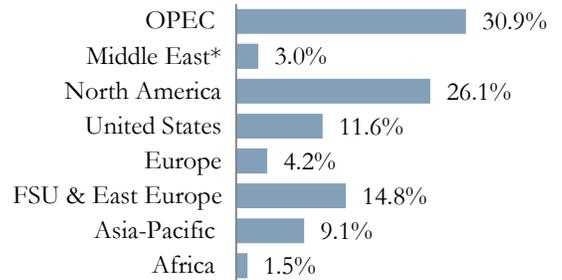
Source: Energy Information Administration/Haver Analytics

December 2018

Monthly Global Petroleum Production, million barrels per day

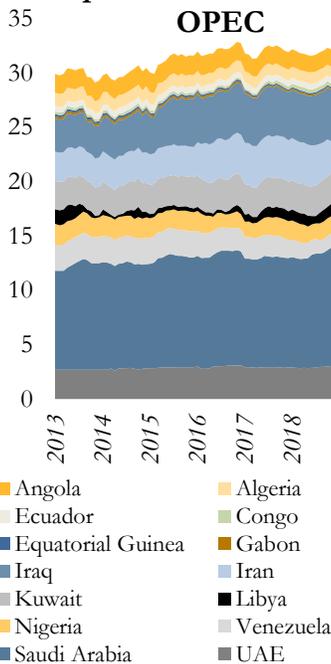


Regional Share of Production

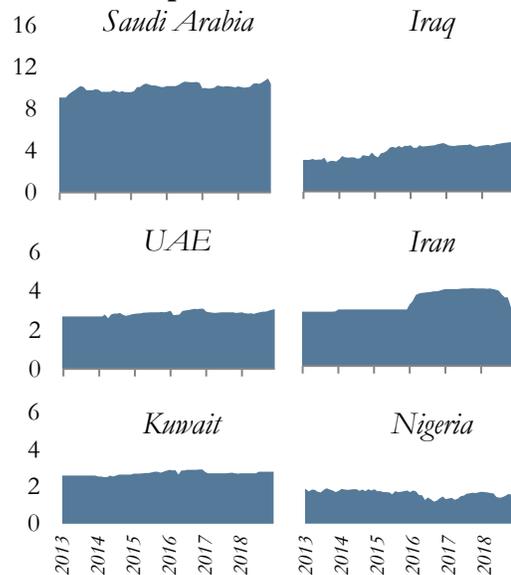


*Excludes OPEC

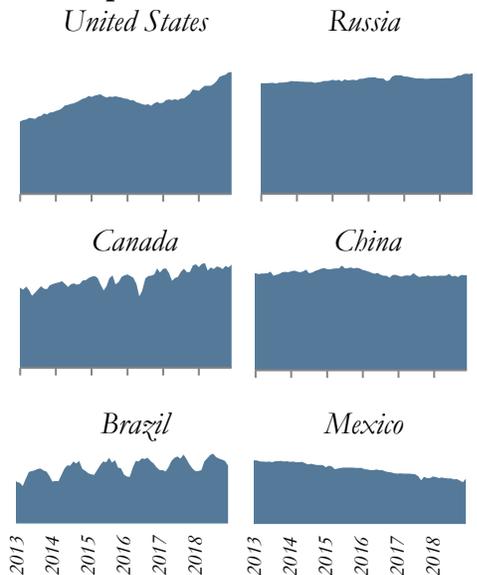
Top Crude Oil Producers, million barrels per day



Top OPEC Producers



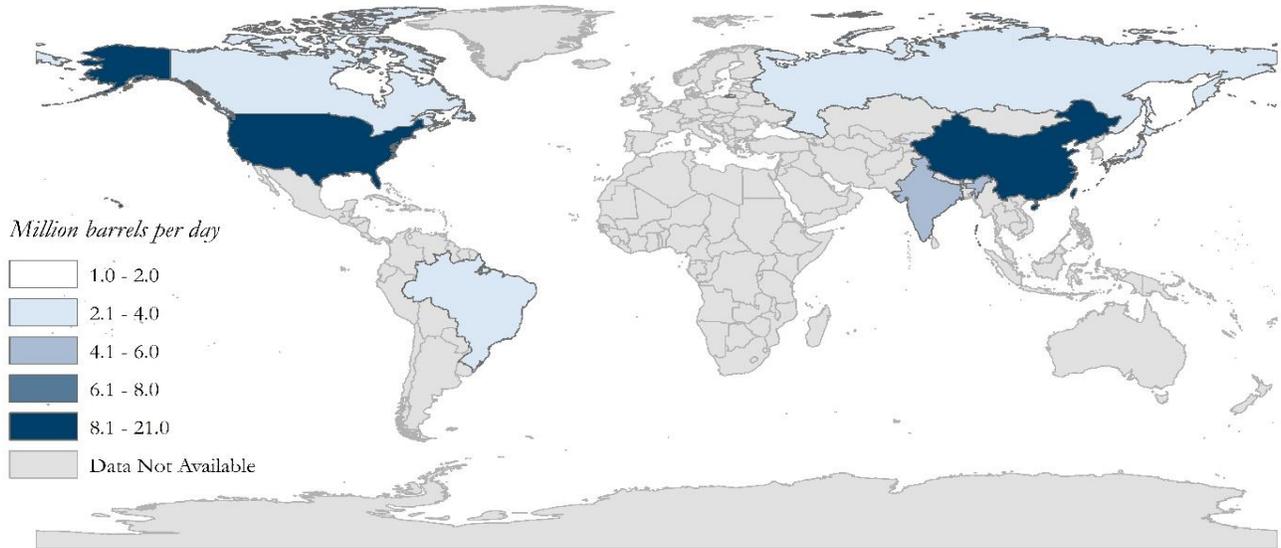
Top Non-OPEC Producers



Note: OPEC country production values are for crude oil and non-OPEC country data is for petroleum production.

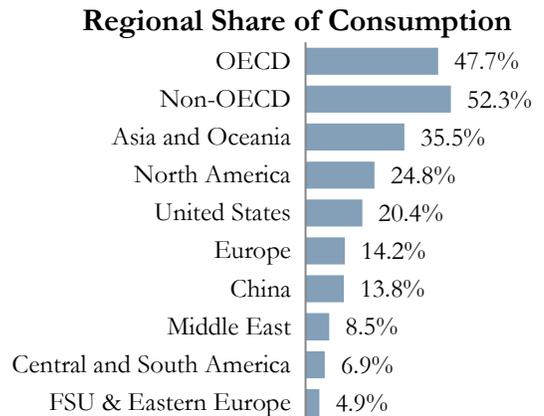
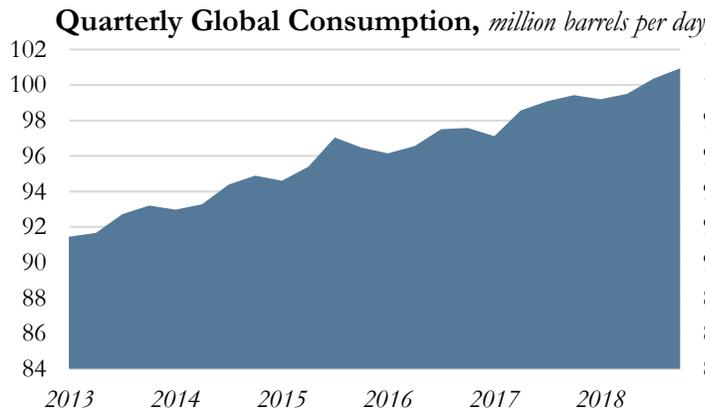
Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

Fourth Quarter 2018 Global Petroleum Consumption

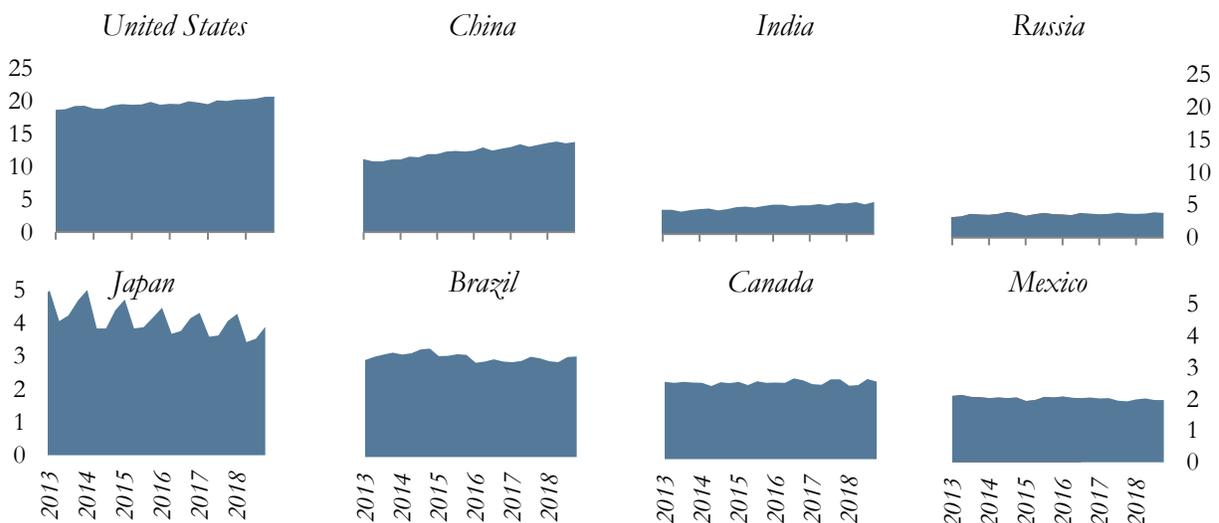


Source: Energy Information Administration/Haver Analytics

Fourth Quarter 2018

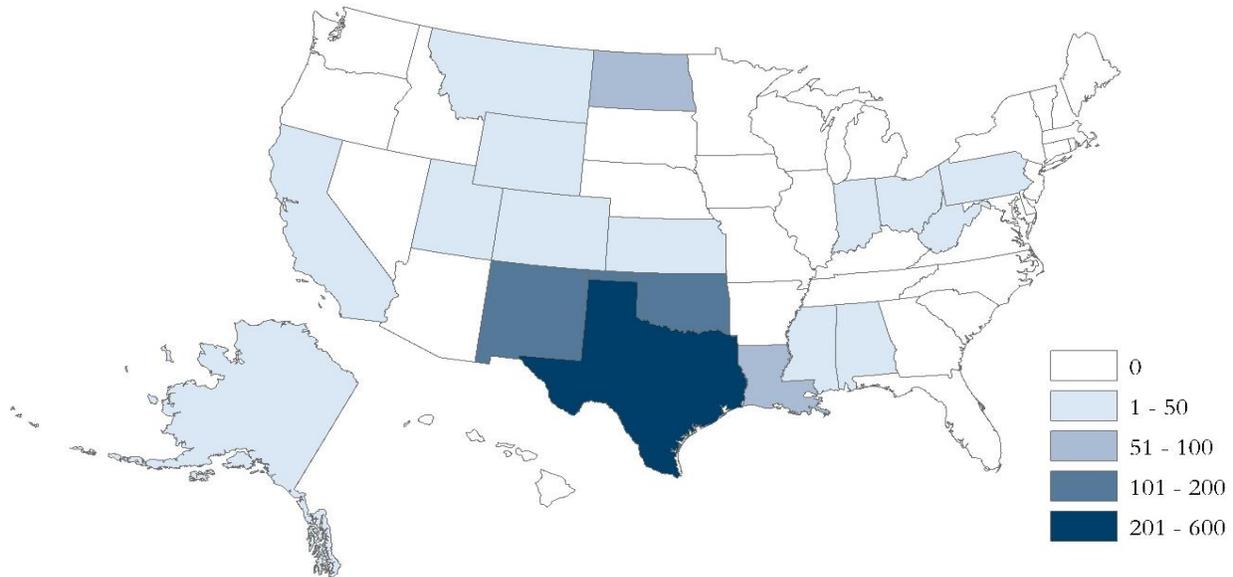


Top Petroleum Consumers, million barrels per day



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

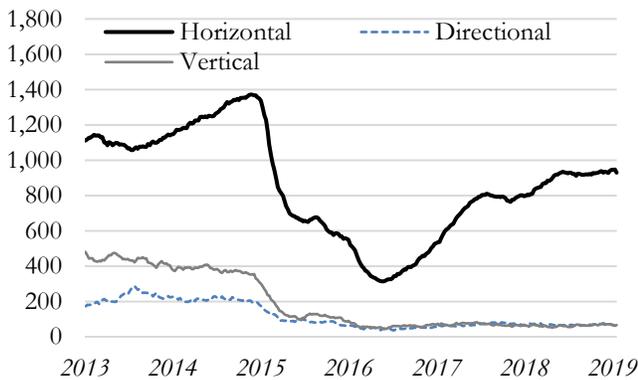
January 2018 Weekly Active Oil & Gas Drilling Rig Counts



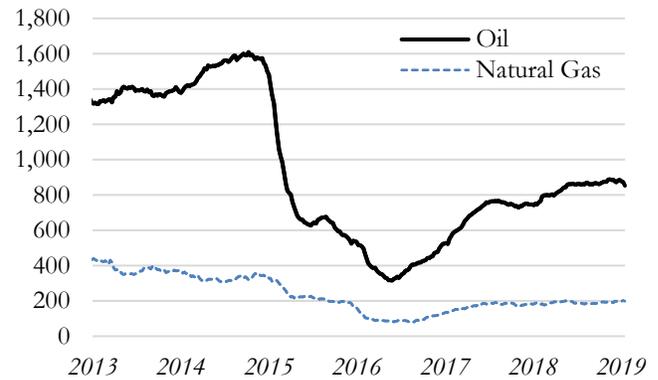
Source: Baker Hughes/Haver Analytics

January 18, 2019

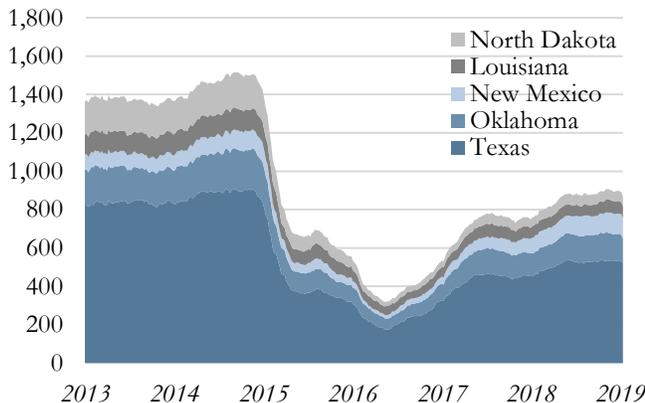
U.S. Active Drilling Rigs by Trajectory



U.S. Active Drilling Rigs by Type



Top Five States for Drilling Activity (Total Active Rigs)



Rig Count By Type

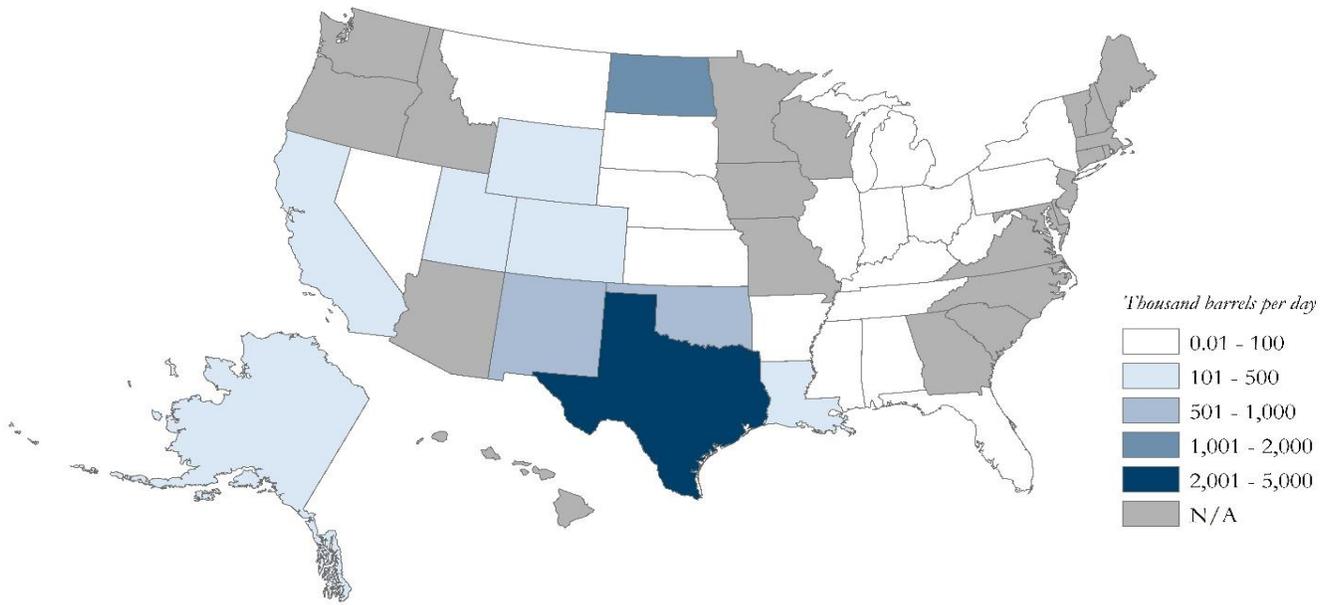
Rig Type	Current Week	1 Month Ago	3 Months Ago	1 Year Ago
Oil	852	883	873	747
Gas	198	197	194	189
Misc	0	0	0	0
Total	1050	1080	1067	936

Rig Count By Type, Change from

Rig Type	Current Week	1 Month Ago	3 Months Ago	1 Year Ago
Oil	-	-3.5%	-2.4%	14.1%
Gas	-	0.5%	2.1%	4.8%
Misc	-	-	-	-
Total	-	-2.8%	-1.6%	12.2%

Source: Baker Hughes/Haver Analytics

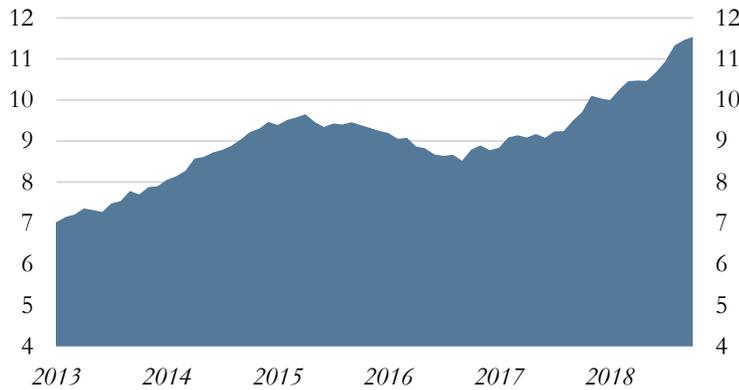
October 2018 U.S. Crude Oil Production



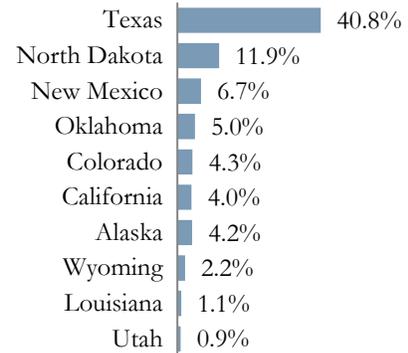
Source: Baker Hughes/Haver Analytics

October 2018

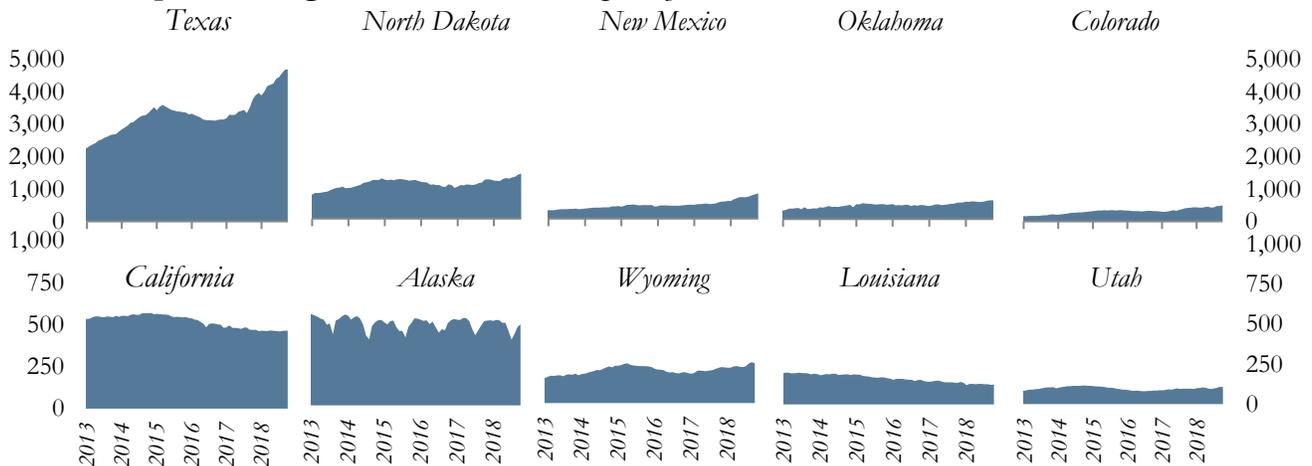
Monthly U.S. Production, million barrels per day



Share of Production

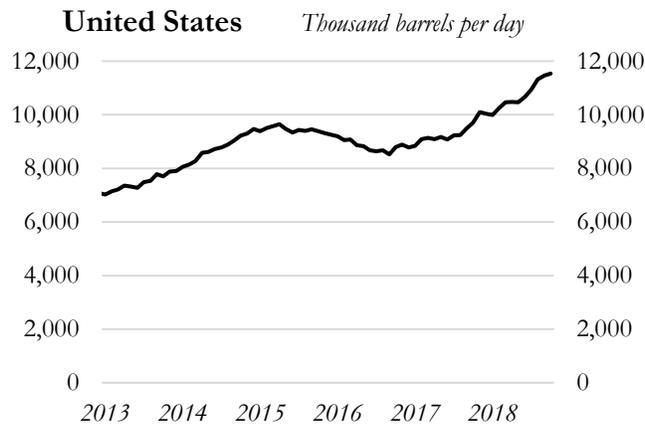


Top Producing States, thousand barrels per day

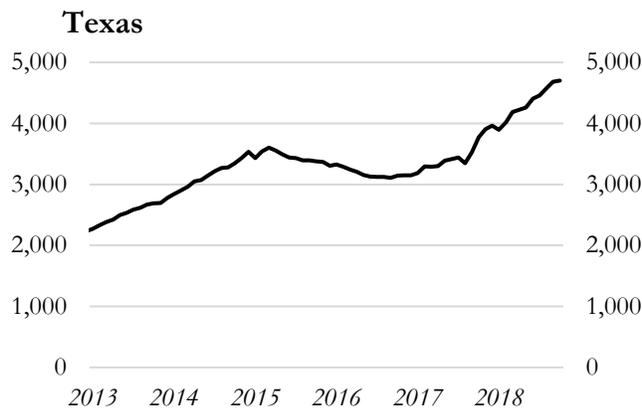


Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

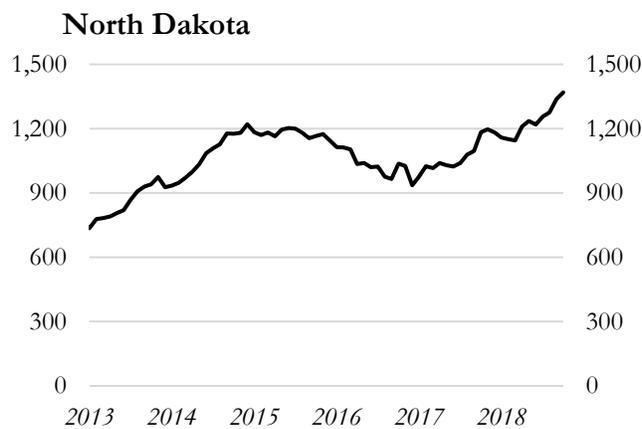
Data through October 2018



United States		Change from
Thousand barrels per day		
Oct-18	11,537	
Month Ago	11,458	0.7%
3 Months Ago	10,936	5.5%
6 Months Ago	10,475	10.1%
1 Year Ago	9,703	18.9%



Texas		Change from
Thousand barrels per day		
Oct-18	4,701	
Month Ago	4,683	0.4%
3 Months Ago	4,456	5.5%
6 Months Ago	4,222	11.3%
1 Year Ago	3,776	24.5%
Share of U.S. Production		40.8%



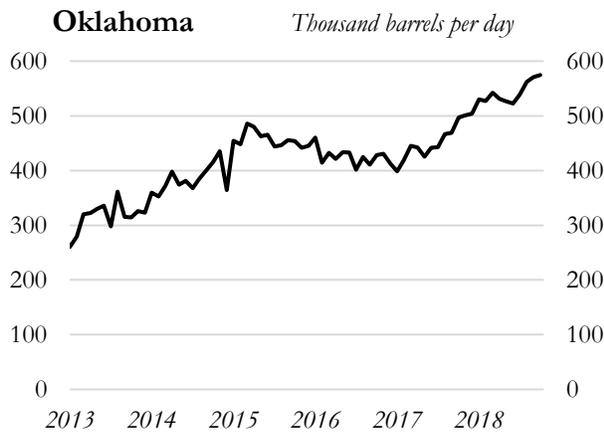
North Dakota		Change from
Thousand barrels per day		
Oct-18	1,369	
Month Ago	1,338	2.3%
3 Months Ago	1,257	9.0%
6 Months Ago	1,211	13.1%
1 Year Ago	1,184	15.7%
Share of U.S. Production		11.9%



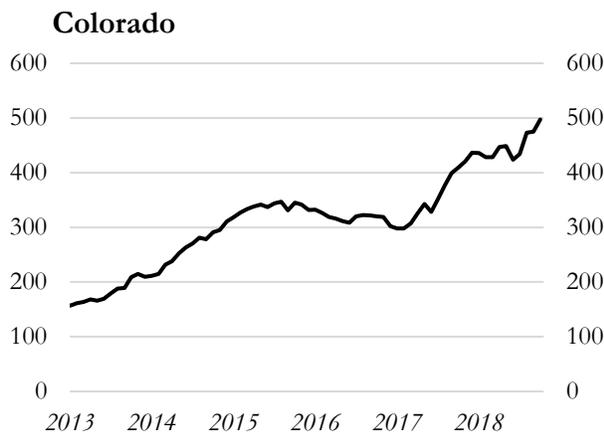
New Mexico		Change from
Thousand barrels per day		
Oct-18	772	
Month Ago	739	4.4%
3 Months Ago	668	15.5%
6 Months Ago	650	18.8%
1 Year Ago	519	48.6%
Share of U.S. Production		6.7%

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

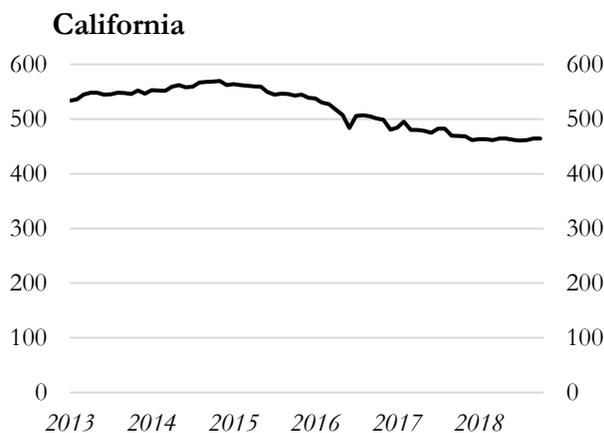
Data through October 2018



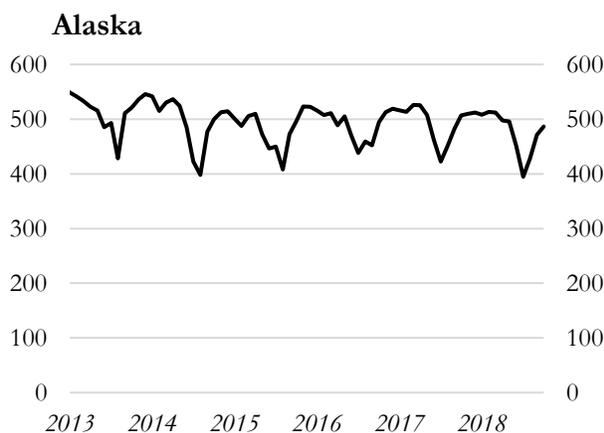
Oklahoma		<i>Change from</i>
<i>Thousand barrels per day</i>		
Oct-18	575	
Month Ago	571	0.6%
3 Months Ago	539	6.7%
6 Months Ago	531	8.2%
1 Year Ago	497	15.6%
Share of U.S. Production	5.0%	



Colorado		<i>Change from</i>
<i>Thousand barrels per day</i>		
Oct-18	497	
Month Ago	475	4.8%
3 Months Ago	434	14.5%
6 Months Ago	447	11.3%
1 Year Ago	409	21.4%
Share of U.S. Production	4.3%	



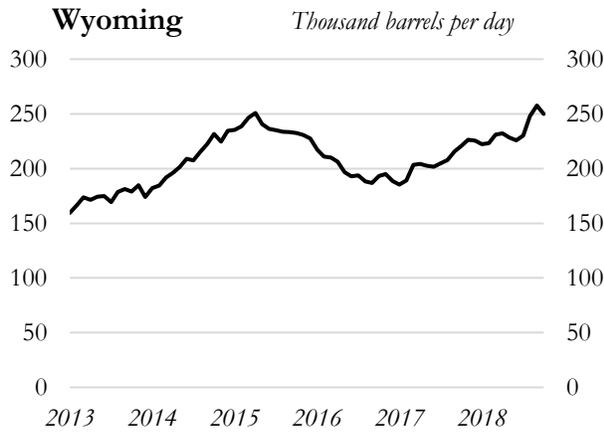
California		<i>Change from</i>
<i>Thousand barrels per day</i>		
Oct-18	464	
Month Ago	464	0.0%
3 Months Ago	461	0.8%
6 Months Ago	465	-0.1%
1 Year Ago	469	-1.0%
Share of U.S. Production	4.0%	



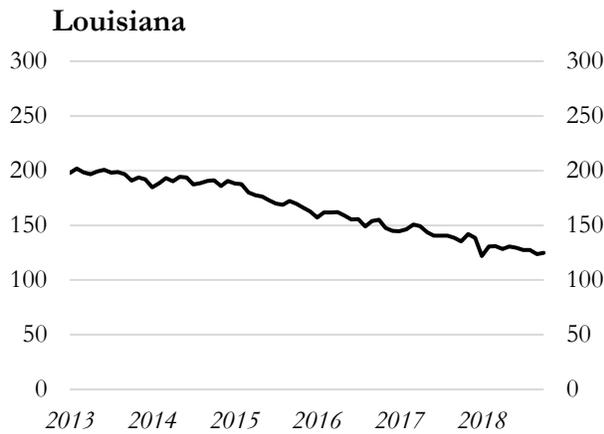
Alaska		<i>Change from</i>
<i>Thousand barrels per day</i>		
Oct-18	487	
Month Ago	471	3.2%
3 Months Ago	395	23.3%
6 Months Ago	497	-2.2%
1 Year Ago	507	-4.0%
Share of U.S. Production	4.2%	

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

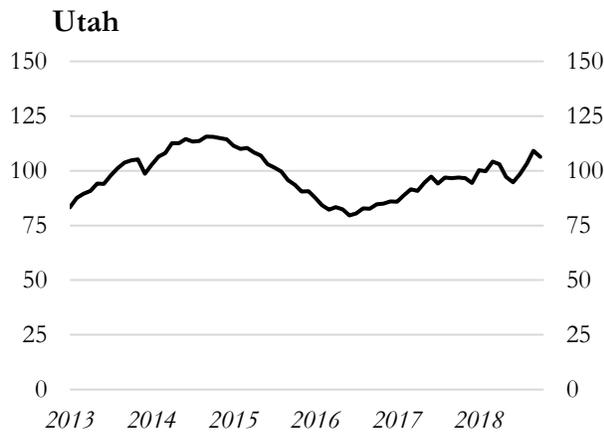
Data through October 2018



Wyoming		Change
Thousand barrels per day		from
Oct-18	250	
Month Ago	258	-2.9%
3 Months Ago	230	8.6%
6 Months Ago	232	7.6%
1 Year Ago	221	13.4%
Share of U.S. Production		2.2%



Louisiana		Change
Thousand barrels per day		from
Oct-18	125	
Month Ago	124	1.0%
3 Months Ago	128	-2.0%
6 Months Ago	128	-2.6%
1 Year Ago	135	-7.6%
Share of U.S. Production		1.1%

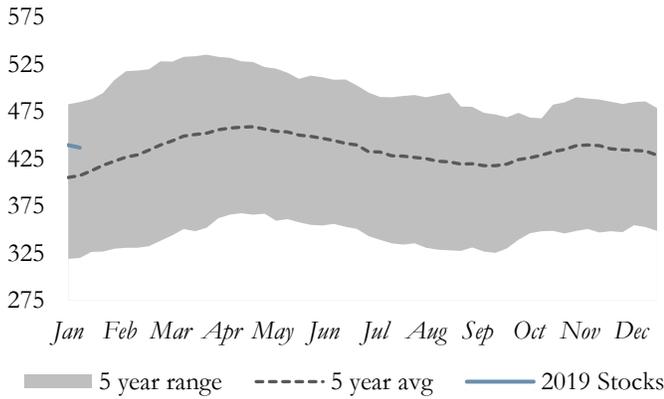


Utah		Change
Thousand barrels per day		from
Oct-18	106	
Month Ago	109	-2.5%
3 Months Ago	98	8.1%
6 Months Ago	103	3.2%
1 Year Ago	97	9.7%
Share of U.S. Production		0.9%

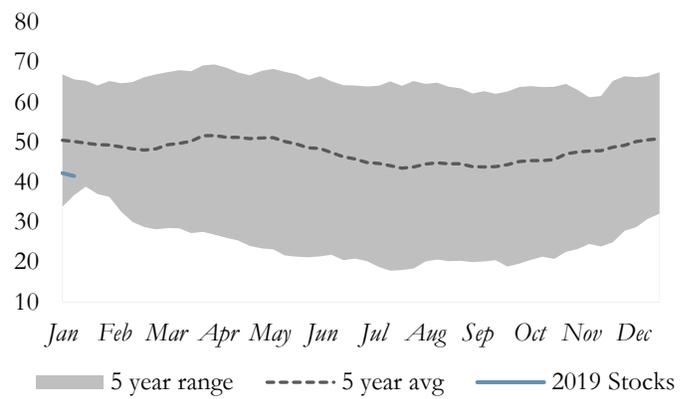
Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

January 2019 Weekly U.S. Crude Oil Stocks

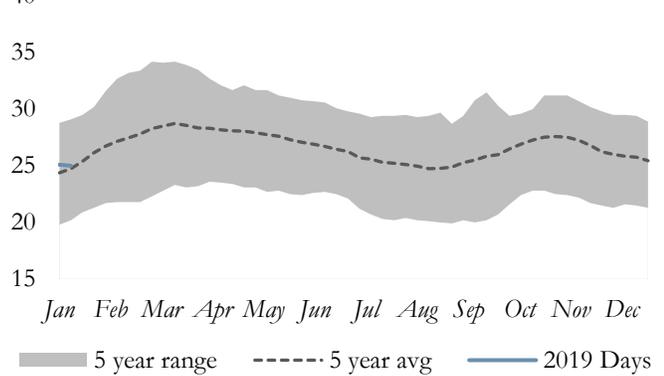
U.S. Oil Stocks, million barrels*



Cushing, OK Oil Stocks, million barrels



U.S. Oil Days of Supply, days



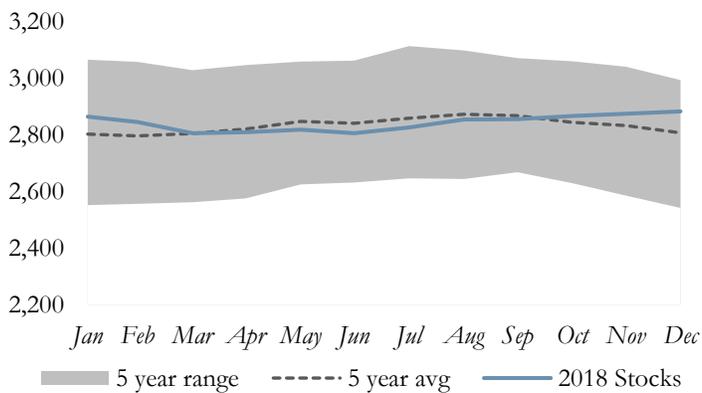
Crude Oil Stocks

	1 Week Change from Ago	1 Year Ago
U.S.	-0.6%	5.9%
Cushing, OK	-1.8%	-2.1%
Days of Supply	-0.4%	4.6%
East Coast (PADD 1)	-18.8%	-8.0%
Midwest (PADD 2)	-0.4%	3.7%
Gulf Coast (PADD 3)	0.2%	12.2%
Rocky Mountain (PADD 4)	0.0%	-4.7%
West Coast (PADD 5)	-0.3%	-6.2%

*Stocks include those domestic and Customs-cleared foreign stocks held at, or in transit to, refineries and bulk terminals, and stocks in pipelines.

December 2018 OECD Commercial Petroleum Inventory

OECD Commercial Petroleum Inventory, million barrels



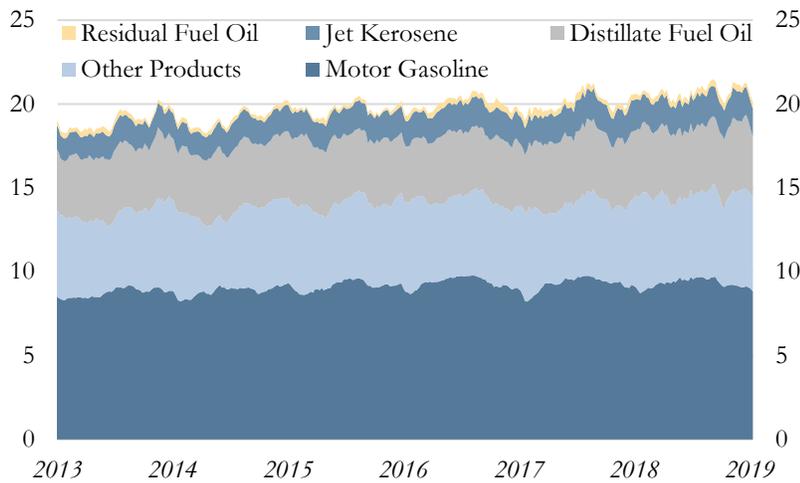
Petroleum Stocks

	Million Barrels	Change from
Current Month	2,883	
1 Month Ago	2,875	0.3%
3 Months Ago	2,856	0.9%
6 Months Ago	2,806	2.7%
1 Year Ago	2,843	1.4%

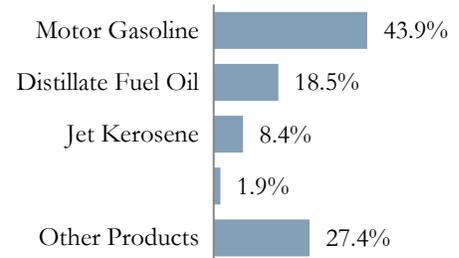
Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

January 2019 Weekly U.S. Demand for Petroleum Products
4-Week Averages

All Petroleum Products, million barrels per day



Share of Total Consumption



U.S. Consumption by Product & Percent Change

U.S. Consumption by Product, thousand barrels per day

	Current 1/11/19	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
All Products	20,106	21,206	19,989	20,694	20,543
Motor Gasoline	8,818	9,086	9,087	9,646	8,904
Distillate Fuel Oil	3,712	4,240	4,148	3,921	4,077
Jet Kerosene	1,680	1,688	1,693	1,825	1,781
Residual Fuel Oil	389	263	394	324	241
Other Products	5,507	5,929	4,667	4,978	5,540

U.S. Consumption by Product, Change from

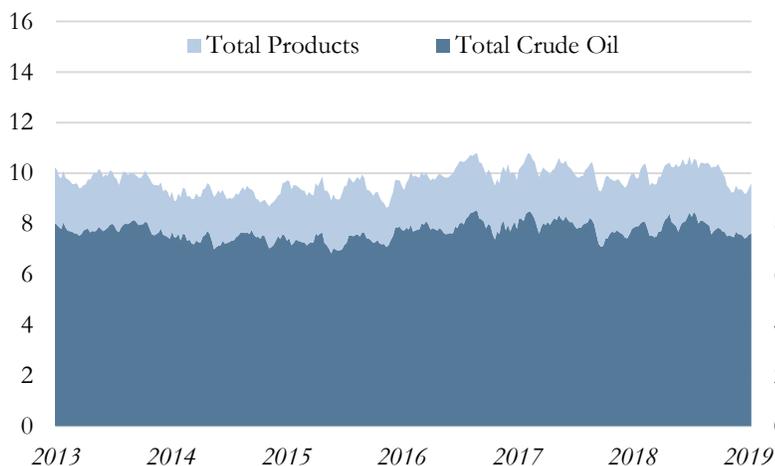
	Current 1/11/19	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
All Products	-	-5.2%	0.6%	-2.8%	-2.1%
Motor Gasoline	-	-2.9%	-3.0%	-8.6%	-1.0%
Distillate Fuel Oil	-	-12.5%	-10.5%	-5.3%	-9.0%
Jet Kerosene	-	-0.5%	-0.8%	-7.9%	-5.7%
Residual Fuel Oil	-	47.9%	-1.3%	20.1%	61.4%
Other Products	-	-7.1%	18.0%	10.6%	-0.6%

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

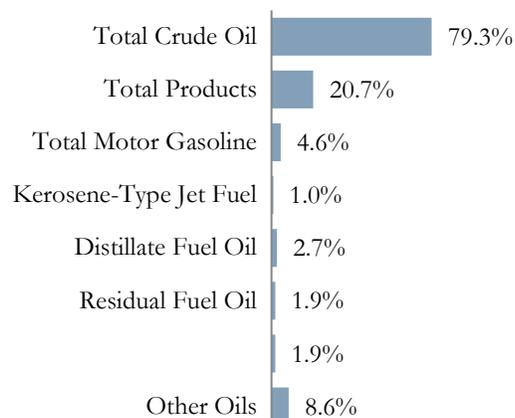
January 2019 Weekly U.S. Imports of Crude Oil & Petroleum Products

4-Week Averages

Imports, million barrels per day



Share of Total Imports



U.S. Imports by Product*

Thousand barrels per day

	Current 1/11/19	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
Total Crude Oil	7,605	7,549	7,695	8,477	7,892
Total Products	1,985	1,777	2,324	2,080	1,890
Total Motor Gasoline	438	423	666	787	349
Kerosene-Type Jet Fuel	96	110	153	117	158
Distillate Fuel Oil	259	226	160	97	173
Residual Fuel Oil	187	81	323	236	159
Propane/Propylene	183	177	112	99	180
Other Oils	822	760	892	745	871
Total Imports	9,590	9,326	10,019	10,557	9,782

U.S. Imports by Product, Change from

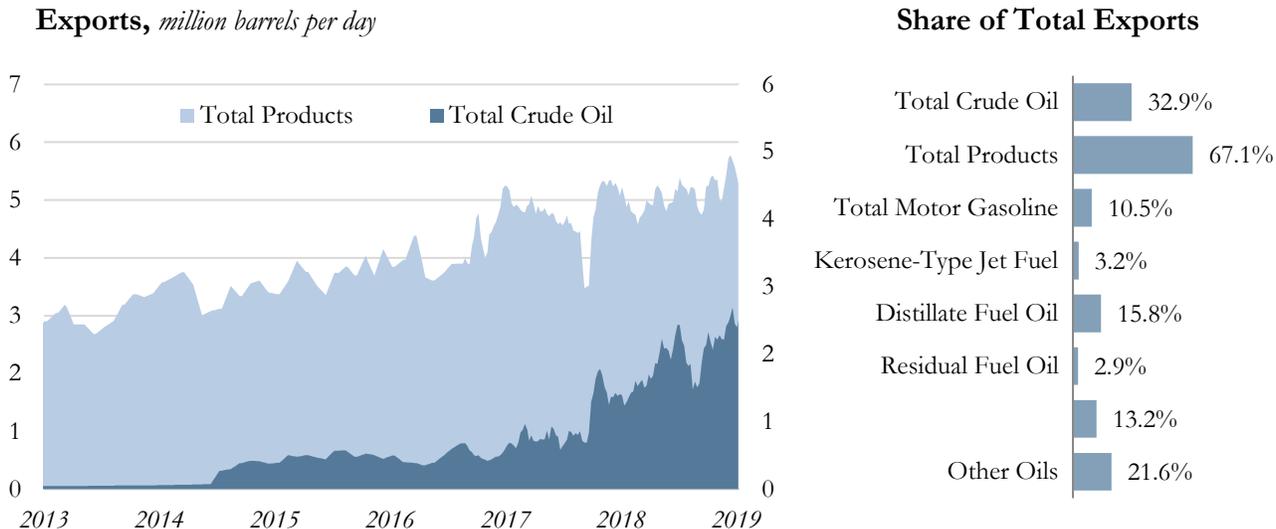
	Current 1/11/19	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
Total Crude Oil	-	0.7%	-1.2%	-10.3%	-3.6%
Total Products	-	11.7%	-14.6%	-4.6%	5.0%
Total Motor Gasoline	-	3.5%	-34.2%	-44.3%	25.5%
Kerosene-Type Jet Fuel	-	-12.7%	-37.3%	-17.9%	-39.2%
Distillate Fuel Oil	-	14.6%	61.9%	167.0%	49.7%
Residual Fuel Oil	-	130.9%	-42.1%	-20.8%	17.6%
Propane/Propylene	-	3.4%	63.4%	84.8%	1.7%
Other Oils	-	8.2%	-7.8%	10.3%	-5.6%
Total Imports	-	2.8%	-4.3%	-9.2%	-2.0%

*Totals may not sum due to component rounding

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

January 2019 Weekly U.S. Exports of Crude Oil & Petroleum Products

4-Week Averages



U.S. Exports by Product*

Thousand barrels per day

	Current 1/11/19	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
Total Crude Oil	2,559	2,561	2,180	2,206	1,237
Total Products	5,214	5,778	5,386	5,263	5,074
Total Motor Gasoline	820	1,080	993	755	892
Kerosene-Type Jet Fuel	246	203	214	225	117
Distillate Fuel Oil	1,225	1,456	1,246	1,406	1,085
Residual Fuel Oil	222	280	267	369	300
Propane/Propylene	1,024	925	886	723	856
Other Oils	1,678	1,834	1,781	1,786	1,825
Total Exports	7,774	8,339	7,566	7,469	6,311

U.S. Exports by Product, Change from

	Current 1/11/19	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
Total Crude Oil	-	-0.1%	17.4%	16.0%	106.9%
Total Products	-	-9.8%	-3.2%	-0.9%	2.8%
Total Motor Gasoline	-	-24.1%	-17.4%	8.6%	-8.1%
Kerosene-Type Jet Fuel	-	21.2%	15.0%	9.3%	110.3%
Distillate Fuel Oil	-	-15.9%	-1.7%	-12.9%	12.9%
Residual Fuel Oil	-	-20.7%	-16.9%	-39.8%	-26.0%
Propane/Propylene	-	10.7%	15.6%	41.6%	19.6%
Other Oils	-	-8.5%	-5.8%	-6.0%	-8.1%
Total Exports	-	-6.8%	2.7%	4.1%	23.2%

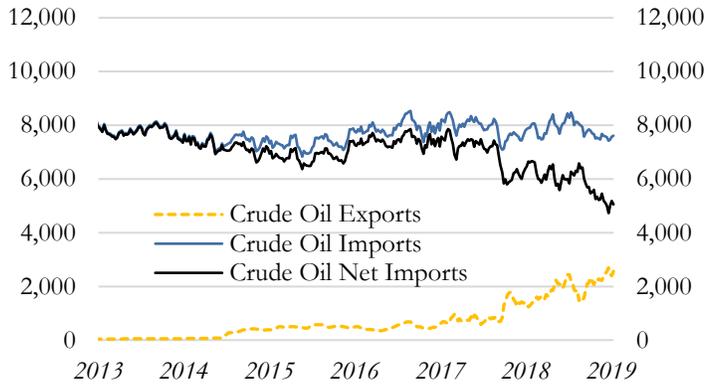
*Totals may not sum due to rounding

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

January 2019 Weekly U.S. Net Imports of Crude Oil & Petroleum Products

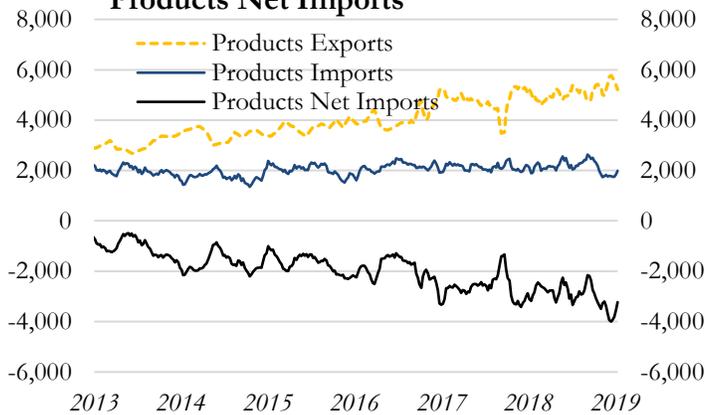
4-Week Averages, Thousand barrels per day

Crude Oil Net Imports



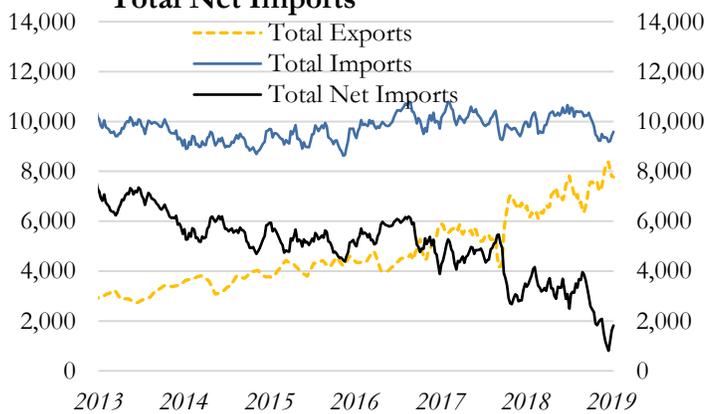
Crude Oil Net Imports		Change
Thousand barrels per day		from
1/11/19	5,046	
Month Ago	4,988	1.2%
3 Months Ago	5,515	-8.5%
6 Months Ago	6,271	-19.5%
1 Year Ago	6,655	-24.2%

Products Net Imports



Products Net Imports		Change
Thousand barrels per day		from
1/11/19	-3,230	
Month Ago	-4,001	-
3 Months Ago	-3,062	-
6 Months Ago	-3,184	-
1 Year Ago	-3,184	-

Total Net Imports



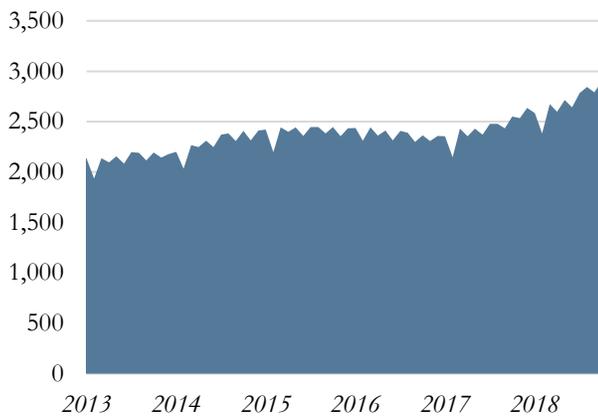
Total Net Imports		Change
Thousand barrels per day		from
1/11/19	1,816	
Month Ago	988	83.8%
3 Months Ago	2,452	-25.9%
6 Months Ago	3,088	-41.2%
1 Year Ago	3,471	-47.7%

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

U.S. Natural Gas Production & Stocks

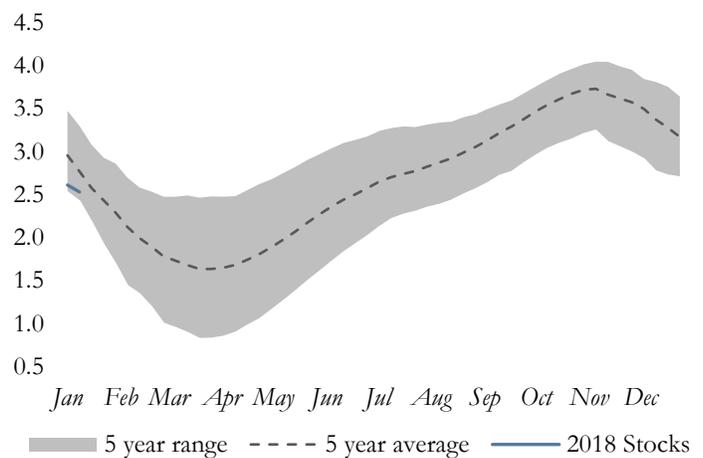
October 2018 Production

Total U.S. Production, Billion cubic feet (Bcf)



January 2018 Weekly Stocks

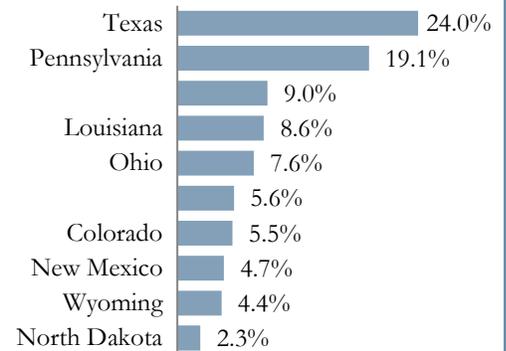
U.S. Natural Gas Stocks, Billion cubic feet (Bcf)



U.S. Natural Gas, Billion cubic feet (Bcf)

	Current Period*	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
U.S. Production	2,905	2,790	2,784	2,598	2,550
U.S. Stocks	2,533	2,773	3,037	2,248	2,584

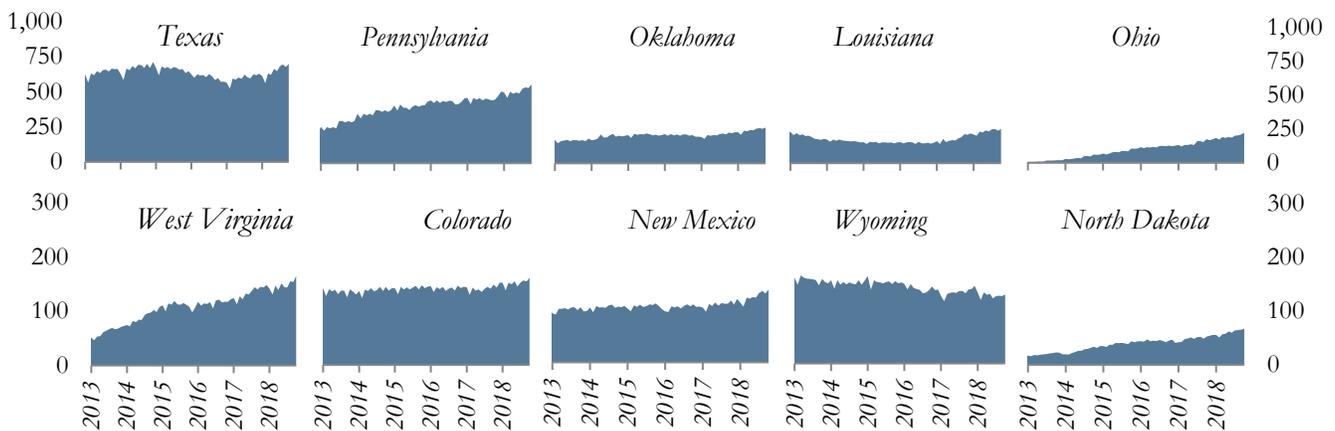
Share of Production



U.S. Natural Gas, Change from

	Current Period*	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
U.S. Production	-	4.1%	4.3%	11.8%	13.9%
U.S. Stocks	-	-8.7%	-16.6%	12.7%	-2.0%

Top Producing States, Billion cubic feet (Bcf)



*U.S. production is monthly data & stocks are weekly data

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

Definitions:

West Texas Intermediate: A crude oil produced in Texas and southern Oklahoma which serves as a reference or "marker" for pricing a number of other crude streams and is traded in the domestic spot market at Cushing, Oklahoma.

Brent: A blended crude oil produced in the North Sea region which serves as a reference or "marker" for pricing a number of other international crude streams.

Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Refined petroleum products include but are not limited to gasolines, kerosene, distillates (including No. 2 fuel oil), liquefied petroleum gas, asphalt, lubricating oils, diesel fuels, and residual fuels.

Notes:

Page 2: Petroleum Administration for Defense Districts (PADD) are geographic aggregations of the 50 States and the District of Columbia into five districts by the Petroleum Administration for Defense in 1950. These districts were originally defined during World War II for purposes of administering oil allocation. For more information, visit: <http://www.eia.gov/petroleum/supply/monthly/pdf/append.pdf>

Page 3: For OPEC countries & the U.S., only crude oil production data is used. For non-OPEC countries (excluding the U.S.) total petroleum production data is used. Total petroleum production includes production of crude oil (including lease condensates), natural gas plant liquids, biofuels, other liquids, and refinery processing gains.

Page 5: 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.

Pages 10: Crude oil stocks are stocks of crude oil and lease condensate held at refineries, in pipelines, at pipeline terminals, and on leases.

Crude oil stocks for Cushing include domestic and foreign crude oil stocks held in tank farms in Lincoln, Payne, and Creek counties in Oklahoma. Cushing, Oklahoma, is the designated delivery point for NYMEX crude oil futures contracts.

Days of supply are calculated by taking the current stock level and dividing by product supplied (used as an estimate of demand) averaged over the most recent four-week period. For crude oil, refinery inputs of crude oil are used as a proxy for demand.

Notes:

Page 11: Petroleum Consumption approximately represents consumption of petroleum products because it measures the disappearance of these products from primary sources, i.e., refineries, natural gas-processing plants, blending plants, pipelines, and bulk terminals.

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.

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